



QUALITY CONTROL MANUAL

HUSKY ENERGY

PO#: 8400005280
AFE#: US-24526-CG

UNIT # SAA-08240

JOB # I-980

NISKU HEAD OFFICE / MANUFACTURING / SERVICE

TELEPHONE: (780) 955-4292

FAX: (780) 955-4294

E-MAIL: info@pccompression.com

WEBSITE: www.pccompression.com

1

BILL OF MATERIAL

2

**P&ID'S
WELD MAPS / X-RAY REPORTS**

3

PSV'S

4

MFG. DATA REPORTS

5

**TEST & CALIBRATION &
PWHT REPORTS**

6

AB 83 / CHECKLISTS

7

MTR'S

8

M.S.D.S.



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS

COMPRESSOR ASSEMBLY: **CA-210**
MAKE: COPELAND SCROLL
MODEL NO: SZ022C3A-EDE-234
INLET PRESS: 2" W.C. /MAX 10 PSIG
DISCHARGE PRESS SETTING: 215 PSIG
275VAC / 3 PH / 60 Hz
PEAK OPERATING AMPS: 16.3
SERIAL NO: 08F0A272K
QPS CERTIFIED: QCC-98023

COMPRESSOR: **C-210**
MAKE: COPELAND SCROLL
MODEL NO: ZNH22C3A-KXX-265
MAX DISCHARGE PRESS: 450 PSIA
275VAC / 3 PH / 60 Hz
PEAK OPERATING AMPS: 16.3
RPM: 3600
SERIAL NO: 08EC4094K

COMPRESSOR OIL FILTER: **F-210**
MAKE: COPELAND SCROLL
PART NO: 513-0019-01

COMPRESSOR OIL SEPARATOR: **V-210**
MAKE: COPELAND SCROLL
PART NO: 548-2116-01
RATED PRESSURE: 250 PSIG

COMPRESSOR COOLER: **E-210**
MAKE: SUPER RADIATOR COILS
CRN: OH6358.2
CRN: OH0741.3



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

COOLER FAN MOTOR:

M-210
MAKE: EBM
MODEL NO: W1G250-HH37-52
24 VDC

COMPRESSOR ASSEMBLY:

CA-220
MAKE: COPELAND SCROLL
MODEL NO: SZ022C3A-EDE-234
INLET PRESS: 2" W.C. /MAX 10 PSIG
DISCHARGE PRESS SETTING: 215 PSIG
275VAC / 3 PH / 60 Hz
PEAK OPERATING AMPS: 16.3
SERIAL NO: 08F0A268K
QPS CERTIFIED: QCC-98019

COMPRESSOR:

C-220
MAKE: COPELAND SCROLL
MODEL NO: ZNH22C3A-KXX-265
MAX DISCHARGE PRESS: 450 PSIA
275VAC / 3 PH / 60 Hz
PEAK OPERATING AMPS: 16.3
RPM: 3600
SERIAL NO: 08EC4101K

COMPRESSOR OIL FILTER:

F-220
MAKE: COPELAND SCROLL
PART NO: 513-0019-01

COMPRESSOR OIL SEPARATOR:

V-220
MAKE: COPELAND SCROLL
PART NO: 548-2116-01
RATED PRESSURE: 250 PSIG



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

COMPRESSOR COOLER:

E-220

MAKE: SUPER RADIATOR COILS
CRN: OH6358.2
CRN: OH0741.3

COOLER FAN MOTOR:

M-220

MAKE: EBM
MODEL NO: W1G250-HH37-52
24 VDC

INLET SEPARATOR:

V-110

MAKE: LO TECH MANUFACTURING
YEAR BUILT: 2008
MAWP: 600 PSI @ 650°F
MDMT: -20°F @ 600 PSI
CORROSION ALLOWANCE: .0625"
CRN NO: OH5415.21345
SERIAL NO: 8600.643

PUMP:

P-610

MAKE: SANDPIPER
MODEL NO: PCC1, GABTXNSX
MWP: 100 PSI
45 GPM @ 40 SCFM
SERIAL NO: 1613183

DISCHARGE SCRUBBER:

V-120

MAKE: LO TECH MANUFACTURING
YEAR BUILT: 2008
MAWP: 600 PSI @ 650°F
MDMT: -20°F @ 600 PSI
CORROSION ALLOWANCE: .0625"
CRN NO: OH5415.21345
SERIAL NO: 8600.666



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

AIR COOLED EXCHANGER:

E-510

MAKE: GLOBAL HEAT TRANSFER
MODEL: GHT-450 SC
MAWP: 402 PSI @ 250°F
CRN NO: OH7426.213
SERIAL NO: 080504006

COOLER FAN MOTOR:

D-510

MAKE: EBM
MODEL NO: W1G250-HH37-52
24 VDC
QPS CERTIFIED: QCC-69043

FILTERS:

F-810 / F-820

MAKE: FLAIR
MAWP: 232 PSI @ 149°F
FILTER MODEL NO: HF 90
ELEMENT MODEL NO: HFD 90
CRN NO: OH5142.51263
C/W DIFFERENTIAL PRESSURE GAUGE

RIGHT DRYING TOWER:

V-140

MAKE: PYRAMID MANUFACTURING
YEAR BUILT: 2008
MAWP: 550 PSI @ 600°F
MDMT: -20°F @ 550 PSI
CORROSION ALLOWANCE: .0625"
CRN NO: OH5228.23
SERIAL NO: 08-3200-0000-F



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

LEFT DRYING TOWER:

V-130

MAKE: PYRAMID MANUFACTURING
YEAR BUILT: 2008
MAWP: 550 PSI @ 600°F
MDMT: -20°F @ 550 PSI
CORROSION ALLOWANCE: .0625"
CRN NO: OH5228.23
SERIAL NO: 08-3200-0000-A

METER RUN:

FE-1401

MAKE: NUFLO
PART NO: 40422-34221
ASSEMBLY NO: 40422-0094
CRN NO: OF1120.213
SERIAL NO: XJ70398-12

HEATER:

H-410

MAKE: CATA-DYNE
MODEL NO: MKII 2424
120 V START
SERIAL NO: 380250

PSV'S:

PSV-1101 PRESSURE SAFETY VALVE

MAKE: MERCER
MODEL NO: 91-17D51V06E1
CRN NO: OG8841.5C
SCFM: 228
SET PRESSURE: 100 PSI
SERIAL NO: 408237

PSV-1201 PRESSURE SAFETY VALVE

MAKE: MERCER
MODEL NO: 91-17D51V07E1
CRN NO: OG8841.5C
SCFM: 329
SET PRESSURE: 150PSI
SERIAL NO: 432039



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

PSV-1401 PRESSURE SAFETY VALVE

MAKE: MERCER
MODEL NO: 91-17D51V06E1
CRN NO: OG8841.5C
SCFM: 188
SET PRESSURE: 80 PSI
SERIAL NO: 422161

PSV-2101 PRESSURE SAFETY VALVE

MAKE: MERCER
MODEL NO: 91-17D51V07E1
CRN NO: OG8841.5C
SCFM: 329
SET PRESSURE: 150PSI
SERIAL NO: 432040

CONTROL VALVES:

LC-1101 LEVEL CONTROLLER

MAKE: MURPHY
MODEL NO: L1200NDVO

LCV-1201 LEVEL CONTROL VALVE

MAKE: WATSON McDANIEL
MODEL NO: PMD 1810-400
SERIES: WLD-1800
MAWP: 600 PSIG @ 500°F
CRN: OE3324.52

PRV-1101 PRESSURE CONTROL VALVE

MAKE: FISHER
MODEL NO: 289H-42
SPRING RANGE: 4-15 PSI

PCV-1201 PRESSURE CONTROL VALVE

MAKE: KIMRAY
MODEL NO: 1.2 SGT OPR
MAWP: 175 PSI / SPRING RANGE 2.5 PSI



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

BPCV-2101 BACK PRESSURE CONTROL VALVE

MAKE: FISHER
MODEL NO: 630R
SPRING RANGE: 75-175 PSI
MAX. INLET PRESSURE: 425 PSI
MAX. CASING PRESSURE: 550 PSI

ACV-1401 AIR CONTROL VALVE FAIL OPEN

MAKE: BURKERT
NPT 1" PMED 232 PSI
PILOT 29 -145 PSI
PART NO: 454599

ACV-1301 AIR CONTROL VALVE FAIL CLOSE

MAKE: BURKERT
NPT 1" PMED 232 PSI
PILOT 27 -145 PSI
PART NO: 454637

ACV-1302 / ACV-1402 AIR CONTROL VALVE FAIL CLOSE

MAKE: BURKERT
NPT 1/2" PMED 232 PSI
PILOT 39 -145 PSI
PART NO: 454635

PCV-1301 PRESSURE CONTROL VALVE

MAKE: FISHER
MODEL: 67CFR-362SC
SPRING RANGE: 0-35 PSI
MAX SUPPLY: 250 PSI



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

BPCV-1401 BACK PRESSURE CONTROL VALVE

MAKE: KIMRAY
MODEL NO: 212 SGT-BP
OPERATING PRESSURE: 125 PSI
DESIGN PRESSURE: 175 PSI

PCV-1403 PRESSURE CONTROL VALVE

MAKE: FISHER
MODEL: 627-496 C/W ½" ORIFICE
SPRING RANGE: 5-20 PSI

PCV-1402 PRESSURE CONTROL VALVE

MAKE: FISHER 2"
MODEL NO: 627-579 ½" ORIFICE
SPRING RANGE: 70-150 PSI

PCV-2101 / PCV-2201 PRESSURE CONTROL VALVE

MAKE: FISHER
TYPE: 98 H
MAX. INLET: 300 @ 180°F
SPRING RANGE: 130-200 PSI

TCV-2101 / TCV-2201 TEMPERATURE CONTROL VALVE

MAKE: ROSTRA VERNATHERM
MODEL: 0250-08-00/200

PCV-4101 PRESSURE CONTROL VALVE

MAKE: FISHER
MODEL NO: 912-101

PCV-4102 PRESSURE CONTROL VALVE

MAKE: CCI THERMAL
MODEL: RTZ-11-15B

TCV-4101 TEMPERATURE CONTROL VALVE

MAKE: CCI THERMAL
MODEL NO: AC-TC-8000N-7



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

ESDV-4101 100% SHUT OFF VALVE

MAKE: CCI THERMAL
MODEL NO: ASV-375
MAX PRESSURE: ½ PSI

UY-1101 PUMP ACTUATING SWITCH

MAKE: AMOT CONTROLS
TYPE: CG
MODEL NO.: 4057D031H2

ELECTRICAL:

LSH-1101 LEVEL SWITCH HIGH

MAKE: MURPHY
MODEL NO: L1200
MAWP: 2000 PSI

PT-1101 PRESSURE TRANSMITTER

MAKE: WIKA
MODEL NO: E-10
RANGE: 0-15 PSI / 4-20 MA

PT-1401 PRESSURE TRANSMITTER

MAKE: WIKA
MODEL NO: N-10
RANGE: 0-200 PSI / 4-20 MA

GY-1401 SOLENOID

MAKE: ASCO
MODEL NO: EF8320G202 24V
MAWP: 115 PSI

GY-1301 / GY-1302 SOLENOID

MAKE: ASCO
MODEL NO: EF8320G202 24V
MAWP: 115 PSI



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

FT-1401 FLO TRANSMITTER

MAKE: FISHER
TYPE: FLOBOSS 103
MODEL NO: 0205E2DABA1N00
INPUT VOLT: 8-28 VDC
POWER: 18-WATTS MAX
TEMP. RANGE: -40 TO +75°C
TYPE 4 ENCLOSURE
SERIAL NO: 17959040

PSL-2101 / PSL-2201 PRESSURE SWITCH LOW SUCTION

MAKE: CUSTOM CONTROL SENSORS
MODEL NO: 675GE8001
SET @ 2" WC FALLING

PSH-2101 / PSH-2201 PRESSURE SWITCH HIGH DISCHARGE

MAKE: CUSTOM CONTROL SENSORS
MODEL NO: 6900GE18
SET @ 145 PSI RISING

TSH-2101 / TSH-2201 HIGH TEMPERATURE SHUT DOWN

MAKE: CUSTOM CONTROL SENSORS
MODEL NO: 6900TE16
SET @ 240°F RISING

PANEL ELECTRICAL:

SCROLL VFD PANEL

MAKE: PYRAMID CORPORATION
MODEL: SCROLL COMPRESSOR-VFD
DATE: 07/10/08
CSA APPROVAL: LR29807
AMPS: 20/5/30
VOLTS: 480 VAC / 120 VAC / 24 VDC
FREQ: 60 HZ
PHASE: 1/3
SERIAL NO: A131-9193



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

VFD CONTROLLERS

MAKE: CONTROL TECHNIQUES
MODEL: COMMANDER SK
MODEL NO: SK2402
VFD 1 SERIAL NO: 2081602077
VFD 2 SERIAL NO: 2081602977

PLC

MAKE: ALLEN-BRADLEY
MODEL: MICRO LOGIX 1200
CAT. NO.: 1762-IF20F2 AD1.2

POWER SUPPLY

MAKE: PHOENIX CONTACT
MODEL: QUINT-PS-3X400-500AC/24DC/30
PART NO: 120267.8
ORDER NO: 2938633
SERIAL NO: PSB5585344

TRANSFORMER

MAKE: SIEMENS
CAT NO: MT0500A
c/w 5A FUSE

THERMOSTAT

MAKE: HOFFMAN
PART NO: 35347001

HEATER

MAKE: DBK
MODEL NO: FGC1031.2R
CIRRUS 41F100AAE

480 VAC POWER SUPPLY INTERFACE

MAKE: FERRAZ SHAWMUT
CAT NO: FSPDB3A



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

24V FUSIBLE LINKS

MAKE: FERRAZ SHAWMUT
SERIES: ULTRA SAFE
CAT NO.: USM1 Y213944

PANEL COOLING FANS

MAKE: MECHATRONICS INC.
MODEL: G1225E24B

HMI PANEL

MAKE: PYRAMID CORPORATION
MODEL: 24 VDC, 8 AMPS
QPS CERTIFIED: QCC-98872

OPERATOR CONTROL PANEL

MAKE: ALLEN-BRADLEY
MODEL: PANEL VIEW 300 MICRO
CAT. NO.: 2711-M3A18L1

ESD BUTTON

MAKE: ALLEN BRADLEY
CAT. NO.: 800T-FX6; 800T-XD2P

PRESSURE GAUGES & TEMPERATURE INDICATORS:

PI-1101 PRESSURE INDICATOR

MAKE: WIKA SS LF
SCALE: 0-30 PSI / 0-205 KPA
SIZE: 1/4" LM X 2 1/2" FACE

PI-1102 PRESSURE INDICATOR

MAKE: WIKA SS LF
SCALE: 0-30 PSI / 0-205 KPA
SIZE: 1/4" LM X 2 1/2" FACE

PI-1201 PRESSURE INDICATOR

MAKE: WIKA SS LF
SCALE: 0-160 PSI / 0-1100 KPA
SIZE: 1/4" LM X 2 1/2" FACE



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

PI-1301 / PI-1401 PRESSURE INDICATOR

MAKE: WIKA SS LF
SCALE: 0-160 PSI / 0-1100 KPA
SIZE: ¼" LM X 2 ½" FACE

PI-1202 PRESSURE INDICATOR

MAKE: WIKA
SCALE: -30" HG - 15 PSI
SIZE: ¼" LM X 2 ½" FACE

PI-1402 PRESSURE INDICATOR

MAKE: KIMRAY
SCALE: 0-160 PSI / 0-1100 KPA
SIZE: ¼" LM X 2" FACE

PI-1405 PRESSURE INDICATOR

MAKE: WIKA SS LF
SCALE: 0-30 PSI / 0-205 KPA
SIZE: ¼" LM X 2 ½" FACE

PI-1404 PRESSURE INDICATOR

MAKE: WIKA SS LF
SCALE: 0-160 PSI / 0-1100 KPA
SIZE: ¼" LM X 2 ½" FACE

PI-1403 PRESSURE INDICATOR

MAKE: WIKA SS LF
SCALE: 0-160 PSI / 0-1100 KPA
SIZE: ¼" LM X 2 ½" FACE

PI-2101 / PI-2201 PRESSURE INDICATOR

MAKE: SWAGELOK SS LF
SCALE: 0-200 PSI / 0-13.5 BAR
SIZE: ¼" LM X 2 ½" FACE



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

PI-2102 / PI-2202 PRESSURE INDICATOR

MAKE: SWAGELOK SS LF
SCALE: 0-200 PSI / 0-13.5 BAR
SIZE: 1/4" LM X 2 1/2" FACE

TI-1301 / TI-1401 TEMPERATURE INDICATOR

MAKE: TREND (a Division of Wika)
SCALE: -40 TO 160°F / -40 TO 70°C
SIZE: 1/2" CBM X 3" FACE X 6" STEM

TW-1301 / TW-1401 THERMOWELL

MAKE: WIKA
Size: 1" x 1/2" x 6" STEM x STD BORE
Material: 316 SS

MISC:

LG-1101 / LG-1201 LEVEL GAUGE

MAKE: PENBERTHY
MODEL NO: 1RL-4
ASSEMBLY NO: 70003-000
CRN NO: OF0990.9C

GV-1101 & GV-1102 / GV-1201 & GV-1202 GAUGE VALVES

MAKE: PENBERTHY
MODEL NO: 330 J
CRN NO: OF0990.9C

SG-1301 / SG-1401 SIGHT GLASS

MAKE: LUBE DEVICES INC.
MODEL NO: LSP51-09



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

VALVES:

2" FP SS BALL VALVE
MAKE: MA STEWART
MODEL: G-2
2000-PSI WOG
CRN: OC0374.123456789
HEAT CODE: 0108

2" FP SWING CHECK VALVE
MAKE: WHEATLEY
1000-PSI WOG

1" FP SS BALL VALVE
MAKE: MA STEWART
MODEL: G-2
2000-PSI WOG
CRN: OC0374.123456789
HEAT CODE: 0108, 1206

1" FP SWING CHECK VALVE
MAKE: WHEATLEY
1000-PSI WOG

1" FP INLINE SPRING CHECK VALVE
MAKE: ZINGA
MODEL: LRV-10-20

½" FP SS BALL VALVE
MAKE: MA STEWART
MODEL: G-2
2000-PSI WOG
CRN: OC0374.123456789
HEAT CODE: 1007

½" SWING CHECK VALVE
MAKE: WHEATLEY
2160-PSI WOG



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

COMPONENTS CONTINUED

1/2" F X F NEEDLE VALVE
MAKE: ANDERSON GREENWOOD
MODEL: H1VDC4Q-021263-005
MAWP: 6000-PSI @ 200°F
HEAT CODE: D031

3/8" FP SS BALL VALVE
MAKE: MA STEWART
MODEL: G-2
2000-PSI WOG
CRN: OC0374.123456789
HEAT CODE: 0207

3/8" RP SS BALL VALVE
MAKE: W & F
MODEL: MH 27906

1/4" F X F NEEDLE VALVE
MAKE: ANDERSON GREENWOOD
MODEL: H5RDC-2
MAWP: 6000-PSI @ 200°F

1/4" M X F NEEDLE VALVE
MAKE: ANDERSON GREENWOOD
MODEL: H5RDC-22
MAWP: 6000-PSI @ 200°F

RO-1301
UNION MOUNTED RESTRICTION ORIFICE
1/2" OD x 1/16" BORE



HUSKY ENERGY

PO#: 8400005280 AFE: US-24526-CG

QPS CERTIFIED: QC-54930

JOB # I-980

UNIT # SAA-08240

COMPONENTS CONTINUED

STUDS: SA-193, B7M

SIZE: 1/2" X 2 1/2"

NUTS: SA-194, 2HM

SIZE: 1/2"

GASKETS: 316SS

SIZE: 1" 150# RF

TUBING: 1/2" X 0.035 WALL

HEAT CODE: V30959

3/8" X 0.035 WALL

HEAT CODE: 772-1901, 656-2605



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

FITTINGS:

| DESCRIPTION: | GRADE: | HEAT NO: |
|--------------------------------|---------------|------------------|
| 2" FS THRD UNION 3000 | SA-105N | UPO, 6EU |
| 2" FS THRD 90° ELL 2000 | SA-105N | HRS |
| 2" FS THRD TEE 2000 | SA-105N | HFI, HPL |
| 2" X 1" FS THRD RED TEE 3000 | SA-105N | 2779 |
| 2" X 8" XS NIPPLE | SA-106B | 539229, 22877 |
| 2" X 7" XS NIPPLE | SA-106B | 760659, 745635 |
| 2" X 6" XS NIPPLE | SA-106B | 22877 |
| 2" X 5" XS NIPPLE | SA-106B | R40 |
| 2" X 4 1/2" XS NIPPLE | SA-106B | NDO |
| 2" X 4" XS NIPPLE | SA-106B | XA4, 539229 |
| 2" X 3 1/2" XS NIPPLE | SA-106B | 22877 |
| 2" X 3" XS NIPPLE | SA-106B | AI47 |
| 2" X 2 1/2" XS NIPPLE | SA-106B | 539229 |
| 2" X 1 1/2" XS SWAGE TBE | SA234-WPB | B643 |
| 2" X 1" XS SWAGE TBE | SA234-WPB | 79169, 72431 |
| 2" X 1/4" XS SWAGE TBE | SA234-WPB | 72431 |
| 2" FS THRD PLUG | SA-105N | N90 |
| 1 1/2" FS THRD 90° ELL 2000 | SA-105N | HM3 |
| 1 1/2" X 4" XS NIPPLE | SA-106B | 748674 |
| 1" 150# RF BLIND FLANGE | SA-105N | 01875 |
| 1" 150# RF THRD FLANGE | SA-105N | 1419 |
| 1" FS THRD UNION 3000 | SA-105N | LULB, UX4 |
| 1" FS THRD 90° ELL 2000 | SA-105N | NDCL, NTBN, GU9 |
| 1" FS THRD TEE 2000 | SA-105N | TP5 |
| 1" X 1/2" FS THRD RED TEE 3000 | SA-105N | 2610 |
| 1" FS THRD CROSS 2000 | SA-105N | HBO |
| 1" X 8" XS NIPPLE | SA-106B | Y07020732, 23651 |
| 1" X 7" XS NIPPLE | SA-106B | R4D |
| 1" X 6" XS NIPPLE | SA-106B | 88T |
| 1" X 5 1/2" XS NIPPLE | SA-106B | YT4, 528697 |
| 1" X 5" XS NIPPLE | SA-106B | 538697 |
| 1" X 4 1/2" XS NIPPLE | SA-106B | 538697 |



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

FITTINGS CONTINUED:

| DESCRIPTION: | GRADE: | HEAT NO: |
|---------------------------|---------------|--------------------------------|
| 1" X 4" XS NIPPLE | SA-106B | XPU, 23651 |
| 1" X 3 1/2" XS NIPPLE | SA-106B | Y706-1082, 538697, Y0606755 |
| 1" X 3" XS NIPPLE | SA-106B | 538697 |
| 1" X 2 1/2" XS NIPPLE | SA-106B | 538697 |
| 1" X 2" XS NIPPLE | SA-106B | X9U, 53878 |
| 1" X 3/4" XS SWAGE TBE | SA234-WPB | 79141 |
| 1" X 1/2" XS SWAGE TBE | SA234-WPB | 79141 |
| 1" X 1/4" XS SWAGE TBE | SA234-WPB | 79141, 78092 |
| 1" FS THRD PLUG | SA-105N | N59 |
| 3/4" FS THRD 90° ELL 2000 | SA-105N | A64 |
| 3/4" X 4" XS NIPPLE | SA-106B | 162829 |
| 3/4" X 2" XS NIPPLE | SA-106B | 162829 |
| 3/4" FS THRD PLUG | SA-105N | 2717 |
| 1/2" FS THRD UNION 3000 | SA-105N | 9CU |
| 1/2" FS THRD 90° ELL 2000 | SA-105N | A87 |
| 1/2" FS THRD TEE 2000 | SA-105N | TU9 |
| 1/2" X 8" XS NIPPLE | SA-106B | 252716 |
| 1/2" X 6" XS NIPPLE | SA-106B | 163226 |
| 1/2" X 4 1/2" XS NIPPLE | SA-106B | 55175 |
| 1/2" X 4" XS NIPPLE | SA-106B | 71678 |
| 1/2" X 3 1/2" XS NIPPLE | SA-106B | 163226 |
| 1/2" X 3" XS NIPPLE | SA-106B | AH80, 163226 |
| 1/2" X 2 1/2" XS NIPPLE | SA-106B | 163226 |
| 1/2" X 2" XS NIPPLE | SA-106B | 54094, AI6 |
| 1/2" X 1 1/2" XS NIPPLE | SA-106B | 54094 |
| 1/2" X 3/8" XS SWAGE | SA234-WPB | 72475 |
| 1/2" X 1/4" XS SWAGE | SA234-WPB | 72475 |
| 1/2" FS THRD PLUG | SA-105N | 2810 |



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

FITTINGS CONTINUED:

| DESCRIPTION: | GRADE: | HEAT NO: |
|---------------------------|---------------|------------------|
| 3/8" FS THRD TEE 2000 | SA-105N | TM1 |
| 3/8" X 4" XS NIPPLE | SA-106B | Y03 |
| 3/8" X 1 1/2" XS NIPPLE | SA-106B | 95492 |
| 3/8" X 1/4" XS SWAGE TBE | SA234-WPB | 72475 |
| 3/8" FS THRD PLUG | SA-105N | 2396 |
| 1/4" FS THRD 90° ELL 2000 | SA-105N | 54A |
| 1/4" FS THRD TEE 2000 | SA-105N | TU7 |
| 1/4" FS THRD CROSS 2000 | SA-105N | CRBN |
| 1/4" X 5" XS NIPPLE | SA-106B | 47322 |
| 1/4" X 3" XS NIPPLE | SA-106B | RY5 |
| 1/4" X 2" XS NIPPLE | SA-106B | 80491 |
| 1/4" X 1 1/2" XS NIPPLE | SA-106B | 62841 |
| 1/4" FS THRD PLUG | SA-105N | C19 |
| PIPE: | | |
| 2" SCH 80 SMLS PIPE | SA-106B | 2-DC, 2-DE, 2-DF |
| 1 1/2" SCH 80 SMLS PIPE | SA-106B | 1.5-Q |
| 1" SCH 80 SMLS PIPE | SA-106B | 1-LS, 1-LRA |
| 1/2" SCH 80 SMLS PIPE | SA-106B | .5-Q |



HUSKY ENERGY
PO#: 8400005280 AFE: US-24526-CG
QPS CERTIFIED: QC-54930
JOB # I-980
UNIT # SAA-08240

MECHANICAL INFORMATION

COMPRESSOR OIL

COPELAND FUEL GAS BOOSTER OIL
CP-6006 SERIES
POLYALPHAOLEFIN
SYNTHETIC HYDROCARBON
SUPPLIED BY COPELAND SCROLL

DRYING TOWER MEDIA

ALCOA INDUSTRIAL CHEMICALS
ACTIVATED ALUMINA (ALL GRADES) SOLID F-200
ALUMINUM OXIDE
SUPPLIED BY BRENNTAG STINNES LOGISTICS

P:\PC Compression\Drafting\Work-Internal\980 SAA-08240 SAA-222-LP Husky AB\A-PID-SAA08240 AB.dwg, 7/18/2008 12:40:46 PM, scottcpc, Property of PC Compression Inc. Duplication or transmittal without written consent is prohibited.

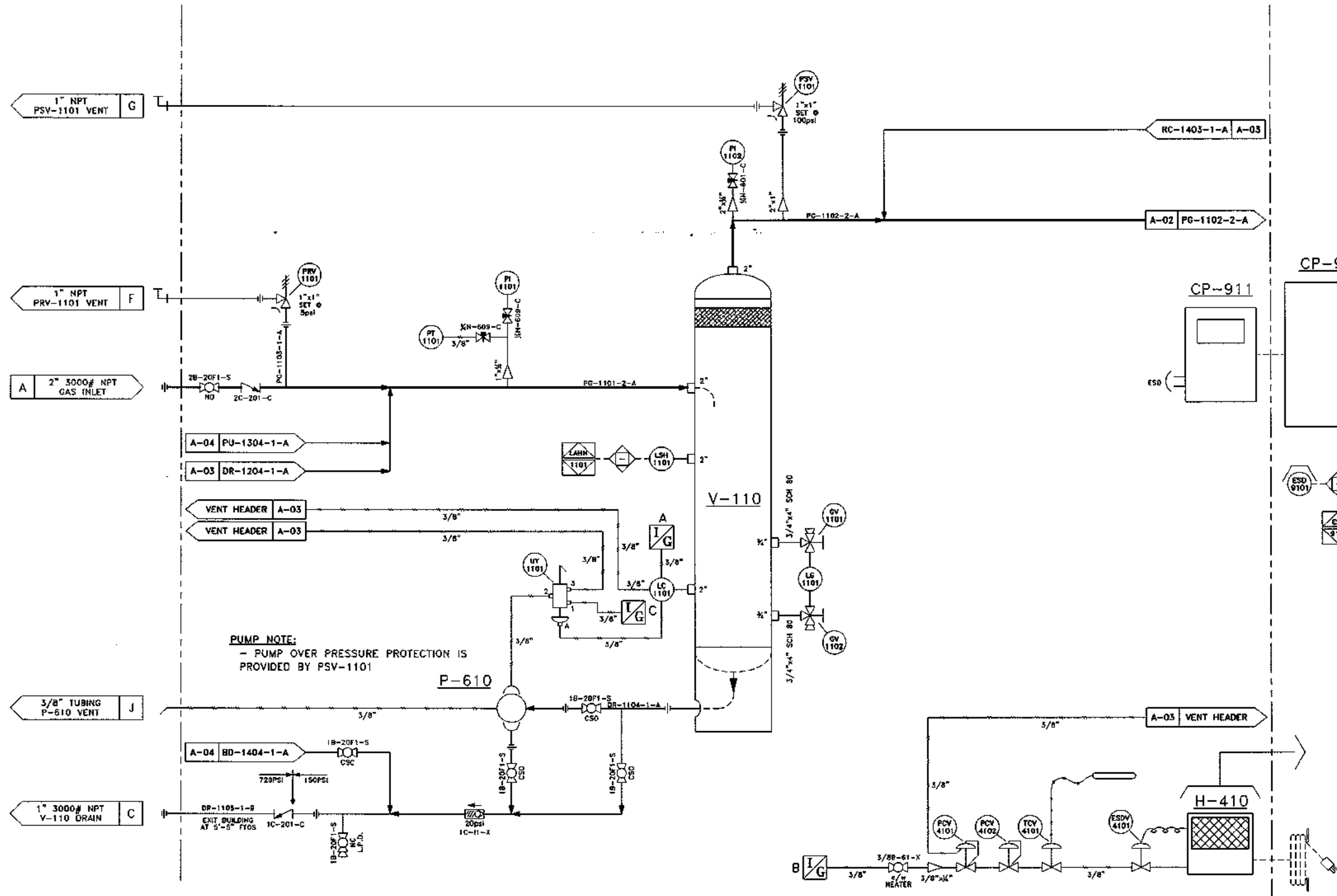
**V-110
INLET SCRUBBER**
 Manufacturer: LO TECH MANUFACTURING
 Size: 8.625" x 4'-0" S/S
 MAWP: 600psi @ 650°F
 MDMT: -20°F @ 600psi
 CRN: 0H5415.21345
 0.0625" C.A.
 I/C: SCRUBBER848
 S/N: 8600.643

**H-410
HEATER**
 Manufacturer: CATA-DYNE
 Model: MKII 2424
 120V START
 I/C: MK2424-211111
 S/N: 380250

**P-610
LIQUID PUMP**
 Manufacturer: SANDPIPER
 Model: PCC1, GABTXNSX
 MAWP: 100psi
 Capacity: 45gpm @ 40scfm
 I/C: G1FB1BTXNSX00
 S/N: 1613183

**CP-910
VFD PANEL**
 Manufacturer: PYRAMID CORPORATION
 Model: SCROLL COMPRESSOR - VFD
 Volts: 480VAC/120VAC/24VDC
 Amps: 20/5/30
 1-3 PHASE, 60Hz
 CSA: LR29807
 I/C: VFDSCROLL
 S/N: A131-9193
 c/w VFD-COMMANDER SK
 c/w PLC-MICRO LOGIX 1200

**CP-911
HMI PANEL**
 Manufacturer: PYRAMID CORPORATION
 Volts: 24VDC
 Amps: 8
 I/C: HMI SCROLL
 OPS Certified: OCC-98872
 c/w HMI-PANEL VIEW 300 MICRO



BILL of MATERIAL

| ITEM CODE | ITEM TAG | DESCRIPTION |
|------------------|-----------|--|
| 9117D51V06E1-100 | PSV-1101 | MERCER, 91-17D51V06E1, 1"x1" NPT, SET @ 100psi |
| E10-015 | PT-1101 | WIKA, E-10, S.R 0-15psi |
| 289H-42 | PRV-1101 | FISHER, 1" NPT, 289H-42, S.R. 4-15psig |
| L1200NDVO | LC-1101 | MURPHY, L1200 NDVO, MAWP: 2000psi |
| L1200 | LSH-1101 | MURPHY, L1200, MAWP: 2000psi |
| 8212228 | PI-1101 | WIKA, SSIF, 1/4"LM x 2 1/2"FACE, 0-30psi |
| 8212228 | PI-1102 | WIKA, SSIF, 1/4"LM x 2 1/2"FACE, 0-30psi |
| 4057D031H2 | UY-1101 | AMOT, 4057D031H2, 3 WAY SWITCHING VALVE |
| 70003-000 | LG-1101 | PENBERTHY, 1RL-4 |
| 64810-500 | GY-1101 | PENBERTHY, 330J GAUGE VALVE |
| 64810-500 | GY-1102 | PENBERTHY, 330J GAUGE VALVE |
| AC-TC-8000N-7 | TCV-4101 | CCI THERMAL, AC-TC-8000N-7 |
| RAC-R-912-101 | PCV-4101 | FISHER 912-101 |
| c/w H-410 | PCV-4102 | CCI THERMAL, RTZ-11-15B |
| c/w H-410 | ESDV-4101 | CCI THERMAL, ASV-375, 1/2 PSI |
| 800T-FX6 | ESD-9101 | ESD BUTTON, 800T-FX6; 800T-XAP |

- A-GENERAL NOTES:**
- REFERENCE DRAWINGS: GA-SAA08240-B-01 SKD-SAA08240-D-01
 PID-SAA08240-A-02 GA-SAA08240-B-02
 PID-SAA08240-A-03 GA-SAA08240-B-03 BLD-SAA08240-H-01
 PID-SAA08240-A-04 GA-SAA08240-B-04
- B-DESIGN & MATERIAL NOTES:**
- PIPING CONSTRUCTED TO ASME B31.3-2006 NORMAL SERVICE
 - CORROSION ALLOWANCE: 0.0625" UNLESS NOTED OTHERWISE
 - SPEC 'A' PIPING:
 DESIGN: MAWP: 150psig @ 350°F
 MDMT: -20°F @ 150psig
 LEAK TEST: 165psig @ AMBIENT TEMPERATURE w/ AIR/SOAP
- PIPE: NPT: 1/4" TO 3/8", SA-106-B, SCH.80 @ 0.055"C.A.
 NPT: 1/2" TO 2", SA-106-B, SCH.80
- FLANGES: 1", ANSI cl.150 RF, SA-105N
 FITTINGS: NPT: 1/4" TO 2", cl.2000, SA-105N
- STUDS: SA-193-B7M NUTS: SA-194-2HM
 A: 316SS, FLEXITALLIC, GRAPHITE FILL
 SPEC 'B' PIPING:
 DESIGN: MAWP: 720psig @ 130°F
 MDMT: -20°F @ 720psig
 LEAK TEST: 1080psig @ AMBIENT TEMPERATURE w/ HYDROTEST
- PIPE: NPT: 1", SA-106-B, SCH.80
 FITTINGS: NPT: 1", cl.2000, SA-105N
 ALL SPECS: TUBING: 1/4", 3/8" & 1/2" 316SS, .035" WALL
 TUBING FITTINGS: 1/4", 3/8" & 1/2" 316SS
- C-INSULATION NOTES:**
- SKID INSULATION: 2" FIRE RETARDANT POLYURETHANE FOAM PF-7217
- D-MISCELLANEOUS NOTES:**
- SANDBLAST: SSPC-SP6
 FINISH: ONE COAT ENAMEL
 COLOUR: WARM GREY
 - BUILDING COLOUR: GALVANIZED
 - BUILDING "DOGGIE DOOR" MOUNTED IN DOOR

| | | | |
|---|-------------------------|--|----------|
| | | 222 LP SAA-SCROLL SERIES SZ022C3A w/ DESICCANT TOWERS SKID MOUNTED, SWEET SERVICE | |
| Drawn by: S.D.C. Date: 04-15-08 Checked by: SDC Approved by: SDC | | Company: HUSKY ENERGY | |
| 2308-8th Street Whyte Alberta T6C 7Z2 | | Office: 780.855.4222 Fax: 780.595.4244 Toll Free: 866.855.4222 | |
| 1 | AS BUILT | SOC | 07-18-08 |
| 0 | ISSUED FOR CONSTRUCTION | SOC | 06-24-08 |
| REV. | DESCRIPTION | BY | DATE |

P:\PC Compression\Drafting\Work-Internal\1-980 SAA-08240 SAA-222-LP Husky AB\A-PID-SAA08240 AB.dwg, 7/18/2008 12:40:59 PM, scottlapc, Property of PC Compression, Inc. Duplication or transmittal without written consent is prohibited.

**CA-210/220
COMPRESSOR ASSEMBLY**

Manufacturer: COPELAND SCROLL
Model: SZ022C3A-EDE-234
Inlet Pressure: 2" W.C. / MAX 10psi
Discharge Pressure Setting: 215PSI
275VAC/3Phase/60Hz
Peak Operating Amps: 16.3
H.P.: 10
I/C: SZ022C3A-EDS-234
S/N CA-210: 08F0A272K
S/N CA-220: 08F0A268K
QPS CERTIFIED:
CA-210: QCC-98023
CA-220: QCC-98019

**C-210/220
COMPRESSOR**

Manufacturer: COPELAND SCROLL
Model: ZNH22C3A-KXX-265
Discharge Pressure Setting: 450psi
275VAC/3Phase/60Hz
Peak Operating Amps: 16.3
R.P.M.: 3500
S/N CA-210: 08EC4094K
S/N CA-220: 08EC4101K

**F-210/220
LUBE OIL FILTER**

Manufacturer: COPELAND SCROLL
Part No.: 513-0019-01

**V-210/220
LUBE OIL SEPERATOR**

Manufacturer: COPELAND SCROLL
Part No.: 548-2116-01
Rated Pressure: 250psi

**E-210/220
COMPRESSOR COOLER**

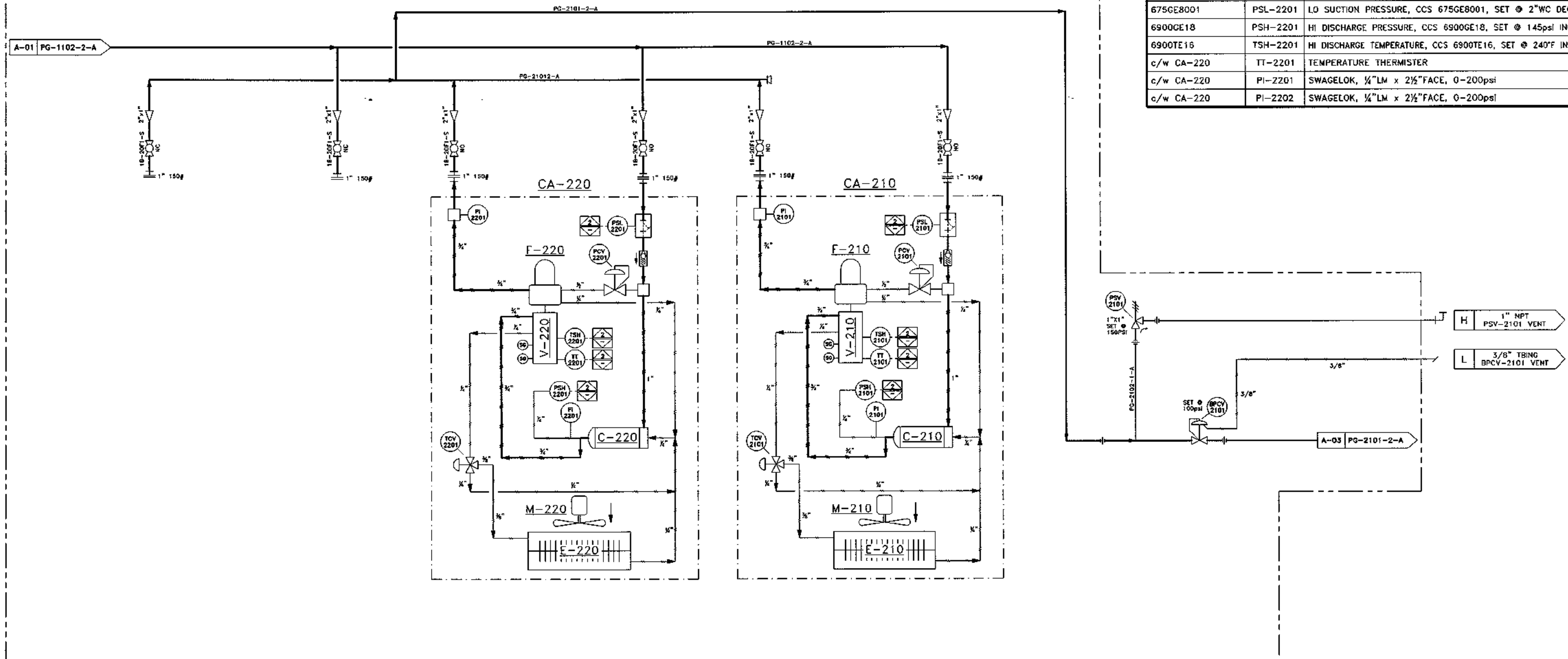
Manufacturer: SUPER RADIATOR COILS
MAWP: 250psi @ 300°F
MDMT: -20°F @ 250psi
CRN: 0H6358.2
CRN: 0H0741.3

**M-210/220
COOLER FAN MOTOR**

Manufacturer: EBM
Model: W1C250-HH37-52
Class 1, Div. 2
24VDC, 1/2Hp

BILL of MATERIAL

| ITEM CODE | ITEM TAG | DESCRIPTION |
|------------------|-----------|---|
| 9117051V07E1-150 | PSV-2101 | MERCER, 91-17051V07E1, 1"x1" NPT, SET @ 150psi |
| 630R-17 | BPCV-2101 | FISHER, 630R, S.R. 75-175psig, 1/2" ORIFICE |
| 98H | PCV-2101 | FISHER, 98H-4, S.R. 130-200psi |
| c/w CA-210 | TCV-2101 | ROSTRA VERNATHERM, 0250-08-00/200 |
| 675GE8001 | PSL-2101 | LO SUCTION PRESSURE, CCS 675GE8001, SET @ 2"WC DECR. |
| 6900GE18 | PSH-2101 | HI DISCHARGE PRESSURE, CCS 6900GE18, SET @ 145psi INCR. |
| 6900TE16 | TSH-2101 | HI DISCHARGE TEMPERATURE, CCS 6900TE16, SET @ 240°F INCR. |
| c/w CA-210 | TT-2101 | TEMPERATURE THERMISTER |
| c/w CA-210 | PI-2101 | SWAGelok, 1/4"LM x 2 1/2"FACE, 0-200psi |
| c/w CA-210 | PI-2102 | SWAGelok, 1/4"LM x 2 1/2"FACE, 0-200psi |
| 98H | PCV-2201 | FISHER, 98H-4, S.R. 130-200psi |
| c/w CA-220 | TCV-2201 | ROSTRA VERNATHERM, 0250-08-00/200 |
| 675GE8001 | PSL-2201 | LO SUCTION PRESSURE, CCS 675GE8001, SET @ 2"WC DECR. |
| 6900GE18 | PSH-2201 | HI DISCHARGE PRESSURE, CCS 6900GE18, SET @ 145psi INCR. |
| 6900TE16 | TSH-2201 | HI DISCHARGE TEMPERATURE, CCS 6900TE16, SET @ 240°F INCR. |
| c/w CA-220 | TT-2201 | TEMPERATURE THERMISTER |
| c/w CA-220 | PI-2201 | SWAGelok, 1/4"LM x 2 1/2"FACE, 0-200psi |
| c/w CA-220 | PI-2202 | SWAGelok, 1/4"LM x 2 1/2"FACE, 0-200psi |



GENERAL NOTES:
SEE-DRAWING# PID-SAA08240-A-01

| REV. | DESCRIPTION | BY | DATE | CHKD | APPD |
|------|-------------------------|----|----------|------|------|
| 1 | AS BUILT | | 07-18-08 | | |
| 0 | ISSUED FOR CONSTRUCTION | | 08-24-08 | SDC | GB |



2508-8th Street
Nisku Alberta
T9E 7Z2
Office: 780.955.4292
Fax: 780.955.4294
Toll Free: 866.955.4292

Drawn by: S.D.C.
Date: 04-15-08
Checked by: SDC
Approved by: SDC
Scale: N.T.S.

222 LP SAA-SCROLL SERIES
SZ022C3A w/ DESICCANT TOWERS
SKID MOUNTED, SWEET SERVICE

Company: **HUSKY ENERGY**

Quote/Ref. No.: -
JOB NO.: I-980
Unit NO.: SAA-08240
Drawing NO.: PID-SAA08240-A-02
Rev.: 1

P:\PC Compression\Drilling\Work-internal\1-980_SAA-08240_SAA-222-LP_Husky AB\A-PID-SAA08240_AE.dwg, 7/18/2008 12:41:12 PM, scottopc, Property of PC Compression Inc. Duplication or transmittal without written consent is prohibited.

V-120
DISCHARGE SCRUBBER
 Manufacturer: LO TECH MANUFACTURING
 Size: 8.625" x 4'-0" 5/8"
 MAWP: 600psi @ 650°F
 MONT: -20°F @ 600psi
 CRN: OH5415.21345
 0.0625" C.A.
 I/C: SCRUBBER848
 S/N: 8600.666

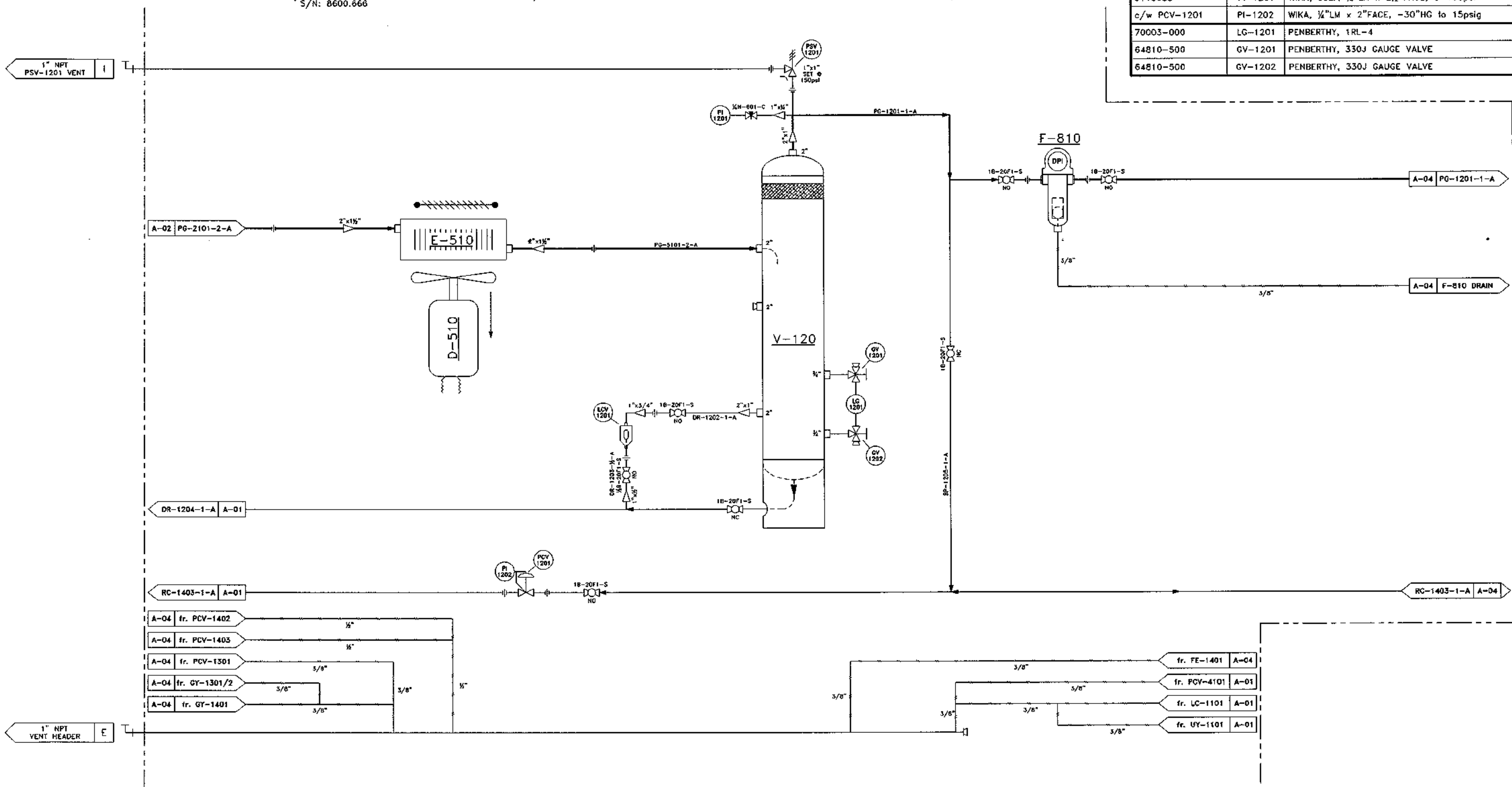
E-510
AIR COOLED EXCHANGER
 Manufacturer: GLOBAL HEAT TRANSFER
 Model: GHT 450 SC
 Part No.: 699-0362
 MAWP: 402psi @ 250°F
 CRN: OH7426.213
 I/C: GHT450
 S/N: 080504006

D-510
COOLER FAN MOTOR
 Manufacturer: EBM
 Model: W1G250-HH57-52
 Class 1, Div. 2
 24 VDC 1/2Hp
 I/C: 550058100
 QPS Certified: QCC-69043

F-820
FILTER
 Manufacturer: FLAIR
 Model: HF-90
 MAWP: 232psi @ 149°F
 Element: HFD-90
 CRN: OH5142.51263
 c/w DPI
 I/C: HF90

BILL of MATERIAL

| ITEM CODE | ITEM TAG | DESCRIPTION |
|------------------|----------|--|
| 9117D51V07E1-150 | PSV-1201 | MERCER, 91-17D51V07E1, 1"x1" NPT, SET @ 150psi |
| AOP-25 | PCV-1201 | KIMRAY, 1" NPT, 1.2 SGT OPR, MAWP: 175psi, S.R. 2.5psi |
| WLD1811 | LCV-1201 | WATSON McDANIEL, PMD-1810-400, MAWP: 600psig @ 500°F |
| 9110653 | PI-1201 | WIKA, SSLF, 1/2"LM x 2 1/2"FACE, 0-160psi |
| c/w PCV-1201 | PI-1202 | WIKA, 1/2"LM x 2"FACE, -30"HG to 15psig |
| 70003-000 | LG-1201 | PENBERTHY, 1RL-4 |
| 64810-500 | GV-1201 | PENBERTHY, 330J GAUGE VALVE |
| 64810-500 | GV-1202 | PENBERTHY, 330J GAUGE VALVE |



GENERAL NOTES:
 SEE-DRAWING# PID-SAA08240-A-01

| | | | |
|---|-------------------------|--|----------|
| | | 222 LP SAA-SCROLL SERIES SZ022C3A w/ DESICCANT TOWERS SKID MOUNTED, SWEET SERVICE | |
| Drawn by: S.D.C. Date: 04-15-08 Checked by: SDC Approved by: SDC | | Company: HUSKY ENERGY | |
| 2308-8th Street Waskia Alberta T9E 7Z2 | | Office: 780.855.4252 Fax: 780.855.4254 Toll Free: 866.855.4252 | |
| AS BUILT ISSUED FOR CONSTRUCTION | | Scale: N.T.S. Quote/Ref. No.: JOB NO.: I-980 Unit No.: SAA-08240 Drawing No.: PID-SAA08240-A-03 Rev.: 1 | |
| REV. | DESCRIPTION | BY | DATE |
| 1 | AS BUILT | SDC | 07-18-08 |
| 0 | ISSUED FOR CONSTRUCTION | SDC | 08-24-08 |

P:\PC Compression\Drafting\Work-Internal\1-980_SAA-08240_SAA-222-LP_Husky AB\A-PID-SAA08240 AB.dwg, 7/18/2008 12:41:32 PM, scottccc, Property of PC Compression Inc. Duplication or transmission without written consent is pr.

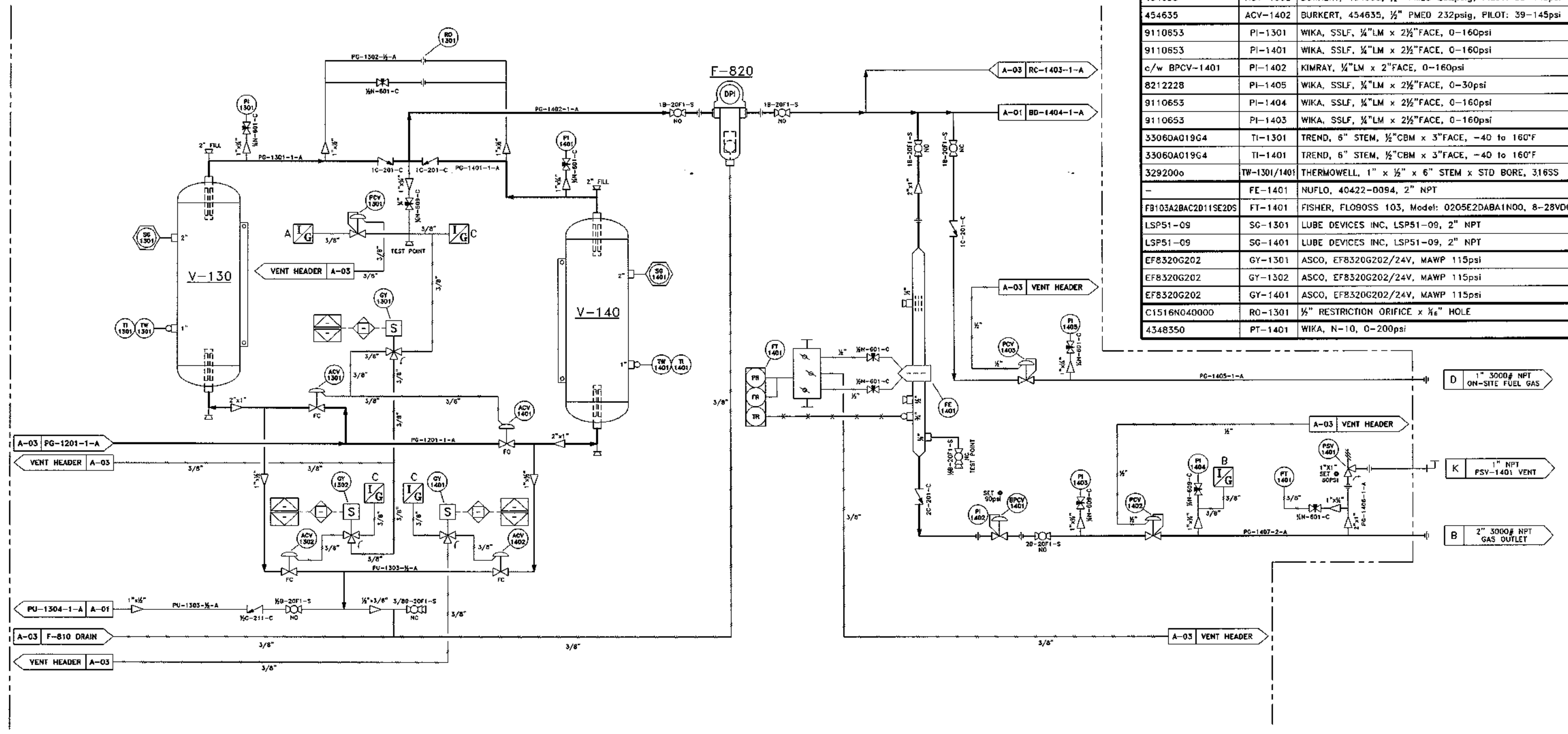
V-130 DRYING TOWER
 Manufacturer: PYRAMID FABRICATORS
 Size: 8.625" x 4'-0" S/S
 MAWP: 550psi @ 600°F
 MDMT: -20°F @ 550psi
 CRN: QH5228.23
 0.0625" C.A.
 I/C: BULLETAAB48
 S/N: 08-3200-0000-A

V-140 DRYING TOWER
 Manufacturer: PYRAMID FABRICATORS
 Size: 8.625" x 4'-0" S/S
 MAWP: 550psi @ 600°F
 MDMT: -20°F @ 550psi
 CRN: QH5228.23
 0.0625" C.A.
 I/C: BULLETAAB48
 S/N: 08-3200-0000-F

F-820 FILTER
 Manufacturer: FLAIR
 Model: HF-90
 MAWP: 232psi @ 149°F
 Element: HFD-90
 CRN: QH5142.51263
 c/w DPI
 I/C: HF90

BILL of MATERIAL

| ITEM CODE | ITEM TAG | DESCRIPTION |
|---------------------|--------------|--|
| 9117051V06E1-80 | PSV-1401 | MERCER, 91-17051V06E1, 1"x1" NPT, SET @ 80psi |
| 67CFR362SPEC | PCV-1301 | FISHER, 67CFR-362SC, 1/2" NPT, S.R. 0-35psi |
| AAA | BPCV-1401 | KIMRAY, 2" NPT, 212 SGT-BP, MAWP: 175psi |
| 627-579 | PCV-1402 | FISHER, 2" NPT, 627-579, S.R. 70-150psig, 1/2" ORIFICE |
| 627-496 | PCV-1403 | FISHER, 1" NPT, 627-496, S.R. 5-20psig, 1/2" ORIFICE |
| 454637 | ACV-1301 | BURKERT, 454637, 1" PMED 232psi, PILOT: 27-145psi |
| 454599 | ACV-1401 | BURKERT, 454599, 1" PMED 232psi, PILOT: 29-145psi |
| 454635 | ACV-1302 | BURKERT, 454635, 1/2" PMED 232psig, PILOT: 39-145psi |
| 454635 | ACV-1402 | BURKERT, 454635, 1/2" PMED 232psig, PILOT: 39-145psi |
| 9110653 | PI-1301 | WIKA, SSLF, 1/4"LM x 2 1/2"FACE, 0-160psi |
| 9110653 | PI-1401 | WIKA, SSLF, 1/4"LM x 2 1/2"FACE, 0-160psi |
| c/w BPCV-1401 | PI-1402 | KIMRAY, 1/4"LM x 2"FACE, 0-160psi |
| 8212228 | PI-1405 | WIKA, SSLF, 1/4"LM x 2 1/2"FACE, 0-30psi |
| 9110653 | PI-1404 | WIKA, SSLF, 1/4"LM x 2 1/2"FACE, 0-160psi |
| 9110653 | PI-1403 | WIKA, SSLF, 1/4"LM x 2 1/2"FACE, 0-160psi |
| 33060A019G4 | TI-1301 | TREND, 6" STEM, 1/2"CBM x 3"FACE, -40 to 160°F |
| 33060A019G4 | TI-1401 | TREND, 6" STEM, 1/2"CBM x 3"FACE, -40 to 160°F |
| 3292000 | TW-1301/1401 | THERMOWELL, 1" x 1/2" x 6" STEM x STD BORE, 316SS |
| - | FE-1401 | NUFLO, 40422-0094, 2" NPT |
| FB103A2BAC2D11SE2DS | FT-1401 | FISHER, FLOBOSS 103, Model: 0205E2DABA1N00, 8-28VDC |
| LSP51-09 | SG-1301 | LUBE DEVICES INC, LSP51-09, 2" NPT |
| LSP51-09 | SG-1401 | LUBE DEVICES INC, LSP51-09, 2" NPT |
| EF8320G202 | GY-1301 | ASCO, EF8320G202/24V, MAWP 115psi |
| EF8320G202 | GY-1302 | ASCO, EF8320G202/24V, MAWP 115psi |
| EF8320G202 | GY-1401 | ASCO, EF8320G202/24V, MAWP 115psi |
| C1516N040000 | RO-1301 | 1/2" RESTRICTION ORIFICE x 1/8" HOLE |
| 4348350 | PT-1401 | WIKA, N-10, 0-200psi |



GENERAL NOTES:
 SEE-DRAWING# PID-SAA08240-A-01

| REV. | DESCRIPTION | BY | DATE | CHKD | APPRO |
|------|-------------------------|----|----------|------|-------|
| 1 | AS BUILT | | 07-18-08 | | |
| 0 | ISSUED FOR CONSTRUCTION | | 06-24-08 | SDC | GB |



2308-Bth Street
 Hixson, ALBarta
 19E 722
 Office: 780.955.4292
 Fax: 780.955.4294
 Toll Free: 866.955.4292

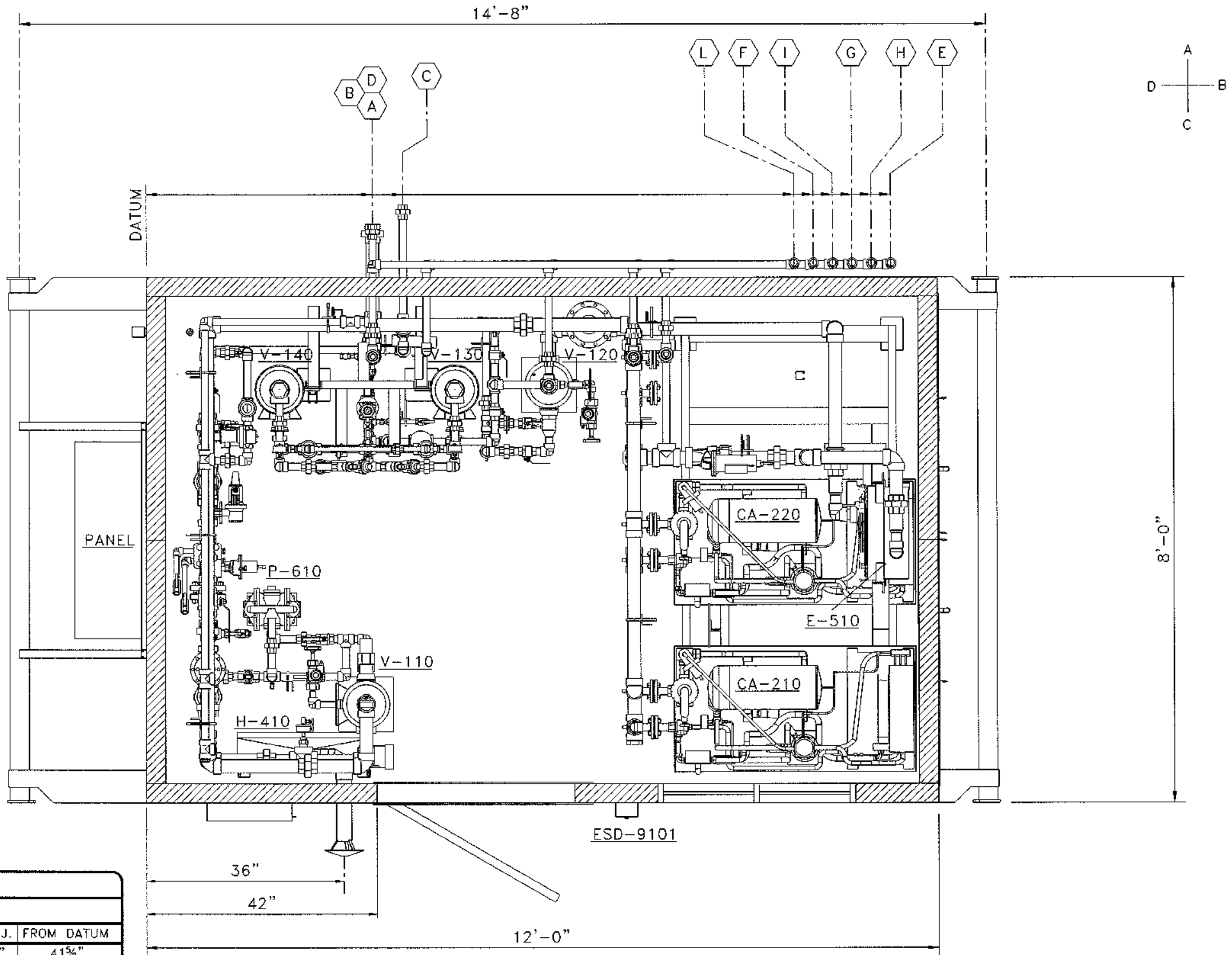
Drawn by: S.D.C.
 Date: 04-15-08
 Checked by: SDC
 Approved by: SDC
 Scale: N.T.S.

222 LP SAA-SCROLL SERIES
 SZ022C3A w/ DESICCANT TOWERS
 SKID MOUNTED, SWEET SERVICE

Company: HUSKY ENERGY

Quote/Ref. NO.: 1-950
 JOB NO.: SAA-08240
 Unit NO.: PID-SAA08240-A-04
 Drawing NO.: 1

P:\PC Compression\Drafting\Work-internal\1-980 SAA-08240 SAA-222-LP Husky AB\B-GA-SAA08240 AB.dwg, 7/18/2008 12:44:13 PM, scottcpc, Property of PC Compression Inc. Duplication or transmittal without written consent is prohibited.




PACKAGE WEIGHT: 9,200 lbs / 4,175 Kg

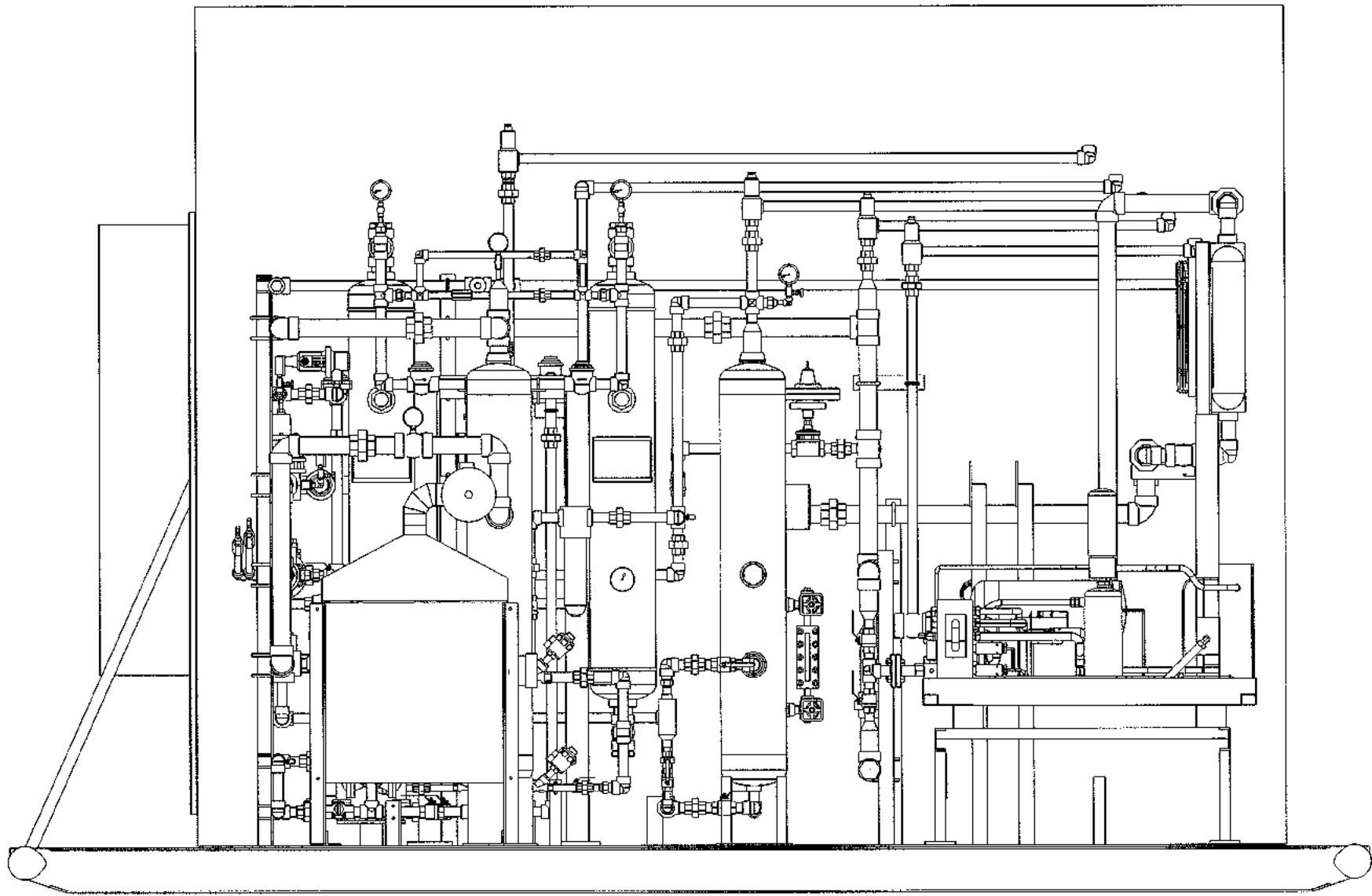
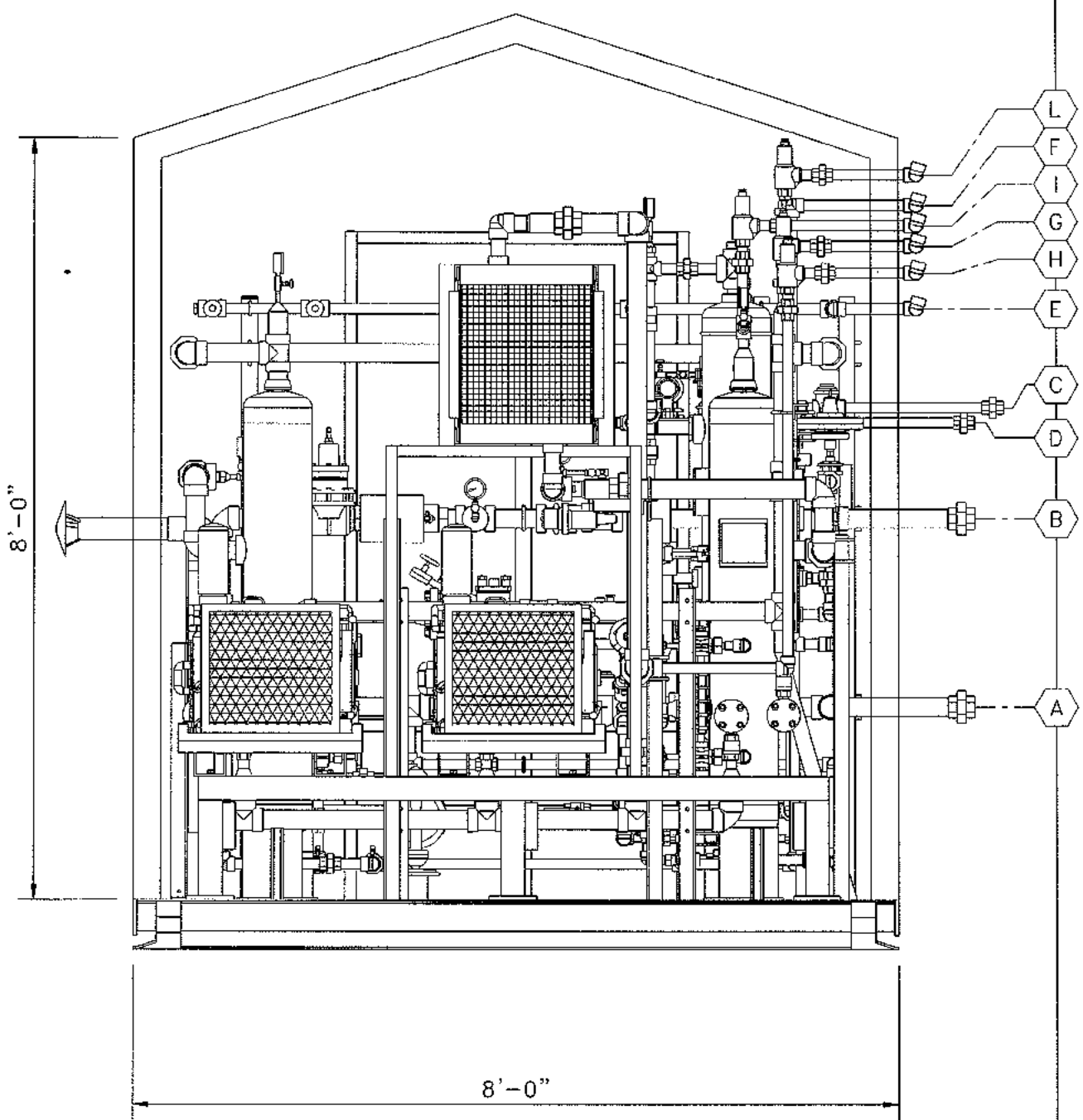
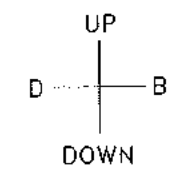
CUSTOMER CONNECTIONS

| ITEM | DESCRIPTION | SIZE | ELEVATION | PROJ. | FROM DATUM |
|------|--------------------|--------------|---------------------------------------|---------------------------------|-----------------------------------|
| A | GAS INLET | 2" 3000# NPT | 30 ⁵ / ₈ " FBOS | 10" | 41 ⁵ / ₈ " |
| B | GAS OUTLET | 2" 3000# NPT | 54 ¹ / ₂ " FBOS | 10" | 41 ¹ / ₂ " |
| C | VESSEL DRAIN LINE | 1" 3000# NPT | 69 ⁵ / ₈ " FBOS | 9 ¹ / ₂ " | 47 ⁵ / ₈ " |
| D | ON-SITE FUEL GAS | 1" 3000# NPT | 66 ¹ / ₂ " FBOS | 9 ¹ / ₂ " | 41 ¹ / ₂ " |
| E | INSTR. VENT HEADER | 1" 2000# NPT | 80 ³ / ₄ " FBOS | 2 ¹ / ₄ " | 128 ⁷ / ₈ " |
| F | PRV-1101 VENT | 1" 2000# NPT | 94 ¹ / ₄ " FBOS | 2 ¹ / ₄ " | 120 ¹ / ₂ " |
| G | PSV-1101 VENT | 1" 2000# NPT | 88 ¹ / ₄ " FBOS | 2 ¹ / ₄ " | 124 ¹ / ₂ " |
| H | PSV-2101 VENT | 1" 2000# NPT | 85 ¹ / ₄ " FBOS | 2 ¹ / ₄ " | 126 ¹ / ₄ " |
| I | PSV-1201 VENT | 1" 3000# NPT | 91 ¹ / ₄ " FBOS | 2 ¹ / ₄ " | 122 ³ / ₈ " |
| L | PSV-1401 VENT | 1" 3000# NPT | 97 ⁵ / ₈ " FBOS | 2 ¹ / ₄ " | 118" |

PLAN VIEW
SCALE 1:20

| | | | | |
|---|--|--|--|------------|
|  | | Drawn by: S.D.C. Date: 05-01-07 Checked by: S.D.C. Applied by: S.D.C. Scale: 1:20 | 222 LP SAA-SCROLL SERIES SZ022C3A w/ 8" DRYING TOWERS SKID MOUNTED, SWEET SERVICE | |
| 2305-BH Street Husky Alberta T9E 7Z2 | | Office: 780.955.4292 Fax: 780.955.4284 Toll Free: 866.955.4282 | Company: HUSKY ENERGY | |
| 1 AS BUILT 0 ISSUED FOR CONSTRUCTION REV. DESCRIPTION | SDC 07-18-08 SDC 06-24-08 SDC BH | Quote/Ref. No.: JOB NO.: UNIT NO.: Drawing No.: | I-980 SAA-08240 GA-SAA08240-B-01 | Rev.: 1 |

P:\PC Compression\Drafting\Work-Internal\980 SAA-08240 SAA-222-UP Husky AB\B-GA-SAA08240 AB.dwg, 7/18/2008 12:45:17 PM, scollaps, Property of PC Compression Inc. Duplication or transmission without written consent is prohibited.



'C' ELEVATION VIEW
SCALE 1:20

| REV. | DESCRIPTION | BY | DATE | CHKD | APPR |
|------|-------------------------|-----|----------|------|------|
| 1 | AS BUILT | SDC | 07-18-08 | | |
| 0 | ISSUED FOR CONSTRUCTION | SDC | 05-24-08 | SDC | BH |



2308-8th Street
Wisku, Alberta
T9C 7Z2

Office: 780.955.4282
Fax: 780.955.4284
Toll free: 855.955.4282

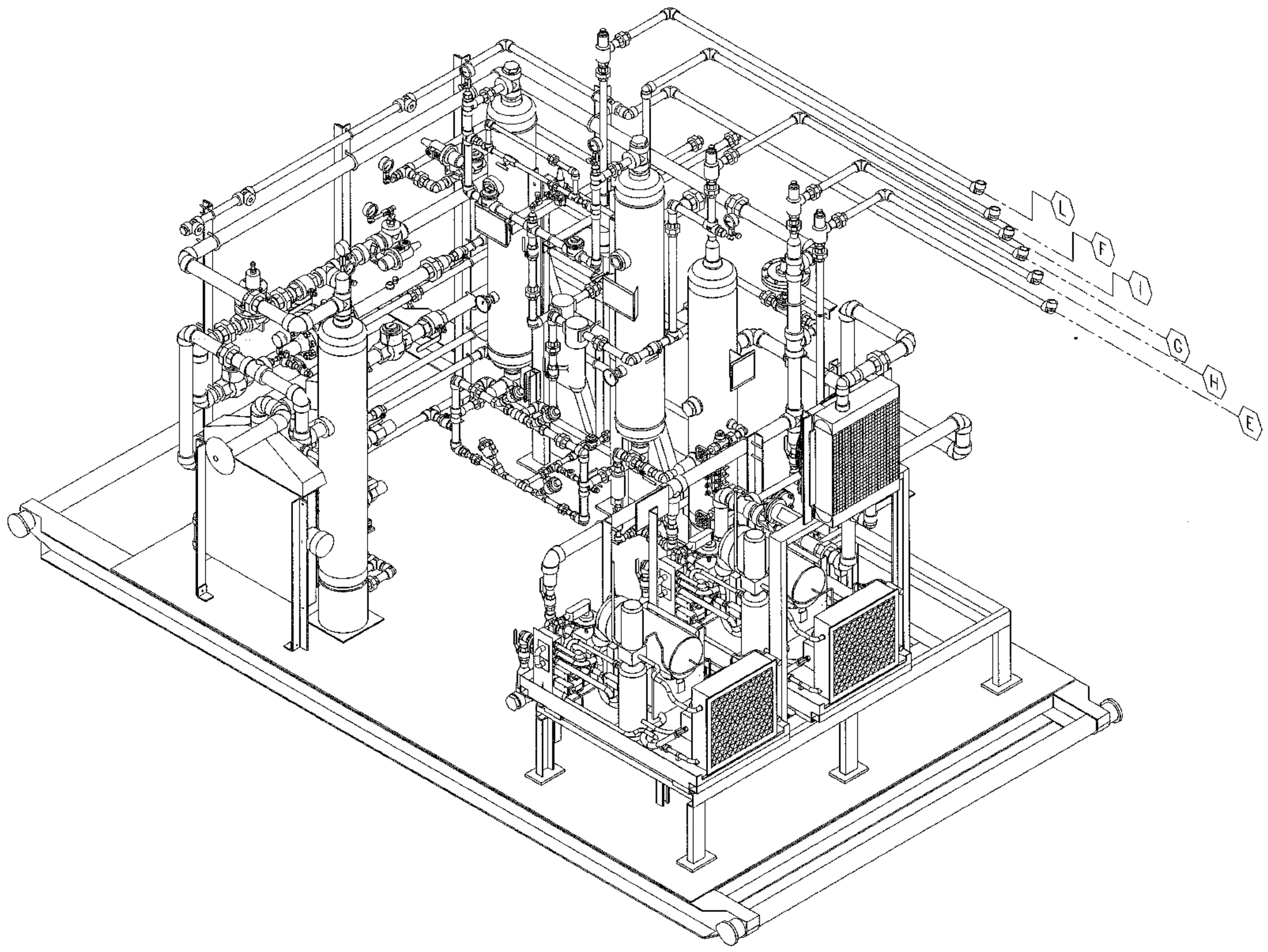
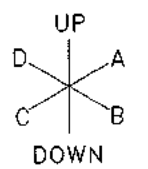
Drawn by:
S.D.C.
Date:
05-01-07
Checked by:
Spc
Approved by:
Spc
Scale:
1:20

222 LP SAA-SCROLL SERIES
SZ022C3A w/ 8" DRYING TOWERS
SKID MOUNTED, SWEET SERVICE

Company:
HUSKY ENERGY

| | | | | |
|-----------------|----------|-----------|------------------|-------|
| Quote/Ref. NO.: | JOB NO.: | Unit NO.: | Drawing NO.: | Rev.: |
| | 1-980 | SAA-08240 | GA-SAA08240-B-02 | 1 |

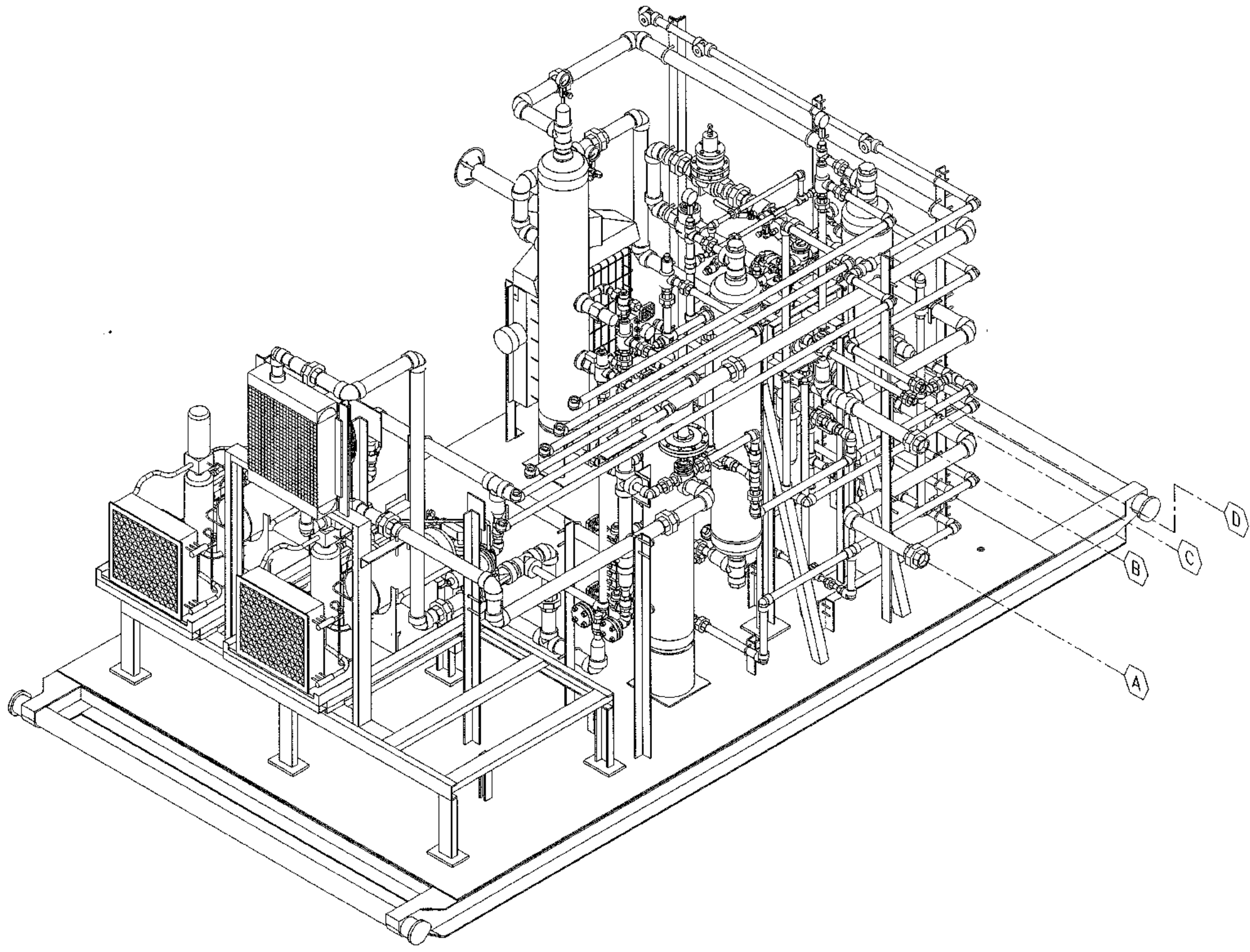
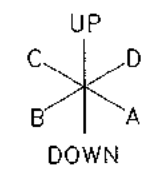
P:\PC Compression\Drilling\Work-internal\I-980 SAA-08240 SAA-222-LP Husky AB\B-GA-SAA08240 AB.dwg, 7/18/2008 12:45:52 PM, scattjpc, Property of PC Compression Inc. Duplication or transmittal without written consent is pro



'SE' ISOMETRIC VIEW
SCALE 1:20

| | | | | |
|---|-------------------------------------|---|--|---|
| | | Drawn by: S.D.C. Date: 05-01-07 Checked by: S.D.C. Approved by: S.D.C. | 222 LP SAA-SCROLL SERIES SZ022C3A w/ 8" DRYING TOWERS SKID MOUNTED, SWEET SERVICE | |
| 2308-8th Street Nisku Alberta T9E 7Z2 | | Office: 780.955.4292 Fax: 780.955.4294 Toll Free: 866.955.4292 | Company: HUSKY ENERGY | Quote/Ref. No.: Job No.: Unit No.: Drawing No.: Rev.: |
| 1 AS BUILT 0 ISSUED FOR CONSTRUCTION | SDC 07-18-08 SDC 08-24-08 SDC SM | 1:20 | I-980 SAA-08240 GA-SAA08240-B-03 | 1 |
| REV. DESCRIPTION BY DATE CHKD APPD | | | | |

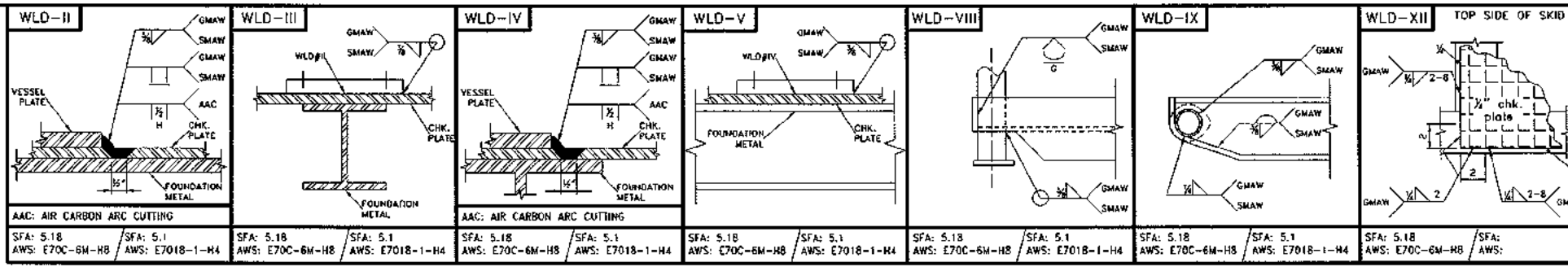
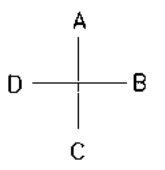
P:\PC_Compression\Drafting\Work-Internal\1-980_SAA-08240_SAA-222-LP_Husky AB\B-GA-SAA08240_AB.dwg, 7/18/2008 12:46:35 PM, scaltape, Property of PC Compression Inc. Duplication or transmittal without written consent is pro



'NE' ISOMETRIC VIEW
SCALE 1:20

| | | | | | | | | | | |
|------|-------------------------|-----|----------|--|------|---|--|------------------|--------------|-------|
| | | | | | | Drawn by: S.D.C. Date: 05-01-07 Checked by: <i>SDC</i> Approved by: <i>SDC</i> | 222 LP SAA-SCROLL SERIES SZ022C3A w/ 8" DRYING TOWERS SKID MOUNTED, SWEET SERVICE | | | |
| | | | | 2308-8th Street Office: 780.955.4282 Nisku, Alberta Fax: 780.955.4284 T9E 7Z2 Toll free: 866.955.4282 | | Company: HUSKY ENERGY | | | | |
| 1 | AS BUILT | SDC | 07-18-08 | | | Quote/Ref. No.: | JOB NO.: | Unit NO.: | Drawing NO.: | Rev.: |
| 0 | ISSUED FOR CONSTRUCTION | SDC | 06-24-08 | SDC | UH | 1-980 | SAA-08240 | GA-SAA08240-B-04 | | 1 |
| REV. | DESCRIPTION | BY | DATE | CHKD | APPD | | | | | |

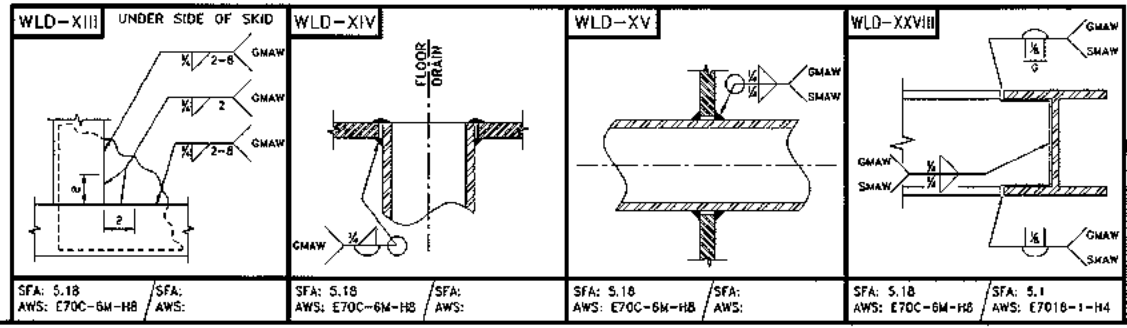
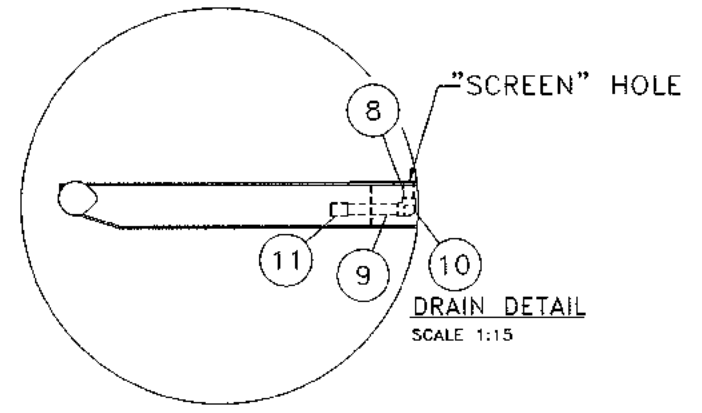
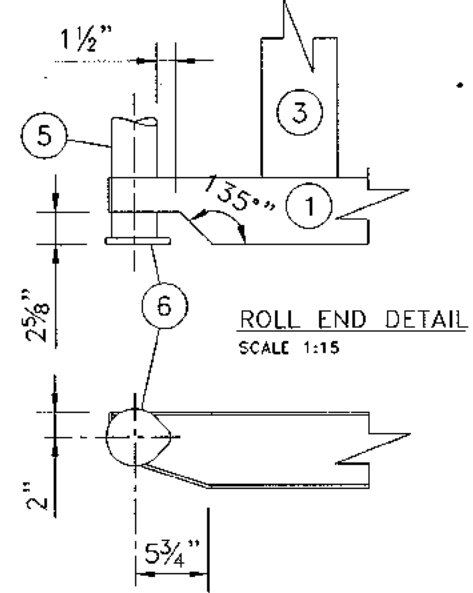
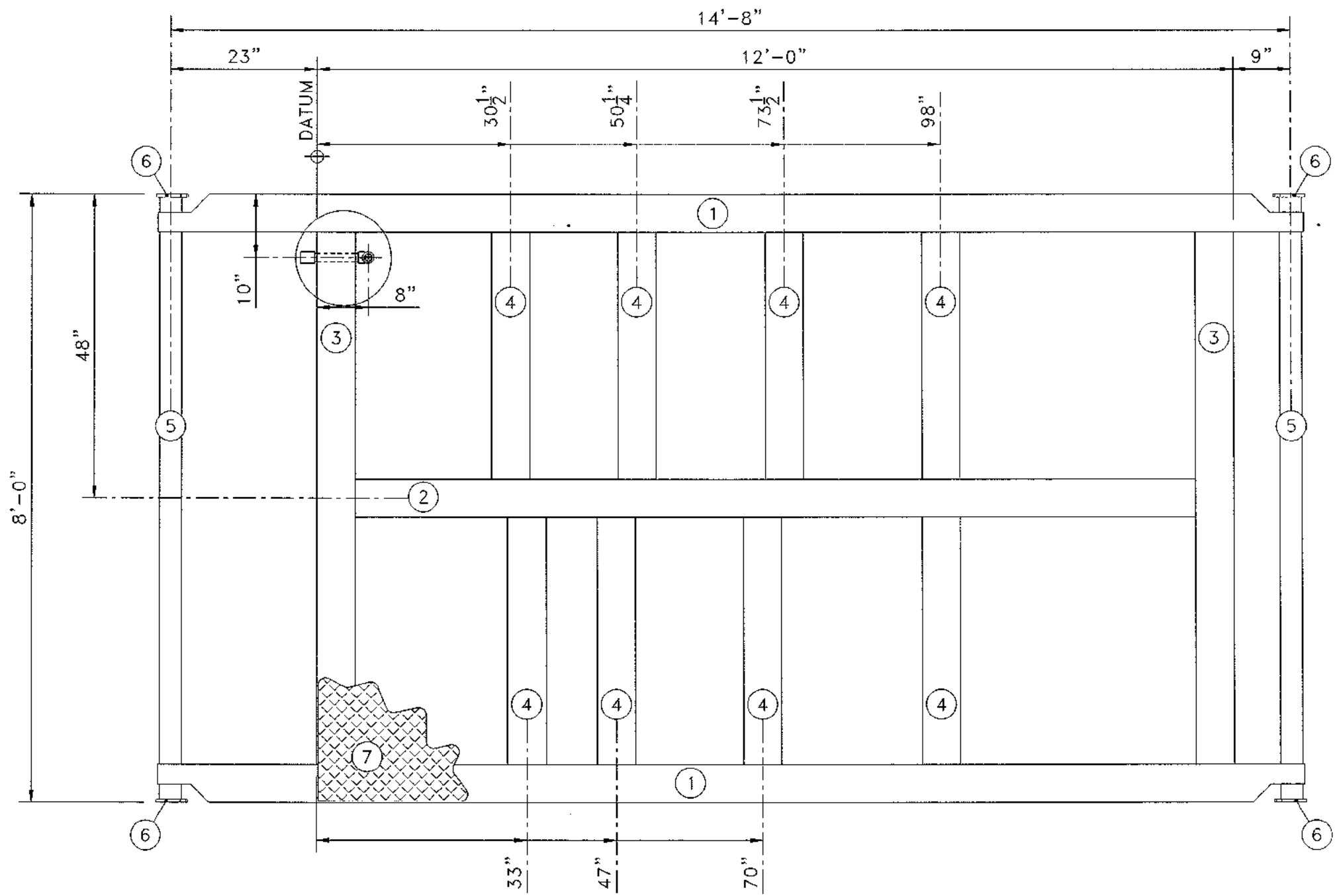
P:\PC Compression\Drafting\Work-internal\980 SAA-08240 SAA-222-LP Husky AB\D-SKD-SAA08240 AB.dwg, 7/18/2006 12:48:14 PM, scalepc, Property of PC Compression Inc. Duplication or transmittal without written consent is prohibited.



BILL of MATERIAL

| ITEM CODE | MARK | Q'TY | DESCRIPTION | MATERIAL | WEIGHT |
|-----------|------|-------|--|--------------|------------------|
| 463081018 | 1 | 2 | W6x15# x 15'-7"lg (SEE ROLL END DETAILS) | A36/44W | 465 lbs |
| 463081018 | 2 | 1 | W6x15# x 11'-5 1/2"lg | A36/44W | 172 lbs |
| 463081018 | 3 | 2 | W6x15# x 7'-5 1/2"lg | A36/44W | 225 lbs |
| 463081018 | 4 | 8 | W6x15# x 3'-8 1/2"lg | A36/44W | 444 lbs |
| 462001043 | 5 | 2 | 3" SCH 80 SMLS PIPE x 7'-11"lg | SA-106B | 162 lbs |
| 463850144 | 6 | 4 | 1/2" thk. ROLL END CAPS | SA-36 | 10 lbs |
| 463001110 | 7 | 96sq' | 1/4" CHECKPLATE (7'-11 1/2" x 11'-11 1/2") | SA-36 | 1,080 lbs |
| 462101191 | 8 | 1 | 1" SCH 80 NIPPLE x 3"lg (TOE) | SA-106B | 0.5 lbs |
| 462101204 | 9 | 1 | 1" SCH 80 NIPPLE x 8"lg (TBE) | SA-106B | 1.4 lbs |
| 462501006 | 10 | 1 | 1" 2000# NPT ELBOW | SA-105 | 1.1 lbs |
| 462501262 | 11 | 1 | 1" 2000# NPT FULL COLLAR | SA-105 | 0.4 lbs |
| | | | | TOTAL | 2,561 lbs |

WELDERS NOTE:
 - 1/8" HAS BEEN TAKEN OFF OF CUT LENGTHS FOR WELD GAP PURPOSES



| | | | |
|---|-------------|--|-------|
| | | 222 LP SAA-SCROLL SERIES SZ022C3A w/ DESICCANT TOWERS SKID MOUNTED, SWEET SERVICE | |
| Drawn by: M.E.W. Date: 04-06-04 Checked by: SDC Approved by: SDC | | Company: HUSKY ENERGY | |
| AS BUILT ISSUED FOR CONSTRUCTION | | SDC 07-18-08 FL 10-23-08 SDC 08 | |
| 2505-8th Street Missy Alberta T9E 7Z2 | | Office: 780.955.4292 Fax: 780.955.4294 Toll Free: 866.855.4292 | |
| 1 | 0 | 1:20 | 1-980 |
| REV. | DESCRIPTION | BY | DATE |

P:\PC_Compression\Drafting\Work-Internal\1-980_SAA-08240_SAA-222-LP_Husky_AS\E-SDK-SAA08240_AB.dwg, 7/18/2008 12:46:52 PM, scalleco, Property of PC Compression Inc. Duplication or transmission without written consent is prohibited.

SHUTDOWN KEY

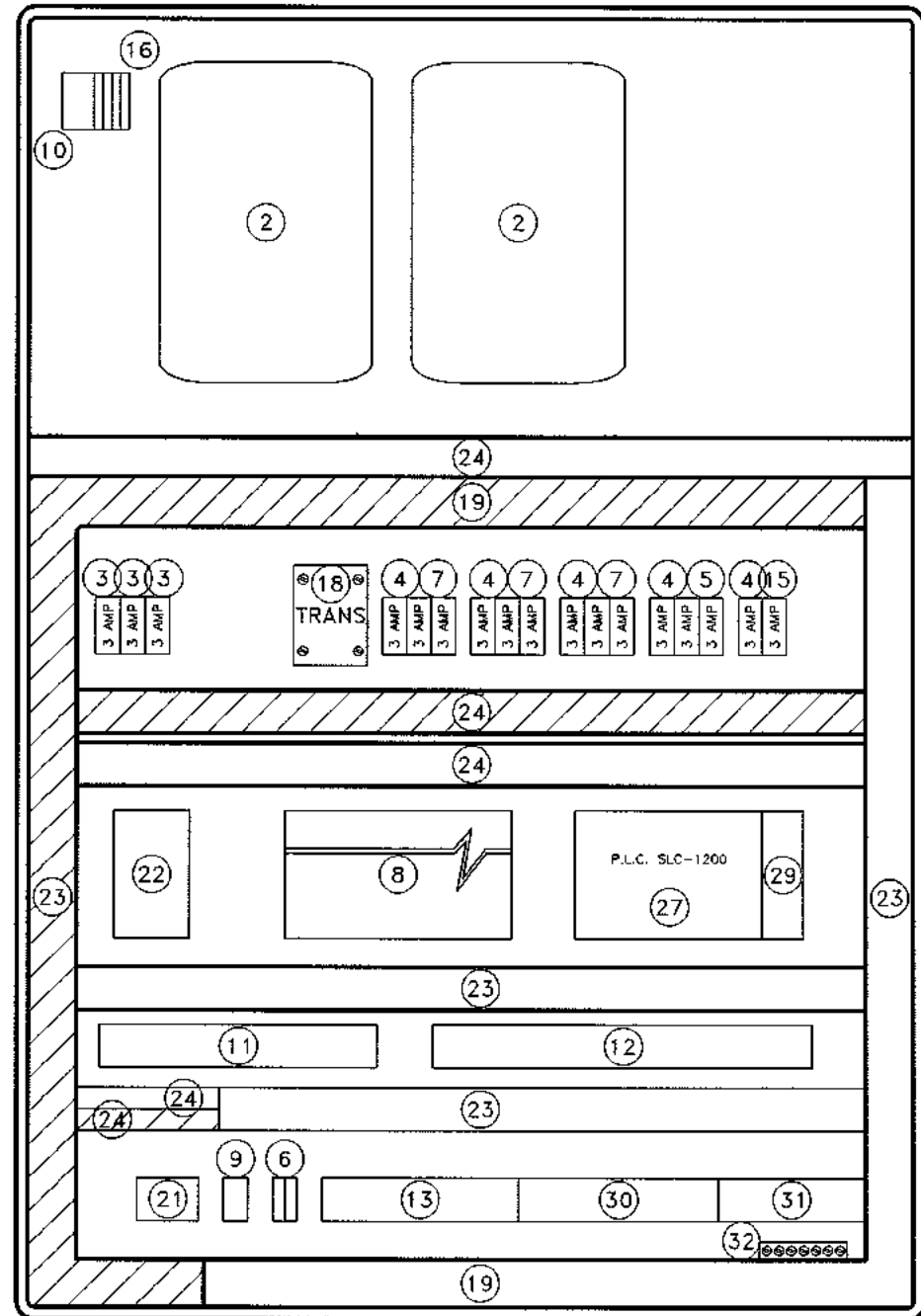
LEGEND

| | |
|----|-----------------------|
| S | SHUTDOWN |
| R | RUN |
| TD | TIME DELAY (120 SEC.) |
| A | ALARM |
| SB | STANDBY |
| CS | CONTROL SPEED |

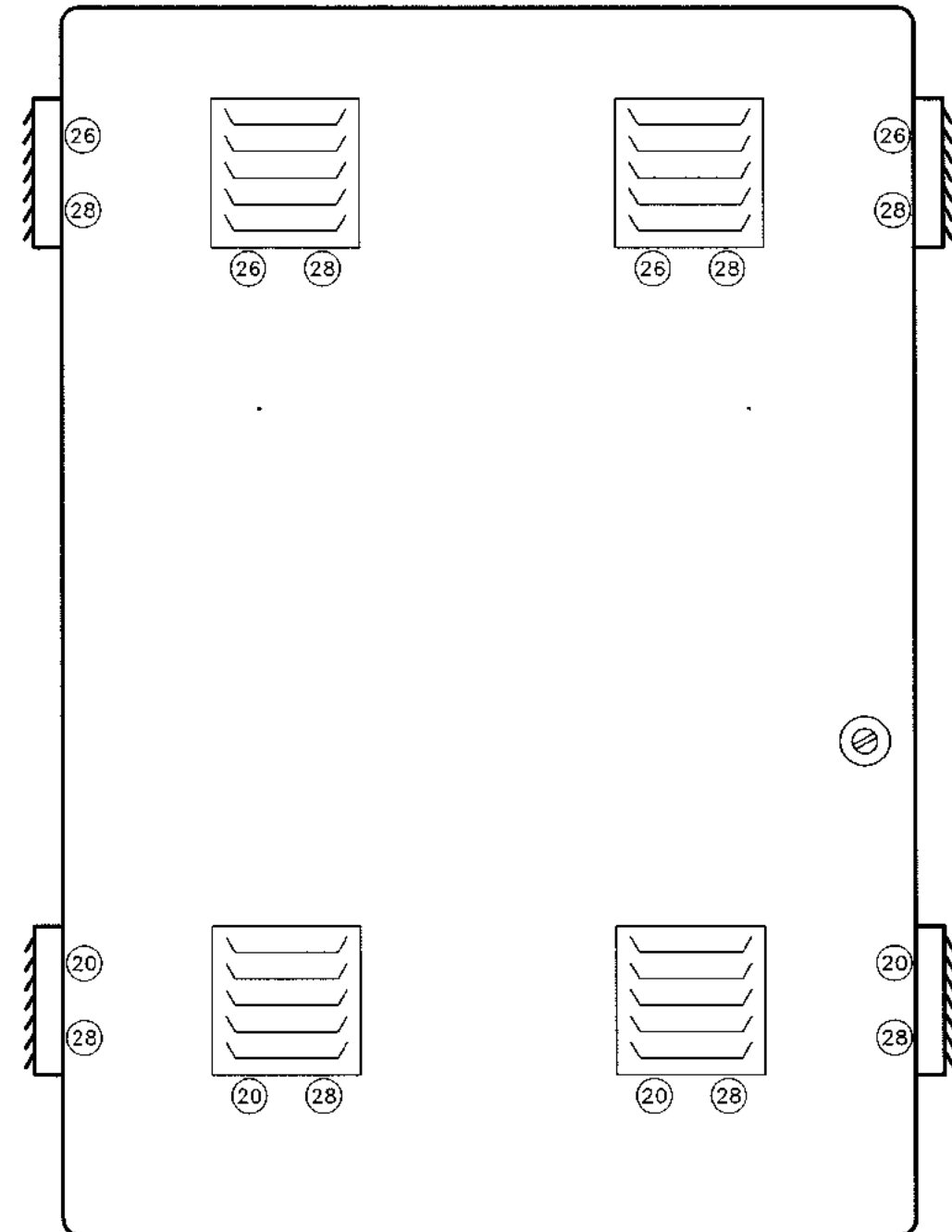
| OUTPUT DEVICES | TAG | INPUT DEVICES | | | | | | | | | | | | | | | | | | | | | | | COMMENT CALLOUT ALARM | | | | | | | | |
|---|----------|---------------|--------------------------------|----------------------------|-------------------------------------|-------|-----------------------------------|------------------------------------|--|--------------------------------|-------------------------------------|-------|-----------------------------------|------------------------------------|--|-----------------------------------|---|-------|--------------------------------|-------------------------------------|-------|-----------------------------------|------------------------------------|--|--------------------------|-------|-------|--------------|-----------------------|---|---|----|--|
| | | VALVE NORMAL | #1 LOW INLET PRESSURE PSL-2101 | HIGH INLET LEVEL LSHH-1101 | #1 HIGH DISCHARGE PRESSURE PSH-2101 | SPARE | #1 HIGH GAS TEMPERATURE HTSD-2101 | #1 COMPRESSOR START SWITCH HS-2101 | #1 TEMPERATURE COOLER CONTROL TSH-2101 | #2 LOW INLET PRESSURE PSL-2201 | #2 HIGH DISCHARGE PRESSURE PSH-2201 | SPARE | #2 HIGH GAS TEMPERATURE HTSD-2201 | #2 COMPRESSOR START SWITCH HS-2201 | #2 TEMPERATURE COOLER CONTROL TSH-2201 | E.S.D BUTTON HMI PANEL MANUAL ESD | E.S.D BUTTON OUTSIDE MOUNTED MANUAL ESD | SPARE | #3 LOW INLET PRESSURE PSL-2301 | #3 HIGH DISCHARGE PRESSURE PSH-2301 | SPARE | #3 HIGH GAS TEMPERATURE HTSD-2301 | #3 COMPRESSOR START SWITCH HS-2301 | #3 TEMPERATURE COOLER CONTROL TSH-2301 | | SPARE | SPARE | RESET BY HMI | INLET PRESSURE ANALOG | | | | |
| V.F.D. #1 FAULT RESET TO TERM #25 VFD-210 | 0:0.0/00 | S | S | S | S | | | | | | | | | | S | S | | | | | | | | | | | | | | | X | | |
| V.F.D. #1 RUN OUTPUT TO TERM #27 VFD-210 | 0:0.0/01 | S | S | S | S | R | | | | | | | | | S | S | | | | | | | | | | | | | | X | | | |
| V.F.D. #1 RUN TO FULL SPEEDTERM VFD-210 | 0:0.0/02 | | | | | TD | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| V.F.D. #2 FAULT RESET TO TERM #25 VFD-220 | 0:0.0/03 | | S | | | | | | | S | S | S | | | S | S | | | | | | | | | | | | | | X | | | |
| V.F.D. #2 RUN OUTPUT TO TERM #27 VFD-220 | 0:0.0/04 | | S | | | | | | | S | S | S | R | | S | S | | | | | | | | | | | | | | X | | | |
| V.F.D. #2 RUN TO FULL SPEEDTERM VFD-220 | 0:0.0/05 | | | | | | | | | | | | TD | | | | | | | | | | | | | | | | | | | | |
| V.F.D. #3 FAULT RESET TO TERM #25 VFD-230 | 0:0.0/07 | | S | | | | | | | | | | | | S | S | S | S | | | | | | | | | | | | X | | | |
| V.F.D. #3 RUN OUTPUT TO TERM #27 VFD-230 | 0:0.0/08 | | S | | | | | | | | | | | | S | S | S | S | R | | | | | | | | | | | X | | | |
| COMPRESSOR #1 CONTROL M-210 | 0:0.0/09 | | | | | | SB | R | | | | | | | S | S | | | | | | | | | | | | | | | | | |
| COMPRESSOR #2 CONTROL M-220 | 0:0.0/10 | | | | | | | | | | | | | SB | R | S | S | | | | | | | | | | | | | | | | |
| COMPRESSOR #3 CONTROL M-230 | 0:0.0/11 | | | | | | | | | | | | | | S | S | | | | | | | | | | | | SB | R | | | | |
| GAS COOLING FAN CONTROL D-510 | 0:0.0/12 | | | | | | | | R | | | | | | S | S | | | | | | | | | | | | | R | | | | |
| GAS DRYER SOV #1 GY-1401 | 0:0.0/13 | | | | | | | | | | | | | | S | S | | | | | | | | | | | | | | | | | |
| GAS DRYER SOV #2 GY-1301 | 0:0.0/14 | | | | | | | | | | | | | | S | S | | | | | | | | | | | | | | | | | |
| GAS DRYER SOV #3 GY-1302 | 0:0.0/15 | | | | | | | | | | | | | | S | S | | | | | | | | | | | | | | | | | |
| V.F.D. #1 ANALOG | 0:1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | CS | |
| V.F.D. #2 ANALOG | 0:1.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | CS | |

| | | | | |
|---|-----------------------------------|---|--|-----------------------------------|
|  | | Drawn by: M.E.W. Date: 05-21-04 Checked by: SDC Approved by: SDC | 222 LP SAA-SCROLL SERIES SZ022C3A w/ DESICCANT TOWERS SKID MOUNTED, SWEET SERVICE | |
| 2308-Bth Street Nisku Alberta T9E 7Z2 | | Office: 780.955.4292 Fax: 780.955.4294 Toll Free: 866.955.4292 | Company: HUSKY ENERGY | |
| AS BUILT DESCRIPTION | SOC 07-18-08 BY DATE CHKD APPD | Scale: N.T.S. | Quote/Ref. NO.: - | JOB NO.: I-980 |
| | | Unit NO.: SAA-08240 | | Drawing NO.: SDK-SAA08240-E-01 |
| | | | | Rev.: 1 |

P:\PC Compression\Drafting\Work-Internal\980 SAA-08240 SAA-222-LP_Husky AB\G-ELC-SAA08240 AB.dwg, 7/18/2008 12:49:40 PM, scellips, Property of PC Compression Inc. Duplication or transmittal without written consent is pr



VIEW INSIDE PANEL



BILL of MATERIAL

| MARK | Q'TY | DESCRIPTION |
|------|------|----------------------------------|
| 1 | 1 | Hoffman C-SD 6036 12 Enclosure |
| 2 | 2 | V.F.D. Commander SK |
| 3 | 3 | Power Lugs Ferraz FSPDB 3A |
| 4 | 6 | Fuse Blocks Ferraz USM2 |
| 5 | 9 | Fuse ATQR 2 |
| 6 | 1 | 120 VAC Power Term. |
| 7 | 9 | Fuse ATQR 20 |
| 8 | 1 | Power Supply Phoenix Quint 30A |
| 9 | 1 | A-TEMNC Heating T-Stat |
| 10 | 1 | A-TEMNO Cooling T-Stat |
| 11 | 1 | 24 VDC Power Term. |
| 12 | 1 | Discreet I/P Term. |
| 13 | 1 | Discreet O/P Term. |
| 14 | | |
| 15 | 4 | Fuse ATM-1 |
| 16 | 4 | WDU-4 |
| 17 | - | |
| 18 | 1 | MT0500A Transformer |
| 19 | - | 40 * 100 Wire Duct |
| 20 | 4 | A-FLT44 Filter |
| 21 | 9 | Weidmuller WDU 6 Motor Terminals |
| 22 | 1 | 100 Watt Heater |
| 23 | - | 60 x 100 Wire Duct |
| 24 | - | 25 x 60 Wire Duct |
| 25 | - | |
| 26 | 4 | Cooling Fan 24 VDC |
| 27 | 1 | 1762-L40-BXB 1200 PLC |
| 28 | 8 | A-VK44 Vented Louver |
| 29 | 1 | 1762-IF20F2 Analog Card |
| 30 | 1 | Analog I/P & O/P Term. |
| 31 | 1 | Flow Boss / PT-1401 Terminals |
| 32 | 1 | Ground Strip |



2300-Bth Street
Husky Alberta
T9E 7Z2
Office: 780.955.4292
Fax: 780.955.4294
Toll Free: 866.955.4292

PC JOB NO.: 1-980
PC Unit NO.: SAA-08240

Confidential

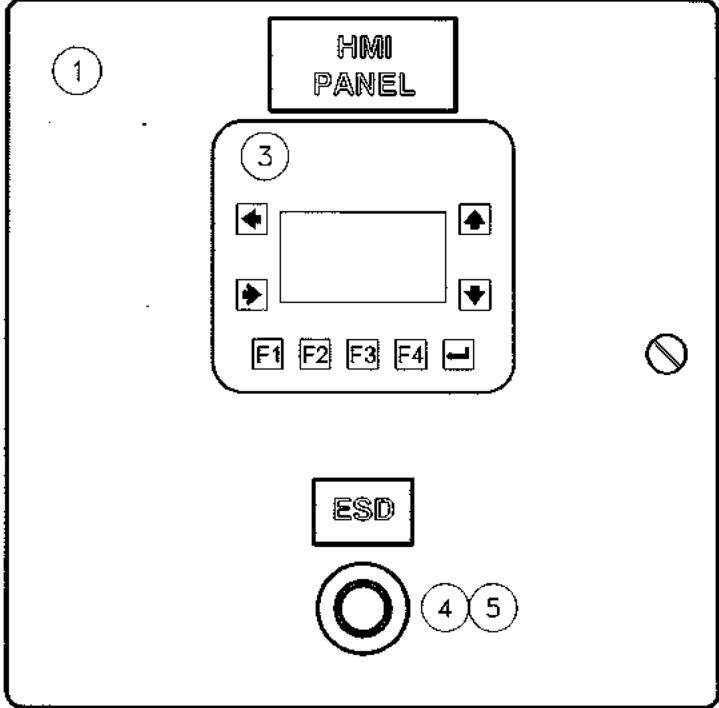
This drawing is the property of and contains confidential and proprietary information belonging to Pyramid Corporation. It must be returned immediately upon request and must not be copied in whole or in part nor the information shown thereon disclosed to third parties or otherwise used except as specifically permitted by Pyramid Electric Corporation

| | |
|--|------|
| V.F.D. PC COMPRESSOR TWO OR THREE SCROLL DRIVE | |
| PANEL LAYOUT COMMANDER SK | |
| DATE | REV. |
| July 27/2005 | 1 |
| PC072705-00-0001 | 01 |

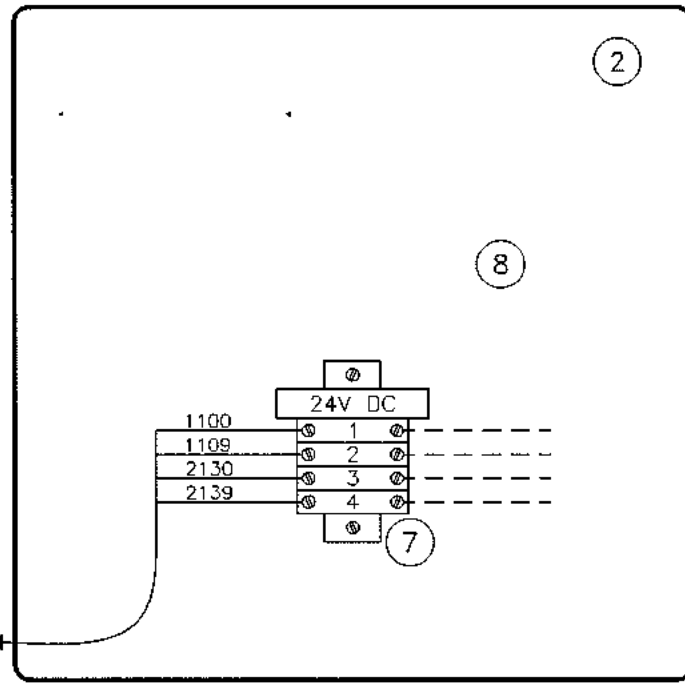


P:\PC Compression\Drafting\Work-Internal\1-980 SAA-08240 SAA-222-LP Husky AB\G-ELC-SAA08240 AB.dwg, 7/18/2008 12:49:50 PM, scottpc, Property of PC Compression Inc. Duplication or transmission without written consent is prohibited.

| BILL of MATERIAL | | |
|------------------|------|---------------------------------------|
| MARK | Q'TY | DESCRIPTION |
| 1 | 1 | Hoffman C-SD-12 126LG |
| 2 | 1 | Hoffman C-P 12 12 |
| 3 | 1 | Allen Bradley 300 Micro 2711-M3A 18L1 |
| 4 | 1 | 800T-FX6D4 |
| 5 | 1 | 800T-XD2P |
| 6 | 1 | 1761-CBI-HM 10 Allen Bradley Calbe |
| 7 | 4 | WD-4 Terminal |



FRONT OF DOOR



INSIDE PANEL

TO MAIN PANEL
 RED TERM. - A
 BLACK TERM. - B
 WHITE TERM. - COM
 GROUND - SHIELD



2306-8th Street Office: 780.955.4292
 Hisku, Alberta Fax: 780.955.4294
 T9E 7Z2 Toll Free: 866.955.4292

PC JOB NO.: 1-980 PC Unit NO.: SAA-08240

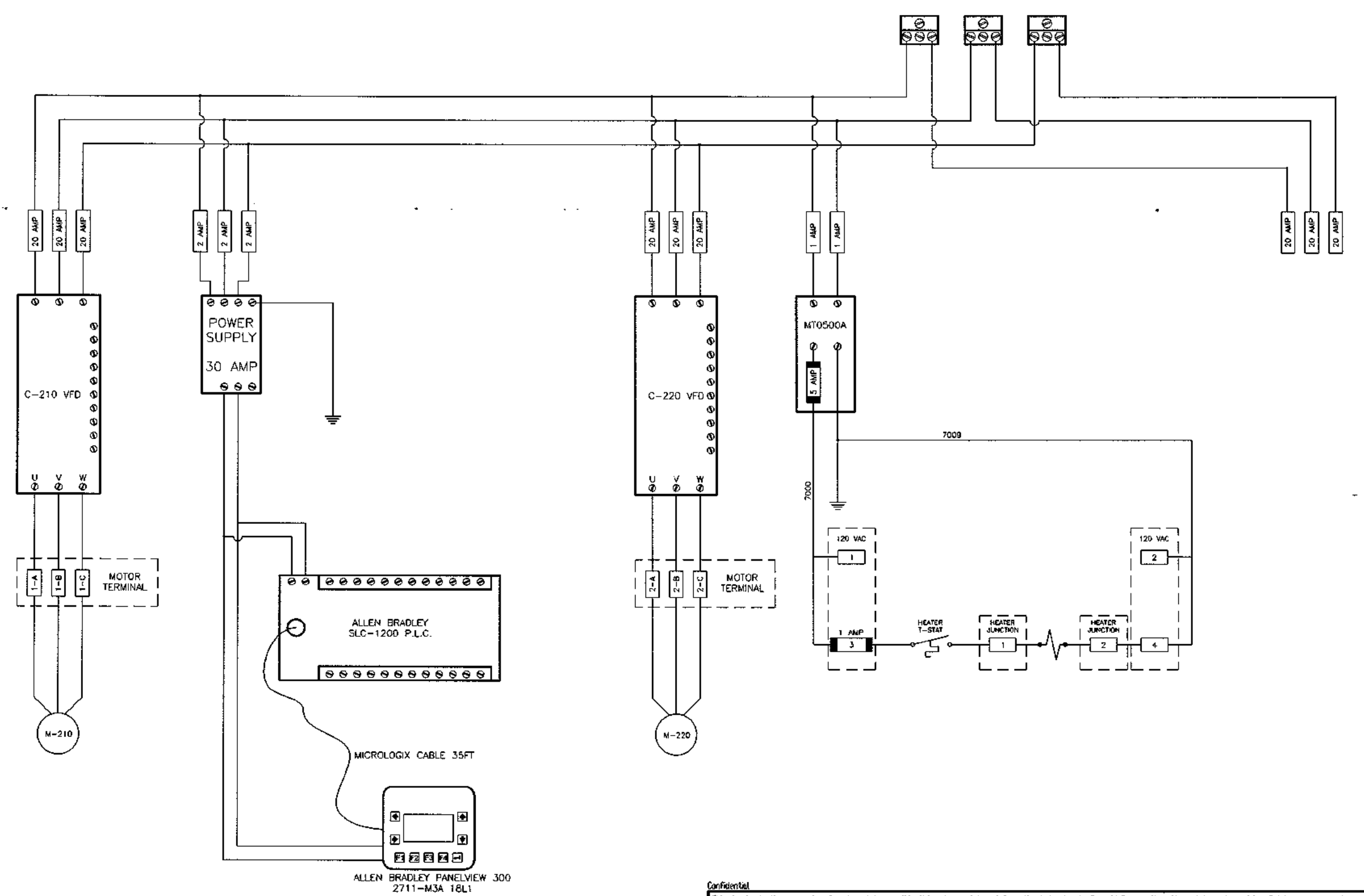
Confidential

This drawing is the property of and contains confidential and proprietary information belonging to Pyramid Corporation. It must be returned immediately upon request and must not be copied in whole or in part nor the information shown thereon disclosed to third parties or otherwise used except as specifically permitted by Pyramid Electric Corporation

| DATE | REV. | DESCRIPTION | BY | APPD | DATE | SCALE | DEPARTMENT | JOB NO. |
|--|------|-------------|----|------|--------------|-------|------------|---------|
| 07-18-08 | 1 | AS BUILT | | | July 27/2005 | | | Job #- |
| V.F.D. PC COMPRESSOR TWO OR THREE SCROLL DRIVE HMI PANEL LAYOUT | | | | | | | | 01 |
| PC072705-00-0002 | | | | | | | | |



P:\PC Compression\Drafting\Work-Internal\980 SAA-08240 SAA-222-LP Husky AB\G-ELC-SAA08240 AB.dwg, 7/18/2008 12:50:01 PM, scotttpc, Property of Pc Compression Inc. Duplication or transmittal without written consent is pr



Confidential

This drawing is the property of and contains confidential and proprietary information belonging to Pyramid Corporation. It must be returned immediately upon request and must not be copied in whole or in part nor the information shown thereon disclosed to third parties or otherwise used except as specifically permitted by Pyramid Electric Corporation

| DESIGN | DATE | DESCRIPTION | BY | APPD | REV | DATE | DESCRIPTION | SCALE | DRAWING | REV |
|--------|----------|-------------|------|------|-----|--------------|-------------|-------|------------------|-----|
| | 07-18-08 | AS BUILT | PCCI | | 1 | July 27/2005 | Job #- | | PC072705-00-0003 | 01 |

PC COMPRESSION Inc.

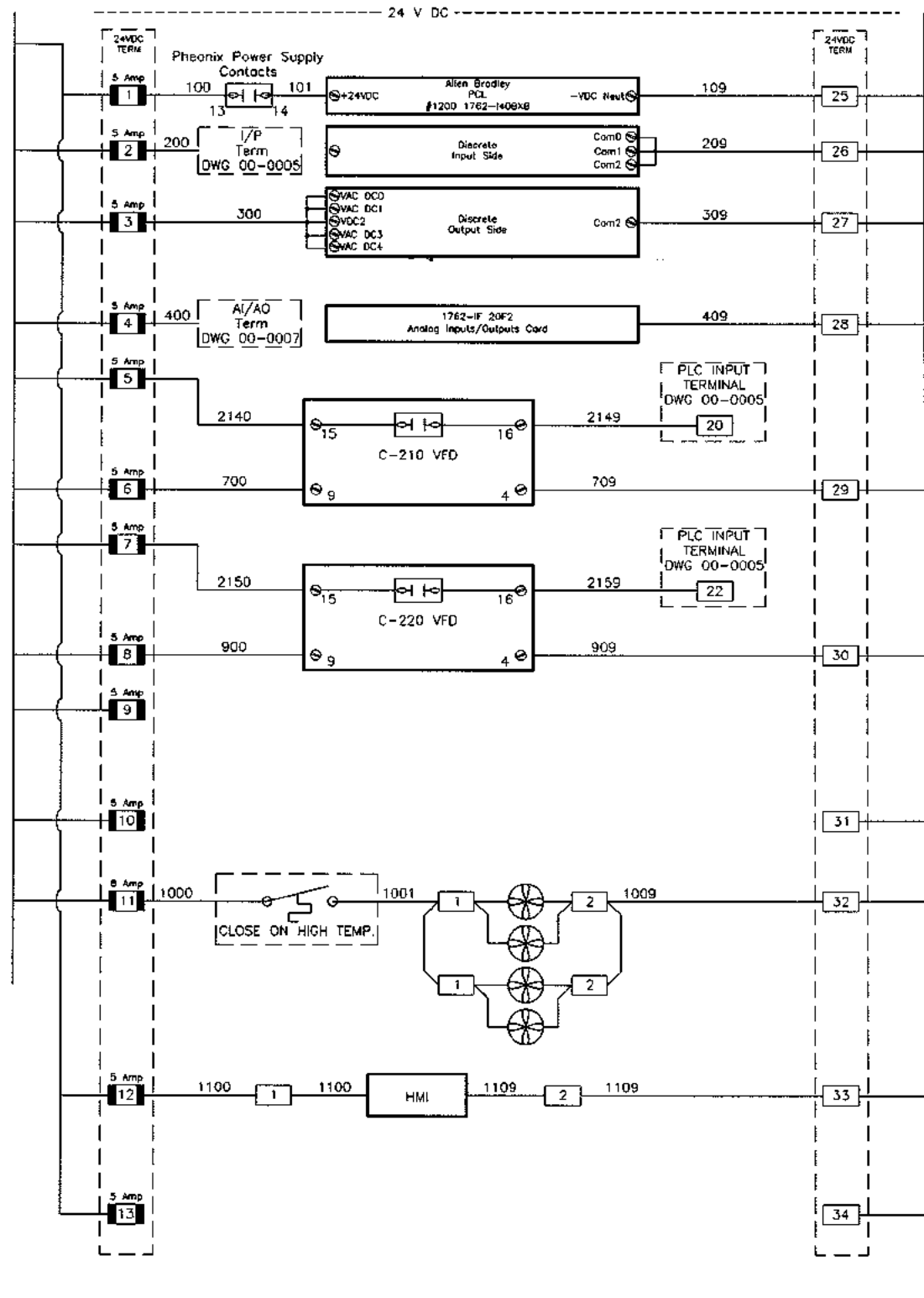
2508-8th Street
Husky Alberta
T9E 7Z2

Office: 780.955.4292
Fax: 780.955.4294
Toll Free: 866.955.4292

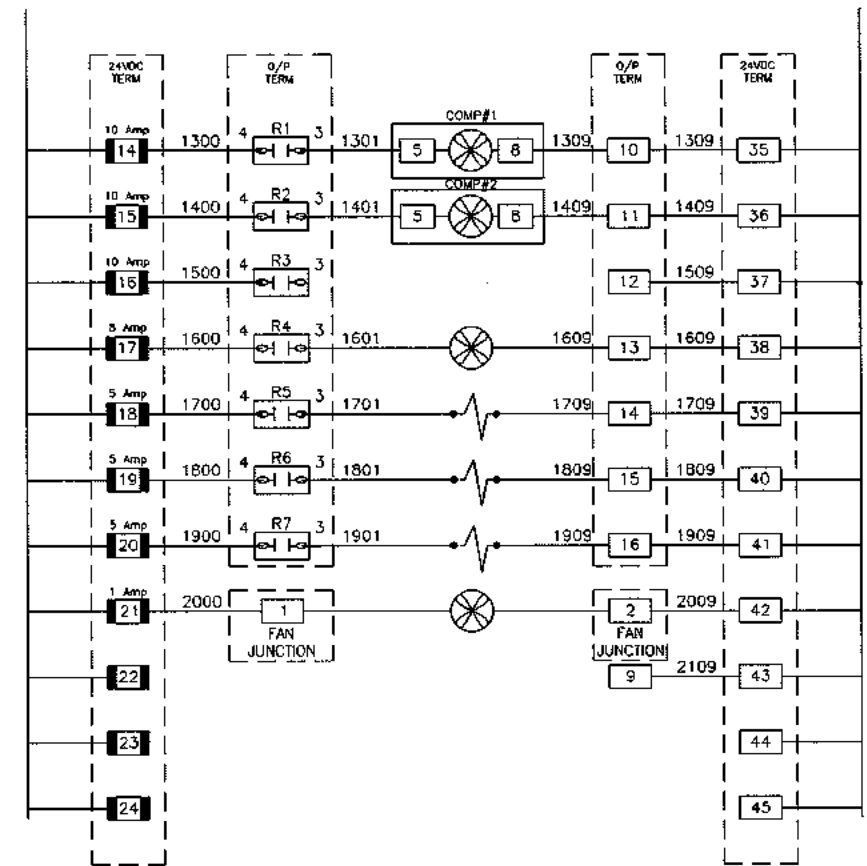
PC JOB NO.: 1-980
SAA-08138
SAA-08240



P:\PC Compression\Drafting\Work-internet\1-980_SAA-08240_SAA-222-LP_Husky AB\G-ELC-SAA08240 AB.dwg, 7/18/2006 12:50:12 PM, scallep, Property of PC Compression Inc. Duplication or transmission without written consent is prohibited.



- 1200 PLC POWER
- INPUT CARD POWER
- OUTPUT CARD POWER
- ANALOG POWER
- C-210 FAULT
- C-210 ENABLE TERM #30
- C-220 FAULT
- C-220 ENABLE TERM #30
- C-230 FAULT
- C-230 ENABLE TERM #30
- COOLING FANS
- PANELVIEW 300 MICRO

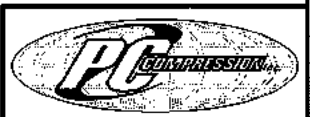


- M-210 COOLING FAN #1
- M-220 COOLING FAN #2
- M-230 COOLING FAN #3
- D-510 GAS COOLING FAN
- SOV-1 AIR DRYER
- SOV-2 AIR DRYER
- SOV-3 AIR DRYER
- PANEL HEATER FAN

Confidential

This drawing is the property of and contains confidential and proprietary information belonging to Pyramid Corporation. It must be returned immediately upon request and must not be copied in whole or in part nor the information shown thereon disclosed to third parties or otherwise used except as specifically permitted by Pyramid Electric Corporation.

| | |
|--|-------------|
| V.F.D. PC COMPRESSOR TWO OR THREE SCROLL DRIVE | |
| POWER RUNG DRAWING | |
| DWG# | REV |
| DATE | DESCRIPTION |
| BY | APPD |
| DATE | REV |
| SCALE | DRAWING NO. |
| REV | JOB # |
| PC072705-00-0004 | |
| 00 | |



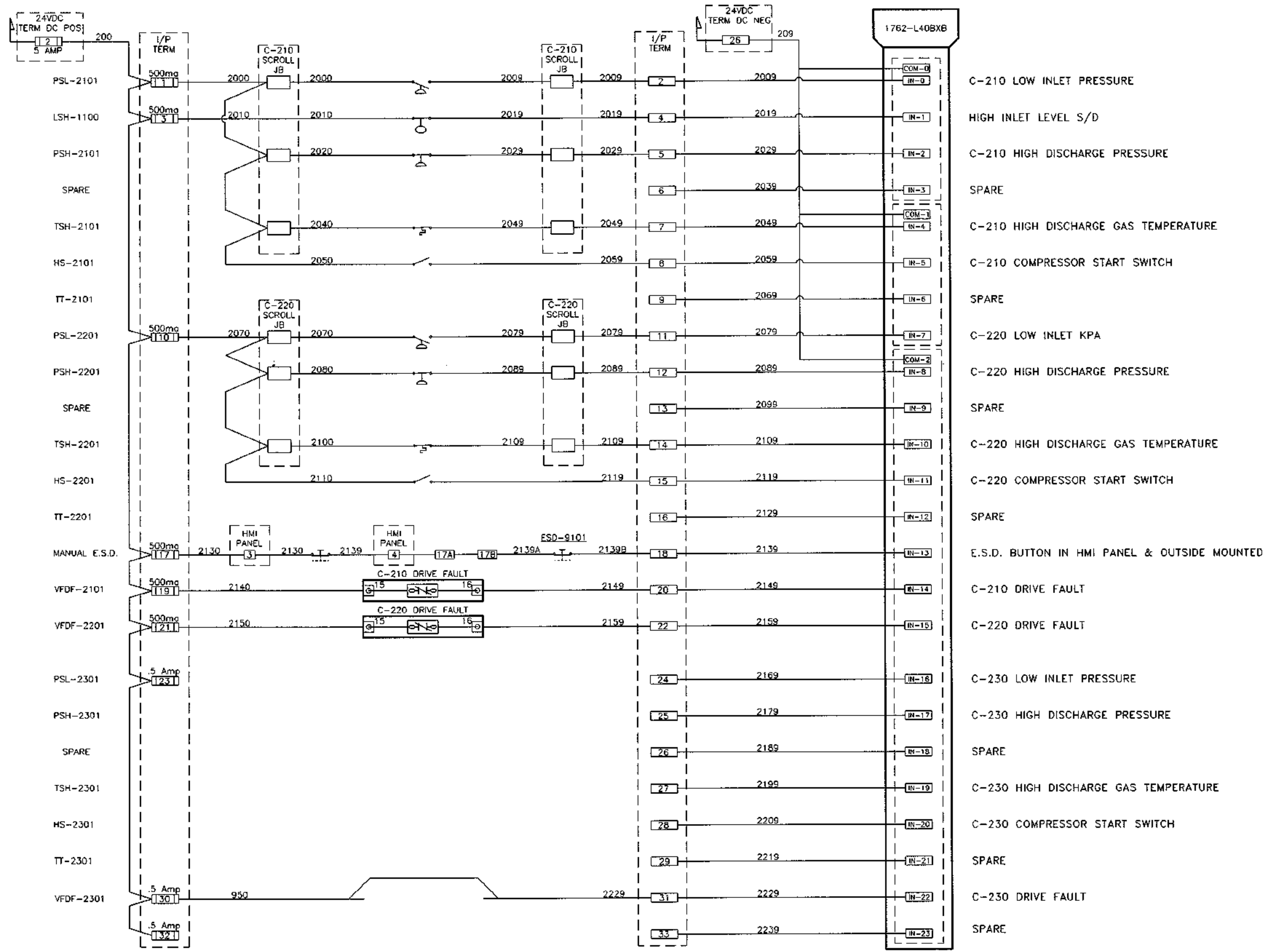
2308-8th Street
Husky Alberta
T9E 7Z2

Office: 780.955.4292
Fax: 780.955.4294
Toll Free: 866.955.4292

PC JOB NO.: 1-980
PC Unit NO.: SAA-08240



F:\PC Compression\Drafting\Work-Internal\980 SAA-08240 AB.dwg, 7/18/2006 12:50:24 PM, scottspc, Property of PC Compression Inc. Duplication or transmittal without written consent is prohibited.



2308-8th Street
Husky Alberta
T9E 7Z2
Office: 780.955.4292
Fax: 780.955.4294
Toll Free: 866.955.4292

PC Job No.: (-980) PC Unit No.: SAA-08240

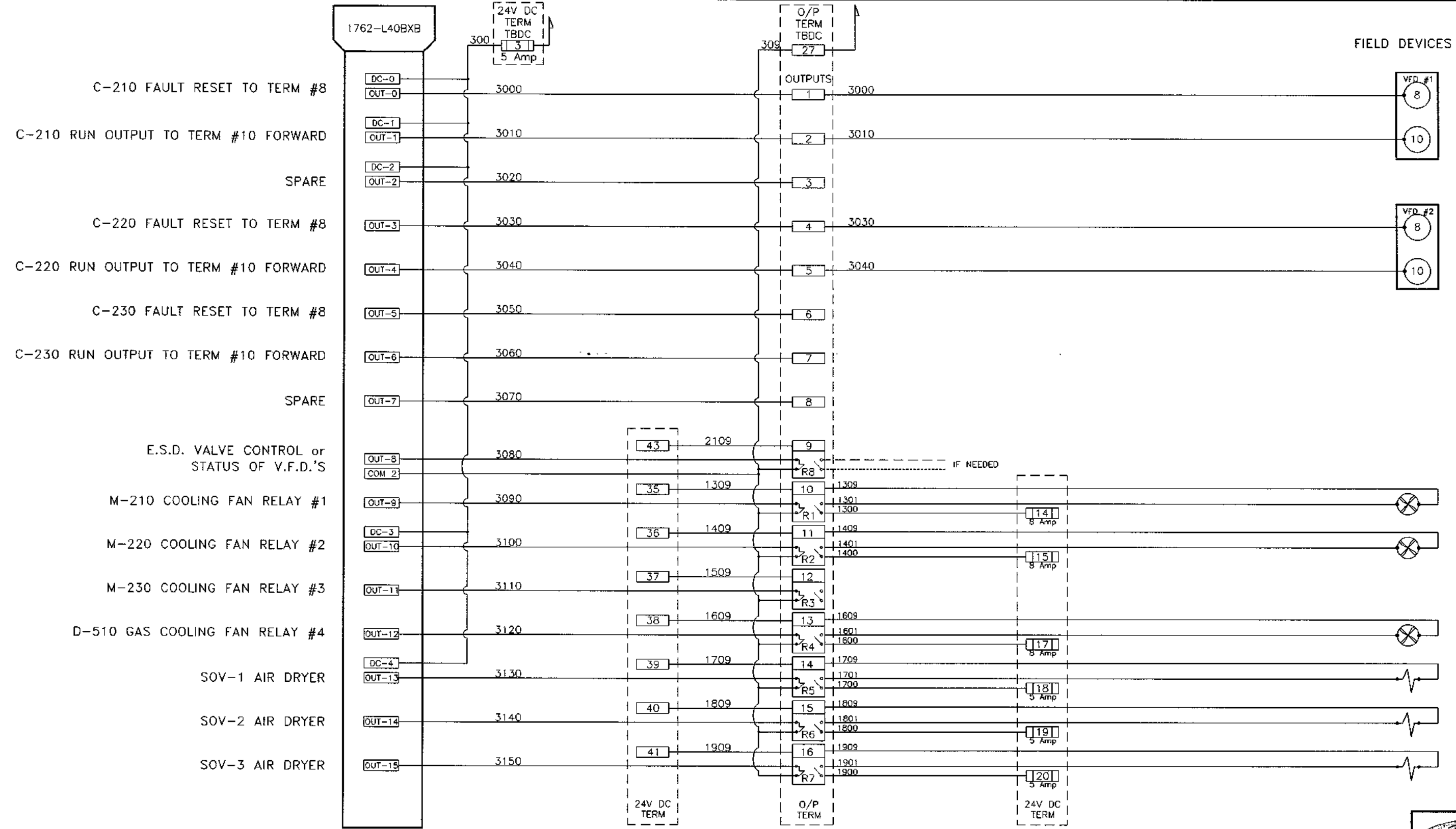
Confidential

This drawing is the property of and contains confidential and proprietary information belonging to Pyramid Corporation. It must be returned immediately upon request and must not be copied in whole or in part nor the information thereon disclosed to third parties or otherwise used except as specifically permitted by Pyramid Electric Corporation.

| | | | | | | | | | | |
|--|--------------------------|----------|----------|------|-------|----|-------|------|--------------|---------|
| V.F.D. PC COMPRESSOR TWO OR THREE SCROLL DRIVE | | | | | | | | | | |
| INPUT CARD | | | | | | | | | | |
| DATE | 1 | 07-18-06 | AS BUILT | PCCI | SCALE | BY | APP'D | DATE | July 27/2006 | REV. 01 |
| DESCRIPTION | Job # - PC072705-00-0005 | | | | | | | | | |



P:\PC Compression\Drafting\Work-Internal\980 SAA-08240 SAA-222-LP Husky AB\G-ELC-SAA08240 AB.dwg. 7/18/2008 12:50:36 PM, scottape. Property of PC Compression Inc. Duplication or transmittal without written consent is prohibited.



2305-8th Street
Nisku, Alberta
T9C 7Z2
Office: 780.955.4292
Fax: 780.955.4254
Toll Free: 855.955.4292

PC JOB NO.: 1-980
PC Unit No.: SAA-08240

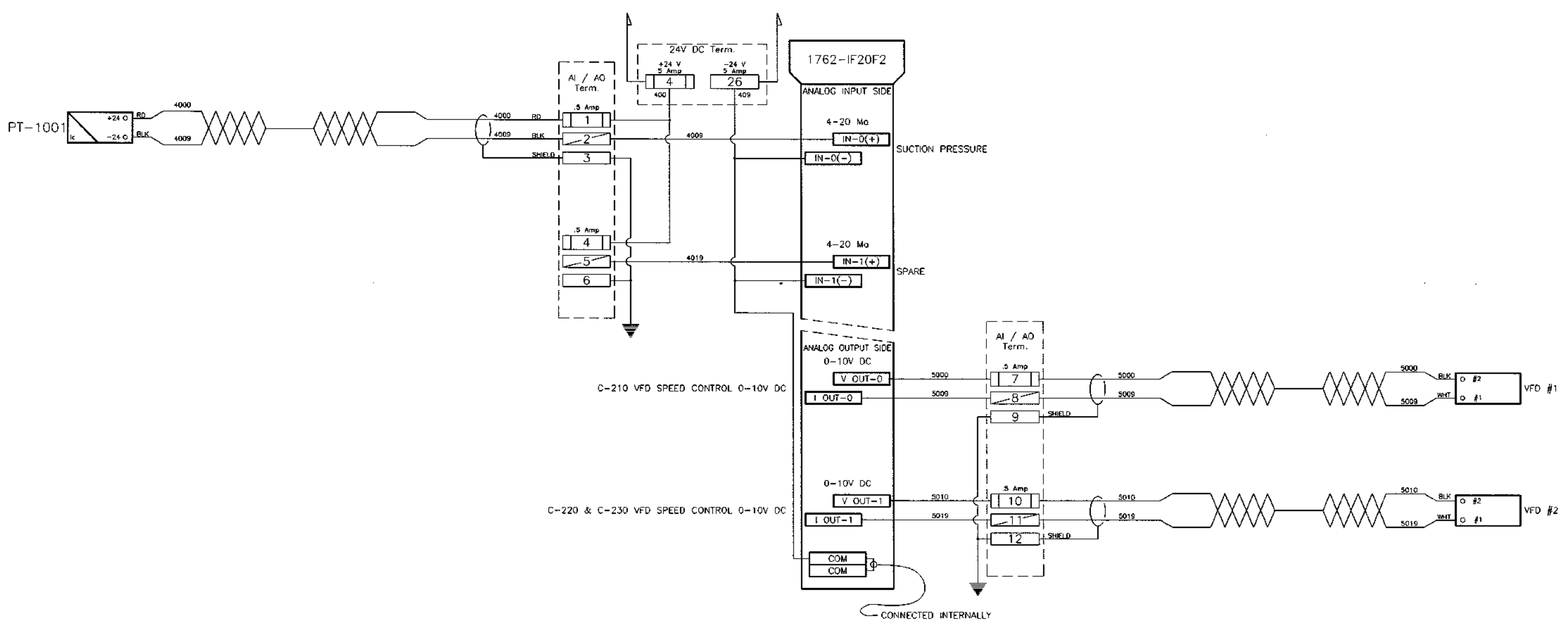
Confidential


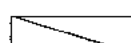
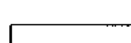
This drawing is the property of and contains confidential and proprietary information belonging to Pyramid Corporation. It must be returned immediately upon request and must not be copied in whole or in part nor the information shown thereon disclosed to third parties or otherwise used except as specifically permitted by Pyramid Electric Corporation.

| | | | |
|--|------|------|-------------|
| V.F.D. PC COMPRESSOR TWO OR THREE SCROLL DRIVE | | | |
| OUTPUT CARD | | | |
| DATE | REV. | DATE | DESCRIPTION |
| 01-14-06 | 1 | | AS BUILT |
| July 27/2005 | | | Job #- |



P:\PC Compression\Drafting\Work-Internal\1-980 SAA-08240 SAA-222-LP Husky AB\C-ELC-SAA08240 AB.dwg, 7/18/2008 12:50:46 PM, sealtec, Property of PC Compression Inc. Duplication or transmission without written consent is pr



-  FUSED TERMINAL
-  DISCONNECT TERMINAL
-  TERMINAL

Confidential

This drawing is the property of and contains confidential and proprietary information belonging to Pyramid Corporation. It must be returned immediately upon request and must not be copied in whole or in part nor the information shown thereon disclosed to third parties or otherwise used except as specifically permitted by Pyramid Electric Corporation.

| REV. | DATE | DESCRIPTION | BY | APPD. | DATE | REV. | DESCRIPTION | DATE | REV. |
|------|----------|-------------|------|-------|--------------|------|-------------|------|------|
| 1 | 01-18-08 | AS BUILT | PCCL | | July 27/2005 | 1 | Job #- | | |

V.F.D. PC COMPRESSOR TWO OR THREE SCROLL DRIVE
 ANALOG INPUT / ANALOG OUTPUT
 PC072705-00-0007



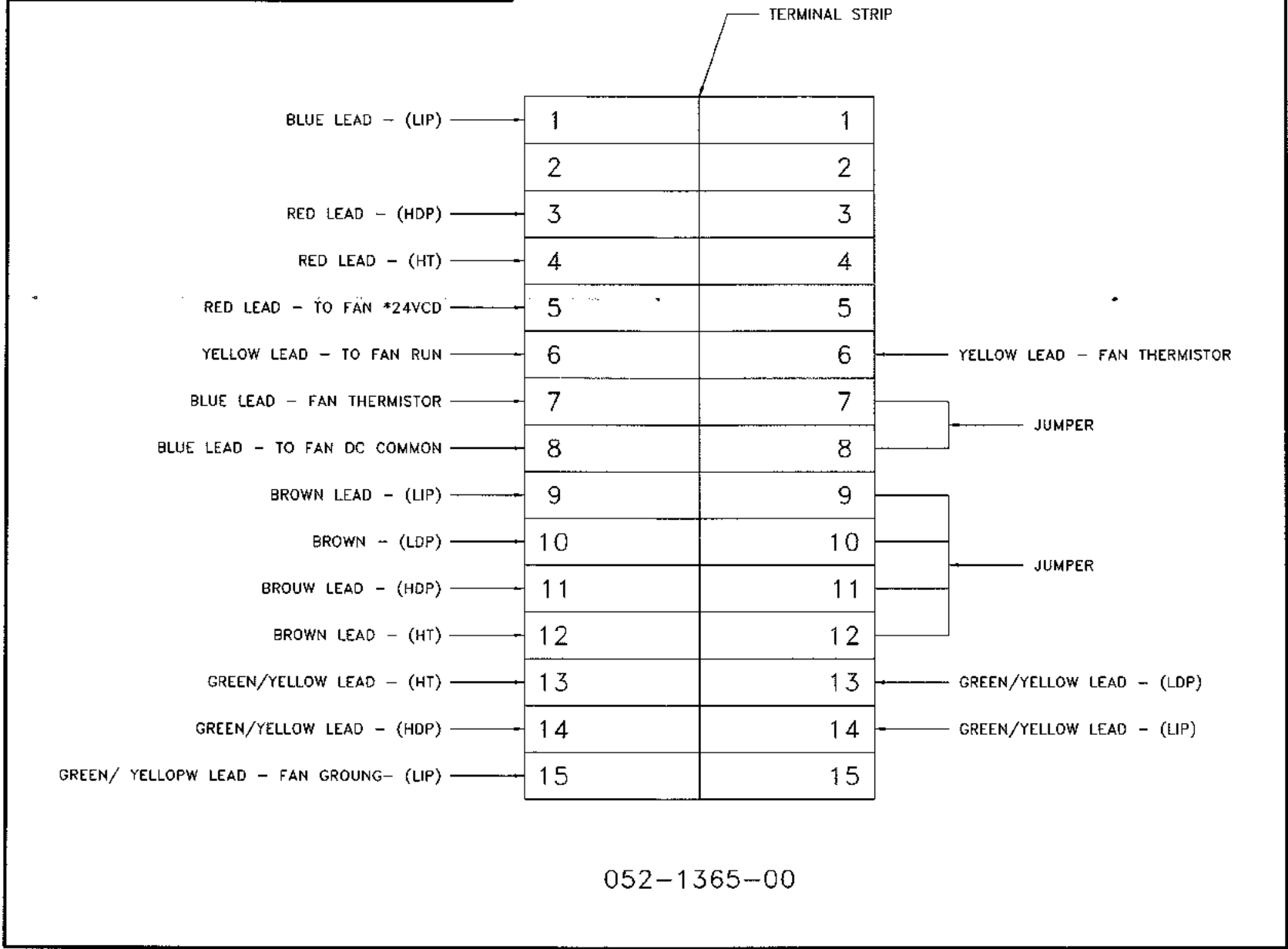
2308-BH Street
 Husky Alberta
 T9E 7Z2

Office: 780.955.4292
 Fax: 780.955.4294
 Toll Free: 866.955.4292

PC JOB NO.: 1-980
 PC UNIT NO.: SAA-08240



| DESCRIPTION | CCS P/N | DESCRIPTION |
|-------------------------------|-----------|-------------|
| LOW INLET PRESSURE (LIP) | 675GE8001 | 071-0580-00 |
| HIGH DISCHARGE PRESSURE (HDP) | 6900GE18 | 071-0579-04 |
| HIGH TEMPERATURE (HT) | 6900TE16 | 071-0586-00 |



052-1365-00



2308-8th Street
Nisku, Alberta
T0C 7Z2
Office: 780.955.4292
Fax: 780.955.4294
Toll Free: 866.559.4292

PC JOB NO.: 1-980
PC Unit NO.: SAA-08240

Confidential

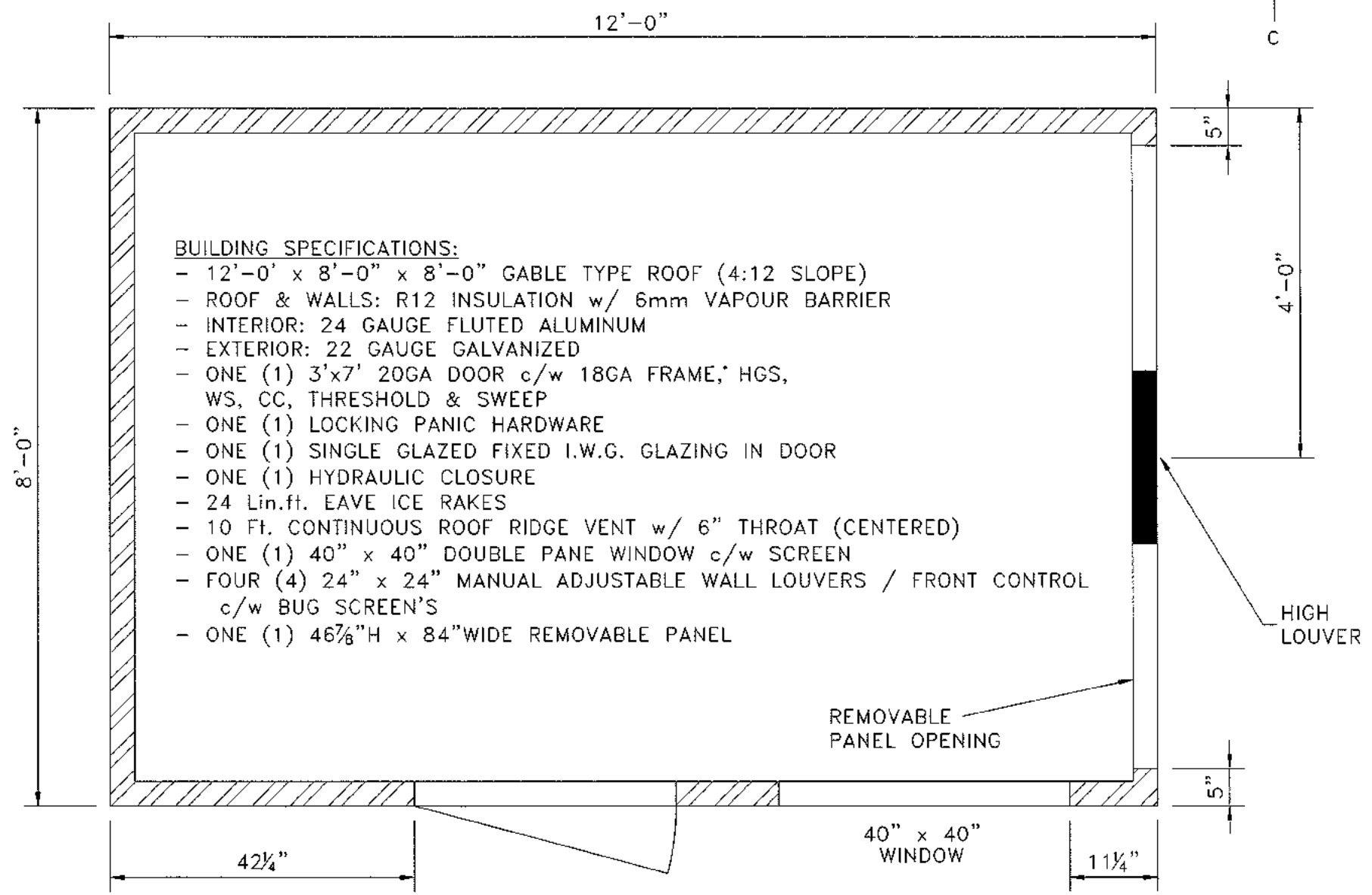
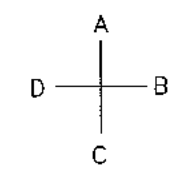
This drawing is the property of and contains confidential and proprietary information belonging to Pyramid Corporation. It must be returned immediately upon request and must not be copied in whole or in part nor the information shown thereon disclosed to third parties or otherwise used except as specifically permitted by Pyramid Electric Corporation.

| | | | | | | | | | | | |
|-------|--|----------|--|---------|--|-------|--|-------------|--|--|--|
| DRAWN | | JGF. | | CHECKED | | SCALE | | DRAWING NO. | | REV. | |
| DATE | | 10-14-04 | | DATE | | Job # | | 052-1365-00 | | 01 | |
| BY | | APPD | | BY | | APPD | | DATE | | DESCRIPTION | |
| | | | | | | | | | | V.F.D. PC COMPRESSOR TWO OR THREE SCROLL DRIVE COMPRESSOR TERMINATION JUNCTION BOX LAYOUT | |

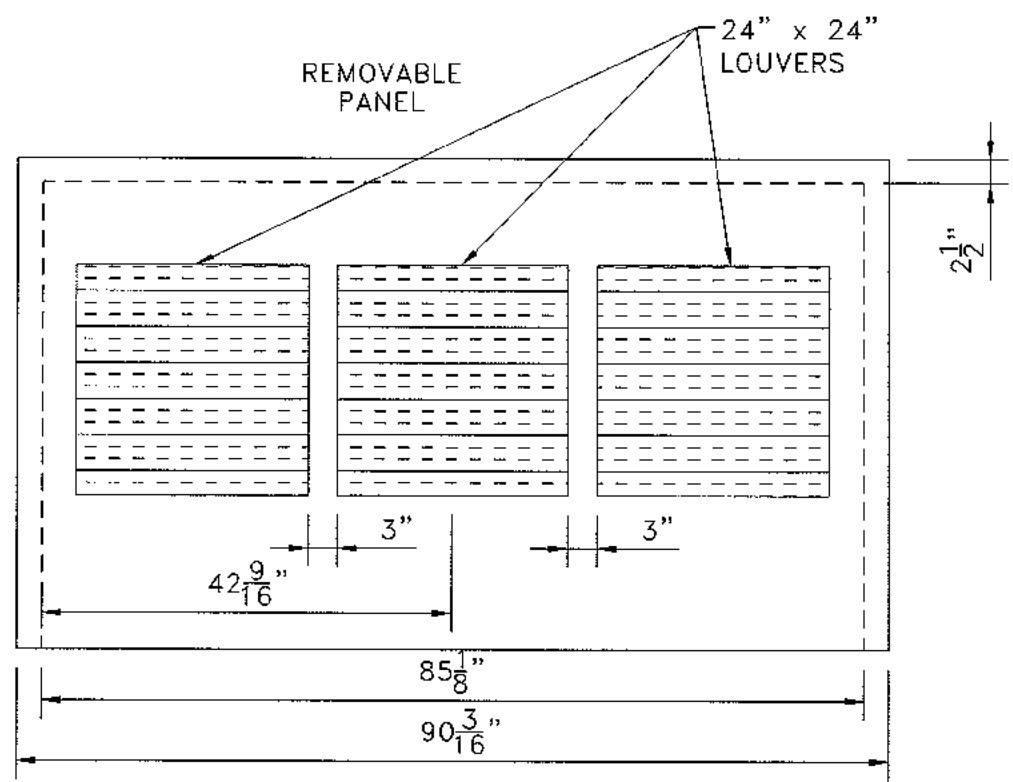
COPELAND
CORPORATION

P:\PC Compressor\Drafting\Work-internet\980 SAA-08240 SAA-08240 SAA-222-LP Husky AB\G-ELC-SAA08240 AB.dwg, 7/18/2008 12:50:57 PM, scollaps, Property of PC Compressor Inc. Duplication or transmission without written consent is pr

P:\PC Compression\Drafting\Work\Internal\980 SAA-08240 SAA-222-LP Husky AB\H-BLD-SAA08240 AB.dwg, 7/18/2008 12:51:37 PM, scottaps, Property of PC Compression Inc. Duplication or transmission without written consent is prohibited.



- BUILDING SPECIFICATIONS:**
- 12'-0" x 8'-0" x 8'-0" GABLE TYPE ROOF (4:12 SLOPE)
 - ROOF & WALLS: R12 INSULATION w/ 6mm VAPOUR BARRIER
 - INTERIOR: 24 GAUGE FLUTED ALUMINUM
 - EXTERIOR: 22 GAUGE GALVANIZED
 - ONE (1) 3'x7' 20GA DOOR c/w 18GA FRAME, HGS, WS, CC, THRESHOLD & SWEEP
 - ONE (1) LOCKING PANIC HARDWARE
 - ONE (1) SINGLE GLAZED FIXED I.W.G. GLAZING IN DOOR
 - ONE (1) HYDRAULIC CLOSURE
 - 24 Lin.ft. EAVE ICE RAKES
 - 10 FT. CONTINUOUS ROOF RIDGE VENT w/ 6" THROAT (CENTERED)
 - ONE (1) 40" x 40" DOUBLE PANE WINDOW c/w SCREEN
 - FOUR (4) 24" x 24" MANUAL ADJUSTABLE WALL LOUVERS / FRONT CONTROL c/w BUG SCREEN'S
 - ONE (1) 46 7/8"H x 84"WIDE REMOVABLE PANEL



REMOVABLE PANEL OPENING

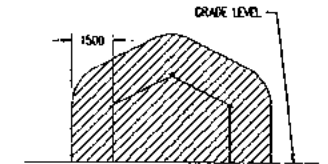
HIGH LOUVER

PLAN VIEW
SCALE 1:20

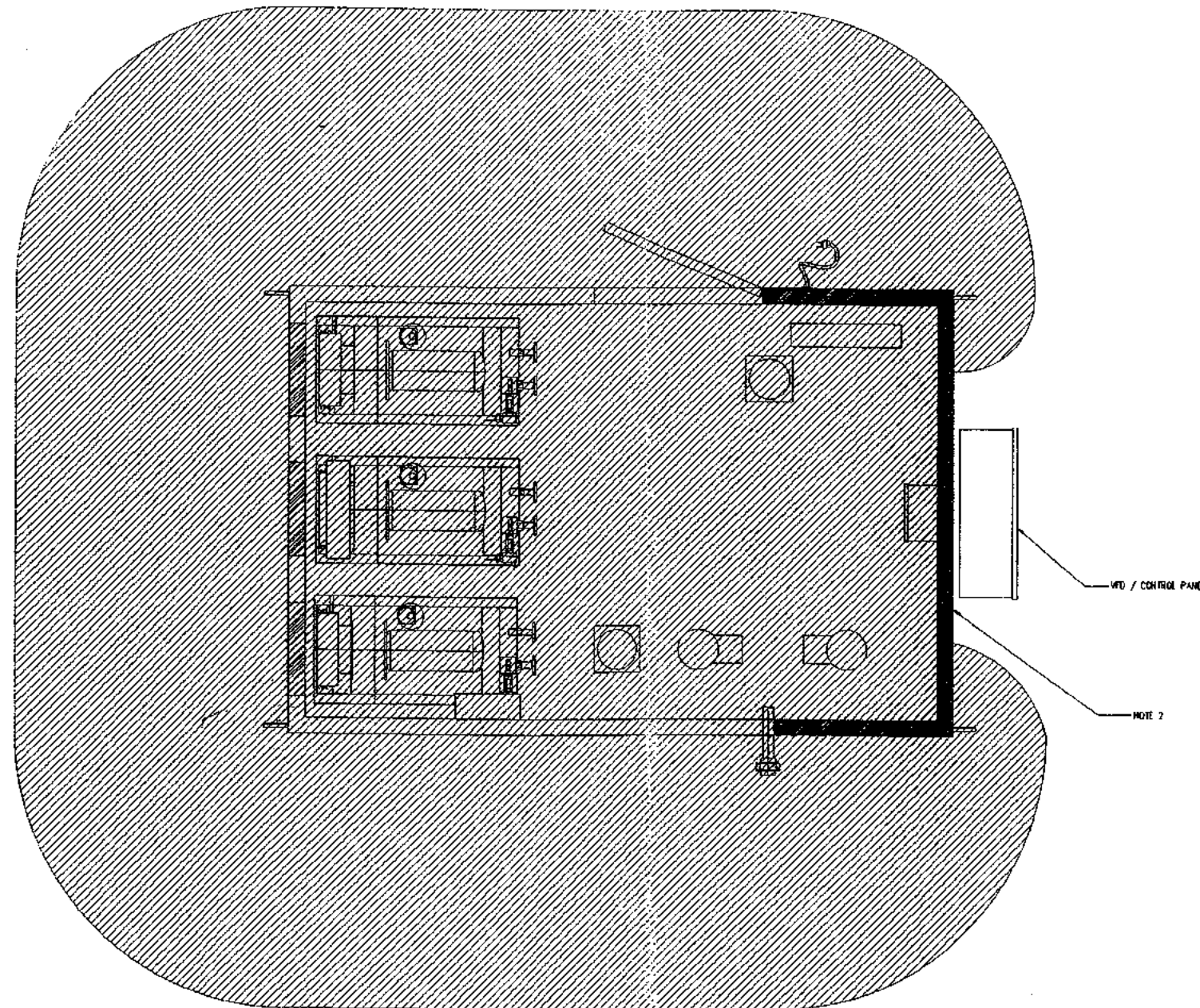
| | | | | | | | | | | | | | |
|------------------|--|--|--|---|--|--|--|---------------------------|--|--------------------------------|--|---|--|
| | | | | 2302-8th Street Nisku Alberta T8E 7Z2 | | Office: 780.955.4292 Fax: 780.955.4294 Toll Free: 866.955.4292 | | Drawn by: DTL | | Date: 08-18-04 | | 222 LP SAA-SCROLL SERIES SZ022C3A w/ DESICCANT TOWERS SKID MOUNTED, SWEET SERVICE | |
| 1 AS BUILT | | | | SOC 07-18-06 | | Approved by: SPC | | Company: HUSKY ENERGY | | Quote/Ref. NO.: - | | Job NO.: 1-980 | |
| REV. DESCRIPTION | | | | BY DATE CHG APPD | | Scale: 1:20 | | Drawing NO.: SAA-08240 | | Unit NO.: BLD-SAA08240-H-01 | | Rev.: 1 | |

| | |
|--|---|
| | CLASS 1 ZONE 0 |
| | CLASS 1 ZONE 1 |
| | CLASS 1 ZONE 2 |
| | CLASS 1 ZONE 2 UP TO 450mm ABOVE GRADE FOR HEAVIER THAN AIR GASES |
| | NON HAZARDOUS |

CLASSIFICATION LEGEND



**STANDARD MULTIPACK SCROLL
BOOSTER COMPRESSOR BUILDING**



NOTES:

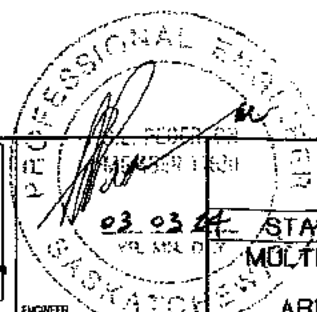
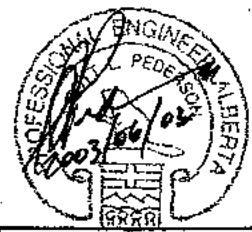
- THE INTERIOR OF THE COMPRESSOR BUILDING HAS BEEN CLASSIFIED AS CLASS 1, ZONE 2 OR DIVISION 2 BASED ON A FUGITIVE EMISSIONS STUDY DATED 02/12/23, RAMCO PROJECT # 22347. ADEQUATE VENTILATION IS PROVIDED BY NATURAL MEANS, BECAUSE THE GAS PRESENT IN THIS BUILDING IS ESSENTIALLY RAW NATURAL GAS, EQUIPMENT SUITABLE FOR GAS GROUP MA OR D IS ACCEPTABLE. INSTALLED EQUIPMENT MUST HAVE A MAXIMUM SURFACE TEMPERATURE LESS THAN 40°C OR HAVE A T1 (OR LOWER) TEMPERATURE CODE.

SUMMARY OF CONDITIONS:
THE CLASS 1, DIVISION 2, OR ZONE 2, AREA CLASSIFICATION ASSIGNED TO THE INTERIOR OF THE COMPRESSOR BUILDING ON THIS SITE IS SUBJECT TO THE FOLLOWING CONDITIONS. IF THESE CONDITIONS ARE NOT MET, THE AREA CLASSIFICATION SHOWN ON THIS DRAWING WILL REVERT TO CLASS 1, DIVISION 1, OR ZONE 1.

- THE VENTILATION DEVICES MAY BE SHUT BUT MAY NOT BE CLOSED OFF OR REMOVED, IF CHANGES WHICH WILL REDUCE THE VENTILATION RATE IN THE BUILDING ARE REQUIRED, THE EFFECT ON THE CONCENTRATION OF FUGITIVE EMISSIONS IN THE BUILDING MUST BE EVALUATED BY CALCULATIONS OR MONITORING.
- PROCEDURE OR CONTROLS MUST BE IN PLACE TO ENSURE ABNORMAL SITUATIONS RESULTING IN COMBUSTIBLE CONCENTRATIONS OF GAS DO NOT PERSIST FOR MORE THAN 10 HOURS PER YEAR.
- THE FACILITIES ARE MAINTAINED IN A MANNER THAT WILL ENSURE SIGNIFICANT LEVELS OF COMBUSTIBLE GAS (ABOVE 1-% OF THE LEL) DO NOT EXIST UNDER NORMAL OPERATING CONDITIONS.
- IT IS RECOMMENDED THAT COMBUSTIBLE GAS DETECTION SYSTEMS BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR IN ACCORDANCE WITH ANSI/ISA RECOMMENDED PRACTICE 12.13, PART II, INSTALLATION OPERATION AND MAINTENANCE OF COMBUSTIBLE GAS DETECTION INSTRUMENTS.

- SECTION OF BUILDING WALL MUST BE VAPOR BARRIERS AND SEALED. ELECTRICAL CONDUITS THAT PENETRATE THIS PORTION OF WALL MUST BE SEALED BOTH INSIDE THE CONDUIT AND AROUND THE WALL. PENETRATING RIGID CONDUIT SHALL PENETRATE THE BUILDING WALL STRAIGHT FROM THE BACK OF THE CONTROL PANEL.

PERMIT TO PRACTICE
RAMCO ELECTRICAL CONSULTING LTD.
 Signature *[Signature]*
 Date 2003/06/03
 PERMIT NUMBER: P 6426
 The Association of Professional Engineers,
 Geologists and Geophysicists of Alberta



RAMCO STANDARD TEMPLATE (SIZE: 641mm x 594mm - PLOTTING RATIO: 1:1)

| | | | | | | | | | | | | | |
|-----------|--|--|--|--|--|--|--|--|--|--|--|----------------------------|--|
| COMMENTS: | | | | | | | | | | | | PROJECT NO: 22347 | |
| | | | | | | | | | | | | DWG DATE: 03/03/23 | |
| | | | | | | | | | | | | DRAWN BY: V. YOUNG | |
| | | | | | | | | | | | | APPROVED BY: S. PETERSON | |
| | | | | | | | | | | | | DWG SCALE: 1:15 | |
| | | | | | | | | | | | | PLOTTING RATIO: 1:15 | |
| | | | | | | | | | | | | COMPUTER FILE NO: 2347E-00 | |
| | | | | | | | | | | | | OLD DWG NO: NONE | |
| | | | | | | | | | | | | DWG. NO. REV | |
| | | | | | | | | | | | | A1-22347-E100 0 | |



ASSOCIATION OF PROFESSIONAL ENGINEERS
 A GEOSCIENTISTS OF SASKATCHEWAN
 CERTIFICATE OF AUTHORIZATION
 RAMCO ELECTRICAL CONSULTING LTD.
 CEGS
 PERMISSION TO CONSULT FIELD BY
 ISOPHENE SASKATCHEWAN
 ELEC. 11630

PC COMPRESSION INC.
 STANDARD - COMPRESSOR
 MULTIPACK SCROLL BOOSTER COMP.
 STANDARD MODEL
 AREA CLASSIFICATION DRAWING

3

PSV'S



UNIFIED VALVE LTD.

MERCER VALVE INSPECTION AND TEST REPORT

BRANCH: Edmonton

Serial #: 408237 ✓

Work Order: 412252

Customer PO#: 510203

Date: 5/13/2008

Customer: PC COMPRESSION

Facility: NISKU

LSD:

PSV Location:

A#:

Cust Id:

Cust. Ref.:

Valve PO: 510203

VALVE DATA

Man.: Mercer

Model: 91-17D51V08E1

Serial: 408237

Conn: Threaded

Inlet: 1 inch MNPT

Orifice: .122

Outlet: 1 inch FNPT

Set Pres: 100 PSI

Back Press: 0 PSI

Temp: 70 F

Cold/Diff Set Press: PSI

Cap: 228 SCFM

Lift Lever:

Cap Assembly: Closed

Trim: Standard

Code Symbol: UV

CRN#: 0G8841.5C

CUSTOMER INSTRUCTIONS

Valve Instruct. Factory Set

Instructions: Sold New Valve

Reset Required?

RESET INFORMATION: *New Pressure:*

New Cold/Diff Set:

New Capacity:

COMPONENTS INSPECTION

Components Installed

Components Removed

New Model #:

Spring #: 05-006

New Inlet Size:

Trim: Standard

Valve Medium: Gas / Air

Temperature: 70 F

Disassembly:

Inspection: Richard Anderson

Reassembly:

FINAL TEST:

Test Medium:

Simmer:

Set Pressure:

Reseat:

Leakage: BPM

B.P. Test:

Cold/Diff Set:

Test Gauge:

Tested by:

FINAL INSPECTION:

SEAL Installed:

End Protectors Installed:

Painted:

Palletized:

Ship Container:

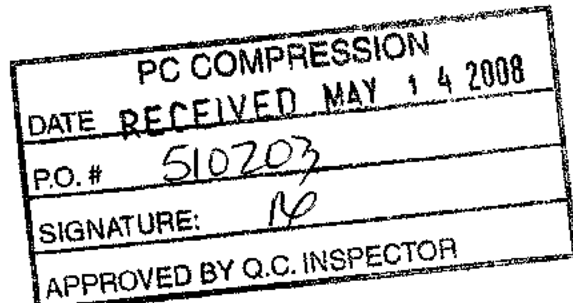
Flex Gaskets Supplied:

Final Inspection: Richard Anderson

Customer Inspection

INSPECTION ID#: 11919

Comments:





BRANCH: Edmonton

Serial #: 432039 ✓

Work Order: 412495

Customer PO#: 510301-00

Date: 5/30/2008

Customer: PC COMPRESSION

Facility: NISKU

LSD:

PSV Location:

A#:

Cust Id:

Cust. Ref.:

Valve PO: 510301-00

VALVE DATA

Man.: Mercer

Model: 91-17D51V07E1

Serial: 432039

Conn: Threaded

Inlet: 1 inch MNPT

Orifice: .122

Outlet: 1 inch FNPT

Set Pres: 150 PSI

Back Press: 0 PSI

Temp: 70 F

Cold/Diff Set Press: PSI

Cap: 329 SCFM

Lift Lever:

Cap Assembly: Closed

Trim: Standard

Code Symbol: UV

CRN#: 0G8841.5C

CUSTOMER INSTRUCTIONS

Valve Instruct. Factory Set

Instructions: Sold New Valve

Reset Required?

RESET INFORMATION: *New Pressure:*

New Cold/Diff Set:

New Capacity:

COMPONENTS INSPECTION

Components Installed

Components Removed

New Model #:

Spring #: 05-007

New Inlet Size:

Trim: Standard

Valve Medium: Gas / Air

Temperature: 70 F

Disassembly:

Inspection: Richard Anderson

Reassembly:

FINAL TEST:

Test Medium:

Simmer:

Set Pressure:

Reseat:

Leakage: BPM

B.P. Test:

Cold/Diff Set:

Test Gauge:

Tested by:

FINAL INSPECTION:

SEAL Installed:

End Protectors Installed: Painted:

Palletized: Ship Container: Flex Gaskets Supplied:

Final Inspection: Richard Anderson

Customer Inspection

INSPECTION ID#: 12069

Comments:

| | |
|----------------------------|----------------------|
| PC COMPRESSION | |
| DATE | RECEIVED JUN 02 2008 |
| P.O. # | 510301 |
| SIGNATURE: | <i>NO</i> |
| APPROVED BY Q.C. INSPECTOR | |



UNIFIED VALVE LTD.

MERCER VALVE INSPECTION AND TEST REPORT

BRANCH: Edmonton

Serial #: 422161 ✓

Work Order: 412638

Customer PO#: 510422

Date: 6/19/2008

Customer: PC COMPRESSION

Facility: NISKU

LSD:

PSV Location:

A#:

Cust Id:

Cust. Ref.:

Valve PO: 510422

VALVE DATA

Man.: Mercer

Model: 91-17D51V11E1

Serial: 422161

Conn: Threaded

Inlet: 1 inch MNPT

Orifice: .122

Outlet: 1 inch FNPT

Set Pres: 450 PSI

Back Press: 0 PSI

Temp: 70 F

Cold/Diff Set Press: PSI

Cap: 932 SCFM

Lift Lever:

Cap Assembly: Closed

Trim: Standard

Code Symbol: UV

CRN#: 0G8841.5C

CUSTOMER INSTRUCTIONS

Valve Instruct. Modify

Instructions: Sold New Valve

Reset Required?

RESET INFORMATION: New Pressure: 80 PSI ✓

New Cold/Diff Set:

New Capacity: 189 SCFM ✓

COMPONENTS INSPECTION

Components Installed

SPRING 05-006

Components Removed

SPRING 05-011

New Model #: 91-17D51V06E1

Spring #: 05-006

New Inlet Size:

Trim: Standard

Valve Medium: Gas / Air

Temperature: 70 F

Disassembly: Cory Mercer

Inspection: Cory Mercer

Reassembly: Cory Mercer

FINAL TEST:

Test Medium: Air

Simmer: 79 PSI

Set Pressure: 80 PSI

Reset: 74 PSI

Leakage: 0 BPM

B.P. Test: 60 PSI

Cold/Diff Set: N/A PSI

Test Gauge: MVE-04/DG

Tested by: Matt Wourms

FINAL INSPECTION:

SEAL Installed:

End Protectors Installed:

Painted:

Palletized:

Ship Container:

Flex Gaskets Supplied:

Final Inspection: Richard Anderson

Customer Inspection

INSPECTION ID#: 12216

Comments:

| | |
|----------------------------|----------------------|
| PC COMPRESSION | |
| DATE | RECEIVED JUN 23 2008 |
| P.O. # | 510422 |
| SIGNATURE: | <i>RP</i> |
| APPROVED BY Q.C. INSPECTOR | |



BRANCH: Edmonton

Serial #: 432040 ✓

Work Order: 412495

Customer PO#: 510301-00

Date: 5/30/2008

Customer: PC COMPRESSION

Facility: NISKU

LSD:

PSV Location:

A#:

Cust Id:

Cust. Ref.:

Valve PO: 510301-00

VALVE DATA

Man.: Mercer

Model: 91-17D51V07E1

Serial: 432040

Conn: Threaded

Inlet: 1 inch MNPT

Orifice: .122

Outlet: 1 inch FNPT

Set Pres: 150 PSI

Back Press: 0 PSI

Temp: 70 F

Cold/Diff Set Press: PSI

Cap: 329 SCFM

Lift Lever:

Cap Assembly: Closed

Trim: Standard

Code Symbol: UV

CRN#: 0G8841.5C

CUSTOMER INSTRUCTIONS

Valve Instruct. Factory Set

Instructions: Sold New Valve

Reset Required?

RESET INFORMATION: *New Pressure:*

New Cold/Diff Set:

New Capacity:

COMPONENTS INSPECTION

Components Installed

Components Removed

New Model #:

Spring #: 05-007

New Inlet Size:

Trim: Standard

Valve Medium: Gas / Air

Temperature: 70 F

Disassembly:

Inspection: Richard Anderson

Reassembly:

FINAL TEST:

Test Medium:

Simmer:

Set Pressure:

Reseat:

Leakage: BPM

B.P. Test:

Cold/Diff Set:

Test Gauge:

Tested by:

FINAL INSPECTION:

SEAL Installed:

End Protectors Installed: Painted:

Palletized: Ship Container: Flex Gaskets Supplied:

Final Inspection: Richard Anderson

Customer Inspection

INSPECTION ID#: 12070

Comments:

| | |
|----------------------------|----------------------|
| PC COMPRESSION | |
| DATE | RECEIVED JUN 02 2008 |
| P.O. # | 510301 |
| SIGNATURE: | <i>[Signature]</i> |
| APPROVED BY Q.C. INSPECTOR | |

Certificate Of Compliance

RECEIVED JUN 09 2008

I Hereby Certify That The Below Registered Category "H" Pressure Fitting Has Been Designed, Manufactured, and Pressure Tested In Accordance With The Alberta Safety Codes Act, CSA B51 And ASME Section VIII, Division 1, 2007 Edition.

| | | | | | |
|--------------|--------------|--------|----------------|-------|--------|
| CRN | 0H5415.21345 | | | | |
| S/N | 8600.643 ✓ | | | | |
| Diameter | 8.625 | Inches | Overall Length | 56 | Inches |
| Year Built | 2008 | | | | |
| MAWP | 600 | PSIG | @ | 650 | °F |
| MDMT | -20 °F | | | | |
| C.A. | 0.0625 | Inches | | | |
| Radiography | N/A | | | | |
| PWHT : | Time | N/A | min. | Temp. | N/A °F |
| Hydro Tested | @ | 780 | PSIG | | |


Quality Control Manager
Dennis Klokoeki

June 6, 2008

RECEIVED
APR 15 2008

AT 0005

ORIGINAL

INSPECTION CERTIFICATE

ZIBO WEL-FIT METAL PRODUCTS CO., LTD
NO.18, LUSHAN ROAD, LINZI ZIBO, P.R.CHINA 255419

Purchaser: [REDACTED]
Order No.: REC-957AG
Invoice No.: ZWFC743-C

Date: Dec 28, 2007
Certificate No.: ZWFC7431C
Certificate No.: EN10204-2004 3.1

Material Specification
ASTM A234-06/SME SA 234
WPE NACE MR0175-02

Visual and Dimensional
Inspection GOOD

Hardness
Max 197HB
<107HB

Cu+Ni+Cr+Mo
< or = 1.00%
RT:(%)

C+N+O
< or = 0.32%
IGC:(%) GOOD
PMHS: GOOD

| Product Description | Heat I.D. | Quantity (Pcs) | Tension Test (1) | | Chemical Composition % | | | | | | | | | | Heat Treatment (3) | Raw Material Manufacturer (6) | | | | |
|---------------------|------------|----------------|------------------|--------|------------------------|------|------|--------|--------|--------|--------|------|------|------|--------------------|-------------------------------|------|------|--------|-----|
| | | | YS Mpa | TS Mpa | E % | C | Si | Mn | P | S | Cr | Mo | Ni | Cu | | | V | Nb | CEI(2) | |
| | | | 240 | 415 | 30 | 0.30 | 0.10 | 0.25 | 0.05 | 0.05 | 0.40 | 0.15 | 0.40 | 0.40 | | | 0.08 | 0.45 | | |
| CAP STD WPB | 3/4" | 200 | 325 | 425 | 34 | 0.19 | 0.17 | 0.53 | 0.0140 | 0.0210 | - | - | - | - | - | - | 0.28 | S | 3 | TTD |
| CAP STD WPB | 1-1/2" | 75 | 290 | 440 | 31 | 0.16 | 0.47 | 0.0210 | 0.0383 | - | - | - | - | - | - | - | 0.23 | S | 3 | TTD |
| CAP STD WPB | 2" | 700 | 295 | 430 | 34 | 0.15 | 0.38 | 0.0150 | 0.0250 | - | - | - | - | - | - | - | 0.21 | S | 3 | TTD |
| CAP STD WPB | 3" | 165 | 290 | 430 | 35 | 0.17 | 0.18 | 0.43 | 0.0130 | 0.0240 | - | - | - | - | - | - | 0.24 | S | 3 | JNP |
| CAP STD WPB | 4" | 650 | 230 | 430 | 35 | 0.17 | 0.18 | 0.43 | 0.0130 | 0.0240 | - | - | - | - | - | - | 0.24 | S | 3 | JNP |
| CAP STD WPB | 5" | 25 | 290 | 430 | 35 | 0.17 | 0.18 | 0.43 | 0.0130 | 0.0240 | - | - | - | - | - | - | 0.24 | S | 3 | JNP |
| CAP STD WPB | 6" | 800 | 240 | 465 | 35 | 0.17 | 0.21 | 0.51 | 0.0170 | 0.0170 | - | - | - | - | - | - | 0.26 | S | 3 | TTD |
| CAP STD WPB | 8" | 150 | 280 | 475 | 31 | 0.16 | 0.14 | 0.41 | 0.0220 | 0.02 | - | - | - | - | - | - | 0.25 | S | 3 | JNP |
| CAP STD WPB | 10" | 40 | 255 | 435 | 31 | 0.15 | 0.19 | 0.66 | 0.0190 | 0.0240 | - | - | - | - | - | - | 0.24 | S | 3 | JNP |
| CON REDUCER STD WPB | 2 X 1" | 50 | 310 | 490 | 30 | 0.18 | 0.22 | 0.50 | 0.0140 | 0.0060 | 0.0490 | - | - | - | - | - | 0.28 | S | 1 | XSP |
| CON REDUCER STD WPB | 2 X 1-1/4" | 10 | 310 | 490 | 30 | 0.18 | 0.22 | 0.50 | 0.0140 | 0.0060 | 0.0490 | - | - | - | - | - | 0.28 | S | 1 | XSP |
| CON REDUCER STD WPB | 3 X 1-1/2" | 10 | 315 | 490 | 30 | 0.19 | 0.19 | 0.52 | 0.0110 | 0.0090 | 0.03 | - | - | - | - | - | 0.30 | S | 1 | XSP |
| CON REDUCER STD WPB | 3 X 2" | 150 | 315 | 480 | 30 | 0.19 | 0.19 | 0.52 | 0.0110 | 0.0090 | 0.03 | - | - | - | - | - | 0.30 | S | 1 | XSP |
| CON REDUCER STD WPB | 3 X 2-1/2" | 10 | 315 | 480 | 30 | 0.19 | 0.19 | 0.52 | 0.0110 | 0.0090 | 0.03 | - | - | - | - | - | 0.30 | S | 1 | XSP |
| CON REDUCER STD WPB | 4 X 2" | 10 | 305 | 515 | 30 | 0.20 | 0.21 | 0.54 | 0.0090 | 0.0130 | - | - | - | - | - | - | 0.29 | S | 1 | JYP |
| CON REDUCER STD WPB | 4 X 3" | 75 | 305 | 455 | 38 | 0.19 | 0.23 | 0.55 | 0.0060 | 0.0066 | 0.02 | - | - | - | - | - | 0.29 | S | 1 | BST |
| CON REDUCER STD WPB | 5 X 3" | 10 | 290 | 490 | 38 | 0.19 | 0.24 | 0.48 | 0.0080 | 0.0090 | 0.04 | 0.02 | 0.02 | 0.05 | 0.01 | - | 0.29 | S | 1 | TJP |
| CON REDUCER STD WPB | 5 X 4" | 5 | 290 | 480 | 36 | 0.19 | 0.24 | 0.48 | 0.0080 | 0.0080 | 0.04 | 0.02 | 0.02 | 0.05 | 0.01 | - | 0.29 | S | 1 | TJP |
| CON REDUCER STD WPB | 6 X 4" | 0 | 290 | 480 | 36 | 0.19 | 0.24 | 0.48 | 0.0080 | 0.0090 | 0.04 | 0.02 | 0.02 | 0.05 | 0.01 | - | 0.29 | S | 1 | TJP |
| CON REDUCER STD WPB | 10 X 5" | 5 | 315 | 480 | 31 | 0.19 | 0.24 | 0.46 | 0.0130 | 0.0060 | 0.06 | 0.01 | 0.03 | 0.05 | - | - | 0.29 | S | 1 | TJP |

Note: (1) YS=Yield Strength TS=Tensile Strength E=Elongation (2) CEI=C-Mn+Ni+(C+Mo+V)/5+(P+Cu)/15
 Note: (3) HF: HCl formed (620-800 °C) and cooled in still air. S: Cold formed and normalized (800 °C x 0.5HR), cooled in still air.
 SA: Cold formed and solution annealed at 1050 °C x 10°C, water quenched (4) T=Seamless Pipe 2=Welded Pipe 3=Steel Plate
 Note: (5) IGC=Intergranular Corrosion Test is ASTM A262 E PNH=Positive Hydrogen Inspection RT=Radiographical Test MT=Magnetic Particle Test
 Note: (6) TTD=TIANJIN STEEL PIPE CORP JNP=JINAN STEEL PIPE CORP JYP=JIANGYIN SKLS PIPE BS=BAOSTEEL TJP=TCO

General Note: The analysis for the elements with an amount of less than 0.02% is reported as "<0.02%" represented by "r" above.

We hereby certify that the products detailed herein have been manufactured and inspected in accordance with the specifications concerned and also with the purchaser's requirements and that the test results shown herein are correct. This material was manufactured, tested, and inspected without manufacture contamination.

ZIBO WEL-FIT METAL PRODUCTS CO., LTD.
 淄博鑫利金属制品有限公司
 质量保证部

QUALITY ASSURANCE MANAGER

PAGE 1 OF 4

RECEIVED

APR 04 2008

江苏省江阴市夏港镇德胜路375号
No. 375 Zhaosheng Rd. Xianggang Town Jiangyin City
Jiangsu Province, China (214442) <http://www.cj88.cn>
Tel:86-510-6160703 Fax:86-510-6167989

产品合格证
N10204.3.1 73-01463
MILL TEST CERTIFICATE

江阴市无缝钢管厂
JIANGYIN CITY SEAMLESS STEEL TUBE FACTORY

| | | | | | | | | | | | | | | | | | | | | |
|--|--|----------------------------|----------|----------------------------|--------------|------------------------|---------------|--------------------|---------------|---------------------------------|--------------------|--------|-------------|-----------------------|---------------------|--------------------|---------------|--------------|----------------|--|
| 总件数 Total Pieces | 49 | 总重量 Total Weight | 246 | 总长度 Total Length | 125.097 | 日期 Date | 2007年06月23日 | 合同编号 Contract No. | () | 许可证号 License No. | 0503 | | | | | | | | | |
| 收货单位 PURCHASER | ASTM A106-04/ASME SA106-04/API 5L NACE MR0175-Q2 | | | | | | | | | | | | | | | | | | | |
| 产品名称 Product | CARBON STEEL SEAMLESS PIPE | | | | | | | | | | | | | | | | | | | |
| 规格 Size O.D. x W.T. x L. (mm) | 8" x SCH40 x 12000 | | | | | | | | | | | | | | | | | | | |
| 化学成分 (%) Chemical Composition | | 力学性能 Mechanical Properties | | 金相分析 Metallogical Analysis | | 冲击试验 Impact Test | | 硬度试验 Hardness Test | | 其他试验 Other Tests | | | | | | | | | | |
| 序号 NO. | 炉号 Heat No | 支数 BDL | PCS | 重量 (t) WT | 尺寸 Dimension | 标距长度 Gauge Length (mm) | 屈服强度 Y.S. PSI | 伸长率 E.L. (%) | 抗拉强度 T.S. PSI | 冲击功 (J) Impact Value | 硬度值 Hardness Value | | | | | | | | | |
| 1 | 73-01464 | Y327030293 | 10 | 50 | *1-A2 | 50 | 50035/57935 | 38/38 | 74690/76145 | 纵向冲击 Ak _{Longitudinal} | 20 | | | | | | | | | |
| 2 | 73-01395 | Y317030251 | 18 | 90 | *1-A2 | 50 | 50035/48585 | 39.5/38.5 | 74690/71790 | 横向冲击 Ak _{Transverse} | 19.5 | | | | | | | | | |
| 3 | 73-01463 | Y327030292 | 21 | 105 | *1-A2 | 50 | 52210/51485 | 37/37.5 | 75420/76470 | | 20.5 | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | |
| 类别 Type | 带状组织 Banding | | | | | | | | | | | | | | | | | | | |
| 序号 NO. | C | Si | Mn | P | S | Cr | Ni | Cu | Mo | V | CE | Ma/C | C+Cu+Mo+N+V | 中心偏析 Central Porosity | 显微组织 Microstructure | 晶粒度 (级) Grain size | 夹杂物 Inclusion | 带状组织 Banding | 脱碳层 (mm) D. I. | |
| 1 | R | 0.190 | 0.240 | 0.013 | 0.006 | 0.020 | 0.010 | 0.040 | 0.010 | 0.020 | 0.30 | 3.11 | 0.10 | | | | | | | |
| 2 | R | 0.210 | 0.260 | 0.012 | 0.009 | 0.010 | 0.020 | 0.040 | 0.010 | 0.010 | 0.30 | 2.38 | 0.09 | | | | | | | |
| 3 | R | 0.180 | 0.280 | 0.013 | 0.004 | 0.020 | 0.010 | 0.040 | 0.010 | 0.020 | 0.29 | 3.28 | 0.10 | | | | | | | |
| 4 | R | | | | | | | | | | | | | | | | | | | |
| 压扁 Flattening | 冷弯 Cold Bending | 扩口 Flaring | 超声波 U.T. | 涡流检测 E.T. | 硬度检测 M.P.I. | 拉伸试验 L.M.T. | 冲击试验 N.D. | 表面尺寸 S&D | 水压 Hydro Test | 硬度测试 ±5s | 1 1600 | 2 1600 | 3 1600 | 4 | PSI | PSI | PSI | PSI | PSI | |
| OK | | | | | | | | | | | | | | | | | | | | |
| 注释 Notes | *1:纵向Longitudinal Strip; A1-12.7mm, A2-19.05mm A3-25.4mm A4-38.1mm, F.全截面Full-section *2:带状Banded; B1=12.7mm, B2=6.9mm, B3=6mm, B4=10mm *3:纵向条状 Transverse Strip; C1-12.7mm, C2-19.05mm C3-25.4mm C4-38.1mm, *4:D1=10x10x55mm D2=10x7.5x55mm D3=10x5x55mm *5:C.成品成分Product composition R.熔炼成分 Melting composition %:F.铁素体Ferrite B.贝氏体Bainite P.珠光体Pearlite S.回火索氏体 Tempered Sorbite M.马氏体Martensite | | | | | | | | | | | | | | | | | | | |
| 备注 Remark | 1.NO WELD REPAIRS WERE PERFORMED; 2.PIPES ARE FREE OF MERCURY AND SILICONE; 3.CE-C+Mn+V+Cu+Ni+Si; 4.API 5L Gr.B -43rd Edition; 5.ON THEORETICAL WEIGHT BASIS; 6.ORIGIN: CHENGDU, CHINA. | | | | | | | | | | | | | | | | | | | |
| 说明:本证书以原件为准, 复印无效。 Remark: No duplicate will be accepted. | 质量管理部门负责人 Quality Manager: 胡才望 | | | | | | | | | | | | | | | | | | | |
| | 审核人: 胡才望 | | | | | | | | | | | | | | | | | | | |
| | 制证人: 许嘉平 | | | | | | | | | | | | | | | | | | | |

制证人: 许嘉平
Certification-number:

审核人: 胡才望
Auditing:

质量管理部门负责人
Quality Manager: 胡才望

HT 6433

INSPECTION CERTIFICATE

DATE: 2006-09-0

PURCHASER: SEYBOLD INTERNATIONAL CORP.

ASTM A134 WPB-06

SHANGHAI GATEWAY FITTINGS CO., LTD

951, Kesheng Road Beijing, Mahe town, Jiading District, Shanghai, China

TEL: 86-21-54145661 FAX: 86-21-54145662

ORDER NO: 4D01

P.I. NO: 5637

CERTIFI. NO: 06102-4

| ITEM NO. | PRODUCT & SIZE | QUANTITY PCS | MFG NO. | VISUAL AND INTERNAL DEFECTS | HARDNESS MAX. 197 HB | ELAT TREATMENT (NOTE) | MAGNETIC PARTICLE EXAMINATION |
|----------|----------------|--------------|---------|-----------------------------|----------------------|-----------------------|---|
| 31 | CAP-1-1/2" STD | 30 | 6G156 | GOOD | 89-76 | N | <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> RECEIVED APR 15 2008 </div> |
| 32 | CAP-2" STD | 160 | 6C69 | GOOD | 88-75 | N | |
| 33 | CAP-4" STD | 380 | 6G12 | GOOD | 95-87 | N | |
| 34 | CAP-6" STD | 300 | 6G33 | GOOD | 92-84 | N | |
| 35 | CAP-8" STD | 350 | 6H33 | GOOD | 91-79 | N | |
| 36 | CAP-10" STD | 150 | 6H37 | GOOD | 89-72 | N | |
| 37 | TEE-2" STD | 50 | 6C94 | GOOD | 88-76 | N | |
| 38 | TEE-3" STD | 300 | 6C86 | GOOD | 91-76 | N | |
| 39 | TEE-4" STD | 300 | 6C87 | GOOD | 89-75 | N | |
| 40 | TEE-10" STD | 8 | 6G118 | GOOD | 98-79 | N | |

| ITEM NO. | MATERIAL CHARGE NO. | CHEMICAL COMPOSITION % | | | | | | | | | | PHYSICAL TEST | | | | |
|----------|---------------------|------------------------|----|-----|----|----|----|-----|-----|----|---|---------------|--------|------|-------|--|
| | | C | SI | Mn | P | S | Cu | Ni | Cr | Mo | V | YS KSI | TS KSI | E % | CI % | |
| | MIN. | 30 | 10 | 29 | 50 | 58 | 40 | 40 | 49 | 15 | 8 | 35.5 | 69 | | | |
| | MAX. | 30 | 18 | 106 | 50 | 58 | 40 | 40 | 49 | 15 | 8 | 35.5 | 69 | | | |
| 31 | DL9421518 | 15 | 18 | 38 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 44.98 | 67.32 | 32.0 | 21.1 | |
| 32 | DL9533192 | 12 | 15 | 33 | 10 | 14 | 0 | 0 | 0 | 0 | 0 | 40.63 | 68.28 | 33.0 | 17.54 | |
| 33 | DL9515928 | 13 | 18 | 34 | 8 | 16 | 0 | 0 | 0 | 0 | 0 | 47.16 | 64.57 | 31.8 | 18.6 | |
| 34 | DL9515918 | 13 | 18 | 34 | 8 | 16 | 0 | 0 | 0 | 0 | 0 | 47.16 | 64.57 | 31.8 | 18.6 | |
| 35 | DL9328485 | 16 | 18 | 35 | 8 | 17 | 0 | 0 | 0 | 0 | 0 | 45.71 | 68.92 | 32.8 | 21.82 | |
| 36 | 3849180486 | 18 | 15 | 37 | 16 | 11 | 0 | 0 | 0 | 0 | 0 | 50.79 | 66.75 | 30.0 | 24.1 | |
| 37 | 4230 | 19 | 24 | 52 | 13 | 14 | 0 | 0 | 0 | 0 | 0 | 46.43 | 65.34 | 37.0 | 28.28 | |
| 38 | 3819 | 20 | 26 | 52 | 15 | 19 | 1 | 1 | 1 | 0 | 0 | 45.90 | 66.75 | 31.5 | 29.93 | |
| 39 | 562649 | 19 | 23 | 45 | 10 | 4 | 12 | 4 | 4 | 0 | 0 | 43.53 | 71.83 | 34.5 | 39.57 | |
| 40 | 05406511 | 20 | 27 | 57 | 18 | 5 | 5 | 1.1 | 1.3 | 0 | 0 | 47.20 | 71.10 | 32.0 | 39.57 | |

(NOTE) 1) NOT FORGED WITH FINAL TEMPERATURE BETWEEN 620°C - 980°C, AIR COOLING.

2) NORMALIZING AT TEMPERATURE 880°C ± 50°C, AIR COOLING.

FACE MB-81-75 : SATISFACTORY

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE SPECIFICATIONS CONCERNED AND ALSO WITH THE PURCHASER'S REQUIREMENTS AND THAT THE TEST RESULTS SHOWN HEREIN ARE CORRECT.

[Signature]

MANAGER OF Q. A. DEPT

CERTIFIED MILL TEST REPORT



**The Best Value
Price, Quality, Service
All The Time.**

LOG NO. 319337 PAGE 11

BONNEY FORGE
P.O. BOX 330 • 14486 CROGHAN PIKE • MOUNT UNION, PA 171
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4306
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 03/14/08

CUSTOMER'S Order No.:4883252-00

Bonney Order No.

SHIPPED TO: CCTF CORPORATION
5407 - 53 AVENUE

B000026362

EDMONTON, ABT6B 3G2 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS. |
|------|----------|---------|--|
|------|----------|---------|--|

SA/A105N

| | | | | |
|-----|------|--------------|---------|--|
| 033 | 25 | 3605 MALE | 7527063 | 1/4 6000 A105N UNAR T C .200 MN 1.000 P .009 S .020 SI .180 NI .040 CU .150 CO .003 CR .060 MO .010 V .000 AL .021 NB .015 CE(LONG FORMULA) = 0.39 T/S 74750 Y/S 53875 EL 33.15 RA 67.25 BRINELL HARDNESS1: 132 HARDNESS2: 135 |
| 035 | 200 | 57377 | 7525451 | 1/2 3000 A105N 90EL S C .200 MN 1.150 P .009 S .022 SI .180 NI .020 CU .070 CO .002 CR .060 MO .010 V .001 AL .025 NB .014 CE(LONG FORMULA) = 0.41 T/S 73750 Y/S 49875 EL 32.95 RA 66.10 BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| 036 | 1800 | 57436 | 7525516 | 1 3000 A105N 90EL S C .200 MN 1.020 P .019 S .018 SI .230 NI .040 CU .120 CO .003 CR .060 MO .010 V .000 AL .028 NB .012 CE(LONG FORMULA) = 0.39 T/S 76375 Y/S 52375 EL 31.35 RA 67.00 BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| | | → 57443 | 7525516 | 1 3000 A105N 90EL S C .190 MN 1.040 P .011 S .020 SI .200 NI .020 CU .080 CO .002 CR .040 MO .010 V .000 AL .022 NB .013 CE(LONG FORMULA) = 0.38 T/S 74000 Y/S 51500 EL 31.00 RA 67.00 BRINELL HARDNESS1: 144 HARDNESS2: 141 |

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory of

by

Cris Boozel

CERTIFIED MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 319337 PAGE 2

BONNEY FORGE
P.O. BOX 330 • 14496 CROGHAN PIKE • MOUNT UNION, PA 171
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4808
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 03/14/08

CUSTOMER'S Order No.: 4883252-00

Bonney Order No.

SHIPPED TO: CCTF CORPORATION
5407 - 53 AVENUE

B000026362

EDMONTON, ABT6B 3G2 Canada

ITEM QUANTITY LOT NO.

GRADE OR SPECIFICATION NO.
CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS.

1. THE MATERIAL SUPPLIED IDENTIFIED AS A105GT WAS QUENCHED AND TEMPERED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
2. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
3. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
4. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
5. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
6. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
7. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2003 AND NACE MR0175-2002.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory test

By 

Cris Boozel

CERTIFIED MILL TEST REPORT



**The Best Value
Price, Quality, Service
All The Time.**

LOG NO. 319433 PAGE 5

BONNEY FORGE
P.O. BOX 330 • 14496 CROGHAN PIKE • MOUNT UNION, PA 17066-0330
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 03/17/08

CUSTOMER'S Order No.: 4024147-00

Bonney Order No. 00026821

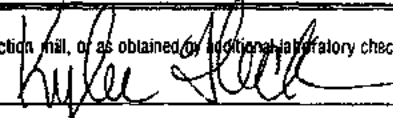
SHIPPED TO: CCTF CORPORATION (DAKVILLE)
1387 CORNWALL ROAD

OAKVILLE, ONL6J 7T5 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS: |
|----------|----------|---------|--|
| SA/A105N | | | |
| 014 | 100 | 4005 | 7524406 1X3/4 3M A105N REDU T C .210 MN 1.020 P .009 S .019 SI .220 NI .030 CU .090 CD .004 CR .060 MD .010 V .000 AL .020 NB .016 CE(LONG FORMULA) = 0.40 T/S 76005 Y/S 59151 EL 33.90 RA 64.54 BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| 015 | 16 | 3726 | 7521022 2X1 3M A105N REDU T C .190 MN 1.000 P .009 S .019 SI .210 NI .030 CU .140 CD .003 CR .040 MD .010 V .000 AL .017 NB .016 CE(LONG FORMULA) = 0.38 T/S 73500 Y/S 51500 EL 37.00 RA 68.00 BRINELL HARDNESS: 137 |
| 016 | 250 | 4049 | 7520433 3/8 3000 A105N HCP T C .200 MN 1.020 P .006 S .021 SI .220 NI .030 CU .090 CD .003 CR .050 MD .010 V .000 AL .029 NB .013 CE(LONG FORMULA) = 0.39 T/S 77125 Y/S 57875 EL 32.85 RA 69.25 BRINELL HARDNESS1: 141 HARDNESS2: 139 |
| 017 | 200 | 3987 | 7523882 2 3000 A105N HCP T C .200 MN 1.040 P .007 S .017 SI .210 NI .020 CU .080 CD .003 CR .040 MD .010 V .000 AL .020 NB .014 CE(LONG FORMULA) = 0.39 T/S 70000 Y/S 44900 EL 33.00 RA 71.00 BRINELL HARDNESS1: 130 HARDNESS2: 132 |

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by 
Kylee Fleck

QUALITY PROCESS MANAGER

CMTR: REV 1

CERTIFIED MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 319433 PAGE 19

BONNEY FORGE
P.O. BOX 330 • 14498 CROGHAN PIKE • MOUNT UNION, PA 17066-0330
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4908
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 03/17/08

CUSTOMER'S Order No.: 4024147-00

Bonney Order No. 00028821

SHIPPED TO: CCTF CORPORATION (DAKVILLE)
1387 CORNWALL ROAD

DAKVILLE, ONL6J 7T5 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS: |
|------|----------|---------|--|
|------|----------|---------|--|

- THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
- THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
- THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2005 AND NACE MR0175-2002.
- CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
- THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
- ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by Kylee Fleck

Kylee Fleck

QUALITY PROCESS MANAGER

CMTR: REV 1

CERTIFIED MILL TEST REPORT



**The Best Value
Price, Quality, Service
All The Time.**

LOG NO. 316681 PAGE 12

BONNEY FORGE
P.O. BOX 530 • 14496 CROGHAN PIKE • MOUNT UNION, PA 17066-0330
(814) 542-2545 • (800) 345-7545 • FAX (814) 542-4908
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 12/18/07

CUSTOMER'S Order No.: 4882397-00

Bonney Order No. B000023146

SHIPPED TO: CCTF CORPORATION (EDMONTON)
5407 - 53RD AVE.

EDMONTON, ABT4B 3G2 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS. |
|----------|----------|---------|---|
| SA/A105N | | | |
| 036 | 1958 | 3992 | 7523726 1/2 3000 A105N HCP T C .210 MN 1.020 P .009 S .019 SI .220 NI .030 CU .090 CO .004 CR .060 MD .010 V .000 AL .020 NB .014 CE(LONG FORMULA) = 0.40 T/S 76005 Y/S 53151 EL 33.90 RA 67.54 BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| 037 | 2000 | 3969 | 7523793 1 3000 A105N HCP T C .200 MN 1.020 P .017 S .020 SI .230 NI .040 CU .160 CO .003 CR .060 MD .010 V .000 AL .026 NB .014 CE(LONG FORMULA) = 0.40 T/S 75879 Y/S 52889 EL 34.25 RA 37.54 BRINELL HARDNESS1: 135 HARDNESS2: 132 |
| 038 | 1125 | 3930 | 7523882 2 3000 A105N HCP T C .200 MN 1.030 P .007 S .019 SI .190 NI .050 CU .160 CO .004 CR .100 MD .020 V .000 AL .031 NB .014 CE(LONG FORMULA) = 0.41 T/S 76875 Y/S 54375 EL 32.30 RA 67.00 BRINELL HARDNESS1: 132 HARDNESS2: 135 |
| | → 3960 | 7523882 | 2 3000 A105N HCP T C .200 MN 1.000 P .009 S .018 SI .210 NI .060 CU .220 CO .005 CR .120 MD .020 V .000 AL .022 NB .015 CE(LONG FORMULA) = 0.41 T/S 76250 Y/S 54750 EL 33.05 RA 68.35 BRINELL HARDNESS1: 137 HARDNESS2: 135 |

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

Cris Boozel

CMTR: REV 1

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 316681 PAGE 39

BONNEY FORGE
P.O. BOX 330 • 14496 CROGHAN PIKE • MOUNT UNION, PA 17066-033
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 12/18/07

CUSTOMER'S Order No.: 4882397-00

Bonney Order # B00023146

SHIPPED TO: CCTF CORPORATION (EDMONTON)
5407 - 53RD AVE.

EDMONTON, ABT6B 3G2 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS: |
|------|----------|---------|--|
|------|----------|---------|--|

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
3. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
4. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
5. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
5. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2005 AND NACE MR0175-2002.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill or as obtained by additional laboratory checks.

by 

Cris Boorel

CMTR: REV 1

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



**The Best Value
Price, Quality, Service
All The Time.**

LOG NO. 320659 PAGE 1

BONNEY FORGE
P.O. BOX 330 • 14498 CROGHAN PIKE • MOUNT UNION, PA 17
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 04/23/08

CUSTOMER'S Order No. 4024341-00

Bonney Order No. 000031633

SHIPPED TO: CCTF CORPORATION (OAKVILLE)
1387 CORNWALL ROAD

OAKVILLE, ONL6J 7T5 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS PHYSICAL PROPERTIES REMARKS. |
|----------|----------|---------------|---|
| SA/A105N | | | |
| 019 | 40 | 57310 7528523 | 11/2X11/2X3/4 3000 A105N TEE S C .190 MN 1.010 P .008 S .016 SI .220 NI .030 CU .100 CO .003 CR .060 MO .010 V .000 AL .029 NB .013 CE(LONG FORMULA) = 0.38 T/S 75000 Y/S 52250 EL 33.45 RA 66.55 BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| | | 57404 7528523 | 11/2X11/2X3/4 3000 A105N TEE S C .200 MN 1.010 P .006 S .022 SI .240 NI .060 CU .100 CO .006 CR .060 MO .020 V .000 AL .024 NB .014 CE(LONG FORMULA) = 0.40 T/S 73500 Y/S 46375 EL 32.20 RA 61.80 BRINELL HARDNESS1: 130 HARDNESS2: 130 |
| → 020 | 25 | 3900 7523335 | 1 3000 A105N HCP S C .200 MN 1.040 P .010 S .019 SI .260 NI .020 CU .120 CO .002 CR .040 MO .010 V .000 AL .024 NB .015 CE(LONG FORMULA) = 0.39 T/S 77411 Y/S 55203 EL 31.40 RA 65.08 BRINELL HARDNESS1: 132 HARDNESS2: 132 |
| 021 | 25 | 4036 7526202 | 11/2 3000 A105N CAP S C .200 MN 1.100 P .007 S .020 SI .230 NI .020 CU .090 CO .003 CR .030 MO .010 V .000 AL .025 NB .012 CE(LONG FORMULA) = 0.40 T/S 78015 Y/S 55402 EL 32.60 RA 64.97 BRINELL HARDNESS1: 130 HARDNESS2: 127 |

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory che

by Kylee Fleck
Kylee Fleck

CERTIFIED MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 320659 PAGE 1

BONNEY FORGE
P.O. BOX 330 • 14406 CROGHAN PIKE • MOUNT UNION, PA
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4908
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 04/23/08

CUSTOMER'S Order No. A024341-00

Bonney Order No. B000031633

SHIPPED TO: CCTF CORPORATION (DAKVILLE)
1387 CORNWALL ROAD

DAKVILLE, ONL6J 7T5 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS |
|------|----------|---------|---|
|------|----------|---------|---|

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
3. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2005 AND NACE MR0175-2002.
4. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
5. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
6. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
7. THE MATERIAL SUPPLIED IDENTIFIED AS A105GT WAS QUENCHED AND TEMPERED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory c

by 
Kylee Fleck



**The Best Value
Price, Quality, Service
All The Time.**

LOG NO. 320935 PAGE 1
 BONNEY FORGE
 P.O. BOX 390 • 14408 CROGMAN PIKE • MOLINT UNION, PA 170
 (814) 842-2845 • (800) 545-7846 • FAX (814) 842-4908
 www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 05/01/08

CUSTOMER'S Order No.:

Bonney Order No.

SHIPPED TO: CCTF CORPORATION

5407 - 53 AVENUE

EDMONTON ALBERTA, T6B 3G2 CANA

| ITEM | QUANTITY | LOT NO | GRADE | TEST RESULTS |
|------|----------|--------|-------|--------------|
|------|----------|--------|-------|--------------|

SA/A105

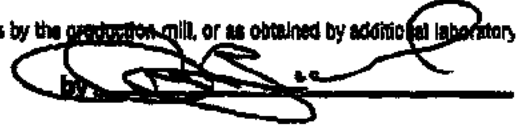
| | | | | |
|-----|--------|----------|--|--|
| 001 | → 4025 | 3/4 3000 | A105 COUP T | |
| | | | G .200 MN 1.020 P .006 S .022 BI .21 | |
| | | | NI .020 CU .090 CO .003 CR .060 MO .01 | |
| | | | V .000 AL .022 NB .012 | |
| | | | CE (LONG FORMULA) = 0.39 | |
| | | | T/S 79134 Y/S 48&28 EL 33.00 RA 59.00 | |
| | | | BRINELL HARDNESS1: 159 HARDNESS2: 161 | |

7523572

1. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
2. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
3. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
4. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2005 AND NACE MR0175-2002.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory



Cris Bouxel

CMTR: REV 1

QUALITY PROCESS MANAGER

6015
4500965
RECEIVED
JAN 11 2008
H7 7202365-1

Contract No: 07HGC020280
LC NO: 11019668V07010
Name of Customer:
ORDER NO: 07HGC
DESCRIPTION: SEAMLESS STEEL PIPES

HUIYANG VALIN STEEL TUBE CO., LTD
MILL TEST CERTIFICATE

Add: 10 Dulikoun, Hengyang City, Hunan, China
Tel and Fax: +86 734 8873759 8872942
Cables: 6993
P.C. 421001

Date: MAY 10, 2007
Page: 2/5

| TOTAL: 417PIECES; BUNDLES: 86,400MT; 87633FT | | | | | | | | | | | CERTIFICATE NO: 07-02-0506 | | | |
|---|-------------------|-------------------|-----------------|---------------------------------|---------|----------|----------|-------------------------|--------------------|------|----------------------------|------|------|--|
| SPEC: ASTM A838-2002/A106B-2002a, ASME SA838-2004/SA106B-2004, API 5LX PSL1-2004, NACE MR-0175-99 | | | | | | | | | | | | | | |
| NO. | BATCH NO. | HEAT NO. | STEEL GRADE | SIZE | BUNDLES | PIECES | FEET | THEORETICAL WEIGHT (MT) | ACTUAL WEIGHT (MT) | | | | | |
| 5 | 674100539 | 07201238-1 | B | 1.0000M X 0.1331INCHES X 21FEET | 7 | 637 | 13377 | 10.192 | N/A | N/A | | | | |
| 5 | 574200757 | 07202364-1 | B | 1.0000M X 0.1331INCHES X 21FEET | 6 | 546 | 11466 | 8.736 | N/A | N/A | | | | |
| 5 | 574200766 | 07202365-1 | B | 1.0000M X 0.1331INCHES X 21FEET | 7 | 637 | 13377 | 10.192 | N/A | N/A | | | | |
| 5 | 574400714 | 07202366-1 | B | 1.0000M X 0.1791INCHES X 21FEET | 4 | 364 | 7644 | 7.548 | N/A | N/A | | | | |
| 5 | 574300703 | 07302288-1 | B | 1.0000M X 0.1791INCHES X 21FEET | 4 | 364 | 7644 | 7.548 | N/A | N/A | | | | |
| 5 | 574400713 | 07202364-1 | B | 1.0000M X 0.1791INCHES X 21FEET | 4 | 364 | 7644 | 7.548 | N/A | N/A | | | | |
| 5 | 574400709 | 07202366-1 | B | 1.0000M X 0.1791INCHES X 21FEET | 2 | 182 | 3822 | 3.774 | N/A | N/A | | | | |
| 7 | 574200680 | 07300226-1 | B | 1.2600M X 0.1911INCHES X 21FEET | 18 | 1079 | 22859 | 30.97 | N/A | N/A | | | | |
| NONDESTRUCTIVE TEST | | | | | | | | | | | CHEMICAL COMPOSITION % | | | |
| NO. | CONDITION | BODY CURRENT TEST | ULTRASONIC TEST | C | SI | Mn | P | S | Cu | NI | Cr | Mo | V | |
| 5 | COLD-DRAWN(780°C) | OK | N/A | 0.19 | 0.23 | 0.54 | 0.023 | 0.019 | 0.03 | 0.01 | 0.03 | 0.00 | 0.00 | |
| 5 | COLD-DRAWN(780°C) | OK | N/A | 0.21 | 0.25 | 0.46 | 0.015 | 0.02 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 | |
| 5 | COLD-DRAWN(780°C) | OK | N/A | 0.21 | 0.25 | 0.46 | 0.015 | 0.02 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 | |
| 5 | COLD-DRAWN(780°C) | OK | N/A | 0.21 | 0.22 | 0.45 | 0.012 | 0.013 | 0.02 | 0.01 | 0.02 | 0.00 | 0.00 | |
| 5 | COLD-DRAWN(780°C) | OK | N/A | 0.19 | 0.23 | 0.54 | 0.012 | 0.004 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 | |
| 5 | COLD-DRAWN(780°C) | OK | N/A | 0.21 | 0.25 | 0.46 | 0.015 | 0.02 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 | |
| 5 | COLD-DRAWN(780°C) | OK | N/A | 0.21 | 0.22 | 0.45 | 0.012 | 0.013 | 0.02 | 0.01 | 0.02 | 0.00 | 0.00 | |
| 5 | COLD-DRAWN(780°C) | OK | N/A | 0.21 | 0.23 | 0.44 | 0.014 | 0.015 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 | |
| DELIVERY | | | | | | | | | | | HYDROSTATIC TEST | | | |
| NO. | TENSILE STRENGTH | YIELD STRENGTH | ELONGATION | AK (J) | IMPACT | HARDNESS | HARDNESS | TEST | TEST | TEST | TEST | TEST | TEST | |
| 5 | 70325 | 46400 | 42 | N/A | N/A | HRC 4.5 | HRC 4.5 | 2000 PSI | N/A | N/A | N/A | OK | OK | |
| 5 | 59500 | 45875 | 42 | N/A | N/A | HRC 3.5 | HRC 3.5 | 2000 PSI | N/A | N/A | N/A | OK | OK | |
| 5 | 68150 | 44225 | 44 | N/A | N/A | HRC 4.5 | HRC 4.5 | 2000 PSI | N/A | N/A | N/A | OK | OK | |
| 5 | 76125 | 49300 | 38.5 | N/A | N/A | HRC 3.5 | HRC 3.5 | 2000 PSI | N/A | N/A | N/A | OK | OK | |
| 5 | 76400 | 48575 | 41.5 | N/A | N/A | HRC 5.0 | HRC 5.0 | 2000 PSI | N/A | N/A | N/A | OK | OK | |
| 5 | 73225 | 47650 | 37.5 | N/A | N/A | HRC 3.0 | HRC 3.0 | 2000 PSI | N/A | N/A | N/A | OK | OK | |
| 5 | 70325 | 45875 | 42.5 | N/A | N/A | HRC 4.0 | HRC 4.0 | 2000 PSI | N/A | N/A | N/A | OK | OK | |
| 5 | 68150 | 44225 | 38 | N/A | N/A | HRC 5.0 | HRC 5.0 | 2000 PSI | N/A | N/A | N/A | OK | OK | |

REMARKS: 1. We hereby certify that the material has been manufactured, sampled, tested and inspected in accordance with the required standards.
2. Properties compliance to DIN 50049 3.1.B.
3. BRINELL /Rockwell hardness certified to NACE MR-0175-99.
4. SPECIMEN SIZE: (Pipe end, Longitudinal, Gauge Length=2")
A. For pipes < 1" full length specimen were used;
B. For pipes > 1" longitudinal strip specimen were used; the width of the gauge length portion is 3/4".
5. Origin: Made in China.

QUALITY MANAGER,

ORIGINAL

Lo Tech Manufacturing Inc.

Fuel Gas Scrubbers • Desiccant Dehydrators • Check Valves

7719 - 69 Street
Edmonton, Alberta T6B 1V4
Phone: (780) 440-5064
Fax: (780) 440-5172

Certificate Of Compliance

RECEIVED JUN 23 2008

I Hereby Certify That The Below Registered Category "H" Pressure Fitting Has Been Designed, Manufactured, and Pressure Tested In Accordance With The Alberta Safety Codes Act, CSA B51 And ASME Section VIII, Division 1, 2007 Edition.

| | | | | | |
|--------------|--------------|--------|----------------|-------|--------|
| CRN | 0H5415.21345 | | | | |
| S/N | 8600.666 ✓ | | | | |
| Diameter | 8.625 | Inches | Overall Length | 56 | Inches |
| Year Built | 2008 | | | | |
| MAWP | 600 | PSIG | @ | 650 | °F |
| MDMT | -20 °F | | | | |
| C.A. | 0.0625 | Inches | | | |
| Radiography | N/A | | | | |
| PWHT : | Time | N/A | min. | Temp. | N/A °F |
| Hydro Tested | @ | 780 | PSIG | | |


Quality Control Manager
Dennis Klokoeki

June 20, 2008

HT 6H33

INSPECTION CERTIFICATE

DATE: 2006-09-0

PURCHASER: SEYBOLD INTERNATIONAL CORP.
 ASTM A234 WPB-06
 STANDARD: ASME SA234 WPB-03
 MATERIALS: ASTM A106 Gr.B
 INSP SPEC.: ASME B16.9-03

SHANGHAI GATEWAY FITTINGS CO.,LTD
 951, Kesheng Road, Beijing, Mahe town, Jiading District,
 Shanghai, China
 TEL: 86-21-54145661 FAX: 86-21-54145662

ORDER NO: 6D01
 P.I.NO: 5637
 CERTIF. NO: 06102-4

| ITEM NO. | PRODUCT & SIZE | QUANTITY PCS | MFG NO. | VERADUR® ADDITIONAL INSPECTION | HARDNESS MAX.197HB | BEAT TREATMENT (NOTE) | MAGNETIC PARTICLE EXAMINATION |
|----------|----------------|--------------|---------|--------------------------------|--------------------|-----------------------|---|
| 31 | CAP-1-1/2" STD | 30 | 6G156 | GOOD | 89-76 | N | <div style="border: 1px solid black; padding: 5px; text-align: center;"> RECEIVED APR 15 2008 </div> |
| 32 | CAP-2" STD | 168 | 6G69 | GOOD | 88-75 | N | |
| 33 | CAP-4" STD | 380 | 6G32 | GOOD | 95-87 | N | |
| 34 | CAP-6" STD | 300 | 6G33 | GOOD | 92-84 | N | |
| 35 | CAP-8" STD | 350 | 6H33 | GOOD | 91-79 | N | |
| 36 | CAP-10" STD | 150 | 6H37 | GOOD | 89-72 | N | |
| 37 | TEE-2" STD | 50 | 6G84 | GOOD | 88-76 | N | |
| 38 | TEE-3" STD | 100 | 6G86 | GOOD | 91-76 | N | |
| 39 | TEE-4" STD | 300 | 6G87 | GOOD | 89-75 | N | |
| 40 | TEE-10" STD | 8 | 6G118 | GOOD | 98-79 | N | |

| ITEM NO. | MATERIAL CHARGENO. | CHEMICAL COMPOSITION % | | | | | | | | | | | PHYSICAL TEST | | | |
|----------|--------------------|------------------------|----|-----|----|----|----|-----|----|----|-------|--------|---------------|-------|-------|--|
| | | C | SI | Mn | P | S | Cu | Ni | Cr | Mo | V | YS KSI | TS KSI | E % | CLF % | |
| | | MIN. | 19 | 29 | 50 | 58 | 40 | 48 | 15 | 8 | 35.5 | 60 | | | | |
| | | MAX. | 30 | 106 | 50 | 58 | 40 | 48 | 15 | 8 | 85.0 | | | | | |
| 31 | DL4421518 | 15 | 18 | 38 | 11 | 2 | 0 | 0 | 0 | 0 | 44.98 | 67.32 | 32.0 | 21.5 | | |
| 32 | DL9533192 | 12 | 15 | 33 | 10 | 14 | 0 | 0 | 0 | 0 | 40.63 | 68.28 | 33.0 | 17.54 | | |
| 33 | DL4515920 | 13 | 18 | 34 | 8 | 16 | 0 | 0 | 0 | 0 | 47.16 | 64.57 | 31.0 | 18.6 | | |
| 34 | DL4515920 | 13 | 18 | 34 | 8 | 16 | 0 | 0 | 0 | 0 | 47.16 | 64.57 | 31.0 | 18.6 | | |
| 35 | DL9328485 | 16 | 18 | 35 | 8 | 17 | 0 | 0 | 0 | 0 | 45.71 | 68.92 | 32.0 | 21.81 | | |
| 36 | 3049180480 | 16 | 15 | 37 | 16 | 12 | 0 | 0 | 0 | 0 | 50.79 | 66.75 | 30.0 | 24.1 | | |
| 37 | 4230 | 19 | 24 | 52 | 13 | 14 | 0 | 2 | 0 | 0 | 46.43 | 65.38 | 37.0 | 28.21 | | |
| 38 | 3819 | 28 | 26 | 52 | 15 | 19 | 1 | 1 | 0 | 0 | 45.90 | 66.75 | 31.5 | 29.91 | | |
| 39 | 562649 | 19 | 23 | 45 | 10 | 4 | 12 | 4 | 0 | 0 | 43.53 | 71.83 | 34.5 | 39.57 | | |
| 40 | 05400513 | 26 | 27 | 57 | 18 | 5 | 5 | 1.3 | 0 | 0 | 47.20 | 71.10 | 32.0 | 39.57 | | |

(NOTE): HOT FORMED WITH FINAL TEMPERATURE BETWEEN 620°C - 900°C. AIR COOLING.

N: NORMALIZING AT TEMPERATURE 880°C ±15 ER. AIR COOLING.

NACE MR-01-75 : SATISFACTORY

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE SPECIFICATIONS CONCERNED AND ALSO WITH THE PURCHASER'S REQUIREMENTS AND THAT THE TEST RESULTS SHOWN HEREIN ARE CORRECT.

[Signature]

MANAGER OF Q. A. DEPT

RECEIVED

APR 04 2008

江苏省江阴市夏港镇德胜路375号
No.375,Zhenzhong Rd,Xianggang Town Jiangyin City
Jiangsu Province, China (214442) http://www.cjgg.com.cn
Tel:86-510-6160703 Fax:86-510-6167989

产品合格证
N10204.3.1.13-01463
TEST CERTIFICATE

江阴市无缝钢管厂
JIANGYIN CITY SEAMLESS STEEL TUBE FACTORY

总件数 Total Pieces: 49 总重量 Total Weight: 246 日期 Date: 2007年06月23日 合同编号 Contract No.: 0703310334

收货单位 PURCHASER: 产品名称 Product: CARBON STEEL SEAMLESS PIPE 许可证号 License No.: 0503

规格 Size: O.D. x W.T. x L. (mm): 8" x SCH40 x 12000 交货状态 Delivery Status: HOT-ROLLING

| 序号 NO. | 炉号 Heat No. | 批号 Batch No. | 支数 BDL PCS | 重量 (t) WT | 尺寸 Dimension | 标距长度 Gauge Length (mm) | 拉伸试验 Tensile Test | | 冲击速度 T.S. PSI | 冲击试验 Impact Test | | 硬度值 Hardness Value |
|--------|-------------|--------------|------------|-----------|--------------|------------------------|-------------------|--------------|---------------|--------------------|----------------------|--------------------|
| | | | | | | | 屈服强度 Y.S. PSI | 伸长率 E.L. (%) | | 纵向冲击 AK Transverse | 横向冲击 AK Longitudinal | |
| 1 | 73-01464 | Y327030293 | 10 | 25.530 | *1-A2 | 50 | 50035/52935 | 38/38 | 74690/76145 | | 20 | |
| 2 | 73-01395 | Y317030251 | 18 | 45.954 | *1-A2 | 50 | 50035/48585 | 39.5/38.5 | 74690/71790 | | 19.5 | |
| 3 | 73-01463 | Y327030292 | 21 | 53.613 | *1-A2 | 50 | 52210/51485 | 37/37.5 | 75420/76870 | | 20.5 | |
| 4 | | | | | | | | | | | | |

| 序号 NO. | 类别 Type | 化学成分(%) Chemical Composition | | | | | | | | | | | 金相分析 Metallogical Analysis | | | | | |
|--------|---------|------------------------------|-------|-------|------|-------|-------|-------|-------|-------|-------|------|----------------------------|--------------|--------------------|---------------|---------------|---------------|
| | | C | Si | Mn | P | S | Cr | Ni | Cu | Mo | V | CE | Mn/C | Cr+Cu+Mo+N+V | 晶粒度 (级) Grain size | 夹杂物 Inclusion | 带状组织 (级) B.S. | 原厚度 (mm) D.L. |
| 1 | R | 0.190 | 0.240 | 0.590 | 0.13 | 0.006 | 0.020 | 0.10 | 0.040 | 0.010 | 0.020 | 0.30 | 3.11 | 0.10 | | | | |
| 2 | R | 0.210 | 0.260 | 0.500 | 0.12 | 0.009 | 0.010 | 0.020 | 0.040 | 0.010 | 0.10 | 0.30 | 2.38 | 0.09 | | | | |
| 3 | R | 0.180 | 0.280 | 0.590 | 0.13 | 0.004 | 0.020 | 0.10 | 0.040 | 0.010 | 0.020 | 0.29 | 3.28 | 0.10 | | | | |
| 4 | R | | | | | | | | | | | | | | | | | |

注: 1. 纵向条状 Longitudinal Strip: A1-12.7mm, A2-19.05mm A3-25.4mm A4-38.1mm, F-全圆面 Full-section *2棒状 Clubbed B1=12.7mm, B2=8.9mm, B3=6mm, B4=10mm *3: 纵向条状 Transverse Strip: C1-12.7mm, C2-19.05mm C3-25.4mm C4-38.1mm, *4: D1=10x10x55mm D2=10x7.5x55mm D3=10x5x55mm *5: C-成品成分 Product composition R-熔炼成分 Melting composition %F-铁素体 Ferrite B-贝氏体 Bainite P-珠光体 Pearlite S-回火索氏体 Tempered Sorbite M-马氏体 Martensite

1. NO WELD REPAIRS WERE PERFORMED; 2. PIPES ARE FREE OF MERCURY AND SILICONE; 3. CE=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15; 4. API 5L Gr.B-43rd Edition; 5. ON THEORETICAL WEIGHT BASIS; 6. ORIGIN: CHENGDU, CHINA.

说明: 本证书以原件为准, 复印无效。
Remark: No duplicate will be accepted.

质量管理部门负责人 Quality Manager: 胡才理
审核人 Auditor: 胡才理
制证人: 许基加
Certification-maker: 许基加

CERTIFIED MILL TEST REPORT



**The Best Value
Price, Quality, Service
All The Time.**

LOG NO. 316681 PAGE 12
 BONNEY FORGE
 P.O. BOX 330 • 14498 CROGHAN PIKE • MOUNT UNION, PA 17066-0330
 (814) 642-2546 • (800) 345-7546 • FAX (814) 542-4808
 www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 12/18/07

CUSTOMER'S Order No.: 4882397-00

Bonney Order No. B000023146

SHIPPED TO: CCTF CORPORATION (EDMONTON)
 5407 - 53RD AVE.

EDMONTON, ABT6B 3G2 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS. |
|----------|----------|---------|--|
| SA/A105N | | | |
| 036 | 1958 | 3992 | 7523726 |
| | | | 1/2 3000 A105N HCP T |
| | | | C .210 MN 1.020 P .009 S .019 SI .220 |
| | | | NI .030 CU .090 CD .004 CR .060 MD .010 |
| | | | V .000 AL .020 NB .016 |
| | | | CE(LONG FORMULA) = 0.40 |
| | | | T/S 76005 Y/S 55151 EL 33.90 RA 67.54 |
| | | | BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| 037 | 2000 | 3969 | 7523793 |
| | | | 1 3000 A105N HCP T |
| | | | C .200 MN 1.020 P .017 S .020 SI .230 |
| | | | NI .040 CU .160 CD .003 CR .060 MD .010 |
| | | | V .000 AL .026 NB .014 |
| | | | CE(LONG FORMULA) = 0.40 |
| | | | T/S 75879 Y/S 52889 EL 34.25 RA 37.54 |
| | | | BRINELL HARDNESS1: 135 HARDNESS2: 132 |
| 038 | 1125 | 3930 | 7523882 |
| | | | 2 3000 A105N HCP T |
| | | | C .200 MN 1.030 P .007 S .019 SI .190 |
| | | | NI .050 CU .160 CD .004 CR .100 MD .020 |
| | | | V .000 AL .031 NB .014 |
| | | | CE(LONG FORMULA) = 0.41 |
| | | | T/S 76875 Y/S 54375 EL 32.30 RA 67.00 |
| | | | BRINELL HARDNESS1: 132 HARDNESS2: 135 |
| | → 3960 | | 7523882 |
| | | | 2 3000 A105N HCP T |
| | | | C .200 MN 1.000 P .009 S .018 SI .210 |
| | | | NI .060 CU .220 CD .005 CR .120 MD .020 |
| | | | V .000 AL .022 NB .015 |
| | | | CE(LONG FORMULA) = 0.41 |
| | | | T/S 76250 Y/S 54750 EL 33.05 RA 68.35 |
| | | | BRINELL HARDNESS1: 137 HARDNESS2: 135 |

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

Cris Boozel

CMTR: REV 1

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 316681 PAGE 39
BONNEY FORGE
P.O. BOX 330 • 14405 CROGHAN PIKE • MOUNT UNION, PA 17068-033
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 12/18/07

CUSTOMER'S Order No.: 4892397-00

Bonney Order # 000023146

SHIPPED TO: CCTF CORPORATION (EDMONTON)
5407 - 53RD AVE.

EDMONTON, ABT6B 3G2 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS. |
|------|----------|---------|--|
|------|----------|---------|--|

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
3. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
4. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
5. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
6. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2005 AND NACE MR0175-2002.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by 

Cris Boorel

CMTR: REV 1

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



**The Best Value
Price, Quality, Service
All The Time.**

LOG NO. 319433 PAGE 5

BONNEY FORGE
P.O. BOX 330 • 14495 CROGHAN PIKE • MOUNT UNION, PA 17066-0330
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 03/17/08

CUSTOMER'S Order No.:4024147-00

Bonney Order No 000028821

SHIPPED TO: CCTF CORPORATION (DAKVILLE)
1387 CORNWALL ROAD

DAKVILLE, ONL6J 7T5 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS. |
|----------|----------|---------|--|
| SA/A105N | | | |
| 014 | 100 | 4005 | 7524406 1X3/4 3M A105N REDU T C .210 MN 1.020 P .009 S .019 SI .220 NI .030 CU .090 CD .004 CR .040 MO .010 V .000 AL .020 NB .016 CE(LONG FORMULA) = 0.40 T/S 76005 Y/S 55151 EL 33.90 RA 64.54 BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| 015 | 16 | 3726 | 7521022 2X1 3M A105N REDU T C .190 MN 1.000 P .009 S .019 SI .210 NI .050 CU .140 CD .003 CR .040 MO .010 V .000 AL .017 NB .016 CE(LONG FORMULA) = 0.38 T/S 73500 Y/S 51500 EL 37.00 RA 68.00 BRINELL HARDNESS: 137 |
| 016 | 250 | 4049 | 7520433 3/8 3000 A105N HCP T C .200 MN 1.020 P .006 S .021 SI .220 NI .030 CU .090 CD .003 CR .030 MO .010 V .000 AL .029 NB .013 CE(LONG FORMULA) = 0.39 T/S 77125 Y/S 57875 EL 32.85 RA 69.25 BRINELL HARDNESS1: 141 HARDNESS2: 139 |
| 017 | 200 | 3987 | 7523882 2 3000 A105N HCP T C .200 MN 1.040 P .007 S .017 SI .210 NI .020 CU .080 CD .003 CR .040 MO .010 V .000 AL .020 NB .014 CE(LONG FORMULA) = 0.39 T/S 70000 Y/S 44900 EL 33.00 RA 71.00 BRINELL HARDNESS1: 130 HARDNESS2: 132 |

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by

Kylee Fleck
Kylee Fleck

QUALITY PROCESS MANAGER

CMTR: REV 1

CERTIFIED MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 319433 PAGE 19

BONNEY FORGE
P.O. BOX 390 • 14488 CROGHAN PIKE • MOUNT UNION, PA 17066-0390
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 03/17/08

CUSTOMER'S Order No.: 4024147-00

Bonney Order No. 00028821

SHIPPED TO: CCTF CORPORATION (DAKVILLE)
1387 CORNWALL ROAD

DAKVILLE, ONL6J 7T5 Canada

ITEM QUANTITY LOT NO.

GRADE OR SPECIFICATION NO.
CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:

- 1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
- 2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
- 3. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2005 AND NACE MR0175-2002.
- 4. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
- 5. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
- 6. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by


Kylee Fleck

QUALITY PROCESS MANAGER

CMTR: REV 1



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 320935 PAGE 1

BONNEY FORGE
P.O. BOX 390 • 14485 CROGHAN PIKE • MOUNT UNION, PA 170
(814) 542-2845 • (800) 542-7546 • FAX (814) 542-4803
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 09/01/08

CUSTOMER'S Order No.:

Bonney Order No.

SHIPPED TO: CCTF CORPORATION

5407 - 53 AVENUE

EDMONTON ALBERTA, T6B 3G2 CANA

| ITEM | QUANTITY | LOT NO | GRADE OR SPECIFICATION | QUANTITY | TEST RESULTS |
|------|----------|--------|------------------------|----------|--------------|
|------|----------|--------|------------------------|----------|--------------|

SA/A105

001 → 4025 3/4 3000 A105 COUP T

| | | | | | | | | | |
|----|------|----|-------|----|------|----|------|----|-----|
| C | .200 | MN | 1.020 | P | .006 | S | .022 | SI | .21 |
| NI | .020 | CU | .090 | CO | .003 | CR | .060 | MO | .01 |
| V | .000 | AL | .022 | NB | .012 | | | | |

7523572

CE(LONG FORMULA) = 0.39
T/B 79134 Y/S 48428 EL 33.00 RA 59.00
BRINELL HARDNESS1: 159 HARDNESS2: 161

1. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
2. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
3. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
4. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2005 AND NACE MR0175-2002.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory.

Cris Boesel

CMTR: REV 1

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



The Best Value
 Price, Quality, Service
 All The Time.

LOG NO. 320659 PAGE 1

BONNEY FORGE
 P.O. BOX 330 • 14486 CROGHAN PIKE • MOUNT UNION, PA 17
 (814) 542-2545 • (800) 345-7546 • FAX (814) 542-4908
 www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 04/23/08

CUSTOMER'S Order No.: 4024341-00

Bonney Order No.: 000031633

SHIPPED TO: CCTF CORPORATION (DAKVILLE)
 1387 CORNWALL ROAD

DAKVILLE, ONL6J 7T5 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. | CHEMICAL ANALYSIS | | | | PHYSICAL PROPERTIES | | | | REMARKS | |
|----------|----------|---------|----------------------------|---------------------------------------|------|----|-------|---------------------|------|----|------|---------|-----------|
| | | | | C | NI | V | CE | T/S | Y/S | EL | RA | | HARDNESS1 |
| SA/A105N | | | | | | | | | | | | | |
| 019 | 40 | 57310 | 7528523 | 11/2X11/2X3/4 3000 A105N TEE S | | | | | | | | | |
| | | | | C | .190 | MN | 1.010 | P | .008 | S | .016 | SI | .220 |
| | | | | NI | .030 | CU | .100 | CO | .003 | CR | .060 | MO | .010 |
| | | | | V | .000 | AL | .029 | NB | .013 | | | | |
| | | | | CE(LONG FORMULA) = 0.38 | | | | | | | | | |
| | | | | T/S 75000 Y/S 52250 EL 33.45 RA 66.55 | | | | | | | | | |
| | | | | BRINELL HARDNESS1: 127 HARDNESS2: 127 | | | | | | | | | |
| | | 57404 | 7528523 | 11/2X11/2X3/4 3000 A105N TEE S | | | | | | | | | |
| | | | | C | .200 | MN | 1.010 | P | .006 | S | .022 | SI | .240 |
| | | | | NI | .060 | CU | .100 | CO | .006 | CR | .060 | MO | .020 |
| | | | | V | .000 | AL | .024 | NB | .014 | | | | |
| | | | | CE(LONG FORMULA) = 0.40 | | | | | | | | | |
| | | | | T/S 73500 Y/S 46375 EL 32.20 RA 61.80 | | | | | | | | | |
| | | | | BRINELL HARDNESS1: 130 HARDNESS2: 130 | | | | | | | | | |
| → 020 | 25 | 3900 | 7523335 | 1 3000 A105N HCP S | | | | | | | | | |
| | | | | C | .200 | MN | 1.040 | P | .010 | S | .019 | SI | .260 |
| | | | | NI | .020 | CU | .120 | CO | .002 | CR | .040 | MO | .010 |
| | | | | V | .000 | AL | .024 | NB | .015 | | | | |
| | | | | CE(LONG FORMULA) = 0.39 | | | | | | | | | |
| | | | | T/S 77411 Y/S 55203 EL 31.40 RA 65.08 | | | | | | | | | |
| | | | | BRINELL HARDNESS1: 132 HARDNESS2: 132 | | | | | | | | | |
| 021 | 25 | 4036 | 7526202 | 11/2 3000 A105N CAP S | | | | | | | | | |
| | | | | C | .200 | MN | 1.100 | P | .007 | S | .020 | SI | .230 |
| | | | | NI | .020 | CU | .090 | CO | .003 | CR | .030 | MO | .010 |
| | | | | V | .000 | AL | .025 | NB | .012 | | | | |
| | | | | CE(LONG FORMULA) = 0.40 | | | | | | | | | |
| | | | | T/S 78015 Y/S 55402 EL 32.60 RA 64.97 | | | | | | | | | |
| | | | | BRINELL HARDNESS1: 130 HARDNESS2: 127 | | | | | | | | | |

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory che

by Kylee Fleck
 Kylee Fleck

CERTIFIED MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 320659 PAGE 1

BONNEY FORGE
P.O. BOX 330 • 14496 CROGHAN PIKE • MOUNT UNION, PA
(814) 542-2545 • (800) 345-7548 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 04/23/08

CUSTOMER'S Order No. A024341-00

Bonney Order No. 8000031630

SHIPPED TO: CCTF CORPORATION (OAKVILLE)
1397 CORNWALL ROAD

OAKVILLE, ONL6J 7T5 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS |
|------|----------|---------|---|
|------|----------|---------|---|

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
3. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2005 AND NACE MR0175-2002.
4. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
5. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
6. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
7. THE MATERIAL SUPPLIED IDENTIFIED AS A105GT WAS QUENCHED AND TEMPERED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory c

by Kylee Fleck
Kylee Fleck

CERTIFIED MILL TEST REPORT



**The Best Value
Price, Quality, Service
All The Time.**

LOG NO. 319337 PAGE 1
BONNEY FORGE
 P.O. BOX 330 • 14486 CROGHAN PIKE • MOUNT UNION, PA 171
 (814) 542-2645 • (800) 345-7546 • FAX (814) 542-4906
 www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 03/14/08

CUSTOMER'S Order No.:48B3252-00

Bonney Order No.

**SHIPPED TO: CCTF CORPORATION
5407 - 53 AVENUE**

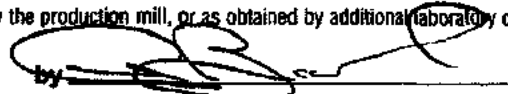
B000026362

EDMONTON, ABT6B 3G2 Canada

| ITEM | QUANTITY | LOT NO. | GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS. |
|-----------------|----------|--------------|--|
| SA/A105N | | | |
| 033 | 25 | 3605 MALE | 7527063 1/4 6000 A105N UNAR T C .200 MN 1.000 P .009 S .020 SI .180 NI .040 CU .150 CO .003 CR .060 MO .010 V .000 AL .021 NB .015 CE(LONG FORMULA) = 0.39 T/S 74750 Y/S 53875 EL 33.15 RA 67.25 BRINELL HARDNESS1: 132 HARDNESS2: 135 |
| 035 | 200 | 57377 | 7525451 1/2 3000 A105N 90EL S C .200 MN 1.150 P .009 S .022 SI .180 NI .020 CU .070 CO .002 CR .060 MO .010 V .001 AL .025 NB .014 CE(LONG FORMULA) = 0.41 T/S 73750 Y/S 49875 EL 32.95 RA 66.10 BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| 036 | 1800 | 57436 | 7525516 1 3000 A105N 90EL S C .200 MN 1.020 P .019 S .018 SI .230 NI .040 CU .120 CO .003 CR .060 MO .010 V .000 AL .028 NB .012 CE(LONG FORMULA) = 0.39 T/S 76375 Y/S 52375 EL 31.35 RA 67.00 BRINELL HARDNESS1: 127 HARDNESS2: 127 |
| | | → 57443 | 7525516 1 3000 A105N 90EL S C .190 MN 1.040 P .011 S .020 SI .200 NI .020 CU .080 CO .002 CR .040 MO .010 V .000 AL .022 NB .013 CE(LONG FORMULA) = 0.38 T/S 74000 Y/S 51500 EL 31.00 RA 67.00 BRINELL HARDNESS1: 144 HARDNESS2: 141 |

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory ct

by 

Cris Boozel

CERTIFIED MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 319337 PAGE 24

BONNEY FORGE
P.O. BOX 330 • 14496 CROGHAN PIKE • MOUNT UNION, PA 171
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 03/14/08

CUSTOMER'S Order No.:4883252-00

Bonney Order No.

SHIPPED TO: CCTF CORPORATION
5407 - 53 AVENUE

B000026362

EDMONTON, ABT6B 3G2 Canada

ITEM QUANTITY LOT NO.

GRADE OR SPECIFICATION NO.
CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS

1. THE MATERIAL SUPPLIED IDENTIFIED AS A105GT WAS QUENCHED AND TEMPERED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
2. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
3. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
4. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION.
5. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
6. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
7. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2003 AND NACE MR0175-2002.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory test

by

Cris Boozel

600
4500905
RECEIVED
JAN 11 2008
H7 7202365-1

Contract No: 07HGC020280
L/C NO.: 11013668707010
Name of Customer:
ORDER NO: 07HGC
DESCRIPTION: SEAMLESS STEEL PIPES

HEBYANG VALIN STEEL TUBE CO., LTD
MILL TEST CERTIFICATE
Date: MAY 10, 2007
Page: 2/5

Address: 10 Dalixincuo, Hengyang City, Hunan, China
Tel and Fax: +86 734 8873739 8872942
Cable: 6993
P.C. 421001

| BATCH NO. | | HEAT NO. | STEEL GRADE | SIZE | BUNDLES | PIECES | FEET | THEORETICAL WEIGHT (MT) | ACTUAL WEIGHT (MT) | CERTIFICATE NO. | | | | |
|------------------------|------------------|----------------|---------------------|--------------------------------|----------|------------------|--------------|-------------------------|--------------------|-----------------|------|------|------|------|
| 5 | 574100539 | 57201238-1 | B | 1.000MM X 0.133INCHES X 21FEET | 7 | 637 | 13377 | 10.192 | N/A | 9506 | | | | |
| 5 | 574200767 | 07202384-1 | B | 1.000MM X 0.133INCHES X 21FEET | 6 | 546 | 11466 | 8.736 | N/A | | | | | |
| 5 | 574200766 | 07202385-1 | B | 1.000MM X 0.133INCHES X 21FEET | 7 | 637 | 13377 | 10.192 | N/A | | | | | |
| 6 | 574400714 | 07202386-1 | B | 1.000MM X 0.179INCHES X 21FEET | 4 | 364 | 7644 | 7.548 | N/A | | | | | |
| 6 | 574300703 | 07302286-1 | B | 1.000MM X 0.179INCHES X 21FEET | 4 | 364 | 7644 | 7.548 | N/A | | | | | |
| 6 | 574400713 | 07202384-1 | B | 1.000MM X 0.179INCHES X 21FEET | 4 | 364 | 7644 | 7.548 | N/A | | | | | |
| 6 | 574400709 | 07202386-1 | B | 1.000MM X 0.179INCHES X 21FEET | 2 | 182 | 3822 | 3.774 | N/A | | | | | |
| 7 | 574200850 | 07300226-1 | B | 1.260MM X 0.191INCHES X 21FEET | 18 | 1079 | 22659 | 30.87 | N/A | | | | | |
| CHEMICAL COMPOSITION % | | | | | | | | | | | | | | |
| NO. | CONDITION | DELIVERY | NONDESTRUCTIVE TEST | | | | | | | | | | | |
| 5 | COLD-DRAWN(70°C) | OK | BODY CURRENT TEST | ULTRASONIC TEST | C | SI | Mn | P | S | CA | NI | CR | MO | V |
| 5 | COLD-DRAWN(70°C) | OK | N/A | N/A | 0.19 | 0.23 | 0.54 | 0.023 | 0.019 | 0.03 | 0.01 | 0.03 | 0.00 | 0.00 |
| 5 | COLD-DRAWN(70°C) | OK | N/A | N/A | 0.21 | 0.25 | 0.46 | 0.015 | 0.02 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 |
| 5 | COLD-DRAWN(70°C) | OK | N/A | N/A | 0.21 | 0.25 | 0.46 | 0.015 | 0.02 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 |
| 6 | COLD-DRAWN(70°C) | OK | N/A | N/A | 0.21 | 0.22 | 0.45 | 0.012 | 0.013 | 0.02 | 0.01 | 0.02 | 0.00 | 0.00 |
| 6 | COLD-DRAWN(70°C) | OK | N/A | N/A | 0.19 | 0.23 | 0.54 | 0.012 | 0.004 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 |
| 6 | COLD-DRAWN(70°C) | OK | N/A | N/A | 0.21 | 0.25 | 0.4 | 0.015 | 0.02 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 |
| 6 | COLD-DRAWN(70°C) | OK | N/A | N/A | 0.21 | 0.22 | 0.45 | 0.012 | 0.013 | 0.02 | 0.01 | 0.02 | 0.00 | 0.00 |
| 6 | COLD-DRAWN(70°C) | OK | N/A | N/A | 0.21 | 0.23 | 0.44 | 0.014 | 0.015 | 0.02 | 0.01 | 0.03 | 0.00 | 0.00 |
| MECHANICAL TEST | | | | | | | | | | | | | | |
| NO. | TENSILE STRENGTH | YIELD STRENGTH | ELONGATION | IMPACT | HARDNESS | HYDROSTATIC TEST | FLATTEN TEST | BEND TEST | | | | | | |
| 5 | 7025 | 46400 | 42 | N/A | HRC 4.5 | 2800 PSI | N/A | OK | | | | | | |
| 5 | 69600 | 45675 | 42 | N/A | HRC 3.5 | 2800 PSI | N/A | OK | | | | | | |
| 5 | 68150 | 44225 | 44 | N/A | HRC 4.5 | 2800 PSI | N/A | OK | | | | | | |
| 6 | 76125 | 49300 | 38.5 | N/A | HRC 3.5 | 2800 PSI | N/A | OK | | | | | | |
| 6 | 75400 | 48575 | 41.5 | N/A | HRC 5.0 | 2800 PSI | N/A | OK | | | | | | |
| 6 | 73225 | 47850 | 37.5 | N/A | HRC 3.0 | 2800 PSI | N/A | OK | | | | | | |
| 6 | 70825 | 45675 | 42.5 | N/A | HRC 4.0 | 2800 PSI | N/A | OK | | | | | | |
| 6 | 68150 | 44225 | 38 | N/A | HRC 4.0 | 2800 PSI | N/A | OK | | | | | | |

REMARKS: 1. We hereby certify that the material has been manufactured, sampled, tested and inspected in accordance with the required standards.
2. Properties compliance to DIN 50049 3.1.B.
3. BRINELL/ROCKWELL hardness certified to NACE MR-0175-99.
4. SPECIMEN SIZE: (Pipe end, Longitudinal, Gauge Length=2")
A. For pipes ≤ 1" full length specimen were used;
B. For pipes > 1" longitudinal strip specimen were used; the width of the gauge length portion is 3/4".
5. Origin: Made in China.

QUALITY MANAGER:

ORIGINAL

ALBERTA MUNICIPAL AFFAIRS
 ABSA - the pressure equipment authority
 200, 4208 - 97 Street
 Edmonton AB T6E 5Z9

RECEIVED JUN 23 2008

AB-24 (side 1) 2004/10

MANUFACTURER'S DATA REPORT
 FOR MINIATURE PRESSURE VESSEL
 DÉCLARATION DE CONFORMITÉ DU CONSTRUCTEUR
 D'APPAREILS SOUS PRESSION

Upon shipment of a pressure vessel, this form fully and correctly filled in must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under the Act, governing the construction and installation of pressure vessels.

Au moment de l'expédition d'un appareil sous pression, ce formulaire complété correctement, doit être envoyé au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

| | |
|---|---|
| Manufactured by Construit par | Name and address of Manufacturer/ Nom et adresse du constructeur GLOBAL HEAT TRANSFER LTD., 7716-67 STREET, EDMONTON ALBERTA |
| Manufactured for Construit pour | Name and address of Purchaser or Consignee/ Nom et adresse du client ou de son représentant UNKNOWN |
| Ultimate owner Utilisateur | Name and address/ Nom et adresse UNKNOWN |
| Location of installation Lieu d'installation | Name and address/ Nom et adresse UNKNOWN |

Pressure vessel/ Appareil

| | | | |
|---|---|---|---|
| Type/ Genre Category H Pressure Fitting (450 Gas Threaded) | Overall Length/Longueur totale 622.3mm | Serial No./ N° de série (Series 450JUN08A) 080504001, 080504002, 080504003, 080504004, 080504006, 080504006, 080504007, 080504008, 080504009, 080504010, 080504011 | Year built/Année de fabrication 2008 |
| Provincial Registration No. - C.R.N./N° d'enregistrement provincial - N.E.C. OH 7426.213 | | Drawing No./ N° de dessin 21-80001 REV 2 | |

The chemical and physical properties of all parts meet the requirements of material specifications of the A.S.M.E. Code.
 Les propriétés chimiques et physiques de toutes les composantes respectent les exigences des spécifications de matériaux de code ASME.

| | | | | |
|--|----------------------|---------------|----------------------------|------------------------------------|
| The design, construction and workmanship conform to CSA B51. La conception, la construction et la façon sont conformes à ACNOR B51. | ASME Section VIII | Division 1 | Addenda/Supplément 2007 | Code case No. N° de cas 2148 |
|--|----------------------|---------------|----------------------------|------------------------------------|

Manufacturer's partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report:

Les rapports partiels du constructeur adéquatement identifiés et signés par les inspecteurs autorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport:

| Names of parts/ Nom de la composante | Item No./ N° d'item | Manufacturer's Name/ Nom du constructeur | Identifying Stamp/ Estampe d'identification |
|--------------------------------------|---------------------|--|---|
| | | | |

Shell/ Virole

| Description | Material Matériau | Thickness Épaisseur | Corr. Allow. Surépais. de corr. | Diameter Diamètre | Longitudinal Joints Joints longitudinaux | | | P.W.H.T. Traitement therm. | | Girth Joints Joints de circonférence | | Number of courses Nombre de sections |
|-------------|----------------------|------------------------|---------------------------------------|----------------------|---|-----------------|--------------------------|-------------------------------|---------------|---|-----------------|---|
| | | | | | Type | R.T. Radiog. | Efficiency Efficacité | Temp. | Time Durée | Type | R.T. Radiog. | |
| | | | | | | | | | | | | |

Heads/ Têtes

| Description | Material Matériau | Min. Thickn. Épais minin. | Corr. Allow Surép. Corr. | Crwn. Radius Rayon couron. | Knuckle Radius Petit rayon | Ellipse Ratio Rapp. ellipse | Conical Apex Angle Angle conique | Hemisph. Radius Ray. Hémisph | Flat Diameter Diam. plat | Side to pressure Côte sous pression |
|--|----------------------|------------------------------|--------------------------------|-------------------------------------|----------------------------------|--------------------------------|--|---------------------------------------|--------------------------------|--|
| 88.9mm (3.5") Channel (Manifold) | SB221 6061 T6 | 4.8mm (.188") | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| End Cap | SB209 6061 T6 | 9.5mm (.374") | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Removable bolts used (describe other fastenings) Boulons amovible utilisés (décrire tout autre attache) | | | | | Mat'l Spec./ Spéc. du mat. | | | Grade | | Size/ Dimension |

Pressure - Temperature/ Pression - température

| Pressure Vessel Part de l'appareil | Constructed for max. allowable working pression Construit pour une pression maximale de marche permise | At max. temp. A une temp. max. | Minimum design metal temp. Temp. min. | Test pressure (hydro-pneumatic or combination) Pression d'épreuve (hydro-pneumatique ou combinaison) |
|---------------------------------------|---|-----------------------------------|--|--|
| Complete Unit | 402 PSI | 250 F | -20 F | 531 PSI |

Tube Section/ Faisceau tubulaire

| | | | | |
|-----------------------------------|--------------------|---|-------------------------------------|---|
| Material/ Matériau | Diameter/ Diamètre | Nominal Thickness Épaisseur nominale | Corr. Allow. Surépais. corrosion | Attachment Mode d'attachement |
| Tube material/ Matériau des tubes | Diameter/ Diamètre | Nominal Thickness (gauge) Épaisseur nominale (calibre) | Number/ Nbre | Type (Straight or U) Type (Droit ou U) |
| SB221/SB209 3003 | N/A | N/A | N/A | N/A |

Jacket/ Chemise

| | | | | |
|----------------------------------|--|----------------------------------|---------------------------------------|----------------|
| Type of Jacket/ Genre de chemise | Jacket closure Fermeture de chemise | Proof Test Pression d'épreuve | Heating Surface Surface de chauffe | Sketch/ Schéma |
|----------------------------------|--|----------------------------------|---------------------------------------|----------------|

Safety Valve Outlets/ Soupapes de sûreté

| | | |
|----------------|-----------|-------------------|
| Number/ Nombre | Dimension | Location/ Endroit |
|----------------|-----------|-------------------|

Nozzles and Openings/ Tubulures et ouvertures

| Purpose/ But | Number Nombre | Dimension | Type | Material Matériau | Nominal Thickness Épaisseur nominale | Reinforcement material Matériau de renfort | How attached Genre d'attaches | Location/ Endroit |
|----------------|------------------|-----------|---------------|----------------------|---|---|--|-------------------|
| Inlet / Outlet | 2 | 1.5" NPT | Half Coupling | SB221 6061 T6 | 0.3" | N/A | UW-16.1 (bb) | Manifold End |
| Drain | 1 | 0.25" NPT | Half Coupling | SB221 6061 T6 | 0.3" | N/A | UW-16.1 (bb) | Manifold Top |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Supports/ Supports

| | | | | |
|--|-----------------------------|--------------------------|-----------------------------|---|
| Skirt/ Jupe Yes/ Oui No/ Non <input type="checkbox"/> <input type="checkbox"/> | Lugs/ Oreilles No./ Nbre | Legs/ Pieds No./ Nbre | Other/ Autres (Description) | Attached/ Attaches (Where and How/ Méthode et endroit) |
|--|-----------------------------|--------------------------|-----------------------------|---|

Remarks/ Observations (Cubical capacity/ Volume)

Refer Dwg 638001 Rev 0
PO# SJ3-170577


Certificate of Compliance/ Certificat de conformité

We certify that the statements made in this data report are correct and that the said vessel has been constructed in accordance with the Provincial Registered design below and the requirements of standard CSA B51.

Nous certifions que les données de la déclaration de conformité sont correctes et que l'appareil a été construit en accord avec l'enregistrement provincial ci-dessous et les exigences de la norme ACNOR B51.

Provincial Registered Design
Enregistrement provincial OH 7426.213

Manufacturer
Constructeur GLOBAL HEAT TRANSFER LTD.

Signature  Date 5 JUN 23
(Representative)

Signature _____ Date _____
(Certified Individual)

ALBERTA MUNICIPAL AFFAIRS

ABSA, the pressure equipment safety authority
 9410 - 20th Avenue
 Edmonton, AB T6N 0A4

RECEIVED JUL 2 8 2008

**MANUFACTURER'S DATA REPORT
 FOR MINIATURE PRESSURE VESSEL
 DÉCLARATION DE CONFORMITÉ DU CONSTRUCTEUR
 D'APPAREILS SOUS PRESSION**

Upon shipment of a pressure vessel, this form fully and correctly filled in must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under the Act, governing the construction and installation of pressure vessels.

Au moment de l'expédition d'un appareil sous pression, ce formulaire complété correctement, doit être envoyé au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

| | |
|---|--|
| Manufactured by Construit par | Name and address of Manufacturer/ Nom et adresse du constructeur Pyramid Process Fabricators; 2308-8th Street, Nisku, Alberta, T9E 7Z2 |
| Manufactured for Construit pour | Name and address of Purchaser or Consignee/ Nom et adresse du client ou de son représentant PC Compression; 2308-8th Street, Nisku, Alberta, T9E 7Z2 |
| Ultimate owner Utilisateur | Name and address/ Nom et adresse |
| Location of installation Lieu d'installation | Name and address/ Nom et adresse |

Pressure vessel/ Appareil

| | | | |
|--|--|---|---|
| Type/ Genre Bullet | Overall Length/Longueur totale 4'-0" S/S | Serial No./ N° de série 08-3200-0000F | Year built/Année de fabrication 2008 |
| Provincial Registration No. - C.R.N./N° d'enregistrement provincial - N.E.C. OH5226.23 | | | Drawing No./ N° de dessin PV-061 Rev. 3 |

The chemical and physical properties of all parts meet the requirements of material specifications of the A.S.M.E. Code.
 Les propriétés chimiques et physiques de toutes les composantes respectent les exigences des spécifications de matériaux de code ASME.

| | | | | |
|---|-----------------------------|--|---|----------------------------|
| The design, construction and workmanship conform to CSA B51. La conception, la construction et la façon sont conformes à ACNOR B51. | ASME Section VIII | Division 1 | Addenda/Supplément 2007 | Code case No. N° de cas |
| Manufacturer's partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report: Les rapports partiels du constructeur adéquatement identifiés et signés par les inspecteurs autorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport: | | | | |
| Names of parts/ Nom de la composante | Item No./ N° d'item | Manufacturer's Name/ Nom du constructeur | Identifying Stamp/ Estampe d'identification | |
| | | | | |

Shell/ Virole

| Description | Material Matériau | Thickness Épaisseur | Corr. Allow. Surépais. de corr. | Diameter Diamètre | Longitudinal Joints Joints longitudinaux | | | P.W.H.T. Traitement therm | | Girth Joints Joints de circonférence | | Number of courses Nombre de sections |
|---------------|----------------------|------------------------|---------------------------------------|----------------------|---|-----------------|--------------------------|------------------------------|---------------|---|-----------------|---|
| | | | | | Type | R.T. Radiog. | Efficiency Efficacité | Temp. | Time Durée | Type | R.T. Radiog. | |
| 8" Pipe Shell | SA-106 Gr. B | 0.322" | 0.0625" | 8.625" | | | | | | 1 | Full | 1 |
| | | | | | | | | | | | | |

Heads/ Têtes

| Description | Material Matériau | Min. Thickn. Épais. minim. | Corr. Allow. Surép. Corr. | Crown Radius Rayon couron. | Knuckle Radius Petit rayon | Ellipse Ratio Rapp. ellipse | Conical Apex Angle Angle conique | Hemisph. Radius Ray. Hémisph | Flat Diameter Diam. plat | Side to pressure Côte sous pression |
|--|----------------------|-------------------------------|---------------------------------|-------------------------------------|----------------------------------|--------------------------------|--|---------------------------------------|--------------------------------|--|
| 8" Pipe Cap | SA-234-WPB | 0.282" | 0.0625" | | | 2:1 | | | | Concave |
| 8" Pipe Cap | SA-234-WPB | 0.282" | 0.0625" | | | 2:1 | | | | Concave |
| Removable bolts used (describe other fastenings) Boulons amovible utilisés (décrire tout autre attache) | | | | | Mat'l Spec./ Spéc. du mat. | | | Grade | | Size/ Dimension |

Pressure - Temperature/ Pression - température

| | | | | |
|--|---|-----------------------------------|--|---|
| Pressure Vessel Part Partie de l'appareil | Constructed for max. allowable working pressure Construit pour une pression maximale de marche permise | At max. temp. A une temp. max. | Minimum design metal temp. Temp. min. | Test pressure (hydro-pneumatic or combination) Pression d'épreuve (hydro-pneumatique ou combinaison) |
| Bullet | 550 PSI | 600 F | -20 F | 715 PSI |

Tube Section/ Faisceau tubulaire

| | | | | | |
|-----------------------------------|--------------------|---|---|---|---------------------------------------|
| Tube sheet/ Plaque tubulaire | Material/ Matériau | Diameter/ Diamètre | Nominal Thickness Épaisseur nominale | Corr. Allow. Surépais. corrosion | Attachment Mode d'attachement |
| Tube material/ Matériau des tubes | Diameter/ Diamètre | Nominal Thickness (gauge) Épaisseur nominale (calibre) | Number/ Nbre | Type (Straight or U) Type (Droit ou U) | Heating Surface Surface de chauffe |

Jacket/ Chemise

| | | | | |
|----------------------------------|--|----------------------------------|---------------------------------------|----------------|
| Type of jacket/ Genre de chemise | Jacket closure Fermeture de chemise | Proof Test Pression d'épreuve | Heating Surface Surface de chauffe | Sketch/ Schéma |
|----------------------------------|--|----------------------------------|---------------------------------------|----------------|

Safety Valve Outlets/ Soupapes de sûreté

| | | |
|----------------|-----------|-------------------|
| Number/ Nombre | Dimension | Location/ Endroit |
|----------------|-----------|-------------------|

Nozzles and Openings/ Tubulures et ouvertures

| Purpose/ But | Number Nombre | Dimension | Type | Material Matériau | Nominal Thickness Épaisseur nominale | Reinforcement matériau Matériau de renfort | How attached Genre d'attaches | Location/ Endroit |
|-----------------|------------------|-----------|-----------|----------------------|---|---|--|-------------------|
| Sight Glass, C1 | 1 | 2" | 3000# TOL | SA-105N | 0.2970" | | UW-16.1(c) | Shell |
| Vent, C2 | 1 | 1" | 3000# TOL | SA-105N | 0.2413" | | UW-16.1(c) | Shell |
| Gas Inlet, C3 | 1 | 2" | 3000# TOL | SA-105N | 0.2970" | | UW-16.1(c) | Bottom Head |
| Gas Outlet, C4 | 1 | 2" | 3000# TOL | SA-105N | 0.2970" | | UW-16.1(c) | Top Head |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Supports/ Supports

| | | | | |
|--|-----------------------------|--------------------------|--|---|
| Skirt/ Jupe Yes/ Oui No/ Non <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | Lugs/ Ombelles No./ Nbre | Legs/ Pleds No./ Nbre | Other/ Autres (Description) Bolting Plate | Attached/ Attaches (Where and How/ Méthode et endroit) Shell By Welding |
|--|-----------------------------|--------------------------|--|---|

Remarks/ Observations (Cubical capacity/ Volume)

Vessel Fabricated to Dwg # B-08-3200-0000-001 Rev. 1
 Vessel Volume = 1.45 cu. ft (0.041 cu. m)
 Vessel Impact Test Exempt per UG-20(f)

Certificate of Compliance/ Certificat de conformité

We certify that the statements made in this data report are correct and that the said vessel has been constructed in accordance with the Provincial Registered design below and the requirements of standard CSA B51.

Nous certifions que les données de la déclaration de conformité sont correctes et que l'appareil a été construit en accord avec l'enregistrement provincial ci-dessous et les exigences de la norme ACNOR B51.

Provincial Registered Design
 Enregistrement provincial OH5228.23

Manufacturer
 Constructeur Pyramid Process Fabricators

Signature [Signature] Date July 23/08
 (Representative)

Signature David Mansfield Date July 23/08
 (Certified Individual)



Travel Sheet (Front)

No. PPF-CN-FF-045 Rev. 0

| DO NOT START CONSTRUCTION WITHOUT AI REVIEW | | | | | | TRAVEL SHEET REVISION No.: | | | |
|---|---|----------------|---------------------|------|------------------|---------------------------------|------|-------|------|
| A.I. REVIEW: | | | | | | REVIEW DATE: | | | |
| SERIAL No: 08-3200-0000 F | | | JOB No.: 3200-0000 | | | VESSEL TYPE: Bullet | | | |
| DRAWING No: B-08-3200-0000-001 | | | DWG REVISION No.: 1 | | | TRAVEL SHEET INITIATION BY: DJM | | | |
| Seq. | Item | Comments | Q.C.I. | Date | A.I. Hold Points | A.I. | Date | Owner | Date |
| 1. | Calculations in File | | | | | | | | |
| 2. | Release of App'd Dwg. | | | | | | | | |
| 3. | Materials Examined | | | | | | | | |
| 4. | Heat Numbers Recorded | | | | | | | | |
| 5. | MTRs Checked | | | | | | | | |
| 6. | WPS(s) checked | | | | | | | | |
| 7. | Welder(s) Qualified | | | | | | | | |
| 8. | Thickness Verified & Recorded | | | | | | | | |
| 9. | Shell(s) & Head(s) Fit-up Inspection | | | | | | | | |
| 10. | Nozzle & Fitting Fit-up Inspection | | | | | | | | |
| 11. | Nozzle Orientation | | | | | | | | |
| 12. | Nozzle & Flange Rating Checked | | | | | | | | |
| 13. | Impact Tests | | | | | | | | |
| 14. | Internals Checked | | | | | | | | |
| 15. | Final Internal Inspection | Shell Side | | | | | | | |
| | | Tube Side | | | | | | | |
| 16. | Weld Sizes Checked | | | | | | | | |
| 17. | Welder I.D. Checked | | | | | | | | |
| 18. | Final External Inspection | | | | | | | | |
| 19. | Radiography | | | | | | | | |
| 20. | Other NDE | | | | | | | | |
| 21. | Final Ext. Prior to P.W.H.T. | | | | | | | | |
| 22. | PWHT Chart Checked | | | | | | | | |
| 23. | Hydrostatic Test | Shell Side | Gauge # | | | | | | |
| | | Tube Side | Gauge # | | | | | | |
| 24. | CRN Drawing | CRN# OH5228.23 | | | | | | | |
| 25. | NCR# | | | | | | | | |
| 26. | Nameplate Stamping | | | | | | | | |
| 27. | Manuf. Data Report Completed & Verified | | | | | | | | |
| 28. | Nameplate Installation | | | | | | | | |

The Authorized Inspector shall be presented with the Travel Sheet prior to construction so that he/she can designate additional inspection points and/or Hold points. Any revisions shall be marked with a delta symbol with revision number and described at the bottom of this page.

*Denotes an A.I. inspection Point ** Denotes an A.I. Hold Point

ATTON

ATTON

600

E

E

PSI

AT

AT

AT

YEAR BUILT

CORR. ALLOW.

SHELL THK

010

30

09-3-00-0000-1

0000000000

0000000000

F



2308 - 8th Street
Nisku, AB.
T9E 7Z2
(780) 955-2708

PRESURE TEST PROCEDURE/CERTIFICATE

| | |
|---------------------------------|-------------------------|
| Hydro Test Date: JUNE 12 /08 | Job Number: 3200-0000 |
| Hydro Test Number: 3200-0000-03 | Customer: PC COMPRESSON |
| Spool Number(s): | BOTTLES - E,F. |

PROCEDURE:

| | |
|------------------------|---|
| Test Pressure: 715 psi | Test Temperature: 50°F (10°C) Min. |
| Test Medium: Water | Test Medium Quality Statement: Attached |

- Pressure to be raised from 0 psig to 715 psig.
- Pressure to be held at 715 psig for 60 min.
- Pressure to be lowered from 715 psig to 0 psig.

NOTE:

1. System to be inspected by QC inspector prior to testing.
2. Provide at least one vent at highest point during filling.
3. Test medium must be at specified temperature.
4. One calibrated pressure gauge must be at the highest point and lowest point of the system, and one must be installed on the test pump.
5. The QC inspector is to be notified after 50% of the holding time has expired.
6. The pressure is not to be released until the test is accepted by the QC Inspector and Client's Inspector, or unless due to leakage and safety considerations.
7. All necessary safety precautions shall be adhered to.

ACTUAL TEST RESULTS:

| | |
|-----------------------------------|------------------------------------|
| Test Pump Pressure Gauge No.: 045 | High Point Pressure Gauge No.: 042 |
| Low Point Pressure Gauge No.: 043 | Temperature Gauge No: 419193-1 |
| Test Medium Used: Water | Actual Medium Temperature: 60 °F |
| Actual Test Pressure: 715 PSI | Actual Holding Time: 60 Minutes |

Comments: _____

SIGN OFF:

This certifies the above statements are correct and the equipment described was free of leaks due to defective welds or equipment

Hydro Test Performed By: [Signature] Signature JUNE 12/08 Date

QC Inspector: [Signature] Signature JUNE 12/08 Date

Owner's Representative: _____ Signature _____ Date

Authorized Inspector: (if applicable) _____ Signature _____ Date



Weekly Water Quality Parameters for Industrial Customers

The following water quality parameter table is updated daily as a service to our Industrial Customers who require this data for their process operations.

This data, however, comes directly off EPCOR's computerized water quality monitoring system and has NOT been validated. Use it as a guideline only. For verified monthly data see the extensive information on our main web site at quality assurance

Last updated: June 10, 2008

| | Jun-03 | Jun-04 | Jun-05 | Jun-06 | Jun-07 | Jun-08 | Jun-09 |
|--|--------|--------|--------|--------|--------|--------|--------|
| ELS Zone ⁽¹⁾ | | | | | | | |
| Hardness (mg/L CaCO₃) ⁽²⁾ | 168 | 170 | 169 | 171 | 176 | 172 | 174 |
| pH ⁽³⁾ | 7.72 | 7.70 | 7.71 | 7.66 | 7.73 | 7.75 | 7.74 |
| Temp. °C | 14.4 | | 12.6 | 12.5 | 11.3 | 10.3 | 9.2 |
| Chlorine Residual (mg/L) ⁽⁴⁾ | 2.04 | 1.51 | 1.15 | 2.01 | 2.05 | 2.01 | 1.97 |
| Alkalinity (mg/L) ⁽⁵⁾ | 113 | 112 | 113 | 116 | 111 | 112 | 117 |
| Conductivity (µS/cm) ⁽⁶⁾ | 455 | 463 | 464 | 467 | 471 | 470 | 482 |
| Caustic Soda Dose (mg/L) ⁽⁷⁾ | 30.1 | 23.0 | 14.9 | 29.1 | 32.0 | 31.7 | 35.0 |
| | | | | | | | |
| Rossdale Zone ⁽¹⁾ | | | | | | | |
| Hardness (mg/L CaCO₃) ⁽²⁾ | 164 | 161 | 160 | 167 | 169 | 165 | 161 |
| pH ⁽³⁾ | 7.64 | 7.64 | 7.66 | 7.69 | 7.68 | 7.75 | 7.69 |
| Temp. °C | 15.2 | | 15.6 | 15.7 | 15.4 | 14.4 | 13.1 |
| Chlorine Residual mg/L ⁽⁴⁾ | 2.01 | 2.02 | 1.86 | 1.88 | 1.96 | 2.04 | 2.05 |
| Alkalinity (mg/L) ⁽⁵⁾ | 111 | 110 | 107 | 105 | 108 | 109 | 107 |
| Conductivity (µS/cm) ⁽⁶⁾ | 371 | 371 | 376 | 400 | 400 | 400 | 400 |
| Caustic Soda Dose (mg/L) ⁽⁷⁾ | 22.5 | 26.1 | 28.4 | 29.4 | 28.9 | 24.6 | 27.3 |
| | | | | | | | |

Note: All results are daily averages leaving the water treatment plants. The numbers in the distribution system may vary because of detention time and mixing in the system, and a slow decrease of the chloramine residual.

⁽¹⁾ Supply Zone

E.L. Smith primarily supplies the Northwest, West and Southwest and University area Rossdale primarily supplies the Downtown, East, Northeast and Southeast areas. However, depending on daily pumping and demand variations there is a large crossover region where water can be supplied from either plant at any time.

⁽²⁾ Hardness

Water hardness is the result of dissolved minerals, usually calcium and magnesium. The North Saskatchewan River picks up these minerals as it flows over limestone rock. The North Saskatchewan River water is moderately hard, about 165 milligrams of calcium carbonate per litre (165 mg/L) on average. There are no health effects associated with calcium and magnesium minerals so there are no drinking water guidelines established for hardness.

(3) pH

One of the main objectives in controlling pH is to produce water that minimizes pipe corrosion or hardness scale build up. Pipe corrosion may become significant in our water at pH levels below 7.5, and scaling problems increase at above pH 8.5. As a comparison, soft drinks have a pH of 3 and drugstore antacids have a pH of 10. EPCOR's water has a yearly average pH of 7.8.

(4) Chlorine, (Total Residual)

In EPCOR's distribution system, the total residual chlorine is composed entirely of chloramine. Chloramine is a disinfectant that results when chlorine is combined with ammonia. It is a much weaker disinfectant than free chlorine but it stays in water longer, is more stable in distribution systems, and can more effectively penetrate any film or deposit on a pipe to kill bacteria. Our approval sets limits of 0.5 - 2.5 mg/L for drinking water. EPCOR's treated water contains an average of 2.19 mg/L.

(5) Alkalinity (mg/L)

Alkalinity in water is primarily a measure of the carbonate and bicarbonate ions dissolved from minerals in the rock that the water passes over. In our water, at pH levels of 7-8, it is almost all bicarbonate ions. Bicarbonate is not a regulated parameter and is not a health concern. At high levels, alkalinity can combine with calcium hardness to produce deposits of calcium carbonate. Moderate levels of alkalinity help minimize corrosion (very low alkalinity water tend to be more corrosive).

(6) Conductivity (μ S/cm)

Conductivity is a measure of the ability of ions in water to carry an electric current. Conductivity is a good measure of the total amount of salts in solution (e.g., calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulphate, chloride, nitrate, and others). During spring runoff, conductivity will generally increase because of road salt being washed into the water. The conductivity of EPCOR's water averages about 350 μ S/cm.

(7) Caustic Soda Dose (mg/L)

Caustic soda (NaOH) is added to the water to raise the pH to its required level to minimize pipe corrosion or hardness scale build up. Sodium makes up 0.58 mg/L of every 1 mg/L of caustic soda added to the water. The raw water has an average sodium level of 5 mg/L that varies from 3 - 8 mg/L (2000 data) but can be a bit higher on a few days a year when street runoff contains more salt. Therefore an estimate of the treated water sodium level would be [5 mg/L + caustic soda dose * 0.58]. Using this estimate, a caustic soda dose of 25 mg/L would result in a treated water sodium level of 20 mg/L. The aesthetic objective for sodium in drinking water is less than or equal to 200 mg/L while for those on sodium restricted diets it is recommended to have less than 20 mg/L in the water.



CALIBRATION CERTIFICATE

Pressure and Temperature Measurement

WIKAI Instruments Canada Ltd.
 3103 Parsons Road
 Edmonton, AB T6N 1C8
 Tel: 780 · 463 · 7035
 Fax: 780 · 462 · 0017
 www.wika.ca

| | | | |
|-----------------------|--------------------------|------------------------|------------------------------------|
| PUT Type: | <u>Bi-Metal</u> | End User: | <u>Pyramid Process Fabricators</u> |
| PUT Tag No.: | <u>419193-1</u> | WIKAI Rep.: | <u>N/A</u> |
| Tolerance: | <u>±1% of full scale</u> | Purchase Order No.: | <u>612852</u> |
| Calib. Ambient Temp.: | <u>23 °C</u> | WIKAI job No.: | <u>419193</u> |
| Calib. Date: | <u>2008-02-25</u> | Calibration Procedure: | <u>CAL - 1001</u> |

| Actual Temperature (°C) | PUT Output (mV) | PUT Output (°C) | Deviation from Actual (°C) | Acceptable Tolerance (°C) |
|-------------------------|-----------------|-----------------|----------------------------|---------------------------|
| -5.0 | N/A | -4.5 | 0.5 | 0.6 |
| 25.0 | N/A | 25.0 | 0.0 | 0.6 |
| 50.0 | N/A | 49.5 | 0.5 | 0.6 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Standards and Instrumentation Used:

Calibration Equipment is Traceable to NRC/NIST

| Item | Model | Serial Number | Last Calibration | Calibration Due | |
|----------------|---------------|---------------|------------------|-----------------|---|
| Multimeter | Keithley 2001 | 521696 | 2007-10-30 | 2008-10-30 | X |
| Multimeter | Keithley 2001 | 0546867 | 2007-06-25 | 2008-06-25 | |
| T/C Calibrator | Ectron 1120 | 25151 | 2007-11-06 | 2008-11-06 | |
| Mikron | M300 | 34714 | 2007-11-09 | 2008-05-09 | |
| Thermocouple | Type 'S' | ATS96-1 | 2007-07-18 | 2008-07-18 | |
| PRT | 5626 | 0837 | 2007-06-07 | 2008-06-07 | |
| PRT | 5626 | 1603 | 2007-04-24 | 2008-04-24 | X |

NOTES: PUT = Probe Under Test PRT = Platinum Resistance Thermometer
 All calibrations are based on ITS-90 temperature scale.

Q/A or Eng'g Mgr.:

Technician: BR

00506, Rev.7, 2005-11-2, 1/1

JARON WOLFF PROCESS CONTROLS LTD.

CERTIFICATE # 65162

FOR: PYRAMID PROCESS FABRICATORS
BAY #7, 2308 - 8TH STREET, NISKU, ALBERTA, T9E 7Z2

| | | | |
|----------------|-----------------|---------------------|---------------|
| ORDER NO | 612683-00 | AMBIENT TEMPERATURE | 20 C |
| SERIAL NUMBER | 45 | DEADWEIGHT | SN# 1180 |
| DIAL SIZE | 4" MCDANIEL | TEST MEDIUM | OIL |
| PRESSURE RANGE | 0 - 2000 PSI | MAXIMUM ERROR | - 7 PSI |
| SUB DIVISIONS | 200 PSI | DATE: | MARCH 3, 2008 |
| CONNECTION | 1/2" NPT | LOCATION TESTED: | 9535 - 42 AVE |
| INSPECTOR | GEORG J.P. WOWK | EDMONTON, ALBERTA, | T6E 5R2 |

THIS GAUGE IS CERTIFIED TO MEET AND/OR EXCEED THE REQUIREMENTS AS OUTLINED IN API SPECIFICATION 6A, NINETEENTH EDITION, JULY 2004 IN COMPLIANCE WITH SECTION 7, PARAGRAPH 7.1, 7.2, SUBPARAGRAPH 7.2.1, 7.2.2, 7.2.2.1, 7.2.2.2, AND 7.2.2.3.

ALSO SPECIFICATION 16A, THIRD EDITION, JUNE 2004, SECTION 8, PARAGRAPH 8.1, 8.2, SUBPARAGRAPH 8.2.1 AND 8.2.2

| <u>TESTED GAUGE</u> | | <u>DEADWEIGHT</u> | | <u>UPSCALE ERROR</u> | |
|---------------------|-----|-------------------|-----|----------------------|-----|
| 0 | | 0 | | 0 | |
| 500 | PSI | 504 | PSI | -4 | PSI |
| 1000 | PSI | 1005 | PSI | -5 | PSI |
| 1500 | PSI | 1507 | PSI | -7 | PSI |

Technician:  Georg Wowk Q.C. Manager  Dymn Wowk

Invoice PCL-001704/KA

** ALL TEST EQUIPMENT IS TRACEABLE TO N.I.S.T. STANDARDS
** CUSTOMER STANDARD DOCUMENT #CS-001

JARON WOLFF PROCESS CONTROLS LTD.

CERTIFICATE # 67018

FOR: PYRAMID PROCESS FABRICATORS
BAY #7, 2308 - 8TH STREET, NISKU, ALBERTA, T9E 7Z2

| | | | |
|----------------|-----------------|---------------------|---------------|
| ORDER NO | 613190-00 | AMBIENT TEMPERATURE | 20 C |
| SERIAL NUMBER | #043 | DEADWEIGHT | SN# 248-24 |
| DIAL SIZE | 4" MCDANIEL | TEST MEDIUM | OIL |
| PRESSURE RANGE | 0 - 2000 PSI | MAXIMUM ERROR | 0 PSI |
| SUB DIVISIONS | 200 PSI | DATE: | MAY 21, 2008 |
| CONNECTION | 1/2" NPT | LOCATION TESTED: | 9535 - 42 AVE |
| INSPECTOR | GEORG J.P. WOWK | EDMONTON, ALBERTA, | T6E 5R2 |

THIS GAUGE IS CERTIFIED TO MEET AND/OR EXCEED THE REQUIREMENTS AS OUTLINED IN API SPECIFICATION 6A, NINETEENTH EDITION, JULY 2004 IN COMPLIANCE WITH SECTION 7, PARAGRAPH 7.1, 7.2, SUBPARAGRAPH 7.2.1, 7.2.2, 7.2.2.1, 7.2.2.2, AND 7.2.2.3.

ALSO SPECIFICATION 16A, THIRD EDITION, JUNE 2004, SECTION 8, PARAGRAPH 8.1, 8.2, SUBPARAGRAPH 8.2.1 AND 8.2.2

| <u>TESTED GAUGE</u> | | <u>DEADWEIGHT</u> | | <u>UPSCALE ERROR</u> | |
|---------------------|-----|-------------------|-----|----------------------|-----|
| 0 | | 0 | | 0 | |
| 500 | PSI | 500 | PSI | 0 | PSI |
| 1000 | PSI | 1000 | PSI | 0 | PSI |
| 1500 | PSI | 1500 | PSI | 0 | PSI |

Technician:  Dustin Petersen Q.C. Manager  Lynn Wowk

Invoice PCL-002666/AB

** ALL TEST EQUIPMENT IS TRACEABLE TO N.I.S.T. STANDARDS
** CUSTOMER STANDARD DOCUMENT #CS-001

JARON WOLFF PROCESS CONTROLS LTD.

CERTIFICATE # 65160

FOR: PYRAMID PROCESS FABRICATORS
BAY #7, 2308 - 8TH STREET, NISKU, ALBERTA, T9E 7Z2

| | | | |
|----------------|-----------------|---------------------|---------------|
| ORDER NO | 612683-00 | AMBIENT TEMPERATURE | 20 C |
| SERIAL NUMBER | 42 | DEADWEIGHT | SN# 8604 |
| DIAL SIZE | 4" MCDANIEL | TEST MEDIUM | OIL |
| PRESSURE RANGE | 0 - 2000 PSI | MAXIMUM ERROR | - 10 PSI |
| SUB DIVISIONS | 200 PSI | DATE: | MARCH 3, 2008 |
| CONNECTION | 1/2" NPT | LOCATION TESTED: | 9535 - 42 AVE |
| INSPECTOR | GEORG J.P. WOWK | EDMONTON, ALBERTA, | T6E 5R2 |

THIS GAUGE IS CERTIFIED TO MEET AND/OR EXCEED THE REQUIREMENTS AS OUTLINED IN API SPECIFICATION 6A, NINETEENTH EDITION, JULY 2004 IN COMPLIANCE WITH SECTION 7, PARAGRAPH 7.1, 7.2, SUBPARAGRAPH 7.2.1, 7.2.2, 7.2.2.1, 7.2.2.2, AND 7.2.2.3.

ALSO SPECIFICATION 16A, THIRD EDITION, JUNE 2004, SECTION 8, PARAGRAPH 8.1, 8.2, SUBPARAGRAPH 8.2.1 AND 8.2.2

| <u>TESTED GAUGE</u> | | <u>DEADWEIGHT</u> | | <u>UPSCALE ERROR</u> | |
|---------------------|-----|-------------------|-----|----------------------|-----|
| 0 | | 0 | | 0 | |
| 500 | PSI | 500 | PSI | 0 | PSI |
| 1000 | PSI | 1010 | PSI | -10 | PSI |
| 1500 | PSI | 1510 | PSI | -10 | PSI |

Technician: Dustin Petersen Dustin Petersen Q.C. Manager Lynn Wowk Lynn Wowk

Invoice PCL-001704/KA

** ALL TEST EQUIPMENT IS TRACEABLE TO N.I.S.T. STANDARDS
** CUSTOMER STANDARD DOCUMENT #CS-001

NON-DESTRUCTIVE EXAMINATION

BUFFALO INSPECTION SERVICES (2005) INC.

8403 Davies Road N.W.
Edmonton, Alberta T6E 4N3
Phone: (780) 486-7344 Fax: (780) 486-4685
Email: reception@buffaloinspection.com



CLIENT: Pyramid - Nisku
Customer Job #: 3200-0004

HOURS: REG: 6 OT: 0

DESCRIPTION: Spools

KMS: 0

LOCATION: Fab Shop - Nisku

OTHER: 0

HAZARDS IDENTIFIED:

PEOPLE

ENVIRONMENT

EQUIPMENT

MATERIAL

| LE - Lack of Fusion IP - Incomplete Penetration IC - Internal Concavity | HB - Hollow Bead BT - Burn Through TI - Tungsten Inclusion AB - Arc Burn | LC - Low Cover IUC - Internal Undercut EUC - External Undercut EP - Excessive Penetration | P - Porosity S - Slag PH - Pin Hole | RC - Re Cap C - Crack HL - High Low | 1 - ASME B31.3 NIS 2 - ASME B31.3 SC 3 - CSA Z662 % 4 - CSA Z662 100% | 5 - ASME SEC. VIII DIV 1 UW51 6 - ASME SEC. VIII DIV 1 UW52 7 - ASME B31.1 | 8 - API 620 9 - API 650 10 - Other Customer Spec. and Code 1 | Accept | Reject |
|--|---|--|---|---|--|--|--|----------|--------|
| Size & Thickness Plus Code max. reinforcement | Welder ID | Weld # | DRW # | Material | Proc # | Severity | Code | Comments | |
| X11 8" s40 | M | 1 | 3200-0004-F | PI | 4A | I | I | | ✓ |
| X12 8" s40 | M | 2 | 3200-0004-F | PI | 4A | Slight | I | P & IP | ✓ |
| X13 8" s40 | H | 1 | 3200-0004-E | PI | 4A | Slight | I | P | ✓ |
| X14 8" s40 | H | 2 | 3200-0004-E | PI | 4A | I | I | | ✓ |
| X15 8" s40 | Y | 1 | 3200-0004-I | PI | 4A | I | I | | ✓ |
| X16 8" s40 | Y | 2 | 3200-0004-I | PI | 4A | I | I | | ✓ |
| X17 8" s40 | K | 1 | 3200-0004-J | PI | 4A | Slight | I | IC | ✓ |
| X18 8" s40 | K | 2 | 3200-0004-J | PI | 4A | I | I | | ✓ |
| X19 8" s40 | C | 1 | 3200-0004-D | PI | 4A | I | I | | ✓ |
| X20 8" s40 | C | 2 | 3200-0004-D | PI | 4A | Medium | I | P | ✓ |
| Tech Name: <i>Gordon Thomas Level II</i> Level: II <input checked="" type="checkbox"/> ASNT Level II # 08001 Disc: RT Assistant Name: Dave Brown <input checked="" type="checkbox"/> TRAINEE <input type="checkbox"/> ASNT Level I # Assistant Name: Todd Rubner <input checked="" type="checkbox"/> TRAINEE <input type="checkbox"/> ASNT Level I # | | | | | | | | | |

LIMITED LIABILITY POLICY

Buffalo Inspection Services (2005) Inc. guarantees the film quality produced by its technicians; however, no liability will be accepted for failure of welds or other items radiographed. The interpretation of radiographs is the opinion of the radiograph technician and final acceptance of a weld (for example) is the responsibility of the customer. Liability for film quality is limited to the value of the film only - labour and equipment required to reproduce films will be borne by the customer - unless the customer rejects the film before signing this report, in which case radiographs will be retaken at no cost to the customer.

Customer Rep. Signature: *[Signature]*

Customer Rep. Print: *Tony Marshall*

Date: *June 12/08*



Material Receiving Report

Report Number: **140**

Job Number:
Inventory

Date Material Received:
May 14 2008

Procurement Data

| | | | |
|------------------------|----------------------------------|---|--|
| Purchase Order Number: | 613174-00 | Shipper: | BHD |
| Vendor: | BHD | Shipped From: | Edmonton, Ab |
| Packing slip: | 49443 | | |
| Carrier: | Swift Transport | <input type="checkbox"/> Collect | <input checked="" type="checkbox"/> Prepaid |
| Freight Bill: | ST-164 | | |
| Type Of Shipment: | <input type="checkbox"/> Partial | <input checked="" type="checkbox"/> Final | Status Of Purchase Order: |
| | | | <input type="checkbox"/> Incomplete |
| | | | <input checked="" type="checkbox"/> Complete |

Material Details

| PO Item | Quantity Received | Unit | Item Code Number | Material Description | Storage Location |
|---------|-------------------|------|------------------|----------------------|------------------|
| 1 | 160 | FT | 462001068 | 8" Sch40 A106 | |
| 2 | 21.5 | FT | 462001042 | 3" Sch40 A106 | |
| 3 | 104.5 | FT | 462001026 | 1 1/2" Sch40 A106 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Material Exception Details

| PO Item | Exception Quantity | Unit | Material Description | Over | Short | Damage | Not As Ordered |
|---------|--------------------|------|----------------------|------|-------|--------|----------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Recorded By:
Chris Flynn
Print or Type Name

[Signature]
Supervisor Material Handling

May 15 2008
Date



Material Receiving Report

| | |
|-------------------------|-------------|
| Report Number: | 1 |
| Date Material Received: | May 30 2008 |

| |
|---------------------|
| Job Number: 3200 |
|---------------------|

Procurement Data

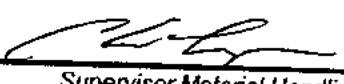
| | | | |
|------------------------|----------------------------------|---|--|
| Purchase Order Number: | 613316-00 | Shipper: | Trans AM |
| Vendor: | Trans Am | Shipped From: | Edmonton, Ab |
| Packing slip: | E8-30129 | <input type="checkbox"/> Collect | <input checked="" type="checkbox"/> Prepaid |
| Carrier: | Trans Am | | |
| Freight Bill: | N/A | | |
| Type Of Shipment: | <input type="checkbox"/> Partial | <input checked="" type="checkbox"/> Final | Status Of Purchase Order: |
| | | | <input type="checkbox"/> Incomplete <input checked="" type="checkbox"/> Complete |

Material Details

| PO Item | Quantity Received | Unit | Item Code Number | Material Description | Storage Location |
|---------|-------------------|------|------------------|----------------------|------------------|
| 10 | 20 | EA | 462241068 | 8" Cap Sch40 WPB | |
| 11 | 10 | EA | 462501704 | 1" 3000# TOL A105 | |
| 12 | 10 | EA | 462501707 | 2" 3000# TOL A105 | |
| 13 | 20 | EA | 462501707 | 2" 3000# TOL A105 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Material Exception Details

| PO Item | Exception Quantity | Unit | Material Description | Over | Short | Damage | Not As Ordered |
|---------|--------------------|------|----------------------|------|-------|--------|----------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Recorded By:
 Chris Flynn
 Print or Type Name

 Supervisor Material Handling

June 3 2008
 Date

DATE: 10/04/06
 TIME: 14:07:19
 SERIAL NO: F0037988

TUBULAR PRODUCTS
 CERTIFIED TEST REPORT
 (IN ACCORDANCE WITH ISO 10174/EN10204/DIN59048 3.1b)

| | | | |
|---|------------------------|-----------------------------|--|
| MILL ORDER PART NO T702291 04 | SHIPPERS NO. P31719 | MARK TO ADDRESS | INVOICE NO 0440654 |
| | | VENDOR | |
| SOLD TO ADDRESS COMCO PIPE & SUPPLY CO DIV OF RUSSEL METALS BOX 457 EDMONTON AB T5J 2K1 | | MARK TO ADDRESS NS192645 | VENDOR USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 |

SPECIFICATION AND GRADE
 PIPE CARBON SMLS STD PIPE API 5L-43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE X42 ASTM A53-*05 ASTM A106-*04B GRADE B QUAD STENCIL ASME SA53-*2004 EDITION ASME SA106-*2004 EDITION GRADE B CSA Z245.1-02 CAT I GRADE 290 EXCEPT MARKING BLK REG MILL COAT PE BEV 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF NACE STANDARD MR-01-75 *2002

| | | | | |
|--|-------------------------------------|-----------------------------|--|-----------------|
| MATERIAL COND: AS-ROLLED | O.D.: 8.625 (219.075) | | WALL: 0.322 (8.178) | |
| | YIELD MIN: 42,000 MAX: 72,000 | | HARDNESS SCALE: HRB MIN: 99.5 MAX: 83.2 | |
| PRODUCT IDENTIFICATION: U22838 *NOTE A STRIP/L/B | TEST COND: AR | TEST TYPE/ ORIENTATION: L/B | VT | ELONG % (IN 2') |
| | | | MIN: 0.64 | MIN: 27.0 |
| | | | MAX: 0.64 | MAX: 42.7 |
| ** END OF DATA THIS SHEET ** | | | | |

| PRODUCT IDENTIFICATION | TYPE | Y - TRANSVERSE IMP - NORMALIZED | | | | QT - QUENCH & TEMPERED HR - STRESS RELIEVED | | | | AR - AS ROLLED | | | | B - BODY | | | | W - WELD | | | | |
|------------------------|------|---------------------------------|-----|-----|-----|---|----|----|----|----------------|----|----|----|----------|----|------|-----|----------|-----|-----|--|--|
| | | C | CR | NI | CU | NI | CR | MO | AL | N | V | B | Ti | CO | CO | CO | CO | CO | MAX | MAX | | |
| U22838 | HEAT | 18 | 106 | 007 | 006 | 22 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 005 | 00 | 0003 | 002 | 001 | | .43 | | |
| U22838 | PROD | 19 | 105 | 007 | 006 | 22 | 02 | 01 | 03 | 01 | 02 | 01 | 02 | 006 | 00 | 0001 | 002 | 001 | | .37 | | |
| U22838 | PROD | 19 | 104 | 007 | 006 | 22 | 02 | 01 | 03 | 01 | 02 | 01 | 02 | 005 | 00 | 0001 | 002 | 001 | | .37 | | |

*C.E. IS BASED ON THE FOLLOWING EQUATION(S): C.E. = C + MN/6 + (CR+MO+V)/5 + (CU+NI)/15 < 0.43

DATE: 10/04/06
TIME: 14:07:19
SERIAL NO: F0037988

UNITED STATES STEEL
TUBULAR PRODUCTS
CERTIFIED TEST REPORT
(IN ACCORDANCE WITH ISO 10474/EN10204/DIN9048 3.1.1)

| | | | |
|----------------------------------|-----------------------|-------------------------|------------------------|
| MATERIAL NO. T02291 04 | SHIPPER NO. E31719 | P.O. NUMBER E1007806 | INVOICE NO 0440654 |
| AS-ROLLED | O.D.: 8.625 (219.075) | | |
| PRODUCT IDENTIFICATION U22838 | FLAT OK | GRAIN SIZE ** | WALL: 0.322 (8.178) |
| | BEND | OR T B | CHAMF. FACTOR |
| | CRACK | LOC. TEMP | IMPACT TESTING |
| | COLLAPSE | SIZE | TEMPERATURE |
| | | DEC F | 1 2 3 AVG |
| | | 26 28 28 27 | 1 2 3 |
| | | AR | 10 10 10 14 |
| | | | 26 28 28 27 |
| | | | 10 10 10 10 |

LEGEND: L - LONGITUDINAL T - TRANSVERSE B - BODY W - WELD NAZ - HEAT AFFECTED ZONE

| TEST / INSPECTION | YES | RESULTS / COMMENTS |
|---------------------------------|-----|-----------------------|
| FULL LENGTH VISUAL | X | |
| FULL LENGTH END | X | |
| FULL LENGTH INT | | |
| FULL LENGTH UT | | |
| END AREA INSPECTION (PLAIN END) | X | |
| SPECIAL END AREA (SEA) INSP | | |
| FULL LENGTH DRIFT | | |
| OD | | LT X 10.0/10.0% NOTCH |
| ID | | LT |
| MPI | X | |
| MP | | |
| DRIFT MANDREL SIZE | | |

ADDITIONAL NOTES/COMMENTS:
ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA.
MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727.
NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY BEARING EQUIPMENT IS PROTECTED BY A DOUBLE BOUNDARY OF CONTAINMENT.
01 MILL
*NOTE A SEE ATTACHED REPORT FOR TENSILE RESULTS.
ALSO MEETS THE REQUIREMENTS OF ASTM A106-04B/ASME SA106-2004 ED. GRADE C
** END OF DATA **

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF: J.T. CLAYTON - MANAGER, Q.A.

DATE 10/04/06

DATE: 10/04/06
 TIME: 14:07:19
 PAGE: 1

TUBULAR PRODUCTS
 TENSILE TEST REPORT

UNITED STATES STEEL



| | | | |
|---|-----------------------|-------------------------|--|
| MILL ORDERING NO TT02291 04 | SAMPLES NO. P31719 | P.O. NUMBER E1007806 | SERIAL NUMBER: F0037988 |
| SOLD TO ADDRESS COMCO PIPE & SUPPLY CO DIV OF RUSSEL METALS BOX 457 EDMONTON AB T5J 2K1 | | VEHICLE ID | VENDOR USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 |
| MAIL TO ADDRESS | | MAIL TO ADDRESS | |

| HEAT | PIPE/LOT | TYPE/DIR/LOC | TEST GADGE COND WIDTH | YIELD | EXT% | TENSILE | Y/T | ELONG & AREA | REDUC |
|-------------|----------|--------------|-----------------------|--------|------|---------|------|--------------|-------|
| U22838 3008 | | STRIP/L/B | AR 1.4820 | 47,800 | 0.50 | 74,500 | 0.64 | 42.7 | |
| U22838 3007 | | STRIP/L/B | AR 1.4770 | 45,500 | 0.50 | 74,500 | 0.61 | 42.6 | |
| U22838 3006 | | STRIP/L/B | AR 1.4770 | 46,900 | 0.50 | 74,500 | 0.63 | 46.9 | |

ASME SECTION II PART A
 2007 EDITION ADDENDA
 INITIAL BA
 DATE July 21/08

DATE: 10/08/06
TIME: 14:01:36
SERIAL NO: F0038145

TUBULAR PRODUCTS
CERTIFIED TEST REPORT

(IN ACCORDANCE WITH ISO 10079/EN 10245/DIN EN 10245 3.1.1)

| | | | | |
|---|-----------------------|---|------------------------|-----------------------|
| MILL ORDER ITEM NO TT02288 03 | SHIPPER NO. P31718 | P.O. NUMBER E1007297 | VEHICLE ID NS192983 | INVOICE NO 0440653 |
| SOLD TO ADDRESS CONCO PIPE & SUPPLY CO DIV OF RUSSEL METALS BOX 457 EDMONTON AB T5J 2K1 | | MAIL TO ADDRESS VENDOR USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | | |

PIPE CARBON SMNS STD PIPE API 5L-43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE K42 ASTM A53-05 ASTM A106-04B GRADE B QUAD STENCIL ASME SA53-2004 EDITION ASME SA106-2004 EDITION GRADE B CSA Z245.1-02 CAT I GRADE 290 EXCEPT MARKING BLK REG MILL COAT PE BEV 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF NACE STANDARD MR-01-75 *2002

SPECIFICATION AND GRADE

| PRODUCT IDENTIFICATION | TEST TYPE/ ORIENTATION | TEST COND. | GAGE WIDTH IN | YIELD PSI MIN: 42,000 MAX: 72,000 | EXT % .50 | TENSILE PSI MIN: 70,000 MAX: 110,000 | VT | ELONG % (IN 2') | WALL THICKNESS (IN) | MIN HYDRO (IN LBS) | |
|--------------------------|------------------------|------------------------------|---------------|--|--------------|---|------|--------------------|------------------------|--------------------|------|
| | | | | | | | | | | SCALE | MIN |
| U22841 *NOTE C STRIP/L/B | AR | ** END OF DATA THIS SHEET ** | 1.5 | 49,300 | .50 | 75,500 | 0.65 | 27.0 | 0.322 (8.178) | 27.0 | 99.5 |
| | | | | | | | | 41.3 | | 81.6 | 2350 |

| PRODUCT IDENTIFICATION | TYPE | T. TRANSVERSE MIL. NORMALIZED | | | | | | | | | | QT. QUENCH & TEMPERED SR. STRESS RELIEVED | | | | | AR. AS ROLLED | | | | | S. BODY | | | | | W. WELD | | | | |
|------------------------|------|----------------------------------|------|-----|-----|----|----|----|----|----|-----|--|----|------|-----|-----|---------------|-----|-----|------|--|---------|--|--|--|--|---------|--|--|--|--|
| | | C | MN | P | S | S | SI | CU | NI | CR | MO | AL | N | V | B | TI | CS | CO | CE* | MAX | | | | | | | | | | | |
| U22841 | HEAT | 19 | 11.0 | 008 | 007 | 21 | 03 | 01 | 03 | 01 | 029 | 006 | 90 | 0001 | 002 | 001 | 002 | 001 | | 0.42 | | | | | | | | | | | |
| U22841 | PROD | 19 | 109 | 007 | 005 | 21 | 03 | 01 | 03 | 01 | 032 | 006 | 00 | 0002 | 002 | 001 | 002 | 001 | | .39 | | | | | | | | | | | |
| U22841 | PROD | 20 | 110 | 007 | 008 | 20 | 03 | 01 | 03 | 01 | 032 | 007 | 00 | 0003 | 002 | 002 | 002 | 002 | | .38 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | .39 | | | | | | | | | | | |

*C.E. IS BASED ON THE FOLLOWING EQUATION(S): C.E. = C + MIN/6 + (CR+MO+V)/5 + (CU+NI)/1.5 < 0.43

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN, VERTICAL DOTTED LINE OR DECIMAL POINT.
 529901002 TQ403B18 0051485032 CAA 1-0-0 PAGE 3 OF 4

DATE: 10/09/06
TIME: 14:01:36
SERIAL NO: F0038145

TUBULAR PRODUCTS
CERTIFIED TEST REPORT
(IN ACCORDANCE WITH ISO 10474/EN10294/DIN50048 3.1b)

UNITED STATES STEEL

| | | | | |
|---|----------------------------------|-------------------------|---|----------------------|
| MILL ORDER ITEM NO T02288 03 | SHIPPER NO P31718 | P.O. NUMBER E1007297 | INVOICE NO 0440653 | |
| MATERIAL COND: AS-ROLLED | O.D.: 8.625 (219.075) | | WALL: 0.322 (8.178) | |
| PRODUCT IDENTIFICATION U22841 | FLAT OK | BEND | GRAN SIZE | MIN COLLAPSE |
| | | | DIR | TEST LOC |
| | | | TEMP | SIZE |
| | | | CHAMFY NOTCH IMPACT TESTING | |
| | | | TEST COND. | 1 2 3 AVG 1 2 3 AVG |
| | | | DEC F | |
| | | | T B | 26 18 25 23 10 10 10 |
| | | | ** END OF DATA THIS SHEET ** | |
| LEGBHD | L - LONGITUDINAL | T - TRANSVERSE | B - BODY | W - WELD |
| | TESTING / INSPECTION INFORMATION | | MAX - HEAT AFFECTED ZONE | |
| | TEST / INSPECTION | YES | RESULTS / COMMENTS | |
| | FULL LENGTH VISUAL | X | | |
| | FULL LENGTH EMI | X | OD --- OODD --- X L --- LT X 10.0/10.0% NOTCH | |
| | FULL LENGTH MIP | | | |
| | FULL LENGTH UT | | | |
| | END AREA INSPECTION (PLAIN END) | X | ID --- OODD --- L --- LT | |
| | SPECIAL END AREA (BEA) INSP | | MPI --- X UT | |
| | FULL LENGTH DRIFT | | DRIFT MANIFOLD SIZE: | |
| ADDITIONAL NOTES/COMMENTS | | | | |
| ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA. MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727. NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY BEARING EQUIPMENT IS PROTECTED BY A DOUBLE BOUNDARY OF CONTAINMENT. 01 MILL *NOTE C SEE ATTACHED REPORT FOR TENSILE RESULTS. ALSO MEETS THE REQUIREMENTS OF ASTM A106-04B/ASME SA106-2004 ED. GRADE C ** END OF DATA ** | | | | |

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF: J. T. CLAYTON - MANAGER, Q.A.

DATE: 10/08/06

ASME SECTION II PART A

2007 EDITION ADDENDA

INITIAL BA DATE July 21/07

529901002 TQ403B18 0051485032

CAA 1-0-0

PAGE 4 OF 4

**



UNITED STATES STEEL

TUBULAR PRODUCTS

CERTIFIED TEST REPORT

(TYPE B - IN ACCORDANCE WITH ISO 10474/EN10204/DIN50049 3.1.b)

TIME: 07:40:47
SERIAL NO: F0021826

| MILL ORDER/ITEM NO. | SHIPPER'S NO. | P.O. NUMBER | VEHICLE ID. | INVOICE NO. | VENDOR | | | | | | | | | | | | | | | |
|--|------------------------|-----------------|----------------|-------------------------|--|----------------|------|----------|------|----------|------|---------------|--------------|------|------|-----|-----|----|-----|------|
| TT09713 09 | Y19083 | E1006696 | NW189169 | 0434856 | USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | | | | | | | | | | | | | | | |
| SOLD TO ADDRESS | | MAIL TO ADDRESS | | | | | | | | | | | | | | | | | | |
| COMCO PIPE & SUPPLY CO DIV OF RUSSEL METALS BOX 457 EDMONTON AB T5J 2K1 | | | | | | | | | | | | | | | | | | | | |
| SPECIFICATION AND GRADE | | | | | | | | | | | | | | | | | | | | |
| PIPE CARBON SMLS STD PIPE API 5L-X43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE X42 ASTM A53-X04A ASTM A106-X04B GRADE B QUAD STENCIL ASME SA53-X2004 EDITION ASME SA106-X2004 EDITION GRADE B BLK REG MILL COAT PE BEY 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF NACE STANDARD MR-01-75 X2002 | | | | | | | | | | | | | | | | | | | | |
| MATERIAL COND: AS-ROLLED | | | | | | | | | | | | | | | | | | | | |
| Q.D.: 8.625(219.075) in (mm) WALL: 0.322 (8.178) in (mm) | | | | | | | | | | | | | | | | | | | | |
| PRODUCT IDENTIFICATION | TEST TYPE/ ORIENTATION | TEST COND. | GUAGE WIDTH IN | YIELD | | TENSILE PSI | Y/T | ELONG % | | HARDNESS | | MIN HYDRO PSI | TOWELL (SEI) | | | | | | | |
| | | | | MIN | MAX | | | MIN | MAX | MIN | MAX | | | MIN | MAX | | | | | |
| C25152 | STRIP/L/B | AR | 1.5 | 47,400 | 50 | 70,000 | 0.64 | 27.0 | 43.2 | 99.5 | 2350 | 5 | | | | | | | | |
| C25152 | STRIP/L/B | AR | 1.5 | 45,200 | 50 | 75,500 | 0.60 | 38.0 | 88.2 | 2350 | 5 | | | | | | | | | |
| C35089 | STRIP/L/B | AR | 1.5 | 45,600 | 50 | 76,000 | 0.60 | 41.3 | 88.5 | 2350 | 5 | | | | | | | | | |
| C35089 | STRIP/L/B | AR | 1.5 | 46,800 | 50 | 76,000 | 0.61 | 40.8 | | | | | | | | | | | | |
| ** END OF DATA THIS SHEET ** | | | | | | | | | | | | | | | | | | | | |
| LEGEND: | | | | | | | | | | | | | | | | | | | | |
| 1 - LONGITUDINAL | | T - TRANSVERSE | | OF - OLENCHE & TEMPERED | | AR - AS ROLLED | | B - BODY | | W - WELD | | | | | | | | | | |
| U - UPSET | | N - NORMALIZED | | SP - STRESS RELIEVED | | | | | | | | | | | | | | | | |
| PRODUCT IDENTIFICATION | TYPE | C | M | N | P | S | SI | CU | N | CR | MO | AL | N | V | B | T | CB | CO | CE* | MAX |
| | | | | | | | | | | | | | | | | | | | | |
| C25152 | HEAT | 19 | 106 | 009 | 005 | 19 | 02 | 01 | 03 | 01 | 01 | 025008 | 00 | 0001 | 0001 | 002 | 001 | | | 0.43 |
| C25152 | PROD | 21 | 109 | 009 | 010 | 20 | 02 | 01 | 03 | 01 | 01 | 029008 | 00 | 0001 | 0001 | 001 | 006 | | | 0.38 |
| C25152 | PROD | 21 | 109 | 009 | 010 | 20 | 02 | 01 | 03 | 01 | 01 | 028008 | 00 | 0001 | 0001 | 001 | 006 | | | 0.40 |
| C35089 | HEAT | 21 | 101 | 008 | 005 | 22 | 02 | 01 | 03 | 01 | 01 | 026010 | 00 | 0001 | 0001 | 002 | 004 | | | 0.40 |
| C35089 | PROD | 21 | 105 | 009 | 009 | 24 | 02 | 01 | 04 | 01 | 01 | 028007 | 00 | 0001 | 0001 | 001 | 006 | | | 0.39 |
| C35089 | PROD | 22 | 104 | 009 | 008 | 24 | 02 | 01 | 04 | 01 | 01 | 028008 | 00 | 0001 | 0001 | 001 | 006 | | | 0.40 |
| ** END OF DATA THIS SHEET ** | | | | | | | | | | | | | | | | | | | | |
| *C.E. IS BASED ON THE FOLLOWING EQUATION(S): C.E. = C + MN/6 + (CR+MOT V)/5 + (CU+NI)/15 < 0.43 | | | | | | | | | | | | | | | | | | | | |

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN, VERTICAL DOTTED LINE OR DECIMAL POINT.

UNITED STATES STEEL

TUBULAR PRODUCTS

CERTIFIED TEST REPORT

(TYPE B - IN ACCORDANCE WITH ISO 10474/EN10204/DIN50049 3.1.b)

TIME: 07:40:47
SERIAL_NO: F0021826

| | | | |
|--|------------------------------|--------------------------|-----------|
| MILL ORDER/ITEM NO. T109713 09 | SHIPPER NO. Y19083 | INVOICE NO 0434856 | |
| MATERIAL COND: AS-ROLLED | P.O. NUMBER E1006696 | WALL: 0.322 (B.178) | |
| PRODUCT IDENTIFICATION C25152 C35089 | GRAIN SIZE | TEMP + 32 + 32 | DEG F |
| FLAT | MIN COLLAPSE | TEST LOC | TEST COND |
| OK OK | ** END OF DATA THIS SHEET ** | B B | AR AR |
| LEGEND: L - LONGITUDINAL | | T - TRANSVERSE | |
| TEST / INSPECTION | | W - WELD | |
| FULL LENGTH VISUAL | YES | HAZ - HEAT AFFECTED ZONE | |
| FULL LENGTH EMI | X | | |
| FULL LENGTH MPI | X | | |
| FULL LENGTH UT | | | |
| END AREA INSPECTION (PLAIN END) | X | | |
| SPECIAL END AREA (SEAL INSP) | | | |
| FULL LENGTH DRIFT | | | |
| ADDITIONAL NOTES/COMMENTS | | | |
| ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA. MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727. NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY BEARING EQUIPMENT IS PROTECTED BY A DOUBLE BOUNDARY OF CONTAINMENT. Ø1 MILL ALSO MEETS THE REQUIREMENTS OF ASTM A106-99/ASME SA106-1998 ED. 1999 GRADE C. ** END OF DATA ** | | | |

ASME SECTION II PART A

2007 EDITION

INITIAL BA DATE 30/07/07

PREPARED BY THE OFFICE OF: J. T. CLAYTON - MANAGER, Q.A.

DATE 03/26/06

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS

UNIT: STATES STEEL

TUBULAR PRO TS
CERTIFIED TEST REPORT

TIME: 17:22:00

SERIAL NO:

(TYPE B - IN ACCORDANCE WITH ISO 10474/JEN10204/DIN50049 3.1.b)

| | | | |
|---|-----------------------|---|---------------------------|
| MILL ORDER/ITEM NO. TT02082 03 | SHIPPER NO. P97883 | P.O. NUMBER 9106186-00 | VEHICLE ID. CSXT708529 |
| SOLD TO ADDRESS MCO CORP ESTLUND DIV PO BOX 5300 ANDON ON N6A 4N7 | | MAIL TO ADDRESS USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | |

SPECIFICATION AND GRADE

PIPE CARBON SMLS STD PIPE API 5L-X43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE X42 ASTM A53-X04A
STM A106-X04B GRADE B QUAD STENCIL ASME SA53-X2004 EDITION ASME SA106-X2004 EDITION GRADE B BLK REG
ILL COAT PE BEV 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF NACE STANDARD MR-01-75 X2002

| MATERIAL COND: | AS-ROLLED | | OD: 8.625 (219.075) | | IN (MM): WALL: 0.322 (8.178) | | IN (MM) | | MIN HYDRO PSI | DWEIL (SEC) | | |
|------------------------------|------------|-----------------------|---------------------|------------------------|------------------------------|-------|--------------|----------------------|----------------------|-------------|-----------------|----------|
| | TEST COND. | TEST TYPE/ORIENTATION | GAUGE WIDTH IN | YIELD | PSI | EXT % | TENSILE | Y/T | | | ELONG % (IN 2') | HARDNESS |
| X22828 | AR | STRIP/L/B | 1.5 | 42,000 MIN: MAX: | 70,000 MIN: MAX: | .50 | 0.60 MAX: | 27.0 MAX: | 40.6 MIN: MAX: | 2350 | | |
| X22828 | AR | STRIP/L/B | 1.5 | 45,200 MIN: MAX: | 75,000 MIN: MAX: | .50 | 0.61 MAX: | 40.6 MIN: MAX: | 42.4 MIN: MAX: | 2350 | | |
| X22829 | AR | STRIP/L/B | 1.5 | 45,700 MIN: MAX: | 75,500 MIN: MAX: | .50 | 0.62 MAX: | 43.4 MIN: MAX: | 43.4 MIN: MAX: | 2350 | | |
| ** END OF DATA THIS SHEET ** | | | | | | | | | | | | |

| PRODUCT IDENTIFICATION | TYPE | L - LONGITUDINAL U - UPSET | | T - TRANSVERSE N - NORMALIZED | | | | | QT - QUENCHED & TEMPERED SR - STRESS RELIEVED | | | | | AR - AS ROLLED | | | | | B - BODY | | | | | W - WELD | | | | | | | | | | | | | |
|------------------------|------|------------------------------|----|-------------------------------|----|----|----|----|---|----|----|----|----|----------------|----|----|----|-------|----------|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | Ti | CB | CO | C.E.* | MAX | | | | | | | | | | | | | | | | | | |
| | | ** END OF DATA THIS SHEET ** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X22828 | HEAT | 19 | 20 | 19 | 20 | 20 | 21 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | | |
| X22828 | PROD | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| X22828 | PROD | 19 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| X22829 | HEAT | 21 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| X22829 | PROD | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

*C.E. IS BASED ON THE FOLLOWING EQUATION(S): C.E. = C + MN/6 + (CR+MO+V)/5 + (CU+NI)/15 < 0.43

DATE: 03/23/06
TIME: 17:22:00
SERIAL_NO:

TUBULAR PRODUCTS
CERTIFIED TEST REPORT

(TYPE B - IN ACCORDANCE WITH ISO 10474/MEN10204/DIN5049 3.1.b)

UNITED STATES STEEL

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|--------------------------|----------------------|--------------|----------------------|-------|----------------------|------------|-------------------------------|----|---------|---------|--------------------------|----|----|--------------------|-----|----|--|--|--|--|--|
| MILL ORDER/ITEM NO. TT02082 03 | SHIPPER'S NO. P97E83 | PG. NUMBER 9106186-00 | O.D.: 8.625(219.075) | | I.D.: 0.322 (8.178) | | WALL: 0.322 (8.178) | | In (mm) | | In (mm) | | | | | | | | | | | | |
| MATERIAL COND: AS-ROLLED | | | | | | | | | | | | | | | | | | | | | | | |
| PRODUCT IDENTIFICATION X22828 X22829 | FLAT | BEND | GRAIN SIZE | MIN COLLAPSE | TEST LOC. | TEMP | SIZE | TEST COND. | CHARPY V-NOTCH IMPACT TESTING | | | % SHEAR | | | | | | | | | | | |
| | | | | | | | | | 1 | 2 | 3 | | AVG | 1 | 2 | 3 | AVG | | | | | | |
| | | | | | | DEG F | | | 10 | 10 | 10 | 14 | | | | | | | | | | | |
| | | | | | | + 32 | 2/3 | AR | 31 | 32 | 28 | 30 | 10 | 10 | 10 | 10 | 10 | 10 | | | | | |
| | | | | | | + 32 | 2/3 | AR | 27 | 26 | 23 | 25 | 10 | 10 | 10 | 10 | 10 | 10 | | | | | |
| | | | | | | *** | | | | | | | | | | | | | | | | | |
| TESTING / INSPECTION INFORMATION | | | | | | | | | | | | | HAZ - HEAT AFFECTED ZONE | | | | | | | | | | |
| LEGEND: L - LONGITUDINAL | | | | | | | | | | | | | S - BODY | | | W - WELD | | | | | | | |
| TEST / INSPECTION | | | | | | | | | | | | | T - TRANSVERSE | | | RESULTS / COMMENTS | | | | | | | |
| FULL LENGTH VISUAL | | | | | | | | | | | | | YES | | | | | | | | | | |
| FULL LENGTH EM | | | | | | | | | | | | | X | | | | | | | | | | |
| FULL LENGTH MPI | | | | | | | | | | | | | X | | | | | | | | | | |
| END AREA INSPECTION (PLAIN END) | | | | | | | | | | | | | X | | | | | | | | | | |
| SPECIAL END AREA (SEA) INSP. | | | | | | | | | | | | | | | | | | | | | | | |
| FULL LENGTH DRIFT | | | | | | | | | | | | | | | | | | | | | | | |
| ADDITIONAL NOTES/COMMENTS | | | | | | | | | | | | | | | | | | | | | | | |
| ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA. | | | | | | | | | | | | | | | | | | | | | | | |
| MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727. | | | | | | | | | | | | | | | | | | | | | | | |
| NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY BEARING EQUIPMENT IS PROTECTED BY A DOUBLE BOUNDARY OF CONTAINMENT. | | | | | | | | | | | | | | | | | | | | | | | |
| Ø1 MILL | | | | | | | | | | | | | | | | | | | | | | | |
| *NOTE A SEE ATTACHED REPORT FOR HARDNESS RESULTS. *NOTE B SEE ATTACHED REPORT FOR HARDNESS RESULTS. | | | | | | | | | | | | | | | | | | | | | | | |
| ALSO MEETS THE REQUIREMENTS OF ASTM A106-99/ASME SA106-1998 ED. 1999 GRADE C. | | | | | | | | | | | | | | | | | | | | | | | |
| *** END OF DATA *** | | | | | | | | | | | | | | | | | | | | | | | |

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF: J.T. CLAYTON - MANAGER, Q.A.

DATE: 03/23/06

ASME SECTION II PART A

2007 EDITION

ADDENDA

INITIAL SA DATE July 21/09

UNITE STATES STEEL
 TUBULAR PRODUCTS
 HARDNESS TEST REPORT
 DATE: 03/23/06
 TIME: 17:22:01
 PAGE: 1

TUBULAR PRODI 3
 HARDNESS TEST REPORT

| | | | |
|--|-------------------------|---------------------------|-------------|
| MILL ORDER/ITEM NO. TT02082 03 | SHIPPER'S NO. P97883 | P.O. NUMBER 9106186-00 | VEHICLE ID. |
| SOLD TO ADDRESS EMCO CORP WESTLUND DIV P O BOX 5300 LONDON ON N6A 4N7 | | MAIL TO ADDRESS | |
| SERIAL NUMBER: VENDOR USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | | | |

| HEAT | SCALE | LOC | CND | MIN | MAX | 001 | 002 | 003 | AVG |
|--------|-------|-----|-----|-----|-----|------|------|------|------|
| X22828 | HRB | B | AR | 0 | 99 | 84.9 | 82.6 | 83.9 | 83.8 |
| X22828 | HRB | B | AR | 0 | 99 | 84.9 | 85.3 | 85.4 | 85.2 |
| X22829 | HRB | B | AR | 0 | 99 | 77.7 | 77.7 | 81.0 | 78.8 |
| X22829 | HRB | B | AR | 0 | 99 | 85.3 | 85.1 | 85.6 | 85.3 |



CHINA INDUSTRIAL METAL CO., LTD
CSST2007/268

产品质量证明
MILL TEST CERTIFICATE
攀钢集团成都钢铁有限责任公司
PANGANG GROUP CHENGDU IRON & STEEL CO., LTD.

证书号: 2007268002
CERTIFICATE NO:
00011440
发货: 1426.464 M
合计: 186 根: 2255.250 米: 95.960 吨:
PIECES: METERS: TONS:
TOTAL:

地址: 中国 四川 成都市东风南路一号
ADDRESS: No. 1 South Dongfeng Road, Chengdu Sichuan P. R. China
电话: 028-84407093 传真: 028-84503981 邮编: 610066
TEL: 028-84407093 FAX: 028-84503981 P. O. BOX: 610066

NO: SEAMLESS CARBON STEEL PIPE
ION: ASTM A106-06a/ASME SA106-04a/API 5L-43a/NAACE MR0175

| 号 | 钢号 | 熔炼号 | 批号 | 熔铸号 | 外径 O. D./IPS | 壁厚 W. T | 长度 LENGTH | 根数 PIECES | 重量 TONS | 水压试验 HYDROSTATIC TEST | 无损检验 NDT | 表面及尺寸 SURFACE DIMENSION |
|---|--------|-----------|------------|-----|-----------------|------------|--------------|--------------|------------|--------------------------|-------------|-------------------------------|
| 1 | B PSL1 | 73-06431 | Y347091127 | BOF | 8" | 0.322" | 40FT | 26 | 316.902 | 压力 1600 时间 5s 结果 合格 | 超声 合格 | 合格 |
| 2 | B PSL1 | 73-06434 | Y347091128 | BOF | 8" | 0.322" | 40FT | 117 | 1426.194 | 压力 1600 时间 5s 结果 合格 | 超声 合格 | 合格 |
| 3 | B PSL1 | 73-06438 | Y347091133 | BOF | 8" | 0.322" | 40FT | 8 | 97.590 | 压力 1600 时间 5s 结果 合格 | 超声 合格 | 合格 |
| 4 | B PSL1 | E10702083 | Y347091130 | BOF | 8" | 0.322" | 40FT | 22 | 268.224 | 压力 1600 时间 5s 结果 合格 | 超声 合格 | 合格 |
| 5 | B PSL1 | E10702086 | Y347091131 | BOF | 8" | 0.322" | 40FT | 2 | 24.384 | 压力 1600 时间 5s 结果 合格 | 超声 合格 | 合格 |
| 6 | B PSL1 | E10702087 | Y347091129 | BOF | 8" | 0.322" | 40FT | 10 | 121.922 | 压力 1600 时间 5s 结果 合格 | 超声 合格 | 合格 |

| 试样号 | 试样尺寸 SAMPLE SIZE | 屈服强度 YIELD STRENGTH | 抗拉强度 TENSILE STRENGTH | 延伸率 ELONGATION | A样 INDIVIDUAL VALUE | B样 INDIVIDUAL VALUE | 平均 AVERAGE | 冲击功 IMPACT TEST | 环扩试验 RING EXPANDING TEST | 压扁试验 FLATTENING TEST | 硬度 HARDNESS TEST |
|----------|---------------------|------------------------|--------------------------|-------------------|------------------------|------------------------|---------------|--------------------|-----------------------------|-------------------------|---------------------|
| 10112A/B | 38.1 | 325 | 470 | 40 | 39.5 | 47.5 | 40 | 39.5 | 145 | 138 | 143% |
| 9112A/B | 38.1 | 330 | 480 | 38 | 38.5 | 46.0 | 38 | 38.5 | 146 | 146 | 149 |
| 8112A/B | 38.1 | 330 | 485 | 40 | 39.5 | 47.0 | 40 | 39.5 | 143 | 150 | 146 |
| 6112A/B | 38.1 | 310 | 470 | 38 | 38 | 46.5 | 38 | 38 | 149 | 146 | 149 |
| 5112A/B | 38.1 | 350 | 495 | 38.5 | 38 | 47.5 | 38.5 | 38 | 144 | 150 | 148 |
| 4112A/B | 38.1 | 315 | 480 | 38 | 38 | 48.5 | 38 | 38 | 152 | 144 | 149 |

| ANALYSIS | 化学成分 CHEMICAL COMPOSITION (%) | | | | | | | | | | | | | | 产品分析碳当量 CE |
|---------------|----------------------------------|------|------|-------|-------|------|------|------|------|-------|-------|--------|--------|--------|---------------|
| | C | Si | Mn | P | S | Cr | Ni | Mo | Cu | V | Nb | Ti | B | CE | |
| ANALYSIS 0.20 | 0.24 | 0.24 | 0.47 | 0.010 | 0.014 | 0.02 | 0.02 | 0.01 | 0.05 | 0.02 | 0.003 | 0.020 | 0.0003 | 0.0003 | |
| ANALYSIS 0.18 | 0.25 | 0.24 | 0.59 | 0.015 | 0.016 | 0.07 | 0.08 | 0.01 | 0.01 | 0.01 | 0.001 | 0.021 | 0.0004 | 0.0004 | |
| ANALYSIS 0.18 | 0.25 | 0.25 | 0.46 | 0.014 | 0.005 | 0.03 | 0.02 | 0.01 | 0.03 | 0.003 | 0.020 | 0.0003 | 0.0003 | 0.0003 | |
| ANALYSIS 0.19 | 0.25 | 0.25 | 0.45 | 0.012 | 0.015 | 0.02 | 0.02 | 0.01 | 0.04 | 0.001 | 0.021 | 0.001 | 0.0004 | 0.0004 | |
| ANALYSIS 0.21 | 0.27 | 0.27 | 0.59 | 0.009 | 0.007 | 0.04 | 0.02 | 0.01 | 0.02 | 0.001 | 0.013 | 0.0005 | 0.0005 | 0.0005 | |
| ANALYSIS 0.20 | 0.24 | 0.25 | 0.62 | 0.011 | 0.011 | 0.07 | 0.02 | 0.02 | 0.01 | 0.001 | 0.010 | 0.0005 | 0.0005 | 0.0005 | |
| ANALYSIS 0.19 | 0.25 | 0.25 | 0.59 | 0.015 | 0.005 | 0.03 | 0.02 | 0.02 | 0.02 | 0.001 | 0.017 | 0.0005 | 0.0005 | 0.0005 | |
| ANALYSIS 0.19 | 0.25 | 0.24 | 0.60 | 0.011 | 0.010 | 0.06 | 0.02 | 0.01 | 0.01 | 0.001 | 0.010 | 0.0005 | 0.0005 | 0.0005 | |
| ANALYSIS 0.20 | 0.25 | 0.25 | 0.60 | 0.013 | 0.009 | 0.08 | 0.02 | 0.02 | 0.01 | 0.001 | 0.014 | 0.0004 | 0.0004 | 0.0004 | |
| ANALYSIS 0.22 | 0.24 | 0.25 | 0.59 | 0.014 | 0.010 | 0.06 | 0.02 | 0.01 | 0.02 | 0.001 | 0.010 | 0.0005 | 0.0005 | 0.0005 | |
| ANALYSIS 0.20 | 0.25 | 0.25 | 0.61 | 0.010 | 0.008 | 0.05 | 0.02 | 0.01 | 0.01 | 0.001 | 0.014 | 0.0004 | 0.0004 | 0.0004 | |
| ANALYSIS 0.21 | 0.25 | 0.25 | 0.60 | 0.011 | 0.008 | 0.07 | 0.02 | 0.01 | 0.01 | 0.001 | 0.010 | 0.0005 | 0.0005 | 0.0005 | |
| ANALYSIS | | | | | | | | | | | | | | | |
| ANALYSIS | | | | | | | | | | | | | | | |

TO BE DELIVERED IN THEORETICAL WEIGHT.
TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED AS PER RELEVANT
FOR AS STIPULATED IN THE ORDER, QUALIFIED WITH ALL THE DATA IN
WITH THE SPECIFICATION.
FINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE THE
ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.
METHOD: 电炉-BAF 电渣重熔-ESR 转炉-BOF 电炉+VD-EAF-VD
TION OF SUPPLY: QUENCHED AND TEMPERED-Q+T, HOT ROLLED-HR, QUENCHED-Q, 13. 合格-ACCEPTABLE
1-3, ANNEALED-A, TEMPERED-T, HOT EXPANDED-HE

6. ③METHOD 磁粉检测-MT 超声波检测-UT 渗透检测-LPT 涡流检测-ET
7. ④SAMPLE SIZE: C10-10% 测径 (10%NOTCH) (OR 12.5%)
8. ⑤ORIENTATION OF SPECIMEN: 纵向-LON 横向-TRA
9. ⑥CARBON EQUIVALENT OF PRODUCT ANALYSIS
10. 标准值⑩STANDARD VALUE
11. 实际值⑪ACTUAL VALUE
12. 合格-ACCEPTABLE

MADE IN CHINA
NAACE MR0103-2007/NAACE MR0175-2003
EN10204.3.1B
ASME SPECIFICATION FOR WAREHOUSE/ASME A100-103

2007 EDITION ADDENDA
INITIAL BA DATE July 21/09

APPROVED BY QUALITY MANAGER: [Signature]
FILLING FORM DATE: 2008 YEAR 1 MONTH 31 DAY
制表时间: 2008年1月31日

NO: 066/ASME SA106 066/API 5L 48-4/INCH MR0175
 ON: 028-8407085-27
 地址: 四川省成都市双流区
 ADDRESS: No. 1 South Street, Chengde, Sichuan P. R. China
 电话: 028-8407085-27
 TEL: 028-8407085-27
 P. O. BOX: 610066
 电话: 028-8407085-27
 TEL: 028-8407085-27
 合计: 40 根: 500.652 米: 23.864 吨:
 TOTAL: PICES: METERS: TONS:

| 样号 SAMPLE NO. | 钢号 STEEL GRADE | 熔炼号 HEAT NO. | 批号 BATCH NO. | 熔炼方法 MELTING METHOD | 交货状态 CONDITION OF SUPPLY | 外径 O. D./INPS | 壁厚 W. T. | 长度 LENGTH | 根数 PIECES | 米数 METERS | 重量 TONS | 水压试验 HYDROSTATIC TEST | | 无损检验 NDT | 表面及尺寸 SURFACE DIMENSION | |
|------------------|-------------------|-----------------|-----------------|------------------------|-----------------------------|------------------|-------------|--------------|--------------|--------------|------------|-----------------------|--------------------|-------------|----------------------------|------------------|
| | | | | | | | | | | | | 结果 (9) RESULT | 探伤方法 (9) METHOD | | | 结果 (9) RESULT |
| 1120AID | PSL1 | 73 06436 | 704708124 | TOP | HR | 6" | 0.352" | 40FT | 32 | 390.144 | 16.601 | 1600 | 5S | ACCEPTABLE | ACCEPTABLE | ACCEPTABLE |
| 1120AID | PSL1 | 73 06436 | 704708124 | TOP | HR | 8" | 0.322" | 40FT | 14 | 170.688 | 7.260 | 1800 | 5S | ACCEPTABLE | ACCEPTABLE | ACCEPTABLE |

| 样号 SAMPLE NO. | 冲击试验 IMPACT TEST (STANDARD: ASTM A370) | | | | | | | | | | 硬度试验 HARDNESS TEST: (HB) | | | |
|------------------|--|------------------------------|----------------|-------------------------------|---------------------------------|----------------------------|---|---------------|---------------|---------------|-----------------------------|--|--|--|
| | 试样单值 (J) INDIVIDUAL VALUE | 试样单值 (J) INDIVIDUAL VALUE | 平均值 AVERAGE | 环拉试验 RING TENSILE TEST (9) | 环扩试验 RING EXPANDING TEST (9) | 压扁试验 FLATENING TEST (9) | 附加试验 ADDITIONAL TESTS SPECIFIED IN ORDER | 标准值 (9) CE | 实际值 (9) CE | 标准值 (9) CE | 实际值 (9) CE | | | |
| 1120AID | 490 | 490 | 490 | ACCEPTABLE | ACCEPTABLE | ACCEPTABLE | 141 | 144 | 141 | 144 | | | | |
| 1120AID | 475 | 475 | 475 | ACCEPTABLE | ACCEPTABLE | ACCEPTABLE | 141 | 144 | 141 | 144 | | | | |

| 样号 SAMPLE NO. | 化学成分 CHEMICAL COMPOSITION (%) | | | | | | | | | |
|------------------|----------------------------------|------|------|-------|-------|------|------|------|------|-------|
| | C | Si | Mn | P | S | Cr | Ni | Mo | Cu | Nb |
| 1120AID | 0.18 | 0.21 | 0.48 | 0.012 | 0.011 | 0.02 | 0.02 | 0.01 | 0.03 | 0.020 |
| 1120AID | 0.19 | 0.22 | 0.47 | 0.015 | 0.009 | 0.03 | 0.02 | 0.01 | 0.04 | 0.006 |
| 1120AID | 0.19 | 0.27 | 0.48 | 0.019 | 0.005 | 0.03 | 0.02 | 0.01 | 0.04 | 0.006 |
| 1120AID | 0.20 | 0.27 | 0.46 | 0.018 | 0.005 | 0.03 | 0.02 | 0.01 | 0.04 | 0.006 |

EN 10204 2.1.2
 MEETS REQUIREMENTS OF WACR MR0175/MR0 103
 2007
 2007年11月23日
 2007
 2007年11月23日

ASME
 2007
 2007年11月23日
 2007
 2007年11月23日

HEAT NUMBER : 57062
 TRANS AM PIPING PRODUCTS - REV'D BY: *JB*
 Shipment/Seq #: S 7 - 1615 7

2X8-36 CL 3000 FS THREADED PIPET
 A105N



Manufacturer of Piping & Pressure Vessel Components
 4407 Haygood St - Houston, TX 77022
 Phone: 713-695-3633 Fax: 713-695-3528
 A Division of **BONNEY FORGE**

Page: 24

SOLD TO: TRANS AM PIPING (CALGARY)
 9335 ENDEAVOR DRIVE S.E.
 CALGARY, AB T3S 0A1

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1

MTR #: 140759
 PO #: CI-07-683
 SALES ORDER #: C716034 DATE: 12/14/2007

CERTIFIED MATERIAL TEST REPORT
 HEAT CODE: 57062

MATERIAL: A/SA105 01

| ITEM | Quantity | Description |
|------|----------|-------------------------------|
| 14 | | 36 - 8 X 2 3M THP A/SA105N |

CHEMICAL COMPOSITION:

| LADLE | C | MN | P | S | SI | CU | NI | CR |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.190 | 1.010 | 0.009 | 0.024 | 0.200 | 0.110 | 0.030 | 0.040 |
| | 0.010 | 0.000 | 0.015 | | | | | |

CARBON EQUIVALENCY:

LADLE 0.378

MECHANICAL PROPERTIES:

| PRODUCT | TENSILE PSI | YIELD PSI | ELONG % | RA % | HARDNESS |
|-----------|-------------|-----------|---------|--------|-----------------|
| As Forged | 76,875 | 50,375 | 30.25% | 63.95% | 139 BHN 139 BHN |

IN ACCORDANCE WITH NACE SPEC MR0175-2002

Marie Dehmer
 Quality Assurance Representative

ASME SECTION II PART A

2007 EDITION ADDENDA
 INITIAL BA DATE July 21/08

HEAT NUMBER : 57383
 TRANS AM PIPING PRODUCTS - REV'D BY: JD
 Shipment/Seq #: S 8 - 1025 1

1X3-36 CL 3000 FS THREADED PIPET
 A105N



Manufacture of Piping and Pressure Vessel Components
 4407 Maygood St - Houston, TX 77022
 Phone: 713-695-3633 Fax: 713-695-3528
 A Bonney Forge Company

Sold To: TRANS AM PIPING PRODUCTS
 LTD
 9335 ENDEAVOR DRIVE S.E.
 CALGARY AB T3S 0A1

Mtr #: 142,449

PO #: CI-07-683

Sales Order #: C000716034

Date: 01/22/2008

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Certified Material Test Report

Heat Code: 57383

Material: A/SA105N 01

| Item | Quantity | Description |
|------|----------|--|
| 75 | | 36 - 3 X 1 3M THP A/SA105N REPLACEMENT FOR LINE# 9 |

Chemical Composition

| Ladle | C | CR | CU | MN | MO | NI | NI | P |
|---------------------|-------|-------|-------|------|-------|-------|------|-------|
| | 0.200 | 0.06 | 0.080 | 1.05 | 0.010 | 0.018 | 0.03 | 0.008 |
| | S | SI | V | | | | | |
| | 0.023 | 0.18 | 0.000 | | | | | |
| Carbon Equivalency: | | Ladle | | 0.40 | | | | |

| Product | Tensile PSI | Yield PSI | Elong % | RA % | Hardness | Test Temperature: |
|---------|-------------|-----------|---------|-------|----------|-------------------|
| | 71,250 | 47,500 | 33.15 | 64.20 | 130 BHN | 130 BHN 0 F |

Normalized

ASME SECTION II PART A

2007 EDITION

ADDENDA

INITIAL BA

DATE July 21/08

Marie Dehmer
 Quality Assurance Representative

8" STD BW CAPS A234-WPB

Handwritten initials/signature

HEAT NUMBER : 7C3931
 TRANS AM PIPING PRODUCTS - REV D BY : 7
 Shipment/seg #: 5 7 - 1354

PURCHASER : SEYBOLD
 ASTM A234 WPB-07
 STANDARD : ASME SA234 WPB-04

MATERIALS : JIS G3103 SB410
 INSP. SPEC. : ASME B16.9 - 03



INSPECTION CERTIFICATE
RIGID INDUSTRIES CO., LTD.

8, MEL-CHUNG RD, NIAC-SONG,
 KAOHSIUNG HSIEN, 83301 TAIWAN
 TEL: 886-77310527-8
 FAX: 886-77315887

DATE: 2007.06.26
 ORDER NO: 6056/C106681
 P.I. NO: 6J09-4
 CERTIF. NO: 342

ACCORDING TO EN10204/DIN50049/3.1

| ITEM NO | PRODUCT & SIZE | QUANTITY PCS | MFG NO. | VISUAL & DIMENSIONAL INSPECTION | HARDNESS MAX. 197 HB | HEAT TREATMENT (NOTE) | MAGNETIC PARTICLE EXAMINATION | IMPACT TEST (J) | CHEMICAL COMPOSITION % | | | | | | PHYSICAL TEST | | | | | |
|---------|---------------------|--------------|---------|---------------------------------|----------------------|-----------------------|-------------------------------|-----------------|------------------------|----|----|----|----|----|---------------|------|------|------|------|------|
| | | | | | | | | | C | Si | Mn | P | S | Cu | Ni | Cr | Mo | V | Nb | Y S |
| ITEM NO | MATERIAL CHARGE NO. | STANDARD | MIN. | MAX. | C | Si | Mn | P | S | Cu | Ni | Cr | Mo | V | Nb | Y S | T S | E | C.E. | |
| | | | | | | | | | | | | | | | | | | | | X100 |
| 1 | CAP 8" STD | 7C3931 | GOOD | 134 - 142 | N | | | | | | | | | | | | | | | |
| 1 | 2G831 | 17 | 30 | 17 | 22 | 77 | 18 | 58 | 5 | <1 | 40 | 40 | 15 | <1 | 20 | 51.7 | 69.5 | 26.4 | 50 | 29 |

(NOTE): A: HOT FORMED WITH FINAL TEMPERATURE BETWEEN 620°C-980°C, AIR COOLING.
 N: NORMALIZING AT TEMPERATURE 880°C X 0.5HR, AIR COOLING.
 NACE MR-01-75 & NACE MR 0103 - SATISFACTORY

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE SPECIFICATIONS CONCERNED AND ALSO WITH THE PURCHASER'S REQUIREMENTS AND THAT THE TEST RESULTS SHOWN HEREIN ARE CORRECT.

Handwritten signature: Ou L Lan

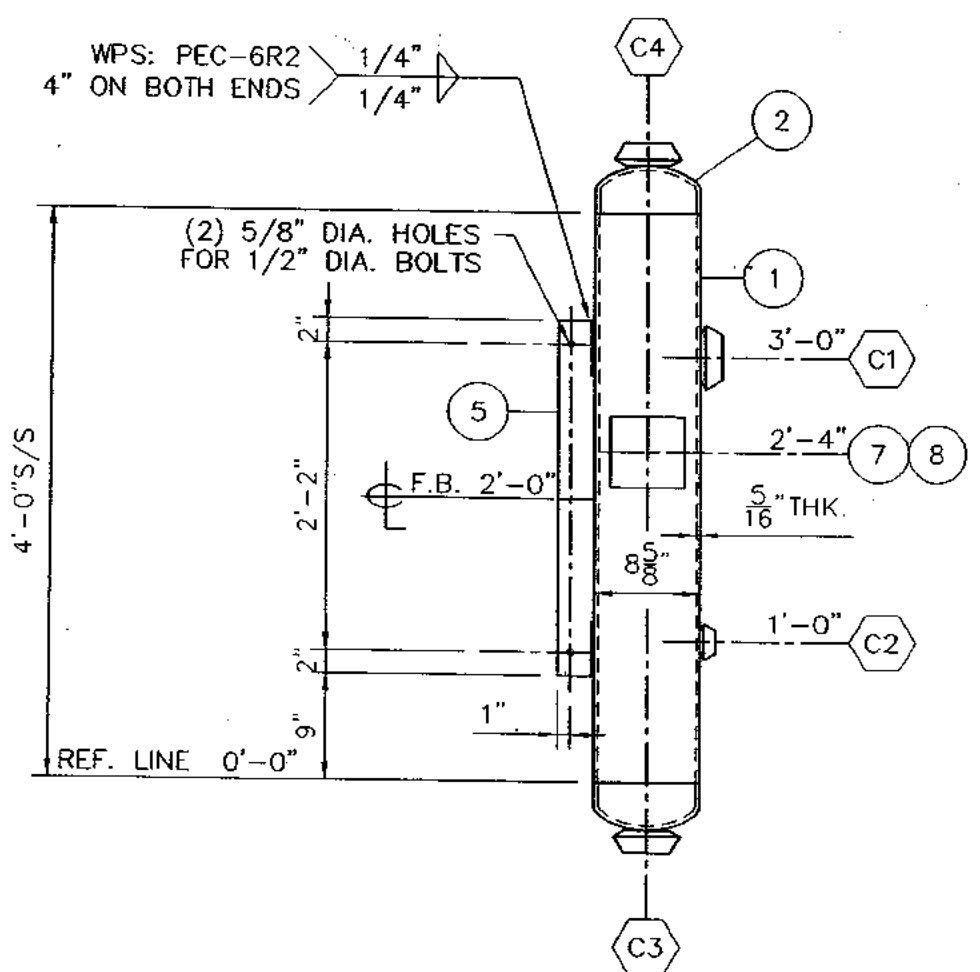
MANAGER OF Q. A. DEPT.

ASME SECTION II PART A

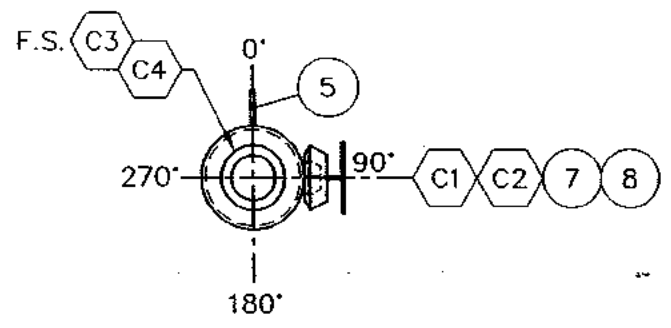
2007 EDITION ADDENDA
 INITIAL BA DATE July 21/08

| MARK | NO. REQ'D | SERVICE | SIZE | RTG. | TYPE | NOZZLE O.D. | NOZZLE BORE | WELD DETAIL | WELD SIZE | | | PROJECTION | | ITEM | REMARKS |
|------|-----------|-------------|------|--------|--------|-------------|-------------|-------------|-----------|-----|-----|------------|---------|------|-----------------------------|
| | | | | | | | | | "A" | "B" | "C" | INSIDE | OUTSIDE | | |
| C1 | 1 | SIGHT GLASS | 2" | CL3000 | T.O.L. | - | - | 2 | 1/4" | - | - | - | - | 3 | MAX. HOLE THRU SHELL=2 1/4" |
| C2 | 1 | VENT | 1" | CL3000 | T.O.L. | - | - | 2 | 1/4" | - | - | - | - | 4 | |
| C3 | 1 | GAS INLET | 2" | CL3000 | T.O.L. | - | - | 2 | 1/4" | - | - | - | - | 6 | MAX. HOLE THRU HEAD=2 1/4" |
| C4 | 1 | GAS OUTLET | 2" | CL3000 | T.O.L. | - | - | 2 | 1/4" | - | - | - | - | 6 | MAX. HOLE THRU HEAD=2 1/4" |

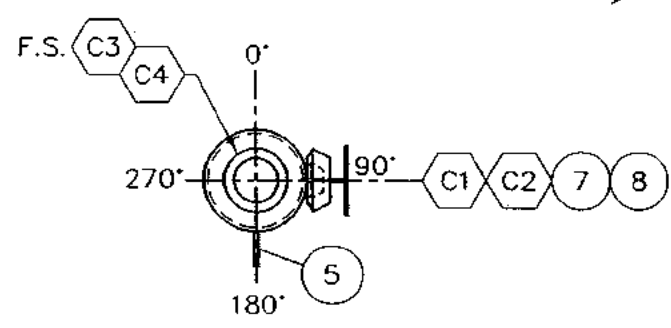
| ITEM | QTY | DESCRIPTION | MATERIAL |
|------|-----|--|------------|
| 1 | 1 | SHELL: 8" SCH 40 SMLS PIPE x 4'-0" LG. (BBE) 522529 | SA-106-B |
| 2 | 2 | HEADS: 8" SCH 40 BW CAP (0.2817" MIN. THK.) 703931 | SA-234-WPB |
| 3 | 1 | 2" CL3000 T.O.L. (10-8) 57082 | SA-105N |
| 4 | 1 | 1" CL3000 T.O.L. (10-6) 57383 | SA-105N |
| 5 | 1 | FB: 3/8" THK. x 3" x 30" LG. | SA-36 |
| 6 | 2 | 2" CL3000 T.O.L. (FLAT) 57082 | SA-105N |
| 7 | 1 | NAME PLATE BRACKET | SA-36 |
| 8 | 1 | PYRAMID STANDARD NAME PLATE | SS |



ELEVATION
(TEN (10)-REQ'D)



ORIENTATION #1
(FIVE (5) REQ'D)
[SERIAL NO. 08-3200-000A-E] 1



ORIENTATION #2
(FIVE (5) REQ'D)
[SERIAL NO. 08-3200-000F-J] 1

SHOP NOTES

- ALL BOLT HOLES STRADDLE HORIZONTAL AND VERTICAL CENTER LINES
- CLEAN ENTIRE VESSEL OF WELD SLAG AND OTHER FOREIGN MATERIAL
- ALL FLANGES TO BE COVERED WITH FLANGE COVERS, ALL CPLG/T.O.L.'S TO BE PLUGGED WITH PLASTIC PLUGS PRIOR TO SHIPPING
- ALL MISCELLANEOUS AND ATTACHMENT WELDS SHALL BE 1/4" FILLET WELDS UNLESS SHOWN OTHERWISE
- COATING SPECIFICATIONS
SURFACE PREP: - EXTERNAL: NONE
PRIMING: - EXTERNAL: NONE
- INTERNAL: NONE
FINISH: - EXTERNAL: NONE
- INTERNAL: NONE
- IMPACT TEST EXEMPTION(S):
- EXEMPT PER UG-20(f)
- EXEMPT FROM A.B.S.A. INSPECTION PER U-1(j)
- FACTOR DIAMETER INCHES (FDI): 35 INCHES
FET BY CB
All welds by M (TF)

FOR INFO ONLY
BOTTLE F

REVISED DRAWING
ISSUED FOR CONSTRUCTION
DESTROY PREVIOUS ISSUE
DATE JUN 02 2008

| 1. CIRC. SEAMS | 2. O'LET | 3. MISCELLANEOUS |
|----------------|--------------|------------------|
| | | |
| WPS: PEC-6R2 | WPS: PEC-6R2 | WPS: PEC-6R2 |

| DESIGN DATA | |
|--|--------------------------------------|
| CONSTRUCTION: | ASME SECTION VIII DIV 1 2007 EDITION |
| INTERNAL DESIGN PRESSURE: | 550 PSIG @ 600F (MAX) |
| EXTERNAL DESIGN PRESSURE: | 0 PSIG @ 600F (MAX) |
| HYDROTEST PRESSURE: | 715 PSIG |
| MINIMUM DESIGN METAL TEMP.: | -20F @ 550 PSIG |
| CORROSION ALLOWANCE: | 1/16" RADIOGRAPHY: 100% PER UW-11(g) |
| P.W.H.T.: | NONE VOLUME: 1.45 ft ³ |
| WEIGHT (EMPTY): | 152 LB WEIGHT (TEST): 217 LB |
| CRJL-045228.23 REG. ENG. PY-061 REV. J | SERIAL NO.: 08-3200-0000A THRU J |

| DRAWING NO. | DESCRIPTION | REV. | BY | DESIGN | PROJECT | DATE |
|-------------|-------------|------|----|--------|---------|-----------|
| | | 1 | DM | | | JUN 02/08 |
| | | 0 | DK | DM | JM | MAY 28/08 |
| | | | | | | |



| PYRAMID PROCESS FABRICATOR | |
|---|--------------------|
| NSU - ALBERTA - CANADA / www.pyramidfabricators.com | |
| 8 5/8" O.D. x 4'-0" S/S x 550 PSIG BULLET | |
| 3200-0000 | PC COMPRESSION |
| TBA | TBA |
| (10)-TEN | B-08-3200-0000-001 |

THIS DRAWING IS THE PROPERTY OF AND CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION BELONGING TO PYRAMID CORPORATION. IT MUST BE RETURNED IMMEDIATELY UPON REQUEST AND MUST NOT BE COPIED IN WHOLE OR IN PART NOR THE INFORMATION SHOWN THEREON DISCLOSED TO THIRD PARTIES OR OTHERWISE USED EXCEPT AS SPECIFICALLY PERMITTED BY PYRAMID CORPORATION.

ALBERTA MUNICIPAL AFFAIRS

ABSA, the pressure equipment safety authority
 9410 - 20th Avenue
 Edmonton, AB T6N 0A4

**MANUFACTURER'S DATA REPORT
 FOR MINIATURE PRESSURE VESSEL**

**DÉCLARATION DE CONFORMITÉ DU CONSTRUCTEUR
 D'APPAREILS SOUS PRESSION**

RECEIVED JUL 28 2008

Upon shipment of a pressure vessel, this form fully and correctly filled in must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under the Act, governing the construction and installation of pressure vessels.

Au moment de l'expédition d'un appareil sous pression, ce formulaire complété correctement, doit être envoyé au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

| | |
|---|--|
| Manufactured by Construit par | Name and address of Manufacturer/ Nom et adresse du constructeur Pyramid Process Fabricators; 2308-8th Street, Nisku, Alberta, T9E 7Z2 |
| Manufactured for Construit pour | Name and address of Purchaser or Consignee/ Nom et adresse du client ou de son représentant PC Compression; 2308-8th Street, Nisku, Alberta, T9E 7Z2 |
| Ultimate owner Utilisateur | Name and address/ Nom et adresse |
| Location of installation Lieu d'installation | Name and address/ Nom et adresse |

Pressure vessel/ Appareil

| | | | |
|---|---|---|---|
| Type/ Genre Bullet | Overall Length/ Longueur totale 4'-0" S/S | Serial No./ N° de série 08-3200-0000A | Year built/ Année de fabrication 2008 |
| Provincial Registration No. - C.R.N./ N° d'enregistrement provincial - N.E.C. OH5228.23 | | | Drawing No./ N° de dessin PV-061 Rev. 3 |

The chemical and physical properties of all parts meet the requirements of material specifications of the A.S.M.E. Code.
 Les propriétés chimiques et physiques de toutes les composantes respectent les exigences des spécifications de matériaux de code ASME.

| | | | | |
|---|-----------------------------|--|---|----------------------------|
| The design, construction and workmanship conform to CSA B51. La conception, la construction et la façon sont conformes à ACNOR B51. | ASME Section VIII | Division 1 | Addenda/Supplément 2007 | Code case No. N° de cas |
| Manufacturer's partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report: Les rapports partiels du constructeur adéquatement identifiés et signés par les inspecteurs autorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport: | | | | |
| Names of parts/ Nom de la composante | Item No./ N° d'item | Manufacturer's Name/ Nom du constructeur | Identifying Stamp/ Estampe d'identification | |
| | | | | |

Shell/ Virole

| Description | Material Matériau | Thickness Épaisseur | Corr. Allow. Surépais. de corr. | Diameter Diamètre | Longitudinal Joints Joints longitudinaux | | | P.W.H.T. Traitement therm | | Girth Joints Joints de circonférence | | Number of courses Nombre de sections |
|---------------|----------------------|------------------------|---------------------------------------|----------------------|---|-----------------|--------------------------|------------------------------|---------------|---|-----------------|---|
| | | | | | Type | R.T. Radiog. | Efficiency Efficacité | Temp. | Time Durée | Type | R.T. Radiog. | |
| 8" Pipe Shell | SA-106 Gr. B | 0.322" | 0.0625" | 8.625" | | | | | | 1 | Full | 1 |
| | | | | | | | | | | | | |

Heads/ Têtes

| Description | Material Matériau | Min. Thickn. Épais min. | Corr. Allow. Surép. Corr. | Crown Radius Rayon couron. | Knuckle Radius Paitil rayon | Ellipse Ratio Rapp. ellipse | Conical Apex Angle Angle conique | Hemisph. Radius Ray Hémisp | Flat Diameter Diarn. plat | Side to pressure Côte sous pression |
|--|----------------------|----------------------------|---------------------------------|-------------------------------------|-----------------------------------|--------------------------------|---|-------------------------------------|---------------------------------|--|
| 8" Pipe Cap | SA-234-WPB | 0.282" | 0.0625" | | | 2:1 | | | | Concave |
| 8" Pipe Cap | SA-234-WPB | 0.282" | 0.0625" | | | 2:1 | | | | Concave |
| Removable bolts used (describe other fastenings) Boulons amovible utilisés (décrire tout autre attache) | | | | | Mat'l Spec./ Spéc. du mat. | | | Grade | | Size/ Dimension |

Pressure - Temperature/ Pression - température

| | | | | |
|--|---|-----------------------------------|--|---|
| Pressure Vessel Part Partie de l'appareil | Constructed for max. allowable working pressure Construit pour une pression maximale de marche permise | At max. temp. A une temp. max. | Minimum design metal temp. Temp. min. | Test pressure (hydro-pneumatic or combination) Pression d'épreuve (hydro-pneumatique ou combinaison) |
| Bullet | 550 PSI | 600 F | -20 F | 715 PSI |

Tube Section/ Faisceau tubulaire

| | | | | | |
|-----------------------------------|--------------------|---|---|---|---------------------------------------|
| Tubesheet/ Plaque tubulaire | Material/ Matériau | Diameter/ Diamètre | Nominal Thickness Épaisseur nominale | Corr. Allow. Surépais. corrosion | Attachment Mode d'attachement |
| Tube material/ Matériau des tubes | Diameter/ Diamètre | Nominal Thickness (gauge) Épaisseur nominale (calibre) | Number/ Nbre | Type (Straight or U) Type (Droit ou U) | Heating Surface Surface de chauffe |

Jacket/ Chemise

| | | | | |
|----------------------------------|--|----------------------------------|---------------------------------------|----------------|
| Type of jacket/ Genre de chemise | Jacket closure Fermeture de chemise | Proof Test Pression d'épreuve | Heating Surface Surface de chauffe | Sketch/ Schéma |
|----------------------------------|--|----------------------------------|---------------------------------------|----------------|

Safety Valve Outlets/ Soupapes de sûreté

| | | |
|----------------|-----------|-------------------|
| Number/ Nombre | Dimension | Location/ Endroit |
|----------------|-----------|-------------------|

Nozzles and Openings/ Tubulures et ouvertures

| Purpose/ But | Number Nombre | Dimension | Type | Material Matériau | Nominal Thickness Épaisseur nominale | Reinforcement material Matériau de renfort | How attached Genre d'attaches | Location/ Endroit |
|-----------------|------------------|-----------|-----------|----------------------|---|---|--|-------------------|
| Sight Glass, C1 | 1 | 2" | 3000# TOL | SA-105N | 0.2970" | | UW-16.1(c) | Shell |
| Vent, C2 | 1 | 1" | 3000# TOL | SA-105N | 0.2413" | | UW-16.1(c) | Shell |
| Gas Inlet, C3 | 1 | 2" | 3000# TOL | SA-105N | 0.2970" | | UW-16.1(c) | Bottom Head |
| Gas Outlet, C4 | 1 | 2" | 3000# TOL | SA-105N | 0.2970" | | UW-16.1(c) | Top Head |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Supports/ Supports

| | | | | |
|--|-----------------------------|--------------------------|--|---|
| Skirt/ Jupe Yes/ Oui No/ Non <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | Lugs/ Oreilles No./ Nbre | Legs/ Pieds No./ Nbre | Other/ Autres (Description) Bolting Plate | Attached/ Attaches (Where and How/ Méthode et endroit) Shell By Welding |
|--|-----------------------------|--------------------------|--|---|

Remarks/ Observations (Cubical capacity/ Volume)

Vessel Fabricated to Dwg # B-08-3200-0000-001 Rev. 1
 Vessel Volume = 1.45 cu. ft (0.041 cu. m)
 Vessel Impact Test Exempt per UG-20(f)

Certificate of Compliance/ Certificat de conformité

We certify that the statements made in this data report are correct and that the said vessel has been constructed in accordance with the Provincial Registered design below and the requirements of standard CSA B51.

Nous certifions que les données de la déclaration de conformité sont correctes et que l'appareil a été construit en accord avec l'enregistrement provincial ci-dessous et les exigences de la norme ACNOR B51.

Provincial Registered Design
 Enregistrement provincial OH5228.23

Manufacturer
 Constructeur Pyramid Process Fabricators

Signature [Signature] Date July 23/08
 (Representative)

Signature David Mansfield Date July 23/08
 (Certified Individual)



Travel Sheet (Front)

No. PPF-GN--FF-045 Rev. 0

| DO NOT START CONSTRUCTION WITHOUT AI REVIEW | | | | | | TRAVEL SHEET REVISION No.: | | | |
|---|---|-------------------------|---------------------|------|------------------|---------------------------------|------|-------|------|
| A.I. REVIEW: | | | | | | REVIEW DATE: | | | |
| SERIAL No: 08-3200-0000 A | | | JOB No.: 3200-0000 | | | VESSEL TYPE: Bullet | | | |
| DRAWING No: B-08-3200-0000-001 | | | DWG REVISION No.: 1 | | | TRAVEL SHEET INITIATION BY: DJM | | | |
| Seq. | Item | Comments | Q.C.I. | Date | A.I. Hold Points | A.I. | Date | Owner | Date |
| 1. | Calculations in File | | | | | | | | |
| 2. | Release of App'd Dwg. | | | | | | | | |
| 3. | Materials Examined | | | | | | | | |
| 4. | Heat Numbers Recorded | | | | | | | | |
| 5. | MTRs Checked | | | | | | | | |
| 6. | WPS(s) checked | | | | | | | | |
| 7. | Welder(s) Qualified | | | | | | | | |
| 8. | Thickness Verified & Recorded | | | | | | | | |
| 9. | Shell(s) & Head(s) Fit-up Inspection | | | | | | | | |
| 10. | Nozzle & Fitting Fit-up Inspection | | | | | | | | |
| 11. | Nozzle Orientation | | | | | | | | |
| 12. | Nozzle & Flange Rating Checked | | | | | | | | |
| 13. | Impact Tests | | | | | | | | |
| 14. | Internals Checked | | | | | | | | |
| 15. | Final Internal Inspection | Shell Side Tube Side | | | | | | | |
| 16. | Weld Sizes Checked | | | | | | | | |
| 17. | Welder I.D. Checked | | | | | | | | |
| 18. | Final External Inspection | | | | | | | | |
| 19. | Radiography | | | | | | | | |
| 20. | Other NDE | | | | | | | | |
| 21. | Final Ext. Prior to P.W.H.T. | | | | | | | | |
| 22. | PWHT Chart Checked | | | | | | | | |
| 23. | Hydrostatic Test | Shell Side | Gauge # | | | | | | |
| | | Tube Side | Gauge # | | | | | | |
| 24. | CRN Drawing | CRN# OH5228.23 | | | | | | | |
| 25. | NCR# | | | | | | | | |
| 26. | Nameplate Stamping | | | | | | | | |
| 27. | Manuf. Data Report Completed & Verified | | | | | | | | |
| 28. | Nameplate Installation | | | | | | | | |

The Authorized Inspector shall be presented with the Travel Sheet prior to construction so that he/she can designate additional inspection points and/or Hold points. Any revisions shall be marked with a delta symbol with revision number and described at the bottom of this page.

*Denotes an A.I. inspection Point ** Denotes an A.I. Hold Point

PYRAMID CORPORATION

NISKU, ALBERTA, CANADA

PYRAMID CORPORATION

NAME (INT)

NAME (EXT)

ADMT

SERIAL NO.

CAN

STAK

PSI

PSI

CF

08-300000

018578.23

C.28.71N

AT

AT

AT

YEAR BUILT

CORR. ALLOW.

SHELL T

F

F

PSI

A



2308 - 8th Street
 Nisku, AB.
 T9E 7Z2
 (780) 955-2708

PRESURE TEST PROCEDURE/CERTIFICATE

| | |
|---------------------------------|-------------------------|
| Hydro Test Date: JUNE 11 /08 | Job Number: 3200-0000 |
| Hydro Test Number: 3200-0000-01 | Customer: PC COMPRESSON |
| Spool Number(s): | BOTTLES - A,C,H. |

PROCEDURE:

| | |
|------------------------|---|
| Test Pressure: 715 psi | Test Temperature: 50°F (10°C) Min. |
| Test Medium: Water | Test Medium Quality Statement: Attached |

- Pressure to be raised from 0 psig to 715 psig.
- Pressure to be held at 715 psig for 60 min.
- Pressure to be lowered from 715 psig to 0 psig.

NOTE:

1. System to be inspected by QC inspector prior to testing.
2. Provide at least one vent at highest point during filling.
3. Test medium must be at specified temperature.
4. One calibrated pressure gauge must be at the highest point and lowest point of the system, and one must be installed on the test pump.
5. The QC inspector is to be notified after 50% of the holding time has expired.
6. The pressure is not to be released until the test is accepted by the QC Inspector and Client's Inspector, or unless due to leakage and safety considerations.
7. All necessary safety precautions shall be adhered to.

ACTUAL TEST RESULTS:

| | |
|--------------------------------------|---|
| Test Pump Pressure Gauge No.: 043 | High Point Pressure Gauge No.: 045 |
| Low Point Pressure Gauge No.: 042 | Temperature Gauge No: 419193-1 |
| Test Medium Used: Water | Actual Medium Temperature: 60 °F |
| Actual Test Pressure: 717 PSI | Actual Holding Time: 60 Minutes |

Comments: _____

SIGN OFF:

This certifies the above statements are correct and the equipment described was free of leaks due to defective welds or equipment

| | | |
|--|-----------|------------|
| Hydro Test Performed By: | | JUNE 11/08 |
| | Signature | Date |
| QC Inspector: | | JUNE 11/08 |
| | Signature | Date |
| Owner's Representative: | _____ | _____ |
| | Signature | Date |
| Authorized Inspector: (if applicable) | _____ | _____ |
| | Signature | Date |



Weekly Water Quality Parameters for Industrial Customers

The following water quality parameter table is updated daily as a service to our Industrial Customers who require this data for their process operations.

This data, however, comes directly off EPCOR's computerized water quality monitoring system and has NOT been validated. Use it as a **guideline only**. For verified monthly data see the extensive information on our main web site at quality assurance

Last updated: June 10, 2008

| | Jun-03 | Jun-04 | Jun-05 | Jun-06 | Jun-07 | Jun-08 | Jun-09 |
|--|--------|--------|--------|--------|--------|--------|--------|
| ELS Zone ⁽¹⁾ | | | | | | | |
| Hardness (mg/L CaCO₃) ⁽²⁾ | 168 | 170 | 169 | 171 | 176 | 172 | 174 |
| pH ⁽³⁾ | 7.72 | 7.70 | 7.71 | 7.66 | 7.73 | 7.75 | 7.74 |
| Temp. °C | 14.4 | | 12.6 | 12.5 | 11.3 | 10.3 | 9.2 |
| Chlorine Residual (mg/L) ⁽⁴⁾ | 2.04 | 1.51 | 1.15 | 2.01 | 2.05 | 2.01 | 1.97 |
| Alkalinity (mg/L) ⁽⁵⁾ | 113 | 112 | 113 | 116 | 111 | 112 | 117 |
| Conductivity (µS/cm) ⁽⁶⁾ | 455 | 463 | 464 | 467 | 471 | 470 | 482 |
| Caustic Soda Dose (mg/L) ⁽⁷⁾ | 30.1 | 23.0 | 14.9 | 29.1 | 32.0 | 31.7 | 35.0 |
| | | | | | | | |
| Rossdale Zone ⁽¹⁾ | | | | | | | |
| Hardness (mg/L CaCO₃) ⁽²⁾ | 164 | 161 | 160 | 167 | 169 | 165 | 161 |
| pH ⁽³⁾ | 7.64 | 7.64 | 7.66 | 7.69 | 7.68 | 7.75 | 7.69 |
| Temp. °C | 15.2 | | 15.6 | 15.7 | 15.4 | 14.4 | 13.1 |
| Chlorine Residual mg/L ⁽⁴⁾ | 2.01 | 2.02 | 1.86 | 1.88 | 1.96 | 2.04 | 2.05 |
| Alkalinity (mg/L) ⁽⁵⁾ | 111 | 110 | 107 | 105 | 108 | 109 | 107 |
| Conductivity (µS/cm) ⁽⁶⁾ | 371 | 371 | 376 | 400 | 400 | 400 | 400 |
| Caustic Soda Dose (mg/L) ⁽⁷⁾ | 22.5 | 26.1 | 28.4 | 29.4 | 28.9 | 24.6 | 27.3 |
| | | | | | | | |

Note: All results are daily averages leaving the water treatment plants. The numbers in the distribution system may vary because of detention time and mixing in the system, and a slow decrease of the chloramine residual.

⁽¹⁾ Supply Zone

E.L. Smith primarily supplies the Northwest, West and Southwest and University area Rossdale primarily supplies the Downtown, East, Northeast and Southeast areas. However, depending on daily pumping and demand variations there is a large crossover region where water can be supplied from either plant at any time.

⁽²⁾ Hardness

Water hardness is the result of dissolved minerals, usually calcium and magnesium. The North Saskatchewan River picks up these minerals as it flows over limestone rock. The North Saskatchewan River water is moderately hard, about 165 milligrams of calcium carbonate per litre (165 mg/L) on average. There are no health effects associated with calcium and magnesium minerals so there are no drinking water guidelines established for hardness.

(3) pH

One of the main objectives in controlling pH is to produce water that minimizes pipe corrosion or hardness scale build up. Pipe corrosion may become significant in our water at pH levels below 7.5, and scaling problems increase at above pH 8.5. As a comparison, soft drinks have a pH of 3 and drugstore antacids have a pH of 10. EPCOR's water has a yearly average pH of 7.8.

(4) Chlorine, (Total Residual)

In EPCOR's distribution system, the total residual chlorine is composed entirely of chloramine. Chloramine is a disinfectant that results when chlorine is combined with ammonia. It is a much weaker disinfectant than free chlorine but it stays in water longer, is more stable in distribution systems, and can more effectively penetrate any film or deposit on a pipe to kill bacteria. Our approval sets limits of 0.5 - 2.5 mg/L for drinking water. EPCOR's treated water contains an average of 2.19 mg/L.

(5) Alkalinity (mg/L)

Alkalinity in water is primarily a measure of the carbonate and bicarbonate ions dissolved from minerals in the rock that the water passes over. In our water, at pH levels of 7-8, it is almost all bicarbonate ions. Bicarbonate is not a regulated parameter and is not a health concern. At high levels, alkalinity can combine with calcium hardness to produce deposits of calcium carbonate. Moderate levels of alkalinity help minimize corrosion (very low alkalinity water tend to be more corrosive).

(6) Conductivity ($\mu\text{S}/\text{cm}$)

Conductivity is a measure of the ability of ions in water to carry an electric current. Conductivity is a good measure of the total amount of salts in solution (e.g., calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulphate, chloride, nitrate, and others). During spring runoff, conductivity will generally increase because of road salt being washed into the water. The conductivity of EPCOR's water averages about 350 $\mu\text{S}/\text{cm}$.

(7) Caustic Soda Dose (mg/L)

Caustic soda (NaOH) is added to the water to raise the pH to its required level to minimize pipe corrosion or hardness scale build up. Sodium makes up 0.58 mg/L of every 1 mg/L of caustic soda added to the water. The raw water has an average sodium level of 5 mg/L that varies from 3 - 8 mg/L (2000 data) but can be a bit higher on a few days a year when street runoff contains more salt. Therefore an estimate of the treated water sodium level would be $[5 \text{ mg/L} + \text{caustic soda dose} * 0.58]$. Using this estimate, a caustic soda dose of 25 mg/L would result in a treated water sodium level of 20 mg/L. The aesthetic objective for sodium in drinking water is less than or equal to 200 mg/L while for those on sodium restricted diets it is recommended to have less than 20 mg/L in the water.



CALIBRATION CERTIFICATE

Pressure and Temperature Measurement

WIKAL Instruments Canada Ltd.
3103 Parsons Road
Edmonton, AB T6N 1C8
Tel: 780-463-7035
Fax: 780-462-0017
www.wika.ca

| | | | |
|-----------------------|--------------------------|------------------------|------------------------------------|
| PUT Type: | <u>Bi-Metal</u> | End User: | <u>Pyramid Process Fabricators</u> |
| PUT Tag No.: | <u>419193-1</u> | WIKAL Rep.: | <u>N/A</u> |
| Tolerance: | <u>±1% of full scale</u> | Purchase Order No.: | <u>612652</u> |
| Calib. Ambient Temp.: | <u>23 °C</u> | WIKAL job No.: | <u>419193</u> |
| Calib. Date: | <u>2008-02-25</u> | Calibration Procedure: | <u>CAL - 1001</u> |

| Actual Temperature (°C) | PUT Output (mV) | PUT Output (°C) | Deviation from Actual (°C) | Acceptable Tolerance (°C) |
|-------------------------|-----------------|-----------------|----------------------------|---------------------------|
| -5.0 | N/A | -4.5 | 0.5 | 0.6 |
| 25.0 | N/A | 25.0 | 0.0 | 0.6 |
| 50.0 | N/A | 49.5 | 0.5 | 0.6 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Standards and Instrumentation Used:

Calibration Equipment is Traceable to NRC/NIST

| Item | Model | Serial Number | Last Calibration | Calibration Due | |
|----------------|---------------|---------------|------------------|-----------------|---|
| Multimeter | Keithley 2001 | 521696 | 2007-10-30 | 2008-10-30 | X |
| Multimeter | Keithley 2001 | 0546867 | 2007-06-25 | 2008-06-25 | |
| T/C Calibrator | Ectron 1120 | 25151 | 2007-11-06 | 2008-11-06 | |
| Mikron | M300 | 34714 | 2007-11-09 | 2008-05-09 | |
| Thermocouple | Type 'S' | ATS96-1 | 2007-07-18 | 2008-07-18 | |
| PRT | 5626 | 0837 | 2007-06-07 | 2008-06-07 | |
| PRT | 5626 | 1603 | 2007-04-24 | 2008-04-24 | X |

NOTES: PUT = Probe Under Test PRT = Platinum Resistance Thermometer
 All calibrations are based on ITS-90 temperature scale.

Q/A or Eng'g Mgr.:

Technician: BR

00506, Rev.7, 2005-11-2, 1/1

JARON WOLFF PROCESS CONTROLS LTD.

CERTIFICATE # 67018

FOR: PYRAMID PROCESS FABRICATORS
BAY #7, 2308 - 8TH STREET, NISQU, ALBERTA, T9E 7Z2

| | | | |
|----------------|-----------------|---------------------|---------------|
| ORDER NO | 613190-00 | AMBIENT TEMPERATURE | 20 C |
| SERIAL NUMBER | #043 | DEADWEIGHT | SN# 248-24 |
| DIAL SIZE | 4" MCDANIEL | TEST MEDIUM | OIL |
| PRESSURE RANGE | 0 - 2000 PSI | MAXIMUM ERROR | 0 PSI |
| SUB DIVISIONS | 200 PSI | DATE: | MAY 21, 2008 |
| CONNECTION | 1/2" NPT | LOCATION TESTED: | 9535 - 42 AVE |
| INSPECTOR | GEORG J.P. WOWK | EDMONTON, ALBERTA, | T6E 5R2 |

THIS GAUGE IS CERTIFIED TO MEET AND/OR EXCEED THE REQUIREMENTS AS OUTLINED IN API SPECIFICATION 6A, NINETEENTH EDITION, JULY 2004 IN COMPLIANCE WITH SECTION 7, PARAGRAPH 7.1, 7.2, SUBPARAGRAPH 7.2.1, 7.2.2, 7.2.2.1, 7.2.2.2, AND 7.2.2.3.

ALSO SPECIFICATION 16A, THIRD EDITION, JUNE 2004, SECTION 8, PARAGRAPH 8.1, 8.2, SUBPARAGRAPH 8.2.1 AND 8.2.2

| <u>TESTED GAUGE</u> | | <u>DEADWEIGHT</u> | | <u>UPSCALE ERROR</u> | |
|---------------------|-----|-------------------|-----|----------------------|-----|
| 0 | | 0 | | 0 | |
| 500 | PSI | 500 | PSI | 0 | PSI |
| 1000 | PSI | 1000 | PSI | 0 | PSI |
| 1500 | PSI | 1500 | PSI | 0 | PSI |

Technician:  Dustin Petersen Q.C. Manager  Lynn Wowk

Invoice PCL-002666/AB

** ALL TEST EQUIPMENT IS TRACEABLE TO N.I.S.T. STANDARDS
** CUSTOMER STANDARD DOCUMENT #CS-001

JARON WOLFF PROCESS CONTROLS LTD.

CERTIFICATE # 65160

FOR: PYRAMID PROCESS FABRICATORS
BAY #7, 2308 - 8TH STREET, NISKU, ALBERTA, T9E 7Z2

| | | | |
|----------------|-----------------|---------------------|---------------|
| ORDER NO | 612683-00 | AMBIENT TEMPERATURE | 20 C |
| SERIAL NUMBER | 42 | DEADWEIGHT | SN# 8604 |
| DIAL SIZE | 4" MCDANIEL | TEST MEDIUM | OIL |
| PRESSURE RANGE | 0 - 2000 PSI | MAXIMUM ERROR | - 10 PSI |
| SUB DIVISIONS | 200 PSI | DATE: | MARCH 3, 2008 |
| CONNECTION | 1/2" NPT | LOCATION TESTED: | 9535 - 42 AVE |
| INSPECTOR | GEORG J.P. WOWK | EDMONTON, ALBERTA, | T6E 5R2 |

THIS GAUGE IS CERTIFIED TO MEET AND/OR EXCEED THE REQUIREMENTS AS OUTLINED IN API SPECIFICATION 6A, NINETEENTH EDITION, JULY 2004 IN COMPLIANCE WITH SECTION 7, PARAGRAPH 7.1, 7.2, SUBPARAGRAPH 7.2.1, 7.2.2, 7.2.2.1, 7.2.2.2, AND 7.2.2.3.

ALSO SPECIFICATION 16A, THIRD EDITION, JUNE 2004, SECTION 8, PARAGRAPH 8.1, 8.2, SUBPARAGRAPH 8.2.1 AND 8.2.2

| <u>TESTED GAUGE</u> | | <u>DEADWEIGHT</u> | | <u>UPSCALE ERROR</u> | |
|---------------------|-----|-------------------|-----|----------------------|-----|
| 0 | | 0 | | 0 | |
| 500 | PSI | 500 | PSI | 0 | PSI |
| 1000 | PSI | 1010 | PSI | -10 | PSI |
| 1500 | PSI | 1510 | PSI | -10 | PSI |

Technician: Dustin Petersen Dustin Petersen Q.C. Manager Lynn Wowk Lynn Wowk

Invoice PCL-001704/KA

** ALL TEST EQUIPMENT IS TRACEABLE TO N.I.S.T. STANDARDS
** CUSTOMER STANDARD DOCUMENT #CS-001

JARON WOLFF PROCESS CONTROLS LTD.

CERTIFICATE # 65162

FOR: PYRAMID PROCESS FABRICATORS
BAY #7, 2308 - 8TH STREET, NISKU, ALBERTA, T9E 7Z2

| | | | |
|----------------|-----------------|---------------------|---------------|
| ORDER NO | 612683-00 | AMBIENT TEMPERATURE | 20 C |
| SERIAL NUMBER | 45 | DEADWEIGHT | SN# 1180 |
| DIAL SIZE | 4" MCDANIEL | TEST MEDIUM | OIL |
| PRESSURE RANGE | 0 - 2000 PSI | MAXIMUM ERROR | - 7 PSI |
| SUB DIVISIONS | 200 PSI | DATE: | MARCH 3, 2008 |
| CONNECTION | 1/2" NPT | LOCATION TESTED: | 9535 - 42 AVE |
| INSPECTOR | GEORG J.P. WOWK | EDMONTON, ALBERTA, | T6E 5R2 |

THIS GAUGE IS CERTIFIED TO MEET AND/OR EXCEED THE REQUIREMENTS AS OUTLINED IN API SPECIFICATION 6A, NINETEENTH EDITION, JULY 2004 IN COMPLIANCE WITH SECTION 7, PARAGRAPH 7.1, 7.2, SUBPARAGRAPH 7.2.1, 7.2.2, 7.2.2.1, 7.2.2.2, AND 7.2.2.3.

ALSO SPECIFICATION 16A, THIRD EDITION, JUNE 2004, SECTION 8, PARAGRAPH 8.1, 8.2, SUBPARAGRAPH 8.2.1 AND 8.2.2

| <u>TESTED GAUGE</u> | | <u>DEADWEIGHT</u> | | <u>UPSCALE ERROR</u> | |
|---------------------|-----|-------------------|-----|----------------------|-----|
| 0 | | 0 | | 0 | |
| 500 | PSI | 504 | PSI | -4 | PSI |
| 1000 | PSI | 1005 | PSI | -5 | PSI |
| 1500 | PSI | 1507 | PSI | -7 | PSI |

Technician:  Georg Wowk Q.C. Manager  Lynn Wowk

Invoice PCL-001704/KA

** ALL TEST EQUIPMENT IS TRACEABLE TO N.I.S.T. STANDARDS
** CUSTOMER STANDARD DOCUMENT #CS-001

NON-DESTRUCTIVE EXAMINATION

BUFFALO INSPECTION SERVICES (2005) INC.

8403 Davies Road N.W.
Edmonton, Alberta T6E 4N3
Phone: (780) 486-7344 Fax: (780) 486-4685
Email: reception@buffaloinpection.com



CLIENT: Pyramid - Nisku

Customer Job #: 3200-0004

HOURS: REG: 3 OT: _____ KMS: _____

DESCRIPTION: Spools

LOCATION: Fab Shop - Nisku

OTHER: _____

HAZARDS IDENTIFIED:

PEOPLE

ENVIRONMENT

EQUIPMENT

MATERIAL

| LF - Lack of Fusion | IP - Incomplete Penetration | IC - Internal Contamination | RB - Hollow Bead | BT - Burn Through | T1 - Tungsten Inclusion | AB - Arc Burn | LC - Low Cover | IUC - Internal Undercut | EUC - External Undercut | EP - Excessive Penetration | P - Porosity | S - Slag | PH - Pin Hole | RC - Re Cap | C - Crack | HL - High Low | 1 - ASME B31.3 NS | 2 - ASME B31.3 SC | 3 - CSA Z662 % | 4 - CSA Z662 100% | 5 - ASME SEC. VIII DIV. I UW51 | 6 - ASME SEC. VIII DIV. I UW52 | 7 - ASME B31.1 | 8 - API-650 | 9 - API-650 | 10 - Other Customer Spec. and Code. I |
|---|-----------------------------|-----------------------------|------------------|-------------------|-------------------------|---------------|----------------|-------------------------|-------------------------|----------------------------|--------------|---|----------------|-------------|-----------|---------------|-------------------|-------------------|----------------|-------------------|--------------------------------|--------------------------------|----------------|-------------|-------------|---------------------------------------|
| Size & Thickness Plus Code max. reinforcement | Welder ID | Weld # | DRW # | Material | Proc # | Severity | Code | Comments | Accept | Reject | | | | | | | | | | | | | | | | |
| X1 8" s40 | Y | 1 | 3200-0004-A | PI | 4A | | I | | ✓ | | | | | | | | | | | | | | | | | |
| X2 8" s40 | Y | 2 | 3200-0004-A | PI | 4A | | I | | ✓ | | | | | | | | | | | | | | | | | |
| X3 8" s40 | K | 1 | 3200-0004-H | PI | 4A | | I | | ✓ | | | | | | | | | | | | | | | | | |
| X4 8" s40 | K | 2 | 3200-0004-H | PI | 4A | | I | | ✓ | | | | | | | | | | | | | | | | | |
| X5 8" s40 | H | 1 | 3200-0004-B | PI | 4A | | I | | ✓ | | | | | | | | | | | | | | | | | |
| X6 8" s40 | H | 2 | 3200-0004-B | PI | 4A | Slight | I | P | ✓ | | | | | | | | | | | | | | | | | |
| X7 8" s40 | T/Y | 1 | 3200-0004-G | PI | 4A | | I | | ✓ | | | | | | | | | | | | | | | | | |
| X8 8" s40 | T | 2 | 3200-0004-G | PI | 4A | | I | | ✓ | | | | | | | | | | | | | | | | | |
| X9 8" s40 | Y | 1 | 3200-0004-C | PI | 4A | Slight | I | P | ✓ | | | | | | | | | | | | | | | | | |
| X10 8" s40 | Y | 2 | 3200-0004-C | PI | 4A | Slight | I | P | ✓ | | | | | | | | | | | | | | | | | |
| Tech Name: <i>Gordon Thomas</i> Gordon Thomas Level: II | | | | | | | | | | | | <input checked="" type="checkbox"/> ASNT Level II # 08001 | Disc: RT | | | | | | | | | | | | | |
| Assistant Name: Dave Brown | | | | | | | | | | | | <input type="checkbox"/> TRAINEE | ASNT Level I # | | | | | | | | | | | | | |
| Assistant Name: Todd Rubner | | | | | | | | | | | | <input checked="" type="checkbox"/> TRAINEE | ASNT Level I # | | | | | | | | | | | | | |

LIMITED LIABILITY POLICY

Buffalo Inspection Services (2005) Inc. guarantees the film quality produced by its technicians; however, no liability will be accepted for failure of welds or other items radiographed. The interpretation of radiographs is the opinion of the radiograph technician and final acceptance of a weld (for example) is the responsibility of the customer. Liability for film quality is limited to the value of the film only - labour and equipment required to reproduce films will be borne by the customer - unless the customer rejects the film before signing this report, in which case radiographs will be retaken at no cost to the customer.

Customer Rep. _____

Signature: *[Signature]*

Customer Rep. _____

Print: *Tony Mansfield*

[Signature] June 11/08



Material Receiving Report

Report Number: **140**

Job Number:
Inventory

Date Material Received:
May 14 2008

Procurement Data

| | | | |
|------------------------|----------------------------------|---|--|
| Purchase Order Number: | 613174-00 | Shipper: | BHD |
| Vendor: | BHD | Shipped From: | Edmonton, Ab |
| Packing slip: | 49443 | | |
| Carrier: | Swift Transport | <input type="checkbox"/> Collect | <input checked="" type="checkbox"/> Prepaid |
| Freight Bill: | ST-164 | | |
| Type Of Shipment: | <input type="checkbox"/> Partial | <input checked="" type="checkbox"/> Final | Status Of Purchase Order: |
| | | | <input type="checkbox"/> Incomplete <input checked="" type="checkbox"/> Complete |

Material Details

| PO Item | Quantity Received | Unit | Item Code Number | Material Description | Storage Location |
|---------|-------------------|------|------------------|----------------------|------------------|
| 1 | 160 | FT | 462001068 | 8" Sch40 A106 | |
| 2 | 21.5 | FT | 462001042 | 3" Sch40 A106 | |
| 3 | 104.5 | FT | 462001026 | 1 1/2" Sch40 A106 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Material Exception Details

| PO Item | Exception Quantity | Unit | Material Description | Over | Short | Damage | Not As Ordered |
|---------|--------------------|------|----------------------|------|-------|--------|----------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Recorded By:
Chris Flynn
Print or Type Name

Chris Flynn
Supervisor Material Handling

May 15 2008
Date



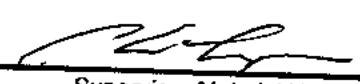
Material Receiving Report

| | |
|-------------------------|-------------|
| Report Number: | 1 |
| Job Number: | 3200 |
| Date Material Received: | May 30 2008 |

| | | | |
|-------------------------|----------------------------------|--|---|
| Procurement Data | | | |
| Purchase Order Number: | 613316-00 | Shipper: | Trans AM |
| Vendor: | Trans Am | Shipped From: | Edmonton, Ab |
| Packing slip: | E8-30129 | <input type="checkbox"/> Collect | <input checked="" type="checkbox"/> Prepaid |
| Carrier: | Trans Am | | |
| Freight Bill: | N/A | | |
| Type Of Shipment: | <input type="checkbox"/> Partial | <input checked="" type="checkbox"/> Final | Status Of Purchase Order: |
| | | <input type="checkbox"/> Incomplete <input checked="" type="checkbox"/> Complete | |

| Material Details | | | | | |
|------------------|-------------------|------|------------------|----------------------|------------------|
| PO Item | Quantity Received | Unit | Item Code Number | Material Description | Storage Location |
| 10 | 20 | EA | 462241068 | 8" Cap Sch40 WPB | |
| 11 | 10 | EA | 462501704 | 1" 3000# TOL A105 | |
| 12 | 10 | EA | 462501707 | 2" 3000# TOL A105 | |
| 13 | 20 | EA | 462501707 | 2" 3000# TOL A105 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Material Exception Details | | | | | | | |
|----------------------------|--------------------|------|----------------------|------|-------|--------|----------------|
| PO Item | Exception Quantity | Unit | Material Description | Over | Short | Damage | NOT AS Ordered |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Recorded By:
 Chris Flynn 
 Print or Type Name Supervisor Material Handling June 3 2008
Date

DATE: 10/04/06
 TIME: 14:07:19
 SERIAL NO: F0037988

**TUBULAR PRODUCTS
 CERTIFIED TEST REPORT**

(IN ACCORDANCE WITH ISO 10474/EN10204/DIN50048 3.1.b)

| | | | | |
|---|-------------------------|---|------------------------|--------------------|
| MILL ORDER ITEM NO TT02291 04 | SHIPPER'S NO. P31719 | P.O. NUMBER E1007806 | VEHICLE ID NE192645 | INVOICE NO 0440654 |
| SOLD TO ADDRESS COMCO PIPE & SUPPLY CO DIV OF RUSSEL METALS BOX 457 EDMONTON AB T5J 2K1 | | MAIL TO ADDRESS VENDOR USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | | |

SPECIFICATION AND GRADE

PIPE CARBON SMLS STD PIPE API 5L-43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE X42 ASTM A53--*05 ASTM A106--*04B GRADE B QUAD STENCIL ASME SA53--*2004 EDITION ASME SA106--*2004 EDITION GRADE B CSA Z245.1-02 CAT I GRADE 290 EXCEPT MARKING BLK REG MILL COAT PE BEV 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF NACE STANDARD MR-01-75 *2002

| | | | |
|--------------------------|-------------------------------------|---|--|
| MATERIAL COND: AS-ROLLED | O.D.: 8.625 (219.075) | WALL: 0.322 (8.178) | IN (mm) |
| PRODUCT IDENTIFICATION | YIELD MIN: 42,000 MAX: 72,000 | TENSILE PSI MIN: 70,000 MAX: 110,000 | ELONG % (IN 2') |
| 022838 *NOTE A STRIP/L/B | GAUGE WIDTH IN 1.5 | AR 47,800 .50 | HARDNESS SCALE: HRB MIN: 27.0 MAX: 99.5 |
| | ** END OF DATA THIS SHEET ** | | MIN HYDRO PSI 2350 |
| | | | 5 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|------------------------------|------|------|------|----|----|----|----|----|----|------|----|------------------------|-----|-----|-----|------|------|------|----|----|----|----|----|----------------|------|----|------|-----|-----|-----|------|------|------|----|----|----------|----|----|----|------|----|------|-----|-----|-----|------|------|----------|----|----|----|----|----|----|------|----|------|-----|-----|-----|------|------|------|----|----|----|----|----|----|------|----|------|-----|-----|---|---|----|----|----|
| LEGEND: | T - TRANSVERSE | | | | | | | | | | | | QT - QUENCH & TEMPERED | | | | | | | | | | | | AR - AS ROLLED | | | | | | | | | | | | B - BODY | | | | | | | | | | | | W - WELD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | U - UPSET | | | | | | | | | | | | SR - STRESS RELIEVED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRODUCT IDENTIFICATION | C | EN | P | S | SI | CU | NI | CR | MO | AL | N | V | B | TI | CE | CO | C | EN | P | S | SI | CU | NI | CR | MO | AL | N | V | B | TI | CE | CO | C | EN | P | S | SI | CU | NI | CR | MO | AL | N | V | B | TI | CE | CO | C | EN | P | S | SI | CU | NI | CR | MO | AL | N | V | B | TI | CE | CO | C | EN | P | S | SI | CU | NI | CR | MO | AL | N | V | B | TI | CE | CO |
| 022838 | 1.8 | 1.06 | 0.07 | 0.06 | 22 | 02 | 01 | 02 | 01 | 02 | 0009 | 00 | 0003 | 002 | 001 | 1.8 | 1.06 | 0.07 | 0.06 | 22 | 02 | 01 | 02 | 01 | 02 | 0009 | 00 | 0003 | 002 | 001 | 1.8 | 1.06 | 0.07 | 0.06 | 22 | 02 | 01 | 02 | 01 | 02 | 0009 | 00 | 0003 | 002 | 001 | 1.8 | 1.06 | 0.07 | 0.06 | 22 | 02 | 01 | 02 | 01 | 02 | 0009 | 00 | 0003 | 002 | 001 | 1.8 | 1.06 | 0.07 | 0.06 | 22 | 02 | 01 | 02 | 01 | 02 | 0009 | 00 | 0003 | 002 | 001 | | | | | |
| 022838 | 1.9 | 1.05 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0006 | 00 | 0001 | 002 | 001 | 1.9 | 1.05 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0006 | 00 | 0001 | 002 | 001 | 1.9 | 1.05 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0006 | 00 | 0001 | 002 | 001 | 1.9 | 1.05 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0006 | 00 | 0001 | 002 | 001 | 1.9 | 1.05 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0006 | 00 | 0001 | 002 | 001 | | | | | |
| 022838 | 1.9 | 1.04 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0005 | 00 | 0001 | 002 | 001 | 1.9 | 1.04 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0005 | 00 | 0001 | 002 | 001 | 1.9 | 1.04 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0005 | 00 | 0001 | 002 | 001 | 1.9 | 1.04 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0005 | 00 | 0001 | 002 | 001 | 1.9 | 1.04 | 0.07 | 0.06 | 22 | 02 | 01 | 03 | 01 | 02 | 0005 | 00 | 0001 | 002 | 001 | | | | | |
| | ** END OF DATA THIS SHEET ** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*C.E. IS BASED ON THE FOLLOWING EQUATION(S): C.E. = C + NV/6 + (CR+MO+ V)/5 + (CU+NI)/15 < 0.43

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN, VERTICAL DOTTED LINE OR DECIMAL POINT.

DATE: 10/04/06
 TIME: 14:07:19
 SERIAL NO: F0037988

TUBULAR PRODUCTS
CERTIFIED TEST REPORT
 (IN ACCORDANCE WITH ISO 10474/EN10206/DIN5049 3.1.b)

UNITED STATES STEEL

| | | | |
|---|---|---|---|
| MTL ORDER ITEM NO TT02291 04 MATERIAL COND: | SNIPPERS NO. P31719 | P.O. NUMBER E1007806 | INVOICE NO 0440654 |
| AS-ROLLED | O.D.: 8.625 (219.075) | WALL: 0.322 (B.178) | IN (mm) |
| PRODUCT IDENTIFICATION U22838 | CHAMPI V-NOTCH IMPACT TESTING TEST COND. | CHAMPI V-NOTCH IMPACT TESTING TEST COND. | CHAMPI V-NOTCH IMPACT TESTING TEST COND. |
| FLAT OK | GRAIN SIZE ** | TEMP + 32 | DEG F 27 |
| BEND ** | END OF DATA THIS SHEET ** | SIZE 2/3 | AR 26 |
| T-TRANSVERSE YES | B-BODY W-WELD | TEST 1 10 | TEST 2 10 |
| T-TRANSVERSE YES | B-BODY W-WELD | TEST 3 10 | TEST 4 10 |
| FULL LENGTH VISUAL X | T-TRANSVERSE YES | TEST 5 10 | TEST 6 10 |
| FULL LENGTH ENI X | B-BODY W-WELD | TEST 7 10 | TEST 8 10 |
| FULL LENGTH MPI X | T-TRANSVERSE YES | TEST 9 10 | TEST 10 10 |
| END AREA INSPECTION (PLAIN END) X | B-BODY W-WELD | TEST 11 10 | TEST 12 10 |
| SPECIAL END AREA (SEA) INSP X | T-TRANSVERSE YES | TEST 13 10 | TEST 14 10 |
| FULL LENGTH DRIFT X | B-BODY W-WELD | TEST 15 10 | TEST 16 10 |
| ADDITIONAL NOTES/COMMENTS ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA. MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727. NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY BEARING EQUIPMENT IS PROTECTED BY A DOUBLE BOUNDARY OF CONTAINMENT. O1 MILL. *NOTE A SEE ATTACHED REPORT FOR TENSILE RESULTS. ALSO MEETS THE REQUIREMENTS OF ASTM A106-04B/ASME SA106-2004 ED. GRADE C ** END OF DATA ** | | | |

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF: J. T. CLAYTON - MANAGER, Q. A.

DATE 10/04/06

529901002

TQ403B18

0051485032

CAA 2-0-0

PAGE 2 OF 2

**

DATE: 10/04/06
 TIME: 14:07:19
 PAGE: 1

TUBULAR PRODUCTS
 TENSILE TEST REPORT

UNITED STATES STEEL



| | | | | |
|---|------------------------|---|------------|-------------------------|
| MILL ORDER ITEM NO TT02291 04 | SUPPLIER NO. P31719 | P.A. NUMBER E1007806 | VEHICLE ID | SERIAL NUMBER: F0037988 |
| SOLD TO ADDRESS COMCO PIPE & SUPPLY CO DIV OF RUSSEL METALS BOX 457 EDMONTON AB T5J 2K1 | | MAIL TO ADDRESS VENDOR USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | | |

| HEAT | PIPE/LOT | TYPE/DIR/LOC | TEST GAUGE COND WIDTH | YIELD | EXT% | TENSILE | Y/T | ELONG & AREA | REDUC |
|-------------|----------|--------------|-----------------------|--------|------|---------|------|--------------|-------|
| U22838 3008 | | STRIP/L/B | AR 1.4820 | 47,800 | 0.50 | 74,500 | 0.64 | 42.7 | |
| U22838 3007 | | STRIP/L/B | AR 1.4770 | 45,500 | 0.50 | 74,500 | 0.61 | 42.6 | |
| U22838 3006 | | STRIP/L/B | AR 1.4770 | 46,900 | 0.50 | 74,500 | 0.63 | 46.9 | |

ASME SECTION II PART A

ADDENDA

2007 EDITION

DATE July 21/07

INITIAL BA

DATE: 10/08/06
 TIME: 14:01:36
 SERIAL NO: F0038145

**TUBULAR PRODUCTS
 CERTIFIED TEST REPORT**

(IN ACCORDANCE WITH ISO 10474/EN10204/DIN50048 3.1.b)

| | | | | |
|---|-----------------------|---|------------------------|--------------------|
| MILL ORDERING NO T702288 03 | SHEPERS NO. P31718 | P.O. NUMBER E1007297 | VEHICLE ID NS192983 | INVOICE NO 0440653 |
| SOLD TO ADDRESS COMCO PIPE & SUPPLY CO DIV OF RUSSEL METALS BOX 457 EDMONTON AB T5J 2K1 | | MAIL TO ADDRESS VENDOR USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | | |

PIPE CARBON SMLS STD PIPE API 5L-43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE X42 ASTM A53-05 ASTM A106-04B GRADE B QUAD STENCIL ASME SA53-2004 EDITION ASME SA106-2004 EDITION GRADE B CSA Z245.1-02 CAT I GRADE 290 EXCEPT MARKING BLK REG MILL COAT PE BEV 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF NACE STANDARD MR-01-75 *2002

SPECIFICATION AND GRADE

| | | | |
|-----------------------------|-------------------------------------|---|--|
| MATERIAL COMD: AS-ROLLED | OD: 8.625 (219.075) | WT: 0.222 (8.178) | R (mm) |
| PRODUCT IDENTIFICATION | YIELD MIN: 42,000 MAX: 72,000 | TENSILE PSI MIN: 70,000 MAX: 110,000 | MIN MICRO PSI 2350 |
| U22841 *NOTE C STRIP/L/B | GAUGE WIDTH IN 1.5 | ELONG % VT MAX: 27.0 41.3 | HARDNESS SCALE: HRB MIN: 99.5 MAX: 81.6 |
| | TEST COND. AR | END OF DATA THIS SHEET ** | |

| | | | | | | | | | | | | | | | | | |
|------------------------|------------------|-----------------|------------------------|----------------|----------|----------|----|----|----|--------|----|------|-----|-----|----|----|-------|
| LEGEND: | L - LONGITUDINAL | T - TRANSVERSE | QT - QUENCH & TEMPERED | AR - AS ROLLED | B - BODY | W - WELD | | | | | | | | | | | |
| | U - UPSET | NR - NORMALIZED | SR - STRESS RELIEVED | | | | | | | | | | | | | | |
| PRODUCT IDENTIFICATION | C | EN | P | S | SI | CU | NI | CR | MO | AL | N | V | B | T | CE | CD | C.E.* |
| U22841 | 19 | 110 | 008 | 007 | 21 | 03 | 01 | 03 | 01 | 029006 | 00 | 0001 | 002 | 001 | | | MAX |
| U22841 | 19 | 109 | 007 | 005 | 21 | 03 | 01 | 03 | 01 | 032006 | 00 | 0002 | 002 | 001 | | | .39 |
| U22841 | 20 | 110 | 007 | 008 | 20 | 03 | 01 | 03 | 01 | 032007 | 00 | 0003 | 002 | 002 | | | .38 |
| | | | | | | | | | | | | | | | | | .39 |

*C.E. IS BASED ON THE FOLLOWING EQUATION(S): C.E. = C + MN/6 + (CR+MO+V)/5 + (CU+NI)/15 < 0.43

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN, VERTICAL DOTTED LINE OR DECIMAL POINT.
 529901002 TQ403B18 0051485032

DATE: 10/08/06
TIME: 14:01:36
SERIAL NO: F0038145

UNITED STATES STEEL
TUBULAR PRODUCTS
CERTIFIED TEST REPORT
(IN ACCORDANCE WITH ISO 10475/EN10204/DIN5049 3.1b)

| | | | | | | | | | | | | |
|---|------|-------------------------|---------------------------|---|----------|-------------------------------|------|----------------------------|-------|-------------------------|---------|----|
| MILL ORDER/ITEM NO TT02289 03 | | SHIPPER'S NO. P31718 | | P.O. NUMBER E1007297 | | INVOICE NO 0440653 | | IN (mm) 0.322 (8.178) | | | | |
| MATERIAL COND: AS-ROLLED | | O.D. 8.625 (219.075) | | WALL: 0.322 (8.178) | | CHAMPY MANDREL IMPACT TESTING | | | | | | |
| PRODUCT IDENTIFICATION | FLAT | GRAN SIZE | MIN COLLAPSE | OR | TEST LOC | TEMP | SIZE | TEST COND. | 1 2 3 | AVG | % SHEAR | |
| U22841 | OK | ** | END OF DATA THIS SHEET ** | T | B | + 32 | 2/3 | AR | 10 | 10 | 10 | 14 |
| LEGEND | | L - LONGITUDINAL | | T - TRANSVERSE | | B - BODY | | V - WELD | | MAX. HEAT AFFECTED ZONE | | |
| TEST / INSPECTION | | YES | | RESULTS / COMMENTS | | | | | | | | |
| FULL LENGTH VISUAL | | X | | | | | | | | | | |
| FULL LENGTH EMI | | X | | OD _____ CDID _____ X _____ LT _____ X 10.0/10.0% NOTCH | | | | | | | | |
| FULL LENGTH MPI | | X | | ID _____ ODID _____ LT _____ | | | | | | | | |
| FULL LENGTH UT | | X | | MPI _____ X _____ UT _____ | | | | | | | | |
| END AREA INSPECTION (PLAIN END) | | | | DRIFT MANDREL SIZE: _____ | | | | | | | | |
| SPECIAL END AREA (SEA) MSP | | | | | | | | | | | | |
| FULL LENGTH DRIFT | | | | | | | | | | | | |
| ADDITIONAL NOTES/COMMENTS | | | | | | | | | | | | |
| ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA. MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727. NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY BEARING EQUIPMENT IS PROTECTED BY A DOUBLE BOUNDARY OF CONTAINMENT. 01 MILL *NOTE C SEE ATTACHED REPORT FOR TENSILE RESULTS. ALSO MEETS THE REQUIREMENTS OF ASTM A106-04B/ASME SA106-2004 ED. GRADE C ** END OF DATA ** | | | | | | | | | | | | |

ASME SECTION II PART A

2007 EDITION ADDENDA

INITIAL BA DATE 10/21/06

PREPARED BY THE OFFICE OF: J. T. CLAYTON - MANAGER, Q. A.

DATE 10/08/06

529901002 TQ403B18 0051485032

CAA 1-0-0 PAGE 4 OF 4

**

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN EACH RESPECT.



UNITED STATES STEEL

TUBULAR PRODUCTS
CERTIFIED TEST REPORT

TIME: 07:40:47
SERIAL NO: F0021826

(TYPE B - IN ACCORDANCE WITH ISO 10474/EN10204/DIN9004S 3.1.B)

| MILL ORDER/ITEM NO. | | SHIPPER'S NO. | | PO NUMBER | | VEHICLE ID. | | INVOICE NO | | | | | | | | | |
|--|------------------------|-------------------------------|----------------|--|-------------------------|--|------------------------|------------------|------------|----|--------|----|------|-----|-----|-----|-----|
| TT09713 09 | | Y19083 | | E1006696 | | NW189169 | | 0434856 | | | | | | | | | |
| SOLD TO ADDRESS | | | | MAIL TO ADDRESS | | | | | | | | | | | | | |
| COMICO PIPE & SUPPLY CO DIV OF RUSSEL METALS BOX 457 EDMONTON AB T5J 2K1 | | | | USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | | | | | | | | | | | | | |
| SPECIFICATION AND GRADE | | | | | | | | | | | | | | | | | |
| PIPE CARBON SMLS STD PIPE API 5L-*43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE X42 ASTM A53-*04A ASTM A106-*04B GRADE B QUAD STENCIL ASME SA53-*2004 EDITION ASME SA106-*2004 EDITION GRADE B BLK REG WILL COAT PE BEV 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF NACE STANDARD MR-01-75 *2002 | | | | | | | | | | | | | | | | | |
| MATERIAL COND. | | AS-ROLLED | | O.D.: 8.625(219.075) | | I.D.: 0.322 (8.178) | | t (mm) | | | | | | | | | |
| PRODUCT IDENTIFICATION | TEST TYPE/ ORIENTATION | TEST COND. | GAUGE WIDTH IN | YIELD MIN: MAX: | TENSILE MIN: MAX: | ELONG % (IN 2') | HARDNESS SCALE: HRB | MIN HYDRO PSI | DREL (SEC) | | | | | | | | |
| C25152 | STRIP/L/B | AR | 1.5 | 42,000 72,000 | 70,000 110,000 | 27.0 | 99.5 | 2350 | 5 | | | | | | | | |
| C25152 | STRIP/L/B | AR | 1.5 | 47,400 | 74,500 | 43.2 | 88.2 | 2350 | 5 | | | | | | | | |
| C35089 | STRIP/L/B | AR | 1.5 | 45,200 | 75,500 | 38.6 | 88.5 | 2350 | 5 | | | | | | | | |
| C35089 | STRIP/L/B | AR | 1.5 | 45,600 | 76,000 | 41.3 | 88.5 | 2350 | 5 | | | | | | | | |
| C35089 | STRIP/L/B | AR | 1.5 | 46,800 | 76,000 | 40.8 | 88.5 | 2350 | 5 | | | | | | | | |
| ** END OF DATA THIS SHEET ** | | | | | | | | | | | | | | | | | |
| LEGEND: | | L - LONGITUDINAL U - UPSET | | T - TRANSVERSE N - NORMALIZED | | OT - OVEN DRY & TEMPERED SP - STRESS RELIEVED | | AR - AS ROLLED | | | | | | | | | |
| PRODUCT IDENTIFICATION | TYPE | C | MIN | P | S | SI | CU | N | MO | AL | N | V | B | TI | CB | CO | CE* |
| C25152 | HEAT | 19 | 106 | 007 | 006 | 19 | 02 | 01 | 03 | 01 | 025008 | 00 | 0001 | 002 | 001 | 006 | MAX |
| C25152 | PROD | 21 | 109 | 009 | 009 | 20 | 02 | 01 | 03 | 01 | 029008 | 00 | 0001 | 001 | 006 | 006 | .43 |
| C25152 | PROD | 21 | 109 | 009 | 010 | 20 | 02 | 01 | 03 | 01 | 028008 | 00 | 0001 | 001 | 006 | 006 | .36 |
| C35089 | HEAT | 19 | 101 | 008 | 005 | 22 | 02 | 01 | 03 | 01 | 026010 | 00 | 0001 | 002 | 004 | 006 | .40 |
| C35089 | PROD | 21 | 105 | 009 | 009 | 24 | 02 | 01 | 04 | 01 | 028007 | 00 | 0001 | 001 | 006 | 006 | .40 |
| C35089 | PROD | 22 | 104 | 009 | 008 | 24 | 02 | 01 | 04 | 01 | 028008 | 00 | 0001 | 001 | 006 | 006 | .39 |
| ** END OF DATA THIS SHEET ** | | | | | | | | | | | | | | | | | |
| *C.E. IS BASED ON THE FOLLOWING EQUATION(S): C.E. = C + MN/6 + (CR+MO+V)/5 + (CU+NI)/15 < 0.43 | | | | | | | | | | | | | | | | | |

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN, VERTICAL DOTTED LINE OR DECIMAL POINT.

TIME: 07:40:47
SERIAL_NO: F0021826

TUBULAR PRODUCTS
CERTIFIED TEST REPORT
(TYPE B - IN ACCORDANCE WITH ISO 10474/EN 10204/DIN50049 3.1b)

UNITED STATES STEEL

| MILL ORDER/ITEM NO. TT09713 09 | SHIPPER NO. Y190B3 | P.O. NUMBER E1006696 | INVOICE NO 0434856 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------|-------------------------|-----------------------------|-----|-----------|------|------|------------|------------|--------|----|---------|---------|--|---|---|---|---|---|---|---|---|------|-----|----|----|----|----|----|--|--|--|---|---|------|-----|----|----|----|----|----|----|----|----|--|--|----|--|----|----|----|----|----|----|----|----|
| MATERIAL CODE AS-ROLLED | QID: 8.625(219.075) | | h (mm) WALL: 0.322 (8.178) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRODUCT IDENTIFICATION C25152 C35089 | FLAT | BEND | GRAIN SIZE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | OK OK | | MIN COLLAPSE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | END OF DATA THIS SHEET ** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>LEGEND: L - LONGITUDINAL T - TRANSVERSE B - BODY W - WELD HAZ - HEAT AFFECTED ZONE</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>TEST / INSPECTION YES</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FULL LENGTH VISUAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FULL LENGTH EM | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FULL LENGTH MPI | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FULL LENGTH UT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| END AREA INSPECTION (PLAIN END) | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPECIAL END AREA (SEA) INSP. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FULL LENGTH DRIFT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>CHARTER V-NOTCH IMPACT TESTING</p> <table border="1"> <thead> <tr> <th rowspan="2">DIR</th> <th rowspan="2">TEST LOC.</th> <th rowspan="2">TEMP</th> <th rowspan="2">SIZE</th> <th rowspan="2">TEST COND.</th> <th colspan="3">FT LBS</th> <th colspan="3">% SHEAR</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>T</td> <td>B</td> <td>+ 32</td> <td>2/3</td> <td>AR</td> <td>10</td> <td>10</td> <td>10</td> <td>14</td> <td></td> <td></td> <td></td> </tr> <tr> <td>T</td> <td>B</td> <td>+ 32</td> <td>2/3</td> <td>AR</td> <td>22</td> <td>20</td> <td>26</td> <td>23</td> <td>10</td> <td>10</td> <td>10</td> </tr> <tr> <td></td> <td></td> <td>**</td> <td></td> <td>**</td> <td>23</td> <td>24</td> <td>24</td> <td>24</td> <td>10</td> <td>10</td> <td>10</td> </tr> </tbody> </table> | | | | DIR | TEST LOC. | TEMP | SIZE | TEST COND. | FT LBS | | | % SHEAR | | | 1 | 2 | 3 | 1 | 2 | 3 | T | B | + 32 | 2/3 | AR | 10 | 10 | 10 | 14 | | | | T | B | + 32 | 2/3 | AR | 22 | 20 | 26 | 23 | 10 | 10 | 10 | | | ** | | ** | 23 | 24 | 24 | 24 | 10 | 10 | 10 |
| DIR | TEST LOC. | TEMP | SIZE | | | | | | TEST COND. | FT LBS | | | % SHEAR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | 1 | 2 | 3 | 1 | 2 | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | B | + 32 | 2/3 | AR | 10 | 10 | 10 | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | B | + 32 | 2/3 | AR | 22 | 20 | 26 | 23 | 10 | 10 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | ** | | ** | 23 | 24 | 24 | 24 | 10 | 10 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>TESTING / INSPECTION INFORMATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>RESULTS / COMMENTS</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>OD ID OD/ID X L UT X 10.0/10.0% NOTCH</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>OD ID OD/ID L UT</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>MPI X UT</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>MPI UT</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>DRIFT MANDREL SIZE:</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ADDITIONAL NOTES/COMMENTS</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY BEARING EQUIPMENT IS PROTECTED BY A DOUBLE BOUNDARY OF CONTAINMENT.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>01 MILL</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ALSO MEETS THE REQUIREMENTS OF ASTM A106-99/ASME SA106-1998 ED. 1999 GRADE C.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>** END OF DATA **</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ASME SECTION II PART A

2007 EDITION ADDENDA

INITIAL BA DATE 30/12/07

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF: J. T. CLAYTON - MANAGER, Q.A.

DATE 03/26/06

UNIT: STATES STEEL
 TIME: 17:22:00
 SERIAL NO:

TUBULAR PRO TS
 CERTIFIED TEST REPORT

(TYPE B - IN ACCORDANCE WITH ISO 10474/EN10204/DIN50049 3.1.b)

| | | | |
|---|-----------------------|---|---------------------------|
| MAIL ORDER/ITEM NO. TT02082 03 | SHIPPER NO. P97883 | P.O. NUMBER 9106186-00 | VEHICLE ID. CSXT708529 |
| SOLD TO ADDRESS MCO CORP ESTLUND DIV PO BOX 5300 ANDON ON N6A 4N7 | | MAIL TO ADDRESS USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | |

SPECIFICATION AND GRADE
 IPE CARBON SMLS STD PIPE API 5L-X43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE X42 ASTM A53-X04A
 STM A106-X04B GRADE B QUAD STENCIL ASME SA53-X2004 EDITION ASME SA106-X2004 EDITION GRADE B BLK REG
 MILL COAT PE BEV 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF NACE STANDARD MR-01-75 X2002

| MATERIAL COND. | AS-ROLLED | | OD: 8.625 (219.075) | | IN (mm) WALL: 0.322 (8.178) | | IN (mm) | |
|------------------------------|------------|------------------------|---------------------|--------|------------------------------|----------|-----------|-----------|
| | YIELD | EXT % | TENSILE | Y/T | ELONG % | HARDNESS | MIN-HYDRO | DWELL/SEC |
| PRODUCT IDENTIFICATION | TEST COND. | TEST TYPE/ ORIENTATION | GAUGE WIDTH | MIN: | MAX: | MIN: | MAX: | MIN: |
| X22828 | AR | STRIP/L/B | 1.5 | 42,000 | 70,000 | 27.0 | 99.5 | 5 |
| X22828 | AR | STRIP/L/B | 1.5 | 72,000 | 110,000 | 40.6 | NOTE A | 5 |
| X22829 | AR | STRIP/L/B | 1.5 | 45,200 | 75,000 | 42.4 | NOTE B | 5 |
| ** END OF DATA THIS SHEET ** | | | | | | | | |

| PRODUCT IDENTIFICATION | TYPE | T - TRANSVERSE N - NORMALIZED | | | | | | | | | | | | QT - QUENCHED & TEMPERED SR - STRESS RELIEVED | | | | | | | | | | | | AR - AS ROLLED | | | | | | | | | | | | B - BODY | | | | | | | | | | | | W - WELD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|------|-------------------------------|-----|-----|-----|----|----|----|----|----|-----|-----|----|---|-----|-----|-----|-----|-----|----|----|---|----|----|----|----------------|----|----|----|---|---|----|----|----|-----|-----|-----|----------|----|---|----|----|----|----|----|----|----|---|---|----------|----|----|-----|-----|-----|----|----|---|----|----|----|----|----|----|----|---|---|----|----|----|-----|-----|-----|----|----|---|----|----|----|----|----|----|----|---|---|----|----|----|-----|-----|-----|----|---|---|----|----|---|----|----|----|---|---|---|----|----|----|-----|-----|
| | | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | | | | | | | | | | | | | | | | | |
| X22828 | HEAT | 19 | 104 | 006 | 005 | 20 | 02 | 01 | 03 | 01 | 026 | 009 | 00 | 0001 | 002 | 001 | 001 | .43 | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX |
| X22828 | PROD | 20 | 105 | 008 | 008 | 19 | 02 | 01 | 03 | 02 | 026 | 013 | 00 | 0001 | 001 | 001 | 001 | .38 | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX |
| X22828 | PROD | 20 | 106 | 007 | 008 | 21 | 02 | 01 | 03 | 01 | 029 | 006 | 00 | 0001 | 001 | 001 | 001 | .38 | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX |
| X22829 | HEAT | 19 | 105 | 007 | 006 | 21 | 02 | 01 | 03 | 01 | 026 | 008 | 00 | 0001 | 002 | 002 | 002 | .38 | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX |
| X22829 | PROD | 21 | 108 | 008 | 008 | 20 | 02 | 01 | 03 | 01 | 027 | 010 | 00 | 0001 | 001 | 001 | 001 | .40 | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX |
| X22829 | PROD | 20 | 106 | 008 | 008 | 21 | 02 | 01 | 03 | 01 | 030 | 008 | 00 | 0001 | 001 | 001 | 001 | .39 | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX | C | MN | P | S | SI | CU | N | CR | MO | AL | N | V | B | TI | CB | CO | CE* | MAX |
| ** END OF DATA THIS SHEET ** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*C.E. IS BASED ON THE FOLLOWING EQUATION(S): C.E. = C + MN/6 + (CR+MO+ V)/5 + (CU+NI)/15 < 0.43

DATE: 03/23/06
 TIME: 17:22:00
 SERIAL_NO:

UNITED STATES STEEL
 TUBULAR PRODUCTS
 CERTIFIED TEST REPORT

(TYPE B - IN ACCORDANCE WITH ISO 10474/EN12049/DIN5049 3.1.b)

| | | | | | | | | |
|---|-------------------------|---------------------------|----------------------------------|------|--------------------|-------------|--------------------------|-------------------------------|
| MILL ORDER/ITEM NO. TT02062 03 | SHIPPER'S NO. P97E83 | P.O. NUMBER 9106186-00 | OD: 8.625(219.075) | | ID: 0.322 (8.178) | | n (mm) | |
| MATERIAL COND: AS-ROLLED | MIN. COLLAPSE | | CRIM SIZE | | BEND | | FLAT | |
| PRODUCT IDENTIFICATION X22828 X22829 | OK OK | | OK | | OK | | OK | |
| DR | | | TEST LOC. | TEMP | SIZE | TEST CONDL. | | CHARPY V-NOTCH IMPACT TESTING |
| T B | | | B | + 32 | 2/3 | AR | 1 2 3 | FT-LBS |
| T B | | | B | + 32 | 2/3 | AR | 1 2 3 | A/B |
| *** END OF DATA THIS SHEET *** | | | DEG. F | | W. WELD | | % SHEAR | |
| T - TRANSVERSE | | | B - BODY | | W - WELD | | HAZ - HEAT AFFECTED ZONE | |
| L - LONGITUDINAL | | | TESTING / INSPECTION INFORMATION | | | | | |
| LEGEND: | | | RESULTS / COMMENTS | | | | | |
| TEST / INSPECTION | | | YES | | | | | |
| FULL LENGTH VISUAL | | | X | | | | | |
| FULL LENGTH EM | | | X | | | | | |
| FULL LENGTH MF | | | OD | | | | | |
| FULL LENGTH UT | | | OD/ID X L | | | | | |
| END AREA INSPECTION (PLAIN END) | | | OD/ID L | | | | | |
| SPECIAL END AREA (SEA) INSP. | | | MPI X UT | | | | | |
| FULL LENGTH DRIFT | | | MPI UT | | | | | |
| | | | DRIFT MANDREL SIZE: | | | | | |
| | | | ADDITIONAL NOTES/COMMENTS | | | | | |
| ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA. MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727. NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY BEARING EQUIPMENT IS PROTECTED BY A DOUBLE BOUNDARY OF CONTAINMENT. Ø1 MILL *NOTE A SEE ATTACHED REPORT FOR HARDNESS RESULTS. *NOTE B SEE ATTACHED REPORT FOR HARDNESS RESULTS. ALSO MEETS THE REQUIREMENTS OF ASTM A106-99/ASME SA106-1998 ED. 1999 GRADE C. *** END OF DATA *** | | | | | | | | |

ASME SECTION II PART A

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF: J.T. CLAYTON - MANAGER, Q.A.

DATE 03/23/06

2007 EDITION ADDENDA

INITIAL SA DATE July 21/07

UNITE STATES STEEL
 TUBULAR PRODUCTS
 HARDNESS TEST REPORT
 DATE: 03/23/06
 TIME: 17:22:01
 PAGE: 1

| | | | |
|---|------------------------|--|-------------|
| MILL ORDER/ITEM NO. TT02082 03 | SHIPPER NO. P 97883 | P.O. NUMBER 9106186-00 | VEHICLE ID. |
| SOLD TO ADDRESS EMCO CORP WESTLUND DIV P O BOX 5300 LONDON ON N6A 4N7 | | SERIAL NUMBER: VENDOR USS TUBULAR PRODUCTS USS FAIRFIELD WORKS P.O. BOX 599 FAIRFIELD ALABAMA 35064 | |

| HEAT | SCALE | LOC | CND | MIN | MAX | OD1 | OD2 | OD3 | AVG |
|--------|-------|-----|-----|-----|-----|------|------|------|------|
| X22828 | HRB | B | AR | 0 | 99 | 84.9 | 82.6 | 83.9 | 83.8 |
| X22828 | HRB | B | AR | 0 | 99 | 84.9 | 85.3 | 85.4 | 85.2 |
| X22829 | HRB | B | AR | 0 | 99 | 77.7 | 77.7 | 81.0 | 78.8 |
| X22829 | HRB | B | AR | 0 | 99 | 85.3 | 85.1 | 85.6 | 85.3 |

--- TEST ---

NO: SEAMLESS CARBON STEEL PIPE
 DN: ASTM A106 06a/ASME SA106 06a/AFI 5L 43ed/MSC MR0175
 地址: CHINA INDUSTRIAL STEEL CO., LTD. Chengde Sichuan P. R. China
 ADDRESS: No. 1 South Chengde Road, Chengde Sichuan P. R. China
 电话: 028-84407093 邮编: 610066
 TEL: 028-84407093 P. O. BOX: 610066

| 炉号 | 熔炼号 | 批号 | 熔炼方式 | 交货状态 | 外径 | 壁厚 | 长度 | 根数 | 米数 | 重量 | 水压试验 | 时间 | 结果 | 无损检测 | 结果 | 表面及尺寸 |
|------------|----------|-----------|----------------|---------------------|-----------|--------|--------|--------|---------|--------|----------|----|------------|------|------------|-------------------|
| PIPE GRADE | HEAT NO. | BATCH NO. | MELTING METHOD | CONDITION OF SUPPLY | O. D./MPS | W. T. | LENGTH | PIECES | METERS | TONS | PRESSURE | 6S | 6S | NDT | RESULT | SURFACE DIMENSION |
| PSL1 | 05435 | 05435 | BOF | HR | 8" | 0.322" | 40FT | 32 | 380.144 | 16.691 | 1600 | 6S | ACCEPTABLE | BT | ACCEPTABLE | ACCEPTABLE |
| PSL1 | 05435 | 05435 | BOF | HR | 8" | 0.322" | 40FT | 14 | 170.688 | 7.263 | 1600 | 6S | ACCEPTABLE | BT | ACCEPTABLE | ACCEPTABLE |

| 样品号 | 试样尺寸 | 屈服强度 | 抗拉强度 | 延伸率 | 冲击试验 | 冲击试验 | 环拉试验 | 环拉试验 | 环扩试验 | 压扁试验 | 硬度 | 硬度 |
|------------|-----------|-------------|---------------|----------------|------------------|------------------|------|------|-------------------------|--------------------|---------------------|---------------------|
| SAMPLE NO. | SIZE (mm) | YIELD (MPa) | TENSILE (MPa) | ELONGATION (%) | INDIVIDUAL VALUE | INDIVIDUAL VALUE | Y | V | RING EXPANDING TEST (S) | FLATENING TEST (S) | HARDNESS TEST: (HV) | HARDNESS TEST: (HB) |
| 1120A/B | 38.1 | 370 | 480 | 42 | 41 | 41 | 0.02 | 0.01 | 0.005 | 0.020 | 191 | 144 |
| 1120A/B | 38.1 | 340 | 475 | 41 | 40 | 40 | 0.01 | 0.01 | 0.005 | 0.020 | 144 | 180 |

| 化学成分 | | | | | | | | | | | | |
|--------------------------|------|------|-------|-------|------|------|------|------|------|-------|-------|--------|
| CHEMICAL COMPOSITION (%) | | | | | | | | | | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | Cu | Y | Nb | Ti | B |
| 0.18 | 0.21 | 0.48 | 0.012 | 0.011 | 0.02 | 0.02 | 0.01 | 0.03 | 0.02 | 0.005 | 0.020 | 0.0005 |
| 0.18 | 0.21 | 0.47 | 0.011 | 0.009 | 0.02 | 0.02 | 0.01 | 0.04 | 0.01 | 0.001 | 0.01 | 0.0005 |
| 0.18 | 0.21 | 0.48 | 0.018 | 0.005 | 0.03 | 0.02 | 0.01 | 0.04 | 0.01 | 0.005 | 0.020 | 0.0005 |
| 0.20 | 0.27 | 0.46 | 0.017 | 0.006 | 0.03 | 0.02 | 0.01 | 0.04 | 0.01 | 0.001 | 0.01 | 0.0005 |

TO BE DELIVERED IN THEORETICAL WEIGHT.
 TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED AS PER RELEVANT
 FOR AS STIPULATED IN THE ORDER, QUALIFIED WITH ALL THE DATA IN
 WITH THE SPECIFICATION.
 FINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE THE
 ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.
 3. METHOD: 电炉+电渣重熔+ESR+炉外-BOF+电炉+VD+电炉+VD
 4. TOLERANCE: 电炉+电渣重熔+ESR+炉外-BOF+电炉+VD+电炉+VD
 5. TOLERANCE: 电炉+电渣重熔+ESR+炉外-BOF+电炉+VD+电炉+VD
 6. METHOD: 电渣重熔+ESR+炉外-BOF+电炉+VD+电炉+VD
 7. SAMPLE SIZE: C10-10% 刻槽 (10% NOTCH) (OR 12.5%)
 8. ORIENTATION OF SPECIMEN: 纵向-LONGITUDINAL
 9. CARBON EQUIVALENT OF PRODUCT ANALYSIS
 10. 标准值 STANDARD VALUE
 11. 实际值 ACTUAL VALUE
 12. 合格-ACCEPTABLE

EN 10204 3.1.B
 MEETS REQUIREMENTS OF NACE MR0175/MRO 100

ASME B31.3
 2007
 JENDA

批准时间: 2007 年 11 月 23 日
 FILLING FORM DATE, YEAR, MONTH, DAY

质量负责人: 杨成
 APPROVED BY QUALITY MANAGER.

HEAT NUMBER : 57062
 TRANS AM PIPING PRODUCTS - REV'D BY: *JB*
 Shipment/Seq #: S 7 - 1615 7

2X8-36 CL 3000 FS THREADED PIPET
 A105N



Manufacturers of Piping & Pressure Vessel Components
 4407 Haygood St - Houston, TX 77022
 Phone: 713-695-3633 Fax: 713-695-3528
 A Division of **BONNEY FORGE**

Page: 24

SOLD TO: TRANS AM PIPING (CALGARY)
 9335 ENDEAVOR DRIVE S.E.
 CALGARY, AB T3S 0A1

MTR #: 140759

PO #: CI-07-683

SALES ORDER #: C716034 DATE: 12/14/2007

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1

CERTIFIED MATERIAL TEST REPORT

HEAT CODE: 57062

MATERIAL: A/SA105 01

ITEM Quantity Description

14

36 - 8 X 2 3M THP
 A/SA105N

CHEMICAL COMPOSITION:

| LADLE | C | MN | P | S | SI | CU | NI | CR |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.190 | 1.010 | 0.009 | 0.024 | 0.200 | 0.110 | 0.030 | 0.040 |
| | MO | V | NB | | | | | |
| | 0.010 | 0.000 | 0.015 | | | | | |

CARBON EQUIVALENCY: LADLE 0.378

MECHANICAL PROPERTIES:

| PRODUCT | TENSILE PSI | YIELD PSI | ELONG % | RA % | HARDNESS |
|-----------|-------------|-----------|---------|--------|-----------------|
| As Forged | 76,875 | 50,375 | 30.25% | 63.95% | 139 BHN 139 BHN |

IN ACCORDANCE WITH NACE SPEC MR0175-2002

Marie Dehmer
 Quality Assurance Representative

ASME SECTION II PART A

2007 EDITION

ADDENDA

INITIAL BA

DATE July 21/08

HEAT NUMBER : 57383
 TRANS AM PIPING PRODUCTS - REV'D BY: *JD*
 Shipment/Seq #: S 8 - 1025 1

1X3-36 CL 3000 FS THREADED PIPET
 A105N



Manufacturers of Piping and Pressure Vessel Components
 4407 Haygood St - Houston, TX 77022
 Phone: 713-495-3633 Fax: 713-695-3528
 A Bonney Forge Company

Sold To: TRANS AM PIPING PRODUCTS
 LTD
 9335 ENDEAVOR DRIVE S.E.
 CALGARY AB T3S 0A1

Mtr #: 142,449

PO #: CI-07-683

Sales Order #: C000716034

Date: 01/22/2008

Certified Material Test Report

Heat Code: 57383

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105N 01

| Item | Quantity | Description |
|------|----------|--|
| 75 | | 36 - 3 X 1 3M THP A/SA105N REPLACEMENT FOR LINE# 9 |

Chemical Composition

| Ladle | C | CR | CU | MN | MO | Nb | NI | P |
|---------------------|-------|-------|-------|------|-------|-------|------|-------|
| | 0.200 | 0.06 | 0.080 | 1.05 | 0.010 | 0.018 | 0.03 | 0.008 |
| | S | SI | V | | | | | |
| | 0.023 | 0.18 | 0.000 | | | | | |
| Carbon Equivalency: | | Ladle | | 0.40 | | | | |

| Product | Tensile PSI | Yield PSI | Elong % | RA % | Hardness | Test Temperature: |
|------------|-------------|-----------|---------|-------|----------|-------------------|
| Normalized | 71,250 | 47,500 | 33.15 | 64.20 | 130 BHN | 130 BHN 0 F |

ASME SECTION II PART A

2007 EDITION

ADDENDA

INITIAL BA

DATE July 21/08

Marie Dehmer
 Quality Assurance Representative

8" STD BW CAPS A234-WPB

Handwritten initials

HEAT NUMBER : 7C3931
 TRANS AM PIPING PRODUCTS - REV'D BY: S 7 - 1354
 Shipment/Seg #: S 7 - 1354

INSPECTION CERTIFICATE
RIGID INDUSTRIES CO., LTD.

PURCHASER: SEYBOLD
 ASTM A234 WPB-07
 STANDARD: ASME SA234 WPB-04

DATE: 2007-06-26
 ORDER NO: 6056/C06681
 P.I. NO: 6J09-4

8, MEI-CHUNG RD. NIAO-SONG,
 KAOHSIUNG HSIEN, 83301 TAIWAN
 TEL: 886-77310527-8
 FAX: 886-77319887

MATERIALS: JIS G3103 SB410
 INSP. SPEC.: ASME B16.9 - 03

ACCORDING TO EN10204/DIN50049/3.1
 CERTIFI. NO: 342

| ITEM NO. | CAP | 8" | STD | QUANTITY PCS | MFG NO. | VISUAL & DIMENSIONAL INSPECTION | HARDNESS MAX. 197 HB | HEAT TREATMENT (NOTE) | MAGNETIC PARTICLE EXAMINATION | IMPACT TEST (J) | | | | | | | |
|----------|------------------------|-----|-----|--------------|---------|---------------------------------|----------------------|-----------------------|-------------------------------|-----------------|------------|----|---------------|------|------|----|----|
| | | | | | | | | | | | 134 -- 142 | N | | | | | |
| ITEM NO. | CHEMICAL COMPOSITION % | | | | | | | | | | | | | | | | |
| | MATERIAL CHARGE NO. | C | Si | Mn | P | S | Cu | Ni | Cr | Mo | V | Nb | PHYSICAL TEST | | | | |
| STANDARD | 26831 | MIN | 10 | 29 | 50 | 58 | 40 | 40 | 40 | 15 | 8 | 20 | Y S | T S | E | | |
| | | MAX | 30 | 77 | 18 | 5 | <1 | <1 | <1 | 1 | <1 | <1 | 35.0 | 60.0 | % | | |
| 1 | | 17 | 22 | | | | | | | | | | 51.7 | 69.5 | 26.4 | 50 | 29 |

(NOTE): A: HOT FORMED WITH FINAL TEMPERATURE BETWEEN 620°C-980°C AIR COOLING.
 N: NORMALIZING AT TEMPERATURE 980°C X 0.5HR AIR COOLING.

NACE MR-01-75 & NACE MR 0103 : SATISFACTORY.
 WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE SPECIFICATIONS CONCERNED AND ALSO WITH THE PURCHASER'S REQUIREMENTS AND THAT THE TEST RESULTS SHOWN HEREIN ARE CORRECT.

Handwritten signature: Ou L Lam

MANAGER OF Q.A. DEPT.

ASME SECTION II PART A

ADDENDA

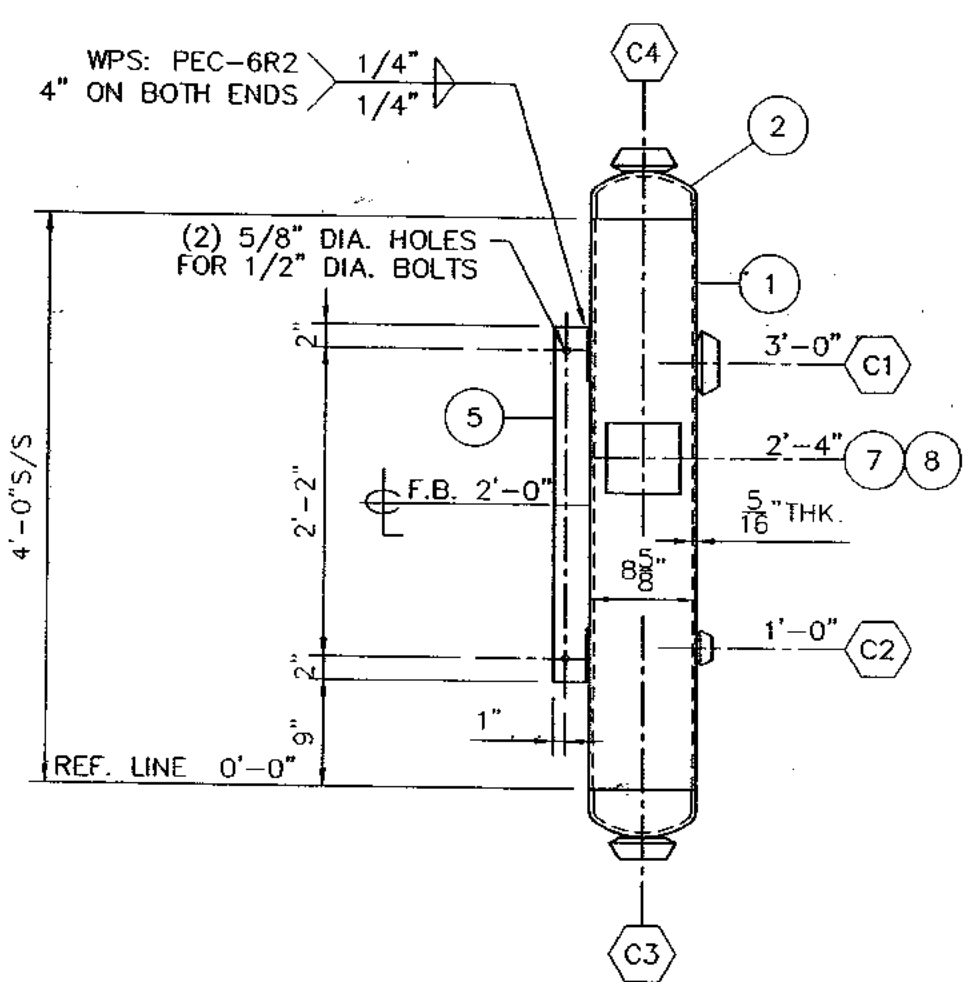
2007 EDITION

INITIAL BA

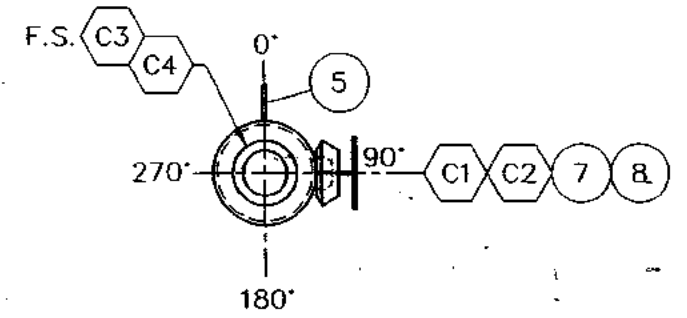
DATE July 21/08

| MARK | NO. REQ'D | SERVICE | SIZE | RTG. | TYPE | NOZZLE O.D. | NOZZLE BORE | WELD DETAIL | WELD SIZE | | | PROJECTION | | ITEM | REMARKS |
|------|-----------|-------------|------|--------|--------|-------------|-------------|-------------|-----------|-----|-----|------------|---------|------|-----------------------------|
| | | | | | | | | | "A" | "B" | "C" | INSIDE | OUTSIDE | | |
| C1 | 1 | SIGHT GLASS | 2" | CL3000 | T.O.L. | - | - | 2 | 1/4" | - | - | - | - | 3 | MAX. HOLE THRU SHELL=2 1/4" |
| C2 | 1 | VENT | 1" | CL3000 | T.O.L. | - | - | 2 | 1/4" | - | - | - | - | 4 | |
| C3 | 1 | GAS INLET | 2" | CL3000 | T.O.L. | - | - | 2 | 1/4" | - | - | - | - | 6 | MAX. HOLE THRU HEAD=2 1/4" |
| C4 | 1 | GAS OUTLET | 2" | CL3000 | T.O.L. | - | - | 2 | 1/4" | - | - | - | - | 6 | MAX. HOLE THRU HEAD=2 1/4" |

| ITEM | QTY | DESCRIPTION | MATERIAL |
|------|-----|--|------------|
| 1 | 1 | SHELL: 8" SCH 40 SMLS PIPE x 4'-0" LG. (BBE) <i>U28841</i> | SA-106-B |
| 2 | 2 | HEADS: 8" SCH 40 BW CAP (0.2817" MIN. THK.) <i>K393</i> | SA-234-WPB |
| 3 | 1 | 2" CL3000 T.O.L. (10-8) <i>75082</i> | SA-105N |
| 4 | 1 | 1" CL3000 T.O.L. (10-6) <i>57383</i> | SA-105N |
| 5 | 1 | FB: 3/8" THK. x 3" x 30" LG. | SA-36 |
| 6 | 2 | 2" CL3000 T.O.L. (FLAT) <i>57082</i> | SA-105N |
| 7 | 1 | NAME PLATE BRACKET | SA-36 |
| 8 | 1 | PYRAMID STANDARD NAME PLATE | SS |

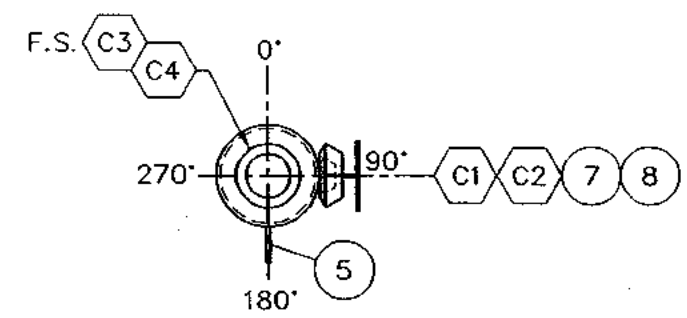


ELEVATION
(TEN (10)-REQ'D)



ORIENTATION #1

(FIVE (5) REQ'D)
[SERIAL NO. 08-3200-000A-E] Δ 1



ORIENTATION #2

(FIVE (5) REQ'D)
[SERIAL NO. 08-3200-000F-J] Δ 1

SHOP NOTES

- ALL BOLT HOLES STRADDLE HORIZONTAL AND VERTICAL CENTER LINES
- CLEAN ENTIRE VESSEL OF WELD SLAG AND OTHER FOREIGN MATERIAL
- ALL FLANGES TO BE COVERED WITH FLANGE COVERS, ALL CPLG/T.O.L.'S TO BE PLUGGED WITH PLASTIC PLUGS PRIOR TO SHIPPING
- ALL MISCELLANEOUS AND ATTACHMENT WELDS SHALL BE 1/4" FILLET WELDS UNLESS SHOWN OTHERWISE
- COATING SPECIFICATIONS
SURFACE PREP: - EXTERNAL: NONE
PRIMING: - EXTERNAL: NONE
- INTERNAL: NONE
FINISH: - EXTERNAL: NONE
- INTERNAL: NONE
- IMPACT TEST EXEMPTION(S):
- EXEMPT PER UG-20(f)
- EXEMPT FROM A.B.S.A. INSPECTION PER U-1(i)
- FACTOR DIAMETER INCHES (FDI): 35 INCHES

FOR INFO ONLY
BOTTLE A

FIT BY CB
WELD ALL OUT Δ KS

REVISED DRAWING
ISSUED FOR CONSTRUCTION
DESTROY PREVIOUS ISSUE
DATE JUN 02 2008

| 1. CIRC. SEAMS | 2. O'LET | 3. MISCELLANEOUS |
|----------------|--------------|------------------|
| | | |
| WPS: PEC-6R2 | WPS: PEC-6R2 | WPS: PEC-6R2 |

| DESIGN DATA | |
|--|--------------------------------------|
| CONSTRUCTION: | ASME SECTION VIII DIV 1 2007 EDITION |
| INTERNAL DESIGN PRESSURE: | 550 PSIG @ 600F (MAX) |
| EXTERNAL DESIGN PRESSURE: | 0 PSIG @ 600F (MAX) |
| HYDROTEST PRESSURE: | 715 PSIG |
| MINIMUM DESIGN METAL TEMP.: | -20F @ 550 PSIG |
| CORROSION ALLOWANCE: | 1/16" |
| RADIOGRAPHY: | 100% PER UW-11(g) |
| P.W.H.T.: | NONE |
| VOLUME: | 1.45 FT ³ |
| WEIGHT (EMPTY): | 152 LB |
| WEIGHT (TEST): | 217 LB |
| C.R.N.: 045228.23 REG. ENG.: PV-061 REV. 3 | SERIAL NO.: 08-3200-0000A THRU J |

| DRAWING NO. | DESCRIPTION | REV. | BY | DATE |
|-------------|--------------------------------|------|----|-----------|
| 1 | REVISED SERIAL NO. DESIGNATION | 0 | DK | JUN 02/08 |
| 0 | ISSUED FOR CONSTRUCTION | 0 | DK | MAY 29/08 |



THIS DRAWING IS THE PROPERTY OF AND CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION BELONGING TO PYRAMID CORPORATION. IT MUST BE RETURNED IMMEDIATELY UPON REQUEST AND MUST NOT BE COPIED IN WHOLE OR IN PART NOR THE INFORMATION SHOWN THEREON DISCLOSED TO THIRD PARTIES OR OTHERWISE USED EXCEPT AS SPECIFICALLY PERMITTED BY PYRAMID CORPORATION.

| PYRAMID PROCESS FABRICATOR | |
|--|--------------------|
| NSKU - ALBERTA - CANADA / www.pyramidfabricators.com | |
| 8 5/8" O.D. x 4'-0" S/S x 550 PSIG BULLET | |
| ITEM NO.: | 3200-0000 |
| REV. NO.: | TBA |
| DATE: | (10)-TEN |
| REV. NO.: | N.T.S. |
| REV. NO.: | B-08-3200-0000-001 |

RECEIVED JUN 05 2008

Certificate of Authorization

Quality Control Program

Expiry Date: **December 9, 2007**

Reg. No.: **AQP-5046**

This is to certify that:

**NUFLO MEASUREMENT SYSTEMS
A NUFLO TECHNOLOGIES COMPANY
9207 - 34A AVENUE
EDMONTON, ALBERTA**

having complied with the provisions of the SAFETY CODES ACT, is hereby authorized to:

Manufacture Category 'F' Fittings in accordance with CSA B51

at the above SHOP address.



Dated at Edmonton, this 3rd day of March, 2005

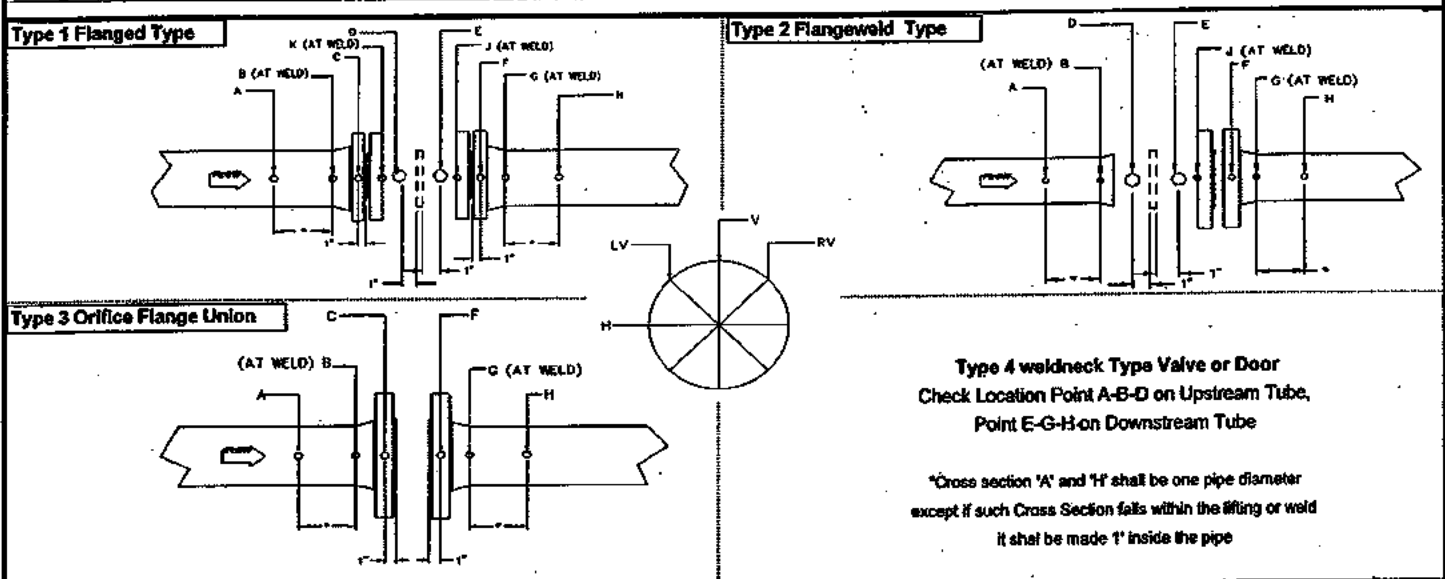
A handwritten signature in black ink, appearing to read "L. Chan", is written over a horizontal line.

Chief Inspector and Administrator

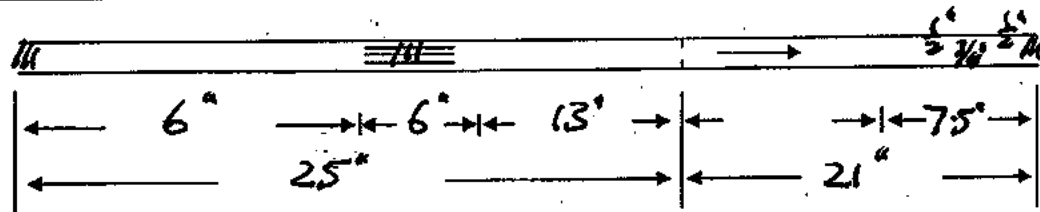
Certificate No.: 4486

Meter Tube Calibration Record
General Specifications

| | | | | |
|---------------------|--------------------------------|---------------------|----------------|----|
| Customer: | | Date: | MARCH 05/ 2007 | |
| Location: | STOCK | P.O. Number: | | |
| Serial No. | XJ70398-12 | Work Order No. | XJ70398 | |
| Assembly Part No. | [40422] - 0094 | Part No. | 40422-34221 | |
| Orifice Fitting: | 2" 600# SCH. 80 SINGLE CHAMBER | Meter Tube Type No. | 2 | |
| Straightening Vane: | | Yes | X | No |



| Location | Upstream Meter Tube | | | | | Downstream Meter Tube | | | | | |
|--|---------------------|-------|---|-------|---|--|-------|-------|-------|-------|--|
| | A | B | C | D | K | E | F | G | H | J | |
| V | 1.939 | 1.932 | | 1.939 | | 1.939 | 1.947 | 1.930 | 1.940 | 1.944 | |
| LV | 1.936 | 1.932 | | 1.939 | | 1.939 | 1.945 | 1.936 | 1.935 | 1.949 | |
| RV | 1.937 | 1.933 | | 1.939 | | 1.939 | 1.946 | 1.937 | 1.937 | 1.944 | |
| H | 1.938 | 1.936 | | 1.939 | | 1.939 | 1.945 | 1.933 | 1.936 | 1.943 | |
| Average | 1.937 | 1.933 | | 1.939 | | 1.939 | 1.945 | 1.934 | 1.937 | 1.945 | |
| Upstream Mean Average to Stamp on I.D. Plate | 1.939 | | | | | Downstream Mean Average to Stamp on I.D. Plate | 1.939 | | | | |



| | | | | | | | | |
|----------------|----|------|------|--------------------|----------|----|------------|----|
| AGA/API Figure | 3C | BETA | 0.70 | Meter Tap Location | Upstream | 1" | Downstream | 1" |
|----------------|----|------|------|--------------------|----------|----|------------|----|

Remarks: 68°F

Inspector: J. Olsen

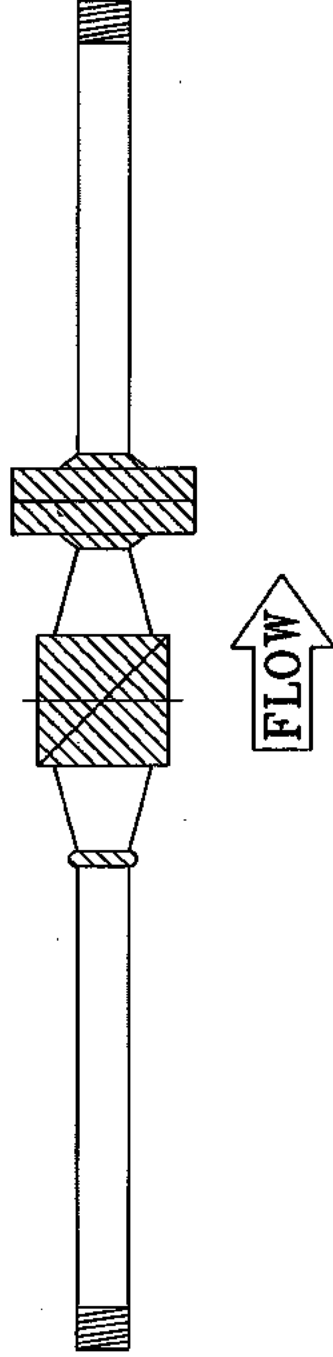
CAMERON *Measurement Systems*
 PRODUCT OF CANADA

| | | | |
|----------------|---------------------|------------|-------------------|
| SINGLE CHAMBER | 40422 -34221 | | |
| SIZE | 2.0 | SER. NO. | XJ70398-12 |
| BORE | 1.939 | W.P. | 1480 |
| | | FLG. | 600 |
| TRIM | SWEET | C.R.N. NO. | 0F1120.213 |

CAMERON *Measurement Systems*
 EDMONTON, ALBERTA, CANADA

| | | | | |
|---------------------|-----------------------|----------|----------------|--------------------------|
| METER RUN ASSY. NO. | (40422) - 0094 | | MAX. BORE | |
| SER. NO. | XJ70398-12 | U.S. (D) | 1.939 | D.S. (D) |
| PIPE SIZE | 2.0 | SCH. | 80 | RATING |
| AGA / API | 3 C | d / D | 0.70 | CALIBRATION CERTIFIED BY |
| W.O. NO. | XJ70398 | DATE | 03 / 07 | Cameron |

WELD IDENTIFICATION MAP



DESCRIPTION: 2" 600# SCH. 80 SINGLE CHAMBER METER RUN
SERIAL No.: XJ70398-12
CUSTOMER: _____
P/O No.: _____ TAG No.: _____
W/O No.: XJ70398 END USER: STOCK
WELDER: SHANE MITCHELL FILE No.: W-22497
DATE: MARCH 07/2007 MARJA MAHONEY
SYMBOL: E QUALITY ASSURANCE INSPECTOR

 Cameron
Measurement Systems

5151-67th AVENUE
EDMONTON, ALBERTA
T6B 2R8


Alberta
MUNICIPAL AFFAIRS

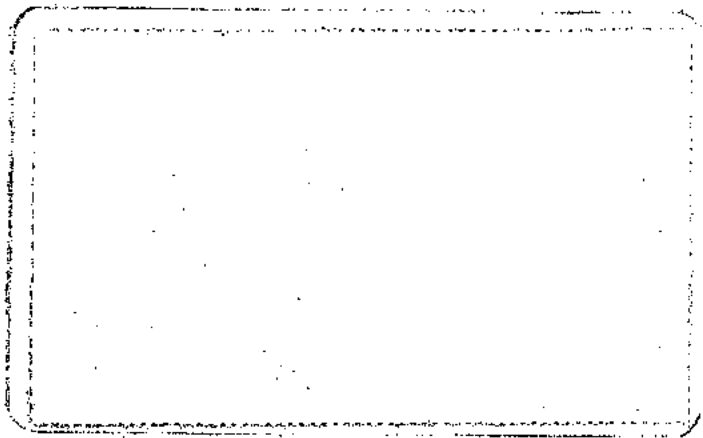
ABSA

18290 **Grade "B" Pressure Welder's Certificate of Competency**

This is to certify that **Shane Mitchell** having complied with provisions of the Safety Codes Act, is authorized to engage in pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton
December 02, 2004

 **W-22497**
File no. *Shane Mitchell*
Chief Inspector and Administrator



LUDWIG & ASSOCIATES LTD.
Materials and Welding Engineering

A.O.Q.P. No. 7106 (c)

WELDER PERFORMANCE QUALIFICATION CARD

Name: **SHANE MITCHELL** ABSA File No. **W-22497**

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

Date of Test: **July 07, 2005**
Shane Mitchell
Signature of Welder or Machine Operator

R. GOTTSCHLICH
Welding Examiner (Print/type) Card No. **E 7493**

PERFORMANCE QUALIFICATION E 7493

Process(es) **GMAW FCAW** Materials (P.No.) **P1**

Filler Metal Group (F.No.) **F6 F6** Min. Outside Diameter **1.0 in. O.D.**

Max. Deposited Weld Metal **0.110 in. 0.684 in.** Position(s) Qualified **FLAT**
GMAW: SP 0-45° FCAW: FLAT

Backing **WITHOUT WITH** Backing Gas **NONE**

Progression **Downhill N/A**

Date of Test: **July 07, 2007**
[Signature]
Welding Examiner Signature

E00037
Examiner File No.

LUDWIG & ASSOCIATES LTD.
Materials and Welding Engineering

A.O.Q.P. No. 7106 (c)

WELDER PERFORMANCE QUALIFICATION CARD

Name: **SHANE MITCHELL** ABSA File No. **W-22497**

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

Date of Test: **July 07, 2005**
Shane Mitchell
Signature of Welder or Machine Operator

R. GOTTSCHLICH
Welding Examiner (Print/type) Card No. **E 7494**

PERFORMANCE QUALIFICATION E 7494

Process(es) **SMAW SMAW** Materials (P.No.) **P1**

Filler Metal Group (F.No.) **F3 F4** Min. Outside Diameter **1.0 in. O.D.**

Max. Deposited Weld Metal **0.188 in. 0.684 in.** Position(s) Qualified **FLAT**

Backing **WITHOUT WITH** Backing Gas **N/A**

Progression **N/A N/A**

Date of Test: **July 07, 2007**
[Signature]
Welding Examiner Signature

E00037
Examiner File No.

Product# 40726-015
Customer Part# 40726-015
Customer: NUFLO MEASUREMENT SYSTEMS
ACCOUNTS PAYABLE
7944 10TH STREET N E
CALGARY AB T2E 8W1
CANADA

Order/Item# 28227 / 6
Customer P O # XP60868

2" SINGLE CHAMBER BODY

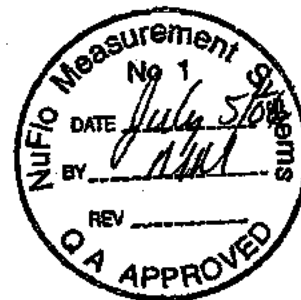
Approved By Shyan Smith
Quality Assurance Technician

| Melt# | Quantity | Date | Heat Treat | BATCH # | Specification |
|--------|----------|---------|------------|---------|---------------------|
| 1-2355 | 26 | 6/22/06 | AJ6 | - | ASTM A216 GRADE WCB |

| C H E M I C A L S | | | | | | | |
|-------------------|------|----|------|----|------|----|------|
| C | 2100 | MN | 8500 | SI | 5100 | P | 0170 |
| S | 0120 | NI | 0500 | CR | 1400 | MO | 0300 |
| CU | 1400 | V | 0100 | | | | |

| P H Y S I C A L S | | | |
|-------------------|------|-------------|------|
| YIELD KSI | 52.7 | TENSILE KSI | 76.8 |
| ELONGATION % | 33 | RED OF AR | 55 |

CE: .4003



MATERIAL TEST REPORT

Product# . . : 40726-002
Customer Part# 40726-002
Customer . . . NUFLO MEASUREMENT SYSTEMS
ACCOUNTS PAYABLE
7944 10TH STREET N.E.
CALGARY AB T2E 8W1
CANADA

Order/Item# . . 28754 / 1
Customer P.O.#· XP61757

2" SINGLE CHAMBER LID

Approved by Shyan Smith
Quality Assurance Technician



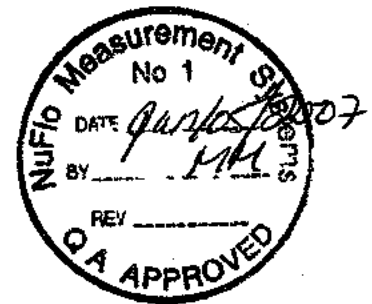
| Melt# | Quantity | Date | Heat Treat | BATCH # | Specification |
|--------|----------|----------|------------|---------|---------------------|
| 2-6929 | 4 | 10/19/06 | | DW3 | ASTM A216 GRADE WCB |

| C H E M I C A L S | | | |
|-------------------|----------|----------|----------|
| C .2000 | MN .8000 | SI .4900 | P .0190 |
| S .0150 | NI .0400 | CR: 1200 | MO: 0300 |
| CU .1400 | V .0100 | | |

| P H Y S I C A L S | | | |
|-------------------|------|--------------|------|
| YIELD KSI | 49.6 | TENSILE KSI | 77.4 |
| ELONGATION % | 33 | RED OF AR. % | 51 |

CE: 0.3773

$$(CE = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15})$$



MATERIAL TEST REPORT

9670-187th Street, Surrey, BC Canada V4N 3N6
Phone 604-888-8444 Fax 604-888-3634

ISO 9001:2000



VULMA FORMA, S.COOP.
N.º: 822164

Bº Zubillaga, 3 - Apdo. 14
20560 ORMAI (Gipuzkoa) SPAIN
Tel. 34 - 943 780552
Tel. 34 - 943 781006
E-mail: forja@forjmg.ulma.es

Certified acc. PED 97/23/EC
by TÜV Rheinland
N.º 01 202 EQ 02 7443



MARCA DEL FABRICANTE
Mark of factory
Marque du fabricant

48884

DEPARTAMENTO QUALITY ASSURANCE

VAN LEUWEN PIPE AND TUBE - CAN
2875-64TH AVENUE
EDMONTON - ALBERTA T8P 1R1
CANADA

FECHA: 18/11/2005
N.º No.
103478
Page: 1

DE SU PEDIDO N.º
Your Order No.
16000258 (16.07.06)
Voite Cde. N.º

DUCTO FLANGES
Pipe - Product ASME B16.5-96

FORMAS APLICABLES
Standards - Normes Applicables
ASME B16.5-96

MATERIAL CORRESPONDIENTE
Material Correspondent - Matière
ASTMA105N-03
ASTME SA105N

MODO DE FUSION (*)
of Making - Elaboration de l'acier
* = Elec. Y = Origeno Básico
NACE MR-01-7603
CANCSA-2246.12
Gr.248 CAT 1

| PARTIDA Item Poste | CANTIDAD Quantity Quantité | DESCRIPCION Description Description | OBSERVACIONES Remarks Observations (*) | RESISTENCIA T. Strength T. Resist. Rupt. Minm2 | YIELD POINT Yield Point Límite Elast. Minm2 | ALARGAMIENTO Elongation Elongation % | RESILIANCIA Impact test Résilience Joules | MECMA Average Mécma | TEMPERATURA °C | DUREZA Hardness Dureza HB |
|--------------------|----------------------------|-------------------------------------|--|--|---|--------------------------------------|---|---------------------|----------------|---------------------------|
| 29 | 300 | WIN 2 600LB S80 RF A105N | NE | 518 | 320 | 33.70 | 88.40 | 150 | | |
| 30 | 72 | WIN 4 600LB S80 RF A105N | NE | 520 | 316 | 33.00 | 85.80 | 151 | | |
| 30 | 504 | WIN 4 600LB S80 RF A105N | NE | 518 | 314 | 33.00 | 85.40 | 150 | | |
| 31 | 36 | WIN 6 600LB S80 RF A105N | NE | 517 | 314 | 32.00 | 84.70 | 150 | | |
| 31 | 216 | WIN 6 600LB S80 RF A105N | NE | 518 | 311 | 30.80 | 83.00 | 150 | | |

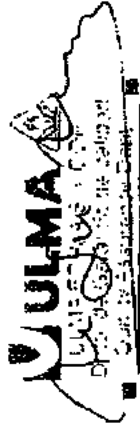
COMPOSICION QUIMICA - STEEL MARKER'S - ANALYSE CHIMIQUE

| COLODA N.º Heat No. Heat No. | C % | Mn % | P % | S % | Cr % | Ni % | Mo % | Nb % | V % | Cu % | CEQ % |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20A5 | 0.180 | 0.870 | 0.017 | 0.008 | 0.100 | 0.140 | 0.040 | 0.007 | 0.001 | 0.320 | 0.384 |
| 325A5 | 0.180 | 0.840 | 0.016 | 0.004 | 0.160 | 0.110 | 0.080 | 0.007 | 0.002 | 0.260 | 0.408 |
| 338A5 | 0.180 | 0.850 | 0.011 | 0.002 | 0.130 | 0.130 | 0.050 | 0.007 | 0.002 | 0.230 | 0.382 |
| 367A5 | 0.180 | 0.860 | 0.014 | 0.005 | 0.110 | 0.080 | 0.020 | 0.007 | 0.002 | 0.260 | 0.371 |
| 380A5 | 0.180 | 0.850 | 0.015 | 0.001 | 0.120 | 0.090 | 0.020 | 0.007 | 0.002 | 0.260 | 0.373 |

Las dimensiones y la condición superficial se hallaron satisfactorias
Dimension and surface condition were found acceptable
Les dimensions et états de surface sont satisfaisants

Las materiales citados cumplen las normas aplicables
Manufacturing requirements are satisfied
Les normes applicables sont respectées

EL INSPECTOR
Works Inspector - L'inspecteur



OBSERVACIONES: N_ NORMALIZED AT 900 C AND ALLOWED TO COOL IN STILL AIR
Remarks Observations

HEAT NUMBER : 56638
 TRANS AM PIPING PRODUCTS - REV'D BY:
 Shipment/Seq #: S 6 - 1206 9

1/2X3/4-36 CL 3000 FS THREADED PIPE
 A105N



Manufacturer of Piping & Pressure Vessel Components
 4407 Maygood St - Houston, TX 77022
 Phone: 713-695-3633 Fax: 713-695-3528
 A Division of **BONNEY FORGE**

SOLD TO: TRANS AM PIPING (CALGARY)
 7025 - 44TH STREET S E
 CALGARY, AB, CN T2C 4E8

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary of containment. No welding performed.

MTR #: 108083

We certify that the contents of this report are correct and accurate and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1

PO #: CI-06-306

SALES ORDER #: C503337 DATE: 03/28/2006

CERTIFIED MATERIAL TEST REPORT

HEAT CODE: 56638

MATERIAL: A/SA105N 01

| ITEM | Quantity | Description |
|------|----------|-------------------------------------|
| 9 | | 36 - 3/4 X 1/2 3000 THP A/SA105N |

36 - 3/4 X 1/2 3000 THP
 A/SA105N

CHEMICAL COMPOSITION:

| LADLE | C | MN | P | S | SI | CU | NI | CR |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.190 | 1.030 | 0.011 | 0.018 | 0.190 | 0.150 | 0.040 | 0.060 |
| | 0.020 | 0.000 | 0.014 | | | | | |

CARBON EQUIVALENCY: LADLE 0.390

| | TENSILE PSI | YIELD PSI | ELONG % | RA % | HARDNESS |
|---------|-------------|-----------|---------|--------|-----------------|
| PRODUCT | 74,000 | 49,000 | 37.00% | 67.00% | 150 BHN 150 BHN |

Normalized

Marie Dehmer
 Quality Assurance Representative



HEAT NUMBER : 56761
 TRANS AM PIPING PRODUCTS - REV'D BY:
 Shipment/Seq #: S 6 - 1288 5

3/4X1 1/2-36 CL 3000 FS THREADED PIPE T
 A105N



Manufacturer of Piping & Pressure Vessel Components
 4407 Haygood St - Houston, TX 77022
 Phone: 713-695-3633 Fax: 713-695-3528
 A Division of **BONNEY FORGE**

SOLD TO: TRANS AM PIPING (CALGARY)
 7025 - 44TH STREET S E
 CALGARY, AB, CN T2C 4E8

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary of containment. No welding performed.

MTR #: 110328

We certify that the contents of this report are correct and accurate and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1

PO #: CI-06-394

SALES ORDER #: C605297 DATE: 05/12/2006

CERTIFIED MATERIAL TEST REPORT

HEAT CODE: 56761

MATERIAL: A/SA105N 01

| ITEM | Quantity | Description |
|------|----------|---------------------------------------|
| 8 | | 36 - 1 1/2 X 3/4 3000 TWP A/SA105N |

CHEMICAL COMPOSITION:

| LADLE | C | MN | P | S | SI | CU | NI | CR |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.200 | 1.050 | 0.011 | 0.021 | 0.220 | 0.050 | 0.020 | 0.030 |
| | 0.010 | 0.000 | 0.014 | | | | | |

CARBON EQUIVALENCY:

LADLE 0.394

MECHANICAL PROPERTIES:

| | TENSILE PSI | YIELD PSI | ELONG % | RA % | HARDNESS |
|---------|-------------|-----------|---------|--------|-----------------|
| PRODUCT | 74,000 | 49,500 | 37.00% | 58.00% | 144 BHN 144 BHN |

Normalized

Marie Dehmer
 Quality Assurance Representative



Material Test Report

Manufactured by
Zelezárne Podbrezova, a.s.
97681 Podbrezova

SLOVAKIA,

Customer Order No

Scot Order No

| | |
|-------------------|----------|
| Material Supplier | 99066 00 |
| Part Number | |
| Scot Rec No | 10035265 |

| | | | | | |
|---|-------|-----------|-----|------------|---------------------|
| Heat Number | 62252 | Grade | 106 | Dimensions | 2.375" OD 1.939" ID |
| Scot Spec | M5- | ASTM Spec | A53 | Other Spec | |
| Description SEAMLESS COLD DRANN STEEL TUBES | | | | | |

| Chemical Analysis | | | | | | | | | | |
|-------------------|------|-------|------|-----|-----|------|------|------|-------|--|
| C | Mn | P | S | Si | Cu | Ni | Cr | Mo | V | |
| 0.15 | 0.46 | 0.013 | 0.01 | 0.2 | 0.3 | 0.07 | 0.06 | 0.01 | 0.005 | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Mechanical Test Results

| Yield Strength (PSI) | Tensile Strength (PSI) | Elongation (%) in 2" GL | ROA (%) | Hardness |
|----------------------|------------------------|-------------------------|---------|----------|
| 45686 | 63961 | 38.6 | | |

| Temp | Charpy Impact Energy () | | | Shear Area (%) | | | | |
|------|--------------------------|---|---|----------------|---|---|---|-----|
| | 1 | 2 | 3 | Avg | 1 | 2 | 3 | Avg |
| | | | | | | | | |

The reported analysis and test results are certified to be the same as furnished to us by our supplier. All records and test reports covering the above materials are on file at Scot Industries and may be examined by your personnel or by any agent authorized by you.



| | |
|--------------|--|
| Eddy Current | |
| OK | |

Jung Woo Lee
Quality Assurance
02/26/07

5

**TEST & CALIBRATION &
PWHT REPORTS**



PNEUMATIC LEAK TEST CHECK LIST

JOB #: E-980 UNIT #: SM-08240 TEST PRESSURE: 165 PSI PNEU
5000 "A" PIPING

P/F Date of Test: July 2/08

- Soap test all pipe connections – unions, tee’s, 90’s, regulator’s, etc.
- Test gauge and test recorder operational (complete with charts)
- Proper test relief valve used
- Charts marked with Job # , Unit # , Date , Minutes of Test , PSV S/N , Gauge S/A , Chart Recorder S/N
- Vessel nameplates, attached
- Valves installed correctly, flow direction
- Open / close valves for workability
- Sight glass installed
- Regulator’s body plugged for leak test
- Supports installed
- Heater stand installed
- U-bolt nuts doubled and **tight**
- Bolts/studs and nuts length and correct material and **tight**
- All attachment welds completed
- Restrictive orifice blanks installed

COMMENTS: _____

Scott Shell
Q.C. Inspector

02/07/08
Date

PC COMPRESSION INC.
QUALITY SYSTEM MANUAL

REVISION: 3

DATE: 20/09/07

SECTION 15 PAGE 8 OF 8

EXHIBIT 15.2 PNEUMATIC TESTING REPORT

PNEUMATIC TESTING REPORT

P10-SAA08240-A-01
02
03
04
SPEC "A" piping

JOB NO I-980 TEST MEDIUM Air DRAWING NUMBER _____
96 MIN TIMER

| |
|--|
| TEST PRESSURE (25 psi) START TIME: <u>7:18</u> END TIME: <u>7:28</u> |
| TEST PRESSURE (50 psi) START TIME: <u>7:30</u> END TIME: <u>7:40</u> |
| TEST PRESSURE (100 psi) START TIME: <u>7:43</u> END TIME: <u>7:53</u> |
| TEST PRESSURE (150 psi) START TIME: <u>7:58</u> END TIME: <u>8:08</u> |
| REQUIRED TEST PRESSURE (<u>165</u> psi) START TIME: <u>8:11</u> END TIME: <u>9:21</u> |
| DESIGN PRESSURE (<u>150</u> psi) START TIME: <u>8:23</u> END TIME: <u>8:33</u> |

NOTE:

1. Test pressure shall be 110% of design pressure.
2. A testing pressure relief valve with a set pressure not higher than 110% of the test pressure shall be used.
3. Each test increment will be held for 10 minutes and documented.
4. The system will slowly and carefully be depressurized.
5. All necessary safety precautions shall be adhered to.
6. All aspects of pneumatic test adheres to Section 15 of **PCCOMPRESSION INC.** Quality System Manual and ASME B31.3.

Gauge: PC-1000050 Recorder: ARI 3259

COMMENTS: PSV-A93192

TESTING CONSULTANT: Brian J. [Signature] DATE: July 3 / 08
Q.C. INSPECTOR: [Signature] DATE: 03/07/08
OWNER'S REPRESENTATIVE: _____ DATE: _____

PC COMPRESSION INC.
QUALITY SYSTEM MANUAL

REVISION: 3

DATE: 20/09/07

SECTION 9 PAGE 6 OF 6

EXHIBIT 9.3 PRESSURE PIPING TEST PREPARATION AND COMPLETION

| PRESSURE PIPING TEST PREPARATION AND COMPLETION | | |
|---|------------|---------------------------------|
| JOB NO: I-980 SAA-08240 DATE: JULY 2/08 | | |
| TEST PREPARATION | Q.C. INSP. | ASSIGNED CONSTRUCTION PERSONNEL |
| 1. All non-conformity items corrected. | ✓ | ✓ |
| 2. Test blinds correct thickness. | ✓ | ✓ |
| 3. All items which could be damaged by test isolated or removed (control valves, safety valves, instrument expansion joints, etc.). | ✓ | ✓ |
| 4. Equipment with internals (re: filters) that could be damaged, isolated as required. | ✓ | ✓ |
| 5. Vents and drains. | ✓ | ✓ |
| 6. Open and close position of all valves verified. | ✓ | ✓ |
| 7. Shipping bars in place – bellows. | N/A | N/A |
| 8. Hanger stops in place. | N/A | N/A |
| TEST COMPLETION | * SDC | * CPM |
| 1. All temporary blinds removed. | ✓ | ✓ |
| 2. Temporary gaskets changed for correct gaskets. | N/A | N/A |
| 3. Temporary supports removed. | N/A | N/A |
| 4. Shipping bars removed from bellows. | N/A | N/A |
| 5. Spring hangers stops removed-cold setting checked. | N/A | N/A |
| 6. Safety valves – "UV" or "V" symbol and correct pressure capacity. | ✓ | ✓ |
| 7. Safety valves vents correct size – adequately supported drain holes and/or weather hoods installed. | ✓ | ✓ |
| 8. Screens for pumps and compressors installed (initial start-up and permanent screens). | N/A | N/A |

* SDC * CPM

Complete All Fields in Report or Mark N/A

METER CALIBRATION REPORT

(REV. 04/03)
66-010-1070

Main Office - Nisku, AB.
(780) 955-2988



CLIENT: PC COMPRESSION RECORDER

FACILITY:

NEW INSTALLATION INSTALLATION CHANGE ROUTINE CALIBRATION & INSPECTION SWEET GAS SOUR GAS

LOCATION: WISEV DATE: SEP 4/07 TIME START: _____ TIME FINISH: _____

METER CODE: PE1000041 GAS TO: _____ GAS FROM: _____

DIFFERENTIAL RANGE: _____ METER TRANSDUCER COMPUTER

MAKE: BARTON CANADIAN PMC FOXBORO COE OTHER: ARICO

TYPE: RECORDER SERIAL # AR13157 CHART# _____ BADGE # _____

| | | | | | |
|-----------|--------------------|-----------------|---|--|---|
| WC TESTER | INITIAL (AS FOUND) | FINAL (AS LEFT) | DIFFERENTIAL RANGE: <input type="checkbox"/> 50"WC <input type="checkbox"/> 100"WC <input type="checkbox"/> 200"WC <input type="checkbox"/> 400"WC <input type="checkbox"/> OTHER: _____ | PRESSURE RANGE: <input type="checkbox"/> 50-PSI <input type="checkbox"/> 100-PSI <input type="checkbox"/> 250-PSI <input checked="" type="checkbox"/> 500-PSI <input type="checkbox"/> 1000-PSI <input type="checkbox"/> 1500-PSI <input type="checkbox"/> 2500-PSI <input type="checkbox"/> OTHER: _____ | CHECK ONE: <input type="checkbox"/> Temperature Element (3 pt. check) OR <input checked="" type="checkbox"/> Temperature Gauge (2 pt. check) |
| | ZERO | | | | |

ORIFICE FITTING: SENIOR FITTING FLANGES JUNIOR FITTING

METER RUN: UPSTREAM INSIDE DIAMETER DOWNSTREAM INSIDE DIAMETER

ORIFICE PLATE: BEVELLED STRAIGHT EDGE

ORIFICE PLATE PULLED: YES NO (If No, explain below)

METER CALIBRATION DATA (ATTACH CALIBRATION CHART AS REQUIRED)

ATMOSPHERIC PRESSURE SET IN METER: YES NO PSIG _____ MA _____

PEN ARC AND SPACING: O.K. CORRECTED (EXPLAIN) _____

CHART: FAST SLOW OK MIN. TIME ZONE IN USE: MST PST CST

LEAK TEST: O.K. REPAIRED METER LEVEL: YES ADJUSTED _____

ROTATION: 24 HOUR 7 DAY 8 DAY 31 DAY OTHER: _____

LINEAR CHART SQUARE ROOT CHART COMBINATION CHART

FLUID TRAPS IN TUBING LINES: YES NO DRIP POTS: YES NO

STATIC PRESSURE TAP LOCATED: UPSTREAM DOWNSTREAM

DEWPOINT AREA: BEFORE DEHYD AFTER DEHYD TEST LOCATION _____

| TIME OF TEST | FLOWING GAS | | DEWPOINT °F | | LBS. WATER PER MMCF | MANUAL DEW POINT TESTER MODEL AND BADGE NO. |
|--------------|-------------|------|--------------|---------------------|---------------------|---|
| | °F | PSIG | HYDRO CARBON | WATER VAPOUR TESTER | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

REMARKS: -ROUTINE INSPECTION + CALIBRATION.

TEMPERATURE RANGE: _____ °F OR MA

| | | |
|------------|--------------------|-----------------|
| TEST THERM | INITIAL (AS FOUND) | FINAL (AS LEFT) |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

AMBIENT ROOM TEMP. _____ °F

PYRAMID WORKSHEET # 132275 PYRAMID AREA OFFICE A101

| | | | |
|---------------------|-----------------------|-----------------|--------------------|
| TEST EQUIPMENT | DIFFERENTIAL PRESSURE | STATIC PRESSURE | TEMPERATURE |
| PYRAMID TOOL I.D. → | <u>PC100SD174</u> → | | <u>PC1074091</u> |
| SERIAL NUMBER → | <u>7062-589527</u> → | | <u>031051014</u> |
| MAKE / MODEL → | <u>ARICO 13</u> → | | <u>ARICO MA520</u> |
| CAL. DUE DATE → | <u>DEC 15/07</u> → | | <u>DEC 2007</u> |

CALIBRATED & INSPECTED BY: Paul White SIGNATURE IF APPLICABLE WITNESSED BY: _____ SIGNATURE

PRINT FULL NAME LEGIBLY

CERTIFICATE OF CALIBRATION



WIKAI INSTRUMENTS LTD.

Certificate No.: **E 21354**

Customer : PC COMPRESSION INC.

PCC001

609-21 AVE.
NISKU

Tool ID: PC1000050

RECEIVED OCT 26 2007

FILED OCT 26 2007

Order No. : 404335 PO# : 509285
Item : 1 10/25/2007

Specification of Gauge under test (DUT)

Object : dial gauge
Manufacturer : WIKAI
Type : 232.34.120
Serial No. : -
ID No. : 404335-1-1
Pressure range : 0 ... 300 psi
Accuracy : 0.5 % (of span)
Resolution : 2 psi
Method of measurement : Gauge pressure
Output signal : -

Working Standard (WS)

Test equipment : electr. Gauge
Pressure range : 0 ... 34 bar
Calibration-number : A8526 DKD 2007-09
Accuracy : 0.02 % (of span)
Identity : SS 106

Calibration conditions

Place of calibration : Cal-lab (Edmonton)
Test temperature (in °C) : 23.0
Humidity (in %) : 18.0
Amb. pressure (in mbar) : 1000.0
Medium : dry air
No. of measurement : 7
Position : vertical
Full-scale load (in min.) : 5
Method of calibration : Pressure-setting according to DUT

Used auxiliary instruments

Multimeter : -
Resistor : -

Extensions

Product Manager : Trevor Turko

calibrated by : Armstrong Vuong

page 1 of 2

HEAD OFFICE

WIKAI INSTRUMENTS LTD.
3103 Parsons Road
Edmonton, AB Canada
T6N 1C8
Tel.: (780) 463-7035
Fax.: (780) 462-0017

WIKAI INSTRUMENTS LTD.
2679 Bristol Circle, Unit #1
Oakville, ON
L6H 6Z8
Tel.: (905) 337-1611
Fax.: (905) 337-2716

WIKAI INSTRUMENTS LTD.
4932 52 Street S.E.
Calgary, AB Canada
T2B 3R2
Tel.: (403) 237-5990
Fax.: (403) 237-0096

WIKAI INSTRUMENTS LTD.
#204, 8904 - 100 Avenue.
Grande Prairie, AB
T8V 0T8
Tel.: (780) 513-7460
Fax.: (780) 513-7379

WIKAI INSTRUMENTS LTD.
901 First Avenue North
Saskatoon, SK
S7K 1Y4
Tel.: (306) 684-1105
Fax.: (306) 684-7037

WIKAI INSTRUMENTS LTD.
4827 Frances Street
Burnaby, BC
V5C 2R9
Tel.: (604) 299-3855
Fax.: (604) 299-4668



WIKAI INSTRUMENTS LTD.

Certificate No.: **E 21354**

Calibration results

| Reading DUT <i>psi</i> | Reading WS <i>psi</i> | | Mean- value <i>psi</i> | Deviation <i>psi</i> | Hysteresis <i>psi</i> | Deviation % |
|------------------------------|-----------------------------|--------|------------------------------|-------------------------|--------------------------|----------------|
| | M 1 | M 2 | | | | |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 50.0 | 50.13 | 48.68 | 49.40 | 0.60 | 1.45 | 0.20 |
| 100.0 | 100.48 | 99.16 | 99.82 | 0.18 | 1.32 | 0.06 |
| 150.0 | 150.52 | 149.54 | 150.03 | -0.03 | 0.98 | -0.01 |
| 200.0 | 200.27 | 199.76 | 200.01 | -0.01 | 0.51 | 0.00 |
| 250.0 | 250.41 | 250.37 | 250.39 | -0.39 | 0.04 | -0.13 |
| 300.0 | 299.13 | 299.13 | 299.13 | 0.87 | 0.00 | 0.29 |

date of calibration: 10/25/2007

Declaration of conformity:

The object is within the specifications according to the stated standards.

The calibration object is labeled with a calibration mark, which shows the date of calibration and the recommended date for recalibration.

WIKAI INSTRUMENTS LTD. certifies that the above mentioned instruments have been calibrated and are traceable to the National Institute of Standards and Technology (NIST).

Calibration is carried out according to the following norms:

- ASME B 40.1 (latest revision)
- Calibration of WIKAI test instruments is carried out on an annual basis. Validity of certificates is one year from date of issue

HEAD OFFICE
WIKAI INSTRUMENTS LTD.
3103 Parsons Road
Edmonton, AB Canada
T6N 1C8
Tel.: (780) 463-7035
Fax.: (780) 462-0017

WIKAI INSTRUMENTS LTD.
2679 Bristol Circle, Unit #1
Oakville, ON
L6M 6Z8
Tel.: (905) 337-1611
Fax.: (905) 337-2716

WIKAI INSTRUMENTS LTD.
4932 52 Street S.E.
Calgary, AB Canada
T2B 3R2
Tel.: (403) 237-5960
Fax.: (403) 237-0095

WIKAI INSTRUMENTS LTD.
#204, 9604 - 109 Avenue.
Grande Prairie, AB
T8V 0T8
Tel.: (780) 513-7460
Fax.: (780) 513-7378

WIKAI INSTRUMENTS LTD.
901 First Avenue North
Saskatoon, SK
S7K 1Y4
Tel.: (306) 664-1105
Fax.: (306) 664-7037

WIKAI INSTRUMENTS LTD.
4627 Frances Street
Burnaby, BC
V5C 2R9
Tel.: (604) 299-3855
Fax.: (604) 299-4566



UNIFIED VALVE LTD.

PRV INSPECTION AND TEST REPORT

BRANCH: Edmonton

UVL ID#: 5500E

Work Order: 410237

Customer PO#:

Date: 7/27/2007 8:28:20 AM

Facility: NISKU

LSD:

Customer: PC COMPRESSION

A#:

PSV Location:

Cust. Ref.:

Cust ID:

RECEIVED AUG 02 2007

Valve PO#:

VALVE DATA

Man.: Mercer

Model: 9117D51V07E1

Serial: A93192 ✓

Conn: Threaded

Inlet: 1 inch MNPT

Orifice: .122

Outlet: 1 inch FNPT

Set Pres: 182 PSI ✓

Back Press: 0 PSI

Cold/Diff Set Press: PSI

Temp: 70 F

Cap: 393 SCFM ✓

Lift Lever:

Cap Assembly: Closed

Trim: Standard

Code Symbol: UV

CRN#: OG2606.5C

CUSTOMER INSTRUCTIONS

Instructions: Service and Set

Replaces UVL ID#:

Replaces Serial #:

Pretest Required?

Reset Required?

RESET INFORMATION: New Pressure:

New Cold/Diff Set:

Replaces Cust ID#:

New Capacity:

CONDITION AS RECEIVED

Visual Condition: Poor

Data Plate Condition: OK

Date of last service: 08/06

Seal Condition: Top: Intact

Bottom: N/A

Insignia: UVL

INDICATE FOULING Inlet: Clean

Outlet: Rusty

Initial Insp. Signoff: Richard Anderson

PRETEST

Simmer: Set Press:

Reseat:

Leakage: BPM

Test gauge:

Tested by: Pretest comments:

COMPONENTS INSPECTION

| ITEM | CLEAN | OILY | RUSTY | CARBON | OTHER | COMMENTS | OK / REPLACE | REPLACED? | REPAIRS PERFORMED |
|---------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|------------|--------------|-------------------------------------|-------------------|
| DISC: MIN= N/A ACT= | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | OK | <input type="checkbox"/> | Clean |
| NOZZLE: MIN= VITON ACT= | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | OK | <input type="checkbox"/> | Clean |
| CAP-LEVER ASSY: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | OK | <input type="checkbox"/> | |
| COMP SCREW and LOCKNUT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | OK | <input type="checkbox"/> | |
| SPRING and BUTTONS: NUMBER: 05-007 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | OK | <input type="checkbox"/> | |
| SPINDLE / STEM: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | N/A | | <input type="checkbox"/> | |
| STEM RETAINER: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | N/A | | <input type="checkbox"/> | |
| DISC HOLDER: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | N/A | | <input type="checkbox"/> | |
| GUIDE / UPPER RING: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | OK | <input type="checkbox"/> | |
| LOWER RING: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | N/A | | <input type="checkbox"/> | |
| RING PIN(S): | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | N/A | | <input type="checkbox"/> | |
| BELLOWS: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | N/A | | <input type="checkbox"/> | |
| GASKETS / SEALS: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Compressed | Replace | <input checked="" type="checkbox"/> | |
| CONNECTION ENDS: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | OK | <input type="checkbox"/> | |
| OTHER: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | N/A | | <input type="checkbox"/> | |

Comments:

Disassembly: Matt Wourms

Inspection:

Matt Wourms

Reassembly:

Matt Wourms

FINAL TEST:

Test Medium: Air

Simmer: 181 PSI

Set Pressure: 182 PSI

Reseat: 161 PSI

Leakage: 0BPM

B.P. Test: 60 PSI

Cold/Diff Set: N/A PSI

ADJ. RING SETTING (NOTCHES): Upper: N/A Lower: N/A

Test Gauge MVE-06.2

Tested by: Gina Bravo

FINAL INSPECTION:

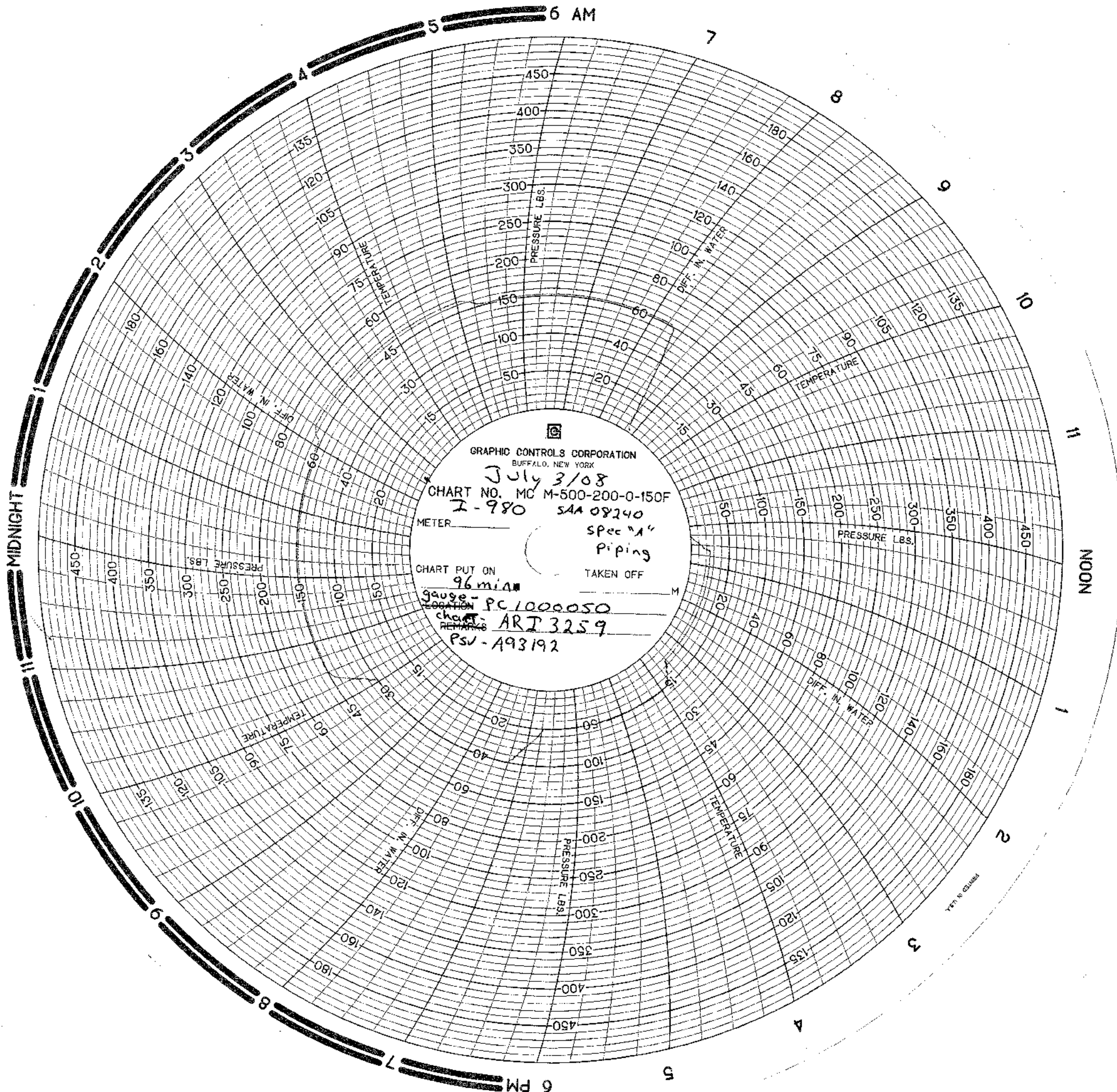
SEAL: Top: Bottom: End Protectors Installed: Painted: Palletized: Ship Container: Flex Gaskets Supplied:

Final Inspection: Richard Anderson

Customer Inspection

INSPECTION ID#: 30966

Comments:



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

July 3/08
CHART NO. MC M-500-200-0-150F
I-980 SAA 08240

METER _____
SPEC "A"
Piping

CHART PUT ON _____
96 mi. A

LOCATION PC 1000050
CHART ART 3259
REMARKS PSJ-A93192

TYPE "B" GRAPH



HYDRAULIC LEAK TEST CHECK LIST

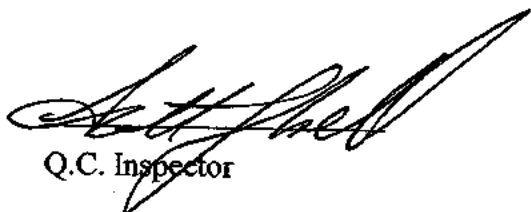
JOB #: Z-999 UNIT #: SAA DRAW SPECS TEST PRESSURE: 1080 psi hydro.

①

spec "B" Piping
1-5/5.

- P/F Date of Test: 9 June 2008
- ✓ Visually inspect all pipe connections – flanges, welds, TOL's, fittings, valves, etc.
 - ✓ Test gauge and test recorder operational (complete with charts)
 - ✓ Charts marked with Job # , Unit # , Date , Minutes of Test , Gauge S/A , Chart Recorder S/N
 - N/A Vessel nameplates, attached
 - ✓ Valves installed correctly, flow direction
 - ✓ Open / close valves for workability and clearance
 - N/A Sight glass installed
 - N/A Regulator body plugged/blinded for test
 - N/A Supports installed
 - N/A Heater stand installed
 - N/A U-bolt nuts doubled and **tight**
 - N/A Bolts/studs and nuts length and correct material and **tight**
 - N/A All attachment welds completed
 - N/A Restrictive orifice blanks installed

COMMENTS: _____


Q.C. Inspector

09/06/08
Date

PC COMPRESSION INC.
QUALITY SYSTEM MANUAL

REVISION: 3

DATE: 20/09/07

SECTION 15 PAGE 4 OF 8

EXHIBIT 15.1 HYDROSTATIC PRESSURE TEST REPORT

HYDROSTATIC PRESSURE TEST REPORT

DATE: 9 June 2008 JOB NO: Z-999 SADDON 5000s.

DRAWING NO: DR-1105-1-B

5pc "B" piping
1-5/8"

PROCEEDURE:

Test Medium: WATER Medium Temperature: Ambient

Design Pressure: 720 psi Test Pressure: 1080 psi

NOTE:

1. System to be inspected by QC inspector prior to testing.
2. Provide at least one vent at highest point during filling.
3. Test medium must be at specific temperature.
4. One calibrated pressure gauge must be at the high point of the system.
5. The QC inspector to witness test.
6. The pressure is not to be released until the test is accepted by the QC inspector or unless due to leakage and safety considerations.
7. All necessary safety precautions shall be adhered to.

ACTUAL TEST RESULTS: Acceptable GAUGE NO: PCI000049

MEDIUM USED: WATER GAUGE/RECORDER NO: PL181250046

ACTUAL TEST PRESSURE: 1080 psi

ACTUAL MEDIUM TEMPERATURE: 58°F

ACTUAL HOLDING TIME: 10:05 am To 10:20 am = 15 min

COMMENTS: _____

SIGN OFF:

This certified that above statements are correct and the equipment described was free of leaks due to defective welds or equipment.

Q.C. INSPECTOR: [Signature] DATE: 09/06/08

OWNER'S REPRESENTATIVE: _____ DATE: _____

PC COMPRESSION INC.
QUALITY SYSTEM MANUAL

REVISION: 3

DATE: 20/09/07

SECTION 9 PAGE 6 OF 6

EXHIBIT 9.3 PRESSURE PIPING TEST PREPARATION AND COMPLETION

| PRESSURE PIPING TEST PREPARATION AND COMPLETION | | |
|---|--------------|---------------------------------|
| JOB NO: <i>Z-999 SAA DRAIN SPOOLS. 1-5/5.</i> | | DATE: <i>9 June 2008</i> |
| TEST PREPARATION | Q.C. INSP. | ASSIGNED CONSTRUCTION PERSONNEL |
| 1. All non-conformity items corrected. | ✓ | ✓ |
| 2. Test blinds correct thickness. | ✓ | ✓ |
| 3. All items which could be damaged by test isolated or removed (control valves, safety valves, instrument expansion joints, etc.). | ✓ | ✓ |
| 4. Equipment with Internals (re: filters) that could be damaged, isolated as required. | ✓ | ✓ |
| 5. Vents and drains. | ✓ | ✓ |
| 6. Open and close position of all valves verified. | ✓ | ✓ |
| 7. Shipping bars in place – bellows. | N/A | N/A |
| 8. Hanger stops in place. | N/A | N/A |
| TEST COMPLETION | * <i>SDC</i> | * <i>BS</i> |
| 1. All temporary blinds removed. | ✓ | ✓ |
| 2. Temporary gaskets changed for correct gaskets. | N/A | N/A |
| 3. Temporary supports removed. | ✓ | ✓ |
| 4. Shipping bars removed from bellows. | N/A | N/A |
| 5. Spring hangers stops removed-cold setting checked. | N/A | N/A |
| 6. Safety valves – "UV" or "V" symbol and correct pressure capacity. | N/A | N/A |
| 7. Safety valves vents correct size – adequately supported drain holes and/or weather hoods installed. | N/A | N/A |
| 8. Screens for pumps and compressors installed (initial start-up and permanent screens). | N/A | N/A |

* *SDC* * *BS*

Complete All Fields In Report or Mark N/A

METER CALIBRATION REPORT

(REV. 04/03)
55-010-1070

Main Office - Nisku, AB.
(780) 955-2988



CLIENT: PC COMPRESSION

FACILITY:

NEW INSTALLATION INSTALLATION CHANGE ROUTINE CALIBRATION & INSPECTION SWEET GAS SOUR GAS

LOCATION: NISQU DATE: SEP 6/07 TIME START: _____ TIME FINISH: _____
METER CODE: PC111250046 GAS TO: _____ GAS FROM: _____

| | | | | | | |
|---------------------|--------------------|-----------------|---|--------------------------|--|--|
| DIFFERENTIAL RANGE: | | | <input checked="" type="checkbox"/> METER <input type="checkbox"/> TRANSDUCER <input type="checkbox"/> COMPUTER | | | |
| INCHES OR MA | | | MAKE: <input type="checkbox"/> BARTON <input type="checkbox"/> CANADIAN <input type="checkbox"/> PMC <input type="checkbox"/> FOXBORO <input checked="" type="checkbox"/> COE <input type="checkbox"/> OTHER: | | | |
| WC TESTER | INITIAL (AS FOUND) | FINAL (AS LEFT) | TYPE: <u>242A</u> | SERIAL # <u>21103</u> | CHART# | BADGE # |
| ZERO | | | DIFFERENTIAL RANGE: | | PRESSURE RANGE: | |
| | | | <input type="checkbox"/> 50"WC <input type="checkbox"/> 100"WC | | <input type="checkbox"/> 50-PSI | |
| | | | <input type="checkbox"/> 200"WC <input type="checkbox"/> 400"WC | | <input type="checkbox"/> 100-PSI <input type="checkbox"/> 250-PSI <input type="checkbox"/> 500-PSI | |
| | | | <input type="checkbox"/> OTHER: | | <input type="checkbox"/> 1000-PSI <input type="checkbox"/> 1500-PSI <input checked="" type="checkbox"/> 2500-PSI | |
| | | | <input type="checkbox"/> OTHER: | | CHECK ONE: | |
| | | | ORIFICE FITTING: <input type="checkbox"/> SENIOR FITTING <input type="checkbox"/> FLANGES | | <input checked="" type="checkbox"/> Temperature Element (3 pt. check) | |
| | | | <input type="checkbox"/> JUNIOR FITTING | | OR | |
| | | | MAKE | | <input type="checkbox"/> Temperature Gauge (2 pt. check) | |
| | | | BORE SIZE | | | |
| | | | TUBE SIZE | | | |
| | | | TUBE NO. | | | |
| | | | METER RUN | UPSTREAM INSIDE DIAMETER | DOWNSTREAM INSIDE DIAMETER | |
| | | | <input type="checkbox"/> BEVELLED | | SIZE (INSIDE DIAMETER) | EDGES SHARP |
| | | | <input type="checkbox"/> STRAIGHT EDGE | | | PLATE CLEANED |
| | | | | | <input type="checkbox"/> YES <input type="checkbox"/> NO | DAMAGED |
| | | | | | | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| OVER RANGE | | | | | | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| | | | ORIFICE PLATE PULLED: <input type="checkbox"/> YES <input type="checkbox"/> NO (If No, explain below) | | BEVEL INSTALLED CORRECTLY <input type="checkbox"/> YES <input type="checkbox"/> NO | |

| | | | | | | |
|--|--|--|--|--|---|--|
| STATIC PRESSURE RANGE: <u>0 - 2500 PSI</u> | | | METER CALIBRATION DATA (ATTACH CALIBRATION CHART AS REQUIRED) | | | |
| PSIG OR MA | | | ATMOSPHERIC PRESSURE SET IN METER <input type="checkbox"/> YES <input type="checkbox"/> NO PSIG _____ MA _____ | | | |
| D. WT TESTER | | | PEN ARC AND SPACING <input type="checkbox"/> O.K. <input type="checkbox"/> CORRECTED (EXPLAIN) _____ | | | |
| INITIAL (AS FOUND) | | | CHART <input type="checkbox"/> FAST <input type="checkbox"/> SLOW _____ MIN. TIME ZONE IN USE <input type="checkbox"/> MST <input type="checkbox"/> PST <input type="checkbox"/> CST | | | |
| FINAL (AS LEFT) | | | LEAK TEST <input type="checkbox"/> O.K. <input type="checkbox"/> REPAIRED METER LEVEL <input type="checkbox"/> YES <input type="checkbox"/> ADJUSTED _____ | | | |
| | | | ROTATION: <input type="checkbox"/> 24 HOUR <input type="checkbox"/> 7 DAY <input type="checkbox"/> 8 DAY <input type="checkbox"/> 31 DAY OTHER: _____ | | | |
| | | | <input type="checkbox"/> LINEAR CHART <input checked="" type="checkbox"/> SQUARE ROOT CHART <input type="checkbox"/> COMBINATION CHART | | | |
| | | | FLUID TRAPS IN TUBING LINES <input type="checkbox"/> YES <input type="checkbox"/> NO DRIP POTS <input type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| | | | STATIC PRESSURE TAP LOCATED <input type="checkbox"/> UPSTREAM <input type="checkbox"/> DOWNSTREAM | | | |
| | | | DEWPOINT AREA | | | |
| | | | <input type="checkbox"/> BEFORE DEHYD. <input type="checkbox"/> AFTER DEHYD. TEST LOCATION _____ | | | |
| | | | FLOWING GAS | | DEWPOINT °F | |
| | | | °F PSIG | | HYDRO CARBON WATER VAPOUR | |
| | | | | | TESTER RECORDER | |
| | | | | | LBS. WATER PER MMCF | |
| | | | | | MANUAL DEW POINT TESTER MODEL AND BADGE NO. | |

REMARKS: - ROUTINE INSPECTION / CALIBRATION

| | | | | | | |
|---------------------------------------|--------------------|-----------------|------------------------------------|-----------------------|-----------------|--------------------|
| TEMPERATURE RANGE: <u>0° - 150° F</u> | | | PYRAMID WORKSHEET # <u>1373736</u> | | | |
| °F FOR MA | | | PYRAMID AREA OFFICE <u>A101</u> | | | |
| TEST THERM | INITIAL (AS FOUND) | FINAL (AS LEFT) | TEST EQUIPMENT | DIFFERENTIAL PRESSURE | STATIC PRESSURE | TEMPERATURE |
| <u>32°</u> | <u>42°</u> | <u>32°</u> | <u>PC111250046</u> | | | <u>PC111250046</u> |
| <u>95°</u> | <u>107°</u> | <u>95°</u> | <u>1762-52152</u> | | | <u>PC111250046</u> |
| <u>150°</u> | <u>165°</u> | <u>150°</u> | <u>CRYSTAL 33</u> | | | <u>PC111250046</u> |
| AMBIENT ROOM TEMP. <u>70°</u> (°F) | | | CAL. DUE DATE | <u>DEC 15/07</u> | | |

CALIBRATED & INSPECTED BY: [Signature] IF APPLICABLE WITNESSED BY: _____
PRINT FULL NAME LEGIBLY SIGNATURE PRINT FULL NAME LEGIBLY SIGNATURE

CERTIFICATE OF CALIBRATION



WIKA INSTRUMENTS LTD.

Certificate No.: **E 20661**

Customer : PC COMPRESSION INC.
609-21 AVE.
NISKU

PCC001

ID#: *PLI 000049*

RECEIVED SEP 17 2007

| | | | |
|-----------|----------|---------------|--------------|
| Order No. | : 398725 | PO# | : 509122 |
| Item | : 1 | Date of order | : SEPT 13/07 |

Specification of Gauge under test (DUT)

Object : dial gauge
Manufacturer : WIKA
Type : 232.34.115
Serial No. :
ID No. : 398725-1-1
Pressure range : 0 ... 1500 psi
Accuracy : 0.5 % (of span)
Resolution : 10 psi
Method of measurement : Gauge pressure
Output signal : -

Working Standard (WS)

Test equipment : dial gauge
Pressure range : 0 ... 4000 psi
Calibration-number : 19310 2007-07
Accuracy : 0.1 % (of span)
Identity : TS 204

Calibration conditions

Place of calibration : Cal-lab (Edmonton)
Test temperature (in °C) : 24.0
Humidity (in %) : 22.0
Amb. pressure (in mbar) : 1000.0
Medium : water
No. of measurement : 6
Position : vertical
Full-scale load (in min.) : 5
Method of calibration : Pressure-setting according to DUT

Used auxiliary instruments

Multimeter : -
Resistor : -

Extensions :

Product Manager :  Trevor Turko

calibrated by

 Greg Foster

page 1 of 2

HEAD OFFICE

WIKA INSTRUMENTS LTD.
3103 Parsons Road
Edmonton, AB Canada
T6N 1C8
Tel: (780) 463-7035
Fax: (780) 462-0017

WIKA INSTRUMENTS LTD.
2679 Bristol Circle, Unit #1
Oakville, ON
L6H 6Z8
Tel.: (905) 337-1011
Fax.: (905) 337-2716

WIKA INSTRUMENTS LTD.
4932 52 Street S.E.
Calgary, AB Canada
T2B 3R2
Tel.: (403) 237-5960
Fax: (403) 237-0095

WIKA INSTRUMENTS LTD.
#204, 9804 - 100 Avenue
Grande Prairie, AB
T8V 0T8
Tel.: (780) 543-7460
Fax.: (780) 513-7378

WIKA INSTRUMENTS LTD.
901 First Avenue North
Saskatoon, SK
S7K 1Y4
Tel.: (306) 664-1105
Fax.: (306) 664-7037

WIKA INSTRUMENTS LTD.
4627 Frances Street
Burnaby, BC
V5C 2R9
Tel.: (604) 299-3855
Fax.: (604) 299-4560



WIKA INSTRUMENTS LTD.

Certificate No.: **E 20661**

Calibration results

| Reading DUT <i>psi</i> | Reading WS <i>psi</i> | | Mean- value <i>psi</i> | Deviation <i>psi</i> | Hysteresis <i>psi</i> | Deviation % |
|------------------------------|-----------------------------|--------|------------------------------|-------------------------|--------------------------|----------------|
| | M 1 | M 2 | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 300.0 | 305.0 | 305.0 | 305.0 | -5.0 | 0.0 | -0.3 |
| 600.0 | 605.0 | 605.0 | 605.0 | -5.0 | 0.0 | -0.3 |
| 900.0 | 905.0 | 905.0 | 905.0 | -5.0 | 0.0 | -0.3 |
| 1200.0 | 1205.0 | 1205.0 | 1205.0 | -5.0 | 0.0 | -0.3 |
| 1500.0 | 1505.0 | 1505.0 | 1505.0 | -5.0 | 0.0 | -0.3 |

date of calibration: 9/14/2007

Declaration of conformity:

The object is within the specifications according to the stated standards.

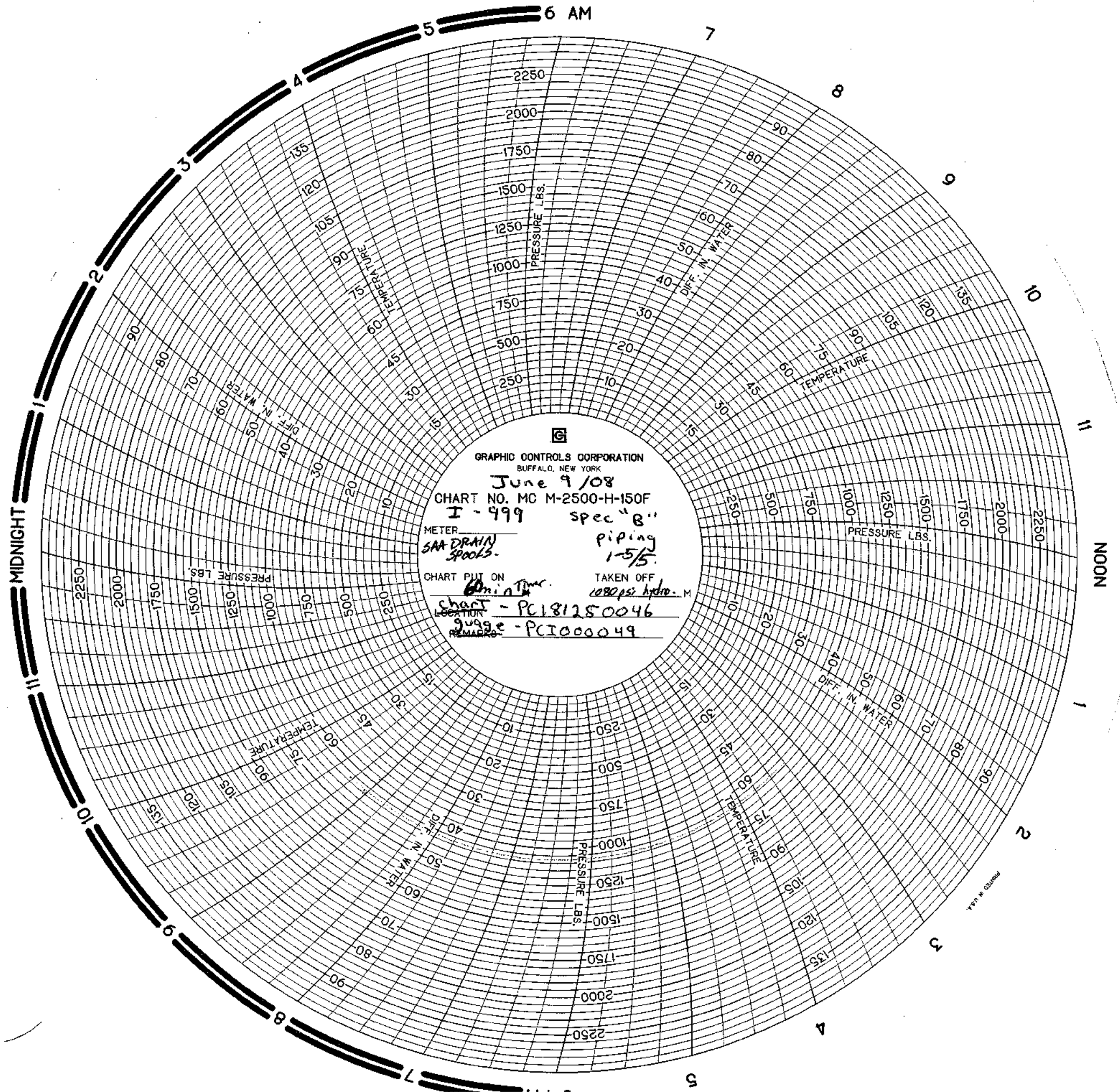
The calibration object is labeled with a calibration mark, which shows the date of calibration and the recommended date for recalibration. (Maximum of 1 year from date of issue.)

WIKA INSTRUMENTS LTD. certifies that the above mentioned instruments have been calibrated and are traceable to the National Institute of Standards and Technology (NIST).

Calibration is carried out according to the following norms:

- ASME B 40.1 (latest revision)

- Calibration of Wika test instruments is carried out on an annual basis. Validity of certification of test instruments is one year from date of issue.



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

June 9 / 08

CHART NO. MC M-2500-H-150F

I - 999 spec "B"

METER: SAA DRAIN SPOOLS.

PIPING 1-5/8"

CHART PUT ON: 6:00 AM

TAKEN OFF: 10:30 PSI hydro. M

LOCATION: Chart - PC181250046

REMARKS: Gauge - PC1000049

MADE IN U.S.A.

PC COMPRESSION INC.
QUALITY SYSTEM MANUAL

REVISION: 3

DATE: 20/09/07

SECTION 9 PAGE 4 OF 6

EXHIBIT 9.1 PRESSURE PIPING EXAMINATION AND INSPECTION SHEET

| PRESSURE PIPING EXAMINATION AND INSPECTION SHEET | | | | |
|---|--|------------------|-------------------------------|---------------|
| JOB NUMBER: <i>E-980 SAA-08240</i> | | | | |
| NO. | FUNCTION | MANUAL REFER | SIGNATURE OR INITIAL AND DATE | |
| | | | Q.C. INSP. | OWNER'S INSP. |
| 1 | Drawings: ABSA registration over 0.5m ³ . Approved by owner. Approved For Construction (signed & dated) | 7.6 7.2 | <i>SDC</i> <i>24/06/08</i> | |
| 2 | ABSA Safety Codes Officer (when required) and Owner's Inspector notified. | 8.4 9.3 | <i>SDC</i> <i>24/06/08</i> | |
| 3 | Registered Welding Procedures, Q.C. Manual and Forms available at site, Job File started. | 9.2(a) 9.3(a) | <i>N/A</i> | |
| 4 | Welder's qualified for Weld Procedures and have valid Performance Qualification cards. Welders Log Completed. WPS reviewed with welders. | 10.3 | <i>N/A</i> | |
| 5 | Material checked against P.O., drawings, and specifications. Identification confirmed. Color coding applied. | 8.3 8.6 | <i>SDC</i> <i>24/06/08</i> | |
| 6 | Sample of each welder's work examined, including root spacing, alignment cleaning, joint preparation, preheat and electrode control. | 10.3(f) | <i>N/A</i> | |
| 7 | Nondestructive Examination completed. Reports and radiographs reviewed, signed by Level II or III, Radiograph I.D. detailed on drawings. | 12.2 | <i>N/A</i> | |
| 7 | Visual examination of all completed welds. Welder's I.D. stamped and or recorded on drawings. | 10.3(g) | <i>N/A</i> | |
| 9 | Heat Treatment verified and recorded on drawings. | 13.3 | <i>N/A</i> | |
| 10 | Each system checked against specifications and drawings before pressure test. | 9.3(d) 9.3(f) | <i>SDC</i> <i>02/07/08</i> | |
| 11 | All deficiencies recorded and signed off by Q.C.I. and Owner's Inspector before pressure test. | 11.3, 11.5 | <i>SDC</i> <i>02/07/08</i> | |
| 12 | Pressure Test checked. Gauge calibration verified, gauge # recorded. | 15.4, 14.3 | <i>SDC</i> <i>02/07/08</i> | |
| 13 | System checked after test. Deficiencies recorded and corrected. Exhibit 15.2 | 15.4 | <i>SDC</i> <i>18/07/08</i> | |
| 14 | Construction data reports prepared and signed by Q.C.I. and Owner's Inspector. (AB-83) | 9.2(d, e) | <i>SDC</i> <i>18/07/08</i> | |
| 15 | Declaration from submitted to ABSA. (AB-81) | 9.2(b) | <i>N/A</i> | |
| 16 | As built drawings submitted to Owner. | 9.3(h) | <i>SDC</i> <i>18/07/08</i> | |

HOLDS POINTS INDICATED BY AN ASTERISK *

PC COMPRESSION INC.
QUALITY SYSTEM MANUAL

REVISION NO: 3

DATE: 20/09/07

SECTION 9 PAGE 5 OF 6

EXHIBIT 9.2 PRESSURE PIPING EXAMINATION GUIDE

| PRESSURE PIPING EXAMINATION GUIDE | | |
|--|-------------------------------|---------------|
| JOB NO: <i>Z-980 SAA-08240</i> | | |
| SIGNATURE OR INITIAL AND DATE | | |
| | Q.C. INSP. | OWNER'S INSP. |
| 1. Pipe material specification correct. | <i>SDC</i> <i>15/05/08</i> | |
| 2. Flanges, ratings, schedule material specification correct. | <i>SDC</i> <i>03/06/08</i> | |
| 3. Fittings, Tees, Return bends-Reducers couplings, Weldolets, etc. correct material specifications. | <i>SDC</i> <i>24/06/08</i> | |
| 4. Valves identification – Manufacturers name tag, etc., correct. | <i>SDC</i> <i>06/06/08</i> | |
| 5. Valves installed correct, flow direction, accesses, rising stems free from obstructions. Clearance for removal adequate. | <i>SDC</i> <i>02/07/08</i> | |
| 6. Lubrication fittings, drains, etc., installed as required. | <i>SDC</i> <i>02/07/08</i> | |
| 7. Bolts and studs length and material correct, studs at least flush with heads (max. thread exposure beyond nut should be about 2 threads). | <i>SDC</i> <i>02/07/08</i> | |
| 8. Gaskets are correct type, material. | <i>SDC</i> <i>02/07/08</i> | |
| 9. All welding satisfactory and traceable to welders symbol. | <i>N/A</i> | |
| 10. Seal welding complete – threads covered. | <i>N/A</i> | |
| 11. All attachment welds satisfactory. | <i>SDC</i> <i>02/07/08</i> | |
| 12. All N.D.E., heat treatment complete, records filed. | <i>N/A</i> | |
| 13. Guide anchors and shoes required installed correctly (high temp lines). | <i>N/A</i> | |
| 14. Line Supports adequate – supports to be checked against drawings. | <i>SDC</i> <i>02/07/08</i> | |
| 15. Spring hangers – correct. | <i>N/A</i> | |
| 16. Lines have adequate allowance for expansion. | <i>N/A</i> | |
| 17. Bellows type expansion joint correct type and installed correctly. | <i>N/A</i> | |
| 18. Required cold spring applied. | <i>N/A</i> | |
| 19. Orifice runs have specified straight length of pipe – located correctly etc. | <i>SDC</i> <i>02/07/08</i> | |
| 20. All deficiencies recorded on non-conformance record. | <i>SDC</i> <i>18/07/08</i> | |



CONSTRUCTION DATA REPORT FOR PIPING SYSTEMS

In accordance with the provisions of the Safety Codes Act

Shop Construction ; Field Construction ; Final Data Report ;
 Partial Data Report (from one ABSA-authorized Contractor to another ABSA-authorized Contractor).

Complete both sides of this Form

1. Constructed By: PC COMPRESSION INC. Owner's Job No: I-980 / SAA-08240
(Name of ABSA authorized primary contractor or subcontractor)
2308 - 8th Street, Nisku, Alberta T9E 7Z2
(Address)

Alberta Quality Program No. AQP-2997 Expiry Date: JANUARY 22, 2011

2. Constructed For: _____
(Name of primary contractor if different from above)

(Address)

Alberta Quality Program No. AQP- Expiry Date: _____
(Required when the primary contractor undertakes some/all of the quality functions, e.g., Mat'l supply, NDE, PWHT, Tie-in, fabrication, hydro test, final assembly etc.)

3. Owner: PC COMPRESSION INC, 2308 - 8th Street, Nisku, Alberta T9E 7Z2
(Name and address)
Portable
(Location of installation)

~~Alberta Quality Program No. AQP- Expiry Date~~
(Required when the owner undertakes some/all of the quality functions, e.g., Mat'l supply, NDE, PWHT, Tie-in, fabrication, hydro test, final assembly etc.)

4. Piping Design Alberta Registration No.: PP-
(Required if aggregate piping volume is over 0.5m³)

5. WP No.: WP-; Company: _____; Owner's WP No. (If used): WP-
(Alberta Registration No.) (Alberta Registration No.)
 WPS No(s). used: _____; Owner's WPS No(s). (If used): _____

6. Code: ASME B31.1 Non Boiler External Piping ; ASME B31.1 Boiler External Piping ;
 ASME B31.3 - Service category: Normal , D , M , High Pressure ; B31.5 ; B31.9 .

| Drawing No. Rev. No. Line No. | Fluid (Air/Stm. Etc.) | Des. Press. kPa | Des. Temp. °C | Test Press. kPa | Test Medium | Pipe Mat'l Spec. & Grade | C.A. mm | Pipe NPS & Schedule | Flange Material & Rating | PWHT/ Preheat Temp. °C | R.T. % | Other NDE |
|-------------------------------------|-----------------------------|-----------------------|---------------------|-----------------------|----------------|--------------------------------|--------------|---------------------------|--------------------------------|------------------------------|-----------|--------------|
| PG-1101-2-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 2" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-1102-2-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 2" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-1103-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| DR-1104-1-A | LIQUID | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| DR-1105-1-B | LIQUID | 720 PSI | 350°F | 1080 PSI | WATER | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-2101-2-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 2" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-2102-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-5101-2-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 2" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-1201-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| DR-1202-1-A | LIQUID | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| DR-1203-5-A | LIQUID | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 5" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| DR-1204-1-A | LIQUID | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| BP-1205-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-1301-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |

| | | | | | | | | | | | | |
|-------------|----------------|---------|-------|---------|----------|----------|-----------|------------|-----------------|-----|-----|--------|
| PG-1302-5-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | .5" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PU-1303-5-A | LIQUID/ GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | .5" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PU-1304-1-A | LIQUID/ GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-1401-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-1402-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| RC-1403-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| BD-1404-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| FG-1405-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-1406-1-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 1" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| PG-1407-2-A | GAS | 150 PSI | 350°F | 165 PSI | AIR/SOAP | SA-106-B | SEE NOTES | 2" SCH 80 | SA-105N CL 2000 | N/A | N/A | VISUAL |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Partial Data Reports, properly identified and certified by ABSA-authorized contractors, as listed below are attached to and form part of this Data Report

| No. | Line No. | Spool No. | Dr. No. (with Rev. No.) | Contractor (Name) | AQP No. | Expiry date |
|-----|----------|-----------|----------------------------|----------------------|------------|----------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remarks: Provide additional comments including noting any code work that was not performed by the ABSA-authorized contractor(s) supplying this document as a Partial Data Report but which must be completed by another ABSA-authorized contractor who assumes overall responsibility for conformance with the Safety Codes Act & Regulations and applicable ASME Codes, and who assures that all required code work is completed prior to putting the piping system into service.

NOTES:
CORROSION ALLOWANCE: 0.0625" ≥ 1/2" NPS
0.056" ≤ 3/8" NPS

Endorse certificate 'A' or 'B'

A. CERTIFICATE OF COMPLIANCE

Signed by the subcontractor when supplying this certificate as a
Partial Data Report

We certify that the statements in this Data Report are correct and that materials, construction and workmanship of the piping fabrication conform to the registered quality system and the applicable Piping code(s).

Date: _____

 Subcontractor

Print Authorized Representative's Name Signature

This certificate is not valid unless it forms part of a Final Data Report signed by Primary Contractor

B. CERTIFICATE OF COMPLIANCE

Signed by the primary contractor when supplying this certificate as a
Final Data Report

We certify that the statements in this Data Report are correct and that piping job no. I-980

described in this Data Report was constructed in accordance with the Province of Alberta Safety Codes Act and Regulations, and applicable ASME Piping Code(s).

Date: 18 July 2008 PC COMPRESSION

Primary Contractor

SCOTT CAMPBELL

Print Authorized Representative's Name Signature

CERTIFICATE OF INSPECTION

I, the undersigned, employed by PC COMPRESSION INC. have inspected the piping job no. I-980 described in this Construction Data Report and state that, to the best of my knowledge and belief, the Contractor has constructed this piping in accordance with the applicable Sections of the ASME Piping Codes and Province of Alberta Safety Codes Act and Regulations.

Date: 18 July 2008 Date: _____

SCOTT CAMPBELL Scott Campbell

Print Owner's Inspector's Name Owner's Inspector's Signature

Name: _____ Sign.: _____

ABSA Safety Codes Officer
 (BOILER EXTERNAL PIPING ONLY)

Current version of this Form may be obtained from www.absa.ca



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappelletti, 4 - Tel. 010.65.607961 - Fax. 010.65.466519 / MATERIAL TEST DEPARTMENT

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
7025 - 4th Street SE
Calgary, Alberta T2C 4E3
CA

Certificate No. 15853
Invoice No. 931
Date 05.09.2005
29.07.2005
Det. Note No. 14-10
Date 29.07.2005

This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|-------|------|-------------|------------------------|------|--|--------------|------------------|
| TG6 | 79905 | 14 | CI-05 - 538 | 2005-2E201-0000839-014 | | FITTING TEE THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY |
| TG6 | 79905 | 14 | CI-05 - 538 | 2005-2E201-0000839-014 | | FITTING TEE THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY |
| UP0 | 74379 | 19 | CI-05 - 538 | 2005-2E201-0000839-019 | | FITTING UNION FIF THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY |
| TH5 | 73215 | 11 | CI-05 - 538 | 2005-2E201-0000839-011 | | FITTING TEE THRD NPT 2 3/4" 1/8" A105N | SEE NOTE | SATISFACTORY |
| GR5 | 39700 | 30 | CI-05 - 538 | 2005-2E201-0000839-030 | | FITTING 90 ELB. SW 3M 3/4" A105N | SEE NOTE | SATISFACTORY |
| H42 | 73509 | 35 | CI-05 - 538 | 2005-2E201-0000839-035 | | FITTING 45 ELB. SW 3M 1 1/2" A105N | SEE NOTE | SATISFACTORY |
| H35 | 79948 | 39 | CI-05 - 538 | 2005-2E201-0000839-039 | | FITTING 90 ELB. SW 6M 1" A105N | SEE NOTE | SATISFACTORY |
| CAQ | 75818 | 40 | CI-05 - 538 | 2005-2E201-0000839-040 | | FITTING 90 ELB. SW 6M 2" A105N | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Mn% | S% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | AP% | C.E.% | OTHER ELEMENTS |
|-----------|-------|------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| TG6 | 79905 | 14 | ASTM A105 | 0.210 | 0.210 | 0.210 | 0.020 | 0.130 | 0.080 | 0.010 | 0.013 | 0.250 | 0.003 | 0.001 | 0.000 | 0.006 | 0.421 | |
| TG6 | 79905 | 14 | ASTM A105 | 0.210 | 0.210 | 0.210 | 0.020 | 0.130 | 0.080 | 0.010 | 0.013 | 0.250 | 0.003 | 0.001 | 0.000 | 0.006 | 0.421 | |
| UP0 | 74379 | 19 | ASTM A105 | 0.190 | 0.220 | 0.190 | 0.019 | 0.120 | 0.060 | 0.010 | 0.014 | 0.230 | 0.002 | 0.000 | 0.000 | 0.005 | 0.388 | |
| TH5 | 73215 | 11 | ASTM A105 | 0.190 | 0.180 | 0.190 | 0.012 | 0.110 | 0.050 | 0.010 | 0.018 | 0.170 | 0.016 | 0.001 | 0.000 | 0.020 | 0.392 | |
| GR5 | 39700 | 30 | ASTM A105 | 0.190 | 0.230 | 0.190 | 0.015 | 0.110 | 0.090 | 0.020 | 0.018 | 0.180 | 0.030 | 0.001 | 0.000 | 0.025 | 0.422 | |
| H42 | 73509 | 35 | ASTM A105 | 0.195 | 0.210 | 0.195 | 0.022 | 0.019 | 0.090 | 0.060 | 0.010 | 0.013 | 0.230 | 0.002 | 0.000 | 0.005 | 0.395 | |
| H35 | 79948 | 39 | ASTM A105 | 0.180 | 0.210 | 0.180 | 0.020 | 0.019 | 0.130 | 0.080 | 0.010 | 0.008 | 0.002 | 0.001 | 0.000 | 0.005 | 0.381 | |
| CAQ | 75818 | 40 | ASTM A105 | 0.210 | 0.220 | 0.210 | 0.011 | 0.070 | 0.050 | 0.010 | 0.023 | 0.150 | 0.022 | 0.001 | 0.000 | 0.025 | 0.400 | |

| HEAT CODE | HEAT | ITEM | SECT. ANAL | LEMBANT EN | YIELD POINT N/mm ² >=0.2% | TENSILE STRENGTH N/mm ² >=0.2% | ELONGATION % >=5% | REDUCTION OF AREA % | HARDNESS HV | BEND TEST | | | FLATNESS TEST | | | TYPE TEST | | | IMPACT TEST - JOULE/EN | VIBRO POINT |
|-----------|-------|------|------------|------------|--------------------------------------|---|-------------------|---------------------|-------------|-----------|-----|-----|---------------|----|-----|-----------|-----|---|------------------------|-------------|
| | | | | | | | | | | 180° | 90° | 45° | 1 | 2 | 3 | 1 | 2 | 3 | | |
| TG6 | 79905 | 14 | 122.65 | 50.00 | 332.0 | 540.0 | 33.5 | 56.5 | 152 - 169 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 103 | 102 | 108 | 1 | 0.0 | 0.0 |
| TG6 | 79905 | 14 | 122.65 | 50.00 | 332.0 | 540.0 | 33.5 | 56.5 | 162 - 169 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 103 | 102 | 108 | 1 | 0.0 | 0.0 |
| UP0 | 74379 | 19 | 122.65 | 50.00 | 325.0 | 520.0 | 34.0 | 59.0 | 160 - 165 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 96 | 103 | 100 | 1 | 0.0 | 0.0 |
| TH5 | 73215 | 11 | 122.65 | 50.00 | 330.0 | 525.0 | 33.0 | 58.0 | 152 - 158 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 106 | 96 | 100 | 1 | 0.0 | 0.0 |
| GR5 | 39700 | 30 | 122.65 | 50.00 | 345.0 | 564.0 | 34.0 | 56.0 | 180 - 184 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 96 | 97 | 105 | 1 | 0.0 | 0.0 |
| H42 | 73509 | 35 | 122.65 | 50.00 | 335.0 | 532.0 | 35.0 | 58.0 | 155 - 160 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 106 | 98 | 104 | 1 | 0.0 | 0.0 |
| H35 | 79948 | 39 | 122.65 | 50.00 | 332.0 | 525.0 | 36.0 | 52.0 | 160 - 164 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 103 | 106 | 101 | 1 | 0.0 | 0.0 |
| CAQ | 75818 | 40 | 122.65 | 50.00 | 319.0 | 508.0 | 34.0 | 55.0 | 160 - 162 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 105 | 106 | 110 | 1 | 0.0 | 0.0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | HEAT TREATMENT | | | FURNACE | STEEL MILL | Our Ref. |
|-----------|-------|------|---------------------------|------|---------|-------------------------------------|-------------------------------------|-------------------------------------|------------------|-------------|----------|
| | | | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | | | |
| TG6 | 79905 | 14 | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 051022 |
| TG6 | 79905 | 14 | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 051022 |
| UP0 | 74379 | 19 | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 051107 |
| TH5 | 73215 | 11 | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 052044 |
| GR5 | 39700 | 30 | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 051025 |
| H42 | 73509 | 35 | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 051037 |
| H35 | 79948 | 39 | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 052016 |
| CAQ | 75818 | 40 | ASME SA | ASTM | A105-03 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 052021 |

NOTES ASME B16.11/01 - BS.3799 - ANSI B31.1/B31.3 - IML STD - ANSI 811-B18.2.2 - NACE MR0175 ISO 15156/7 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

INSPECTION AUTHORITY: INSPECTION CONTROL DEPARTMENT
 QUALITY CONTROL DEPARTMENT: MANUFACTURER'S SYMBOL
 INSPECTION AUTHORITY: QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL: MANUFACTURER'S SYMBOL

BORIS FIZZOTTI
 FITTINGS
 IML
 STUDBOLTS

PC COMPRESSION JUN 24 2008
 DATE RECEIVED
 P.O. # 50428 E832806
 SIGNATURE: M
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : UP0
 TRANS AM PIPING PRODUCTS - REV'D BY: 9 5 - 1517
 Shipment/Seg #: 9 5 - 1517



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY BINA

TRANS AM PIPING PRODUCTS LTD.
9335 Endeavor Drive S.E.
Calgary, Alberta T2S 0A1
CA

Certificate Nr 16270
Invoice Nr 1
Del. Made Nr 1
Dated 02.01.2008
Dated 02.01.2008
Dated 02.01.2008

16030 CASARZA LIGURE - Genova - Italy - Via Giancarlo Farina 36 - Tel. 010.66.487961 - Fax 010.66.488160 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 17 - 18

Table with columns: HEAT CODE, HEAT, ITEM, YOUR P.O., OUR REFERENCE, Q.TY, DESCRIPTION, DIM. ACC. TO, VISUAL & DIMENS., and various mechanical test results (Tensile, Yield, Elongation, etc.).

Table with columns: HEAT CODE, HEAT, ITEM, MATERIAL IN ACCORDANCE TO, HEAT TREATMENT, and Our Ref. (073070, 011304, etc.).

NOTES: ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-818.2.2 - PC CONTROL PRESSURE IN QUALITY CONTROL DEPARTMENT
NACE MR0175 ISO 15156/1 - NACE MR103 - MSS SP 83 SUPPLIER'S REQUIREMENTS RECEIVED JUN 24 2008
P.O. # 510428 E832806
SIGNATURE: [Signature]
APPROVED BY Q.C. INSPECTOR



STUDBOLTS

FITTINGS IML

BORIS FIZZOTTI

RECEIVED JUN 24 2008

P.O. # 510428 E832806

SIGNATURE: [Signature]

APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 6EU
TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
2" CL 3000 FS SCRD UNION A105N
shipment/seq # : 8 - 1013

HEAT NUMBER : HRS
 TRANS AM PIPING PRODUCTS - REV'D BY :
 Shipment/Seq # : 8 - 1176



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - Via Giancarlo F. Minni 25 - Tel. 010 688.487681 - Fax 010 688.487681

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001:2000 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.

9335 Endeavor Drive S.E.
 Calgary, Alberta T2S 0A1 CA

Certificate Nr 16584
 Invoice Nr
 Date Note Nr 707
 Dated 28.04.2008
 Dated 24.04.2008

16030 CASARZA LIGURE - Genova - Italy - Via Giancarlo F. Minni 25 - Tel. 010 688.487681 - Fax 010 688.487681
 MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 1 - 2

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|-------|------|-----------|------------------------|------|--------------------------------------|--------------|------------------|
| HPL | 71468 | 020 | CI-08-280 | 2008-2E201-0000431-020 | | FITTING TEE THRD NPT 2M 2" A105N | SEE NOTE | SATISFACTORY |
| HPL | 71468 | 020 | CI-08-280 | 2008-2E201-0000431-020 | | FITTING TEE THRD NPT 2M 2" A105N | SEE NOTE | SATISFACTORY |
| HRP | 71582 | 047 | CI-08-280 | 2008-2E201-0000431-047 | | FITTING TEE THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY |
| HRP | 71582 | 047 | CI-08-280 | 2008-2E201-0000431-047 | | FITTING TEE THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY |
| 0A4 | 73412 | 038 | CI-08-280 | 2008-2E201-0000431-038 | | FITTING 90 ELB. THRD NPT 3M 1" A105N | SEE NOTE | SATISFACTORY |
| 0A4 | 73412 | 038 | CI-08-280 | 2008-2E201-0000431-038 | | FITTING 90 ELB. THRD NPT 3M 1" A105N | SEE NOTE | SATISFACTORY |
| HRS | 71576 | 009 | CI-08-280 | 2008-2E201-0000431-009 | | FITTING 90 ELB. THRD NPT 2M 2" A105N | SEE NOTE | SATISFACTORY |
| HRS | 71576 | 009 | CI-08-280 | 2008-2E201-0000431-009 | | FITTING 90 ELB. THRD NPT 2M 2" A105N | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Mn% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | Al% | C.E.% | OTHER ELEMENTS |
|-----------|-------|------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| HPL | 71468 | 020 | ASTM A105 | 0.190 | 0.200 | 0.021 | 0.015 | 0.080 | 0.010 | 0.006 | 0.150 | 0.002 | 0.001 | 0.000 | 0.024 | 0.380 | |
| HPL | 71468 | 020 | ASTM A105 | 0.190 | 0.200 | 0.021 | 0.015 | 0.080 | 0.010 | 0.006 | 0.150 | 0.002 | 0.001 | 0.000 | 0.024 | 0.380 | |
| HRP | 71582 | 047 | ASTM A105 | 0.185 | 0.190 | 0.012 | 0.011 | 0.080 | 0.010 | 0.018 | 0.110 | 0.025 | 0.001 | 0.000 | 0.026 | 0.396 | |
| HRP | 71582 | 047 | ASTM A105 | 0.185 | 0.190 | 0.012 | 0.011 | 0.080 | 0.010 | 0.018 | 0.110 | 0.025 | 0.001 | 0.000 | 0.026 | 0.396 | |
| 0A4 | 73412 | 038 | ASTM A105 | 0.195 | 0.190 | 0.022 | 0.014 | 0.070 | 0.010 | 0.005 | 0.110 | 0.001 | 0.000 | 0.000 | 0.023 | 0.390 | |
| 0A4 | 73412 | 038 | ASTM A105 | 0.195 | 0.190 | 0.022 | 0.014 | 0.070 | 0.010 | 0.005 | 0.110 | 0.001 | 0.000 | 0.000 | 0.023 | 0.390 | |
| HRS | 71576 | 009 | ASTM A105 | 0.185 | 0.240 | 0.015 | 0.017 | 0.090 | 0.010 | 0.005 | 0.180 | 0.001 | 0.002 | 0.000 | 0.024 | 0.367 | |
| HRS | 71576 | 009 | ASTM A105 | 0.185 | 0.240 | 0.015 | 0.017 | 0.090 | 0.010 | 0.005 | 0.180 | 0.001 | 0.002 | 0.000 | 0.024 | 0.367 | |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | SECT. mm2 | LENGTH mm | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HR | BRINELL | FLATTENING TEST | TYPE TEST | IMPACT TEST | SHAPE | YIELD POINT |
|-----------|-------|------|---------------|-----------|-----------|-------------|------------------|------------|-------------------|-------------|---------|-----------------|-----------|-------------|-------|-------------|
| HPL | 71468 | 020 | 50.00 | 122.65 | 50.00 | 330.0 | 530.0 | 33.0 | 80.0 | 163 - 165 | 0.0 | 0.0 | KV | 20 | 103 | 109 |
| HPL | 71468 | 020 | 50.00 | 122.65 | 50.00 | 330.0 | 530.0 | 33.0 | 80.0 | 163 - 165 | 0.0 | 0.0 | KV | 20 | 103 | 109 |
| HRP | 71582 | 047 | 50.00 | 122.65 | 50.00 | 338.0 | 548.0 | 33.0 | 96.0 | 164 - 166 | 0.0 | 0.0 | KV | 20 | 105 | 109 |
| HRP | 71582 | 047 | 50.00 | 122.65 | 50.00 | 338.0 | 548.0 | 33.0 | 96.0 | 164 - 166 | 0.0 | 0.0 | KV | 20 | 105 | 109 |
| 0A4 | 73412 | 038 | 50.00 | 122.65 | 50.00 | 312.0 | 544.0 | 31.6 | 51.8 | 162 - 166 | 0.0 | 0.0 | KV | 20 | 107 | 111 |
| 0A4 | 73412 | 038 | 50.00 | 122.65 | 50.00 | 312.0 | 544.0 | 31.6 | 51.8 | 162 - 166 | 0.0 | 0.0 | KV | 20 | 107 | 111 |
| HRS | 71576 | 009 | 50.00 | 122.65 | 50.00 | 317.0 | 522.0 | 33.8 | 86.0 | 155 - 162 | 0.0 | 0.0 | KV | 20 | 107 | 104 |
| HRS | 71576 | 009 | 50.00 | 122.65 | 50.00 | 317.0 | 522.0 | 33.8 | 86.0 | 155 - 162 | 0.0 | 0.0 | KV | 20 | 97 | 101 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT |
|-----------|-------|------|---------------------------|-------------------------------------|
| HPL | 71468 | 020 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool |
| HPL | 71468 | 020 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool |
| HRP | 71582 | 047 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool |
| HRP | 71582 | 047 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool |
| 0A4 | 73412 | 038 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool |
| 0A4 | 73412 | 038 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool |
| HRS | 71576 | 009 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool |
| HRS | 71576 | 009 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool |

| HEAT CODE | HEAT | ITEM | OUR REF |
|-----------|-------|------|---------|
| HPL | 71468 | 020 | 082020 |
| HPL | 71468 | 020 | 082020 |
| HRP | 71582 | 047 | 082049 |
| HRP | 71582 | 047 | 082049 |
| 0A4 | 73412 | 038 | 061506 |
| 0A4 | 73412 | 038 | 061506 |
| HRS | 71576 | 009 | 082055 |
| HRS | 71576 | 009 | 082055 |

NOTES
 ASME B16.11/05 - ANSI B31.1/BS1.3 - IML STD - ANSI B1.1/BS1.1
 NACE MR0175 ISO 15156/1 - NACE MR103 - MSS SP 83 - SUPPLIED
 MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: *hp*
 APPROVED BY Q.C. INSPECTOR

BORG PIZZOTTI
 FITTINGS IML
 STUDBOLTS

2 = CL 2000 FG SCRD TEE A105N



INDUSTRIA MECCANICA LIGURE SPA

1030 CASARZA LIGURE - Genova - Italy - Via Gianuario Farina 26 - Tel.010.467761 - Fax 010.467761

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 9335 Enclave Drive S.E.
 Calgary, Alberta T2S 0A1
 CA

Certificate Nr 18564
 Invoice Nr
 Del. Note Nr 707
 Dated 28.04.2008
 Dated 24.04.2008

This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 1 - 2

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DN1 | ACC. TO | VISUAL & DIMENS. |
|-----------|-------|------|-----------|------------------------|------|--------------------------------------|-------|-----------|------------------|
| HPL | 71468 | 020 | CI-08-280 | 2008-2E201-0000431-020 | | FITTING TEE THRD NPT 2M 2" A105N | 0,190 | ASTM A105 | SEE NOTE |
| HPL | 71468 | 020 | CI-08-280 | 2008-2E201-0000431-020 | | FITTING TEE THRD NPT 2M 2" A105N | 0,190 | ASTM A105 | SEE NOTE |
| HRP | 71582 | 047 | CI-08-280 | 2008-2E201-0000431-047 | | FITTING TEE THRD NPT 3M 2" A105N | 0,185 | ASTM A105 | SEE NOTE |
| HRP | 71582 | 047 | CI-08-280 | 2008-2E201-0000431-047 | | FITTING TEE THRD NPT 3M 2" A105N | 0,185 | ASTM A105 | SEE NOTE |
| DA4 | 73412 | 038 | CI-08-280 | 2008-2E201-0000431-038 | | FITTING 90 ELB. THRD NPT 3M 1" A105N | 0,195 | ASTM A105 | SEE NOTE |
| DA4 | 73412 | 038 | CI-08-280 | 2008-2E201-0000431-038 | | FITTING 90 ELB. THRD NPT 3M 1" A105N | 0,195 | ASTM A105 | SEE NOTE |
| HRS | 71576 | 009 | CI-08-280 | 2008-2E201-0000431-009 | | FITTING 90 ELB. THRD NPT 2M 2" A105N | 0,185 | ASTM A105 | SEE NOTE |
| HRS | 71576 | 009 | CI-08-280 | 2008-2E201-0000431-009 | | FITTING 90 ELB. THRD NPT 2M 2" A105N | 0,185 | ASTM A105 | SEE NOTE |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS | SEM TEST | FLATTENING TEST | TYPE | IMPACT TEST | COLLAPSE | SHAPE | YIELD POINT |
|-----------|-------|------|---------------|-------------|------------------|------------|-------------------|-----------|----------|-----------------|------|-------------|----------|-------|-------------|
| HPL | 71468 | 020 | 122,65 | 50,00 | 330,0 | 33,0 | 60,0 | 163 - 165 | 0,0 | 0,0 | KV | 20 | 107 | 103 | 109 |
| HPL | 71468 | 020 | 122,65 | 50,00 | 330,0 | 33,0 | 60,0 | 163 - 165 | 0,0 | 0,0 | KV | 20 | 107 | 103 | 109 |
| HRP | 71582 | 047 | 122,65 | 50,00 | 338,0 | 33,0 | 58,0 | 164 - 166 | 0,0 | 0,0 | KV | 20 | 105 | 102 | 109 |
| HRP | 71582 | 047 | 122,65 | 50,00 | 338,0 | 33,0 | 58,0 | 164 - 166 | 0,0 | 0,0 | KV | 20 | 105 | 102 | 109 |
| DA4 | 73412 | 038 | 122,65 | 50,00 | 312,0 | 31,6 | 51,8 | 162 - 166 | 0,0 | 0,0 | KV | 20 | 107 | 111 | 105 |
| DA4 | 73412 | 038 | 122,65 | 50,00 | 312,0 | 31,6 | 51,8 | 162 - 166 | 0,0 | 0,0 | KV | 20 | 107 | 111 | 105 |
| HRS | 71576 | 009 | 122,65 | 50,00 | 317,0 | 33,8 | 58,0 | 155 - 162 | 0,0 | 0,0 | KV | 20 | 97 | 101 | 104 |
| HRS | 71576 | 009 | 122,65 | 50,00 | 317,0 | 33,8 | 58,0 | 155 - 162 | 0,0 | 0,0 | KV | 20 | 97 | 101 | 104 |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | SP% | MP% | Si% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | Mn% | AP% | C.E.% | OTHER ELEMENTS |
|-----------|-------|------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| HPL | 71468 | 020 | ASME SA 105 | 0,190 | 0,200 | 0,950 | 0,021 | 0,015 | 0,080 | 0,050 | 0,010 | 0,006 | 0,150 | 0,002 | 0,001 | 0,000 | 0,024 | 0,380 | |
| HPL | 71468 | 020 | ASME SA 105 | 0,190 | 0,200 | 0,950 | 0,021 | 0,015 | 0,080 | 0,050 | 0,010 | 0,006 | 0,150 | 0,002 | 0,001 | 0,000 | 0,024 | 0,380 | |
| HRP | 71582 | 047 | ASME SA 105 | 0,185 | 0,190 | 1,060 | 0,012 | 0,011 | 0,060 | 0,040 | 0,010 | 0,018 | 0,110 | 0,025 | 0,001 | 0,000 | 0,026 | 0,395 | |
| HRP | 71582 | 047 | ASME SA 105 | 0,185 | 0,190 | 1,060 | 0,012 | 0,011 | 0,060 | 0,040 | 0,010 | 0,018 | 0,110 | 0,025 | 0,001 | 0,000 | 0,026 | 0,395 | |
| DA4 | 73412 | 038 | ASME SA 105 | 0,195 | 0,190 | 1,010 | 0,022 | 0,014 | 0,070 | 0,040 | 0,010 | 0,005 | 0,110 | 0,001 | 0,000 | 0,000 | 0,023 | 0,396 | |
| DA4 | 73412 | 038 | ASME SA 105 | 0,195 | 0,190 | 1,010 | 0,022 | 0,014 | 0,070 | 0,040 | 0,010 | 0,005 | 0,110 | 0,001 | 0,000 | 0,000 | 0,023 | 0,396 | |
| HRS | 71576 | 009 | ASME SA 105 | 0,185 | 0,240 | 0,860 | 0,015 | 0,017 | 0,050 | 0,050 | 0,010 | 0,005 | 0,180 | 0,001 | 0,002 | 0,000 | 0,024 | 0,367 | |
| HRS | 71576 | 009 | ASME SA 105 | 0,185 | 0,240 | 0,860 | 0,015 | 0,017 | 0,050 | 0,050 | 0,010 | 0,005 | 0,180 | 0,001 | 0,002 | 0,000 | 0,024 | 0,367 | |

HEAT TREATMENT
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool

HEAT TREATMENT
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool

INSPECTION AUTHORITY
 QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL
 MANUFACTURER'S SYMBOL

INSPECTION AUTHORITY
 QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL
 MANUFACTURER'S SYMBOL

INSPECTION AUTHORITY
 QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL
 MANUFACTURER'S SYMBOL

INSPECTION AUTHORITY
 QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL
 MANUFACTURER'S SYMBOL

INSPECTION AUTHORITY
 QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL
 MANUFACTURER'S SYMBOL

INSPECTION AUTHORITY
 QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL
 MANUFACTURER'S SYMBOL

DATE RECEIVED JUN 24 2008
 P.O.# S10428-EB832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

DATE RECEIVED JUN 24 2008
 P.O.# S10428-EB832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

DATE RECEIVED JUN 24 2008
 P.O.# S10428-EB832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

DATE RECEIVED JUN 24 2008
 P.O.# S10428-EB832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

DATE RECEIVED JUN 24 2008
 P.O.# S10428-EB832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

DATE RECEIVED JUN 24 2008
 P.O.# S10428-EB832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

DATE RECEIVED JUN 24 2008
 P.O.# S10428-EB832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

DATE RECEIVED JUN 24 2008
 P.O.# S10428-EB832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

TRANS AM PIPING PRODUCTS - REV'D BY: *AL*
 SHIPMENT # 1176

HEAT NUMBER : 2779
 TRANS AM PIPING PRODUCTS - REV'D BY: *AB*
 Shipment/Seq #: S 8 - 1152 16

2X1 CL 3000 FS SCRD RED TEE
 A105N



柏緯鐵工股份有限公司

高雄縣仁武鄉烏林村仁心路 303 號
BOTH-WELL STEEL FITTINGS CO., LTD.
 NO.303, JEN-HSIN ROAD JEN-WU HSIANG
 KAOHSIUNG HSIEN, TAIWAN R.O.C.(81460)

An ISO-9001 Registered Manufacturer



TEL: (07) 371-0497, 371-1536, 372-0260 FAX: (886-7) 371-8864, 371-3882
 WEB SITE: <http://www.bothwell.com.tw> E-MAIL: bothwell@www.bothwell.com.tw or box@mail.bothwell.com.tw

MILL TEST & INSPECTION CERTIFICATE

CUSTOMER: SEYBOLD INTERNATIONAL CORP.

ACCORDING TO EN10204/DIN50049/3.1.B

ORIGIN: TAIWAN

CERT NO: 80853

ORDER NO: 7409(CI-07-667)

INVOICE NO: BW079612026

DATE: 04/12/08

L/C NO:

PAGE: 14

| ITEM | BOTH WELL HT. CD. | RAW MATERIAL HEAT NO. | DESCRIPTION | QUANTITY | SPECIFICATION: ASTM A105N -05 ASME SA105N -060 |
|------|-------------------|-----------------------|-------------------------------|----------|--|
| 044 | AB118 | 1002-19694 | RED.CPLG 3"x1-1/2" 3000# NPT | | DIMENSION: ASME B16.11 - 2005 SURFACE: BY VISUAL...6000 |
| 045 | AB118 | 1002-19694 | RED.CPLG 3"x2" 3000# NPT | | |
| 046 | 2780 | 396050 | RED.TEE 1-1/2"x1/2" 3000# NPT | | |
| 047 | 2698 | 392983 | RED.TEE 2"x3/4" 3000# NPT | | |
| 048 | 2779 | 395808 | RED.TEE 2"x1" 3000# NPT | | |
| 048 | 2796 | 396912 | RED.TEE 2"x1" 3000# NPT | | |
| 049 | 2769 | 35702 | RED.TEE 4"x2" 3000# NPT | | |

| ITEM | BOTH WELL HT. CD. | CHEMICAL COMPOSITION (%) | | | | | | | | | | | |
|------|-------------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| | | C | Si | Mn | P | S | Cu | Cr | Ni | Mo | V | Co(Nb) | CE |
| | | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| 044 | AB118 | 0.220 | 0.220 | 0.960 | 0.023 | 0.002 | 0.030 | 0.040 | 0.010 | 0.004 | 0.005 | 0.001 | 0.392 |
| 045 | AB118 | 0.220 | 0.220 | 0.960 | 0.023 | 0.002 | 0.030 | 0.040 | 0.010 | 0.004 | 0.005 | 0.001 | 0.392 |
| 046 | 2780 | 0.190 | 0.190 | 0.860 | 0.019 | 0.009 | 0.190 | 0.090 | 0.060 | 0.010 | 0.002 | 0.001 | 0.370 |
| 047 | 2698 | 0.200 | 0.200 | 0.830 | 0.023 | 0.010 | 0.170 | 0.110 | 0.050 | 0.010 | 0.002 | 0.001 | 0.377 |
| 048 | 2779 | 0.210 | 0.170 | 0.870 | 0.021 | 0.015 | 0.190 | 0.080 | 0.070 | 0.010 | 0.002 | 0.001 | 0.391 |
| 048 | 2796 | 0.200 | 0.200 | 0.830 | 0.015 | 0.019 | 0.140 | 0.080 | 0.080 | 0.020 | 0.003 | 0.001 | 0.374 |
| 049 | 2769 | 0.210 | 0.210 | 1.110 | 0.018 | 0.014 | 0.110 | 0.070 | 0.050 | 0.000 | 0.003 | 0.005 | 0.432 |

| ITEM | BOTH WELL HT. CD. | MECHANICAL TEST | | | | | Remark: NORMALIZED : 850°C CONFORMS TO NACE MR0175-2003/MR0103 STEEL MAKING PROCESS : ELECTRIC FURNACE |
|------|-------------------|------------------------|----------------------|----------------|------------|----------------------|--|
| | | Tensile Strength (KSI) | Yield Strength (KSI) | Elongation (%) | R of A (%) | Hardness (AVG.) (HR) | |
| | | Min | Max | Min | Max | Min | |
| 044 | AB118 | 76.5 | 52.5 | 29.8 | 61.7 | 144 | WE CERTIFY THE ABOVE MENTIONED FITTINGS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS SHOWN <i>C.C. Chen</i> Q.C. MANAGER PC COMPRESSION CHEN CHENG HSIN RECEIVED CHUN-CHIEH HUANG DATE: 4/20/08 |
| 045 | AB118 | 76.5 | 52.5 | 29.8 | 61.7 | 144 | |
| 046 | 2780 | 77.0 | 50.5 | 29.8 | 63.8 | 140 | |
| 047 | 2698 | 79.2 | 57.6 | 31.0 | 63.2 | 141 | |
| 048 | 2779 | 77.6 | 50.8 | 31.4 | 64.8 | 141 | |
| 048 | 2796 | 79.8 | 60.1 | 30.2 | 62.5 | 141 | |
| 049 | 2769 | 78.5 | 57.1 | 31.4 | 62.5 | 140 | |

BW-D0839 REV:0

P.O.# 510428 E832806
 SIGNATURE: *NO*
 APPROVED BY Q.C. INSPECTOR

2 X 8 XH SMIS STEEL NIPPLES A106

TRE

Handwritten signature/initials

TRANS AM PIPING PRODUCTS - REV'D BY: 31
 539229
 HEAT NUMBER :
 Shipment/seg # : 9 7 - 1536



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappelli 4 - Tel. 0105.467651 - Fax 0105.467651

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001-2000
 CERTIFIED BY IRMA

TRANS AM PIPING PRODUCTS LTD.
 233051 Endeavor Drive S E
 Calgary, Alberta T2P 2G6

Certificate No 19140
 Invoice No 1190
 Date 06 11 2007

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappelli 4 - Tel. 0105.467651 - Fax 0105.467651
 MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 3 - 5

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | MATERIAL TEST | | | | | | | | | | OTHER ELEMENTS | | | | | | | |
|-----------|--------|------|-------------|------------------------|------|--|--------------|---------------|-------------|------------------|------------|-------------------|----------|-----------|-----------------|-----------|-------------|----------------|-------|-------------|-----|-----|-----|--------------|--------------|
| | | | | | | | | SECT. THICK | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS | SEND TEST | FLATTENING TEST | TYPE TEST | IMPACT TEST | | SHAPE | YIELD POINT | | | | | |
| | | | | | | | | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | | |
| N59 | 77912 | 080 | CI-07 - 598 | 2007-2E201-0000983-080 | | FITTING HEX.H.PLUG THRD NPT 1" A105N | SEE NOTE | | | | | | | | | | | | | | | | | SATISFACTORY | |
| HBZ | 661578 | 001 | CI-07 - 598 | 2007-2E201-0000983-001 | | FITTING 90 ELB. THRD NPT 2M 2" A105N | SEE NOTE | | | | | | | | | | | | | | | | | | SATISFACTORY |
| O6A | 73413 | 017 | CI-07 - 598 | 2007-2E201-0000983-017 | | FITTING 90 ELB. THRD NPT 3M 1" A105N | SEE NOTE | | | | | | | | | | | | | | | | | | SATISFACTORY |
| N58 | AK4583 | 078 | CI-07 - 598 | 2007-2E201-0000983-078 | | FITTING HEX.H.PLUG THRD NPT 1/2" A105N | SEE NOTE | | | | | | | | | | | | | | | | | | SATISFACTORY |
| 79A | 72963 | 018 | CI-07 - 598 | 2007-2E201-0000983-018 | | FITTING 90 ELB. THRD NPT 3M 1.1/2" A105N | SEE NOTE | | | | | | | | | | | | | | | | | | SATISFACTORY |
| | 539229 | 012 | CI-07 - 450 | 2007-2E201-0000872-012 | | P.NIPPLE TBE NPT S-80 2" L205mm A106B/API 5LB | SEE NOTE | | | | | | | | | | | | | | | | | | SATISFACTORY |
| | 22877 | 038 | CI-06 - 635 | 2006-2E201-0000797-038 | | P.NIPPLE TBE NPT S-80 2" L205mm A106B/API 5LB | SEE NOTE | | | | | | | | | | | | | | | | | | SATISFACTORY |
| | 86591 | 050 | CI-06 - 635 | 2006-2E201-0000797-050 | | P.NIPPLE TBE NPT S-160 3/4" L150mm(S*) A106B/API 5LB | SEE NOTE | | | | | | | | | | | | | | | | | | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | HEAT TREATMENT | FURNACE | MANUFACTURER'S SYMBOL |
|-----------|--------|------|---------------------------|--------------------------|-------------------------------------|------------------|-----------------------|
| | | | ASME | SA | | | |
| N59 | 77912 | 080 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | Our Ref. 041204 |
| HBZ | 661578 | 001 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 072087 |
| O6A | 73413 | 017 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 061500 |
| N58 | AK4583 | 078 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 011205 |
| 79A | 72963 | 018 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 061472 |
| | 539229 | 012 | ASME SA | ASTM A106/A106M-06 Gr. B | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 073041 |
| | 22877 | 038 | ASME SA | ASTM A106/A106M-06 Gr. B | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 073105 |
| | 86591 | 050 | ASME SA | ASTM A106/A106M-06 Gr. B | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 073081 |

NOTES ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B16.22-2
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS PC-COMPRESSION
 SPECIFICATIONS AND P.O. REQUIREMENTS - BEND TEST NIPPLES: SATISFACTORY

RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: NO
 APPROVED BY Q.C. INSPECTOR
 FITTINGS IML
 STUDBOLTS

HEAT NUMBER : 22877

TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]

Shipment/Seq #: 8 - 1066 147



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM (ISO 9001:2000) CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.

9335 Endeavor Drive S.E.
Cody, Alaska 99501

Certificate Nr 10442

Invites Nr 179
Del. Note Nr 315

Dated 26.02.2009

Dated 22.02.2008
Dated 22.02.2008

10030 CASARZA LIGURE - Genova - Italy - Via Giancarlo Farina 25 - Tel.010.65.469161 - Fax.010.65.469160 - Material Test Department This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 11 - 20

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DNM. ACC. TO | VISUAL & DIMENS. |
|-----------|------|------|-------------------------------------|---------------|-------|---|--------------|------------------|
| 45801 | 052 | 052 | CI-06 - 827; 2007-2E201-000011-082 | 0160 | 0,180 | P. NIPPLE TBE NPT S-80 2" L115mm(4.12") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 87456 | 067 | 067 | CI-06 - 827; 2007-2E201-000011-087 | 0130 | 0,230 | P. NIPPLE TBE NPT S-XXS 2" L125mm(5") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 23651 | 068 | 068 | CI-06 - 827; 2007-2E201-000011-088 | 0100 | 0,280 | P. NIPPLE TBE NPT S-80 1" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 22877 | 021 | 021 | CI-07 - 450; 2008-2E201-000002-001 | 0110 | 0,250 | P. NIPPLE TBE NPT S-80 2" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 55178 | 20 | 20 | CI-07 - 691; 2007-2E201-0001160-020 | 0170 | 0,250 | P. NIPPLE TBE NPT S-80 3/4" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 23651 | 24 | 24 | CI-07 - 691; 2007-2E201-0001160-024 | 0100 | 0,280 | P. NIPPLE TBE NPT S-80 1" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 539229 | 41 | 41 | CI-07 - 691; 2007-2E201-0001160-041 | 0140 | 0,230 | P. NIPPLE TBE NPT S-80 2" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 22877 | 41 | 41 | CI-07 - 691; 2007-2E201-0001160-041 | 0110 | 0,250 | P. NIPPLE TBE NPT S-80 2" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS | SEMI TEST | FLATTENING TEST | TYPE | IMPACT TEST | POLE ENERGY | SHOPE | YIELD POINT |
|-----------|------|------|---------------|-------------|------------------|------------|-------------------|-----------|-----------|-----------------|------|-------------|-------------|-------|-------------|
| 45801 | 052 | 052 | 0,00 | 293,0 | 422,0 | 31,0 | 0,0 | 164 - 173 | 0,0 | 0,0 | KV | 20 | 46 | 48 | 49 |
| 87456 | 067 | 067 | 0,00 | 296,0 | 422,0 | 44,2 | 0,0 | 163 - 166 | 0,0 | 0,0 | KV | 20 | 54 | 54 | 58 |
| 23651 | 068 | 068 | 0,00 | 328,0 | 472,0 | 39,0 | 0,0 | 158 - 164 | 0,0 | 0,0 | KV | 20 | 49 | 55 | 55 |
| 22877 | 021 | 021 | 0,00 | 314,0 | 452,0 | 32,0 | 0,0 | 163 - 166 | 0,0 | 0,0 | KV | 20 | 53 | 60 | 64 |
| 55178 | 20 | 20 | 0,00 | 407,0 | 527,0 | 38,0 | 0,0 | 160 - 162 | 0,0 | 0,0 | KV | 20 | 54 | 55 | 57 |
| 23651 | 24 | 24 | 0,00 | 328,0 | 472,0 | 39,0 | 0,0 | 158 - 164 | 0,0 | 0,0 | KV | 20 | 49 | 55 | 56 |
| 539229 | 41 | 41 | 0,00 | 355,0 | 494,0 | 38,0 | 0,0 | 159 - 161 | 0,0 | 0,0 | KV | 20 | 47 | 52 | 54 |
| 22877 | 41 | 41 | 0,00 | 314,0 | 452,0 | 32,0 | 0,0 | 163 - 166 | 0,0 | 0,0 | KV | 20 | 53 | 60 | 64 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | OUR Ref. |
|-----------|------|------|-----------------------------------|--------------------------------------|----------|
| 45801 | 052 | 052 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 880°C-920°C / Air Cool | 073095 |
| 87456 | 067 | 067 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 880°C-920°C / Air Cool | 073101 |
| 23651 | 068 | 068 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 880°C-920°C / Air Cool | 073105 |
| 22877 | 021 | 021 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 880°C-920°C / Air Cool | 073105 |
| 55178 | 20 | 20 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 880°C-920°C / Air Cool | 063029 |
| 23651 | 24 | 24 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 880°C-920°C / Air Cool | 073115 |
| 539229 | 41 | 41 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 880°C-920°C / Air Cool | 073041 |
| 22877 | 41 | 41 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 880°C-920°C / Air Cool | 073105 |

PC COMPRESSION

RECEIVED JUN 24 2008

P.O. # 510478

SIGNATURE: [Signature]

APPROVED BY O.C. INSPECTOR

QUALITY CONTROL DEPARTMENT

MANUFACTURER'S SYMBOL

STUDSOLTS

HT# 760659 2" x 7" 580 NIPPLE



SILCOTUB S.A.
 39, BARRIA VITEZAZULUD,
 40089 ZARAGOZA, ESPAÑA
 ROMANIA
 Tel. 0040 239 021724
 Fax 0040 239 861581

Customer's order/Comanda client
 R1.02006PR000448
 Country/Țara
 CDN
 Order No.
 0617224
 Page/Pagina
 001/003
 Customer's order/Comanda client
 31/07/2006
 Order No.
 2230174/001
 Shipping Name/Țara de expediție
 00006812 - 11/07/2006

Customer's order/Comanda client
 R1.02006PR000448
 Country/Țara
 CDN
 Order No.
 0617224
 Page/Pagina
 001/003
 Customer's order/Comanda client
 31/07/2006
 Order No.
 2230174/001
 Shipping Name/Țara de expediție
 00006812 - 11/07/2006

SEAMLESS PIPE ACCORDING TO API SPECIFICATION 5L X 70 S280. MANUFACTURED BY TENARIS S.A. (FRANCE) FOR EXPORT TO THE UNITED STATES OF AMERICA.
 SEAMLESS PIPE ACCORDING TO API SPECIFICATION 5L X 70 S280. MANUFACTURED BY TENARIS S.A. (FRANCE) FOR EXPORT TO THE UNITED STATES OF AMERICA.
 SEAMLESS PIPE ACCORDING TO API SPECIFICATION 5L X 70 S280. MANUFACTURED BY TENARIS S.A. (FRANCE) FOR EXPORT TO THE UNITED STATES OF AMERICA.

4.9 Feet 6700 60,300 5,540
 Quantity/Numar
 4809
 Package/Pachet
 30226
 Net Weight/Pondere Netă
 226081
 Gross Weight/Pondere Brută
 991,66, 67
 Length/Inălțime
 498422, 67

| Order No. | Weight (kg) | Length (m) | Outer Diameter (mm) | Wall Thickness (mm) | Yield Strength (MPa) | Tensile Strength (MPa) | Charpy (J) | End Use |
|-----------|-------------|------------|---------------------|---------------------|----------------------|------------------------|------------|---------|
| B3063 | 760671 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3064 | 760671 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3065 | 760672 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3066 | 760672 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3067 | 760672 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3068 | 760672 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3071 | 760659 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3072 | 760659 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3073 | 760659 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3074 | 760657 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3075 | 760657 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3076 | 760657 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3079 | 760665 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3080 | 760665 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| B3081 | 760665 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |

Customer's order/Comanda client
 R1.02006PR000448
 Country/Țara
 CDN
 Order No.
 0617224
 Page/Pagina
 001/003
 Customer's order/Comanda client
 31/07/2006
 Order No.
 2230174/001
 Shipping Name/Țara de expediție
 00006812 - 11/07/2006

PC COMPRESSION
 DATE RECEIVED APR 08 2008
 P.O. # 510005
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

TENARIS S.A. - ROMANIA
 39, BARRIA VITEZAZULUD, 40089 ZARAGOZA, ESPAÑA



SILCOTUBE S.A.
 31, IMPIAT VITEAZUI BLDV.
 43005 ZANAU, SALAJ
 ROMANIA
 Tel: 0040 210 420720
 Fax: 0040 210 661381

| | | |
|------------|------------|---------|
| W.A. No. | 06/17224 | 002/003 |
| Order Date | 31/07/2006 | |

CUSTOMER'S ORDER/COMMANDE CLIENT
 VAN LEUWEN PIPE & TUBE (CANADA) INC.
 Address/Adresa: R1020067R0000448
 Country/Pais: CDN
 Customer's Ref./Referinta client: 2230174/001
 Job Number/Comanda nr: EX/102892/1
 Order Date/Date comanda: 11/07/2006
 Order No./Comanda nr: 4646 - 32 ST. B.E.
 Product/Produs: T2B 3J CALGARY
 Description/Descriere: SEAMLESS LINE PIPES ACCORDING TO API 5L PSL1 ASTM A53 GRADE A 100 ASA 17, CSA 224, 1, TENARIS NET WT 2.19, 4.43 STEEL OR X42 PSL1, OR 48 API 5L PSL1, OR 60 ASA 100, ASA 17 E 20 CSA CAT. 1 SS INTERNALLY BEADED, EXTERNALLY VARNISHED BEVELLED AS PER API 5L 2004
 Technical Drawing: TEVI CONOMATA PANA BURDURA IN ACARA STANDARDULUI NORMA API 5L PSL1 ASTM A53 GRADE A 100 ASA 17, CSA 224, 1, TENARIS NET WT. 2.19, 4.43 STEEL OR X42 PSL1, OR 48 API 5L PSL1, OR 60 ASA 100, ASA 17 E 20 CSA CAT. 1 SS INTERIOR UNBUTTWELDED, EXTERIOR LACRTE MATRINATE CONFORME API 5L 2004

| Sp. Prod. | lg. To | O.D. mm | W.T. mm | Placinta | kg/m | kg/m | kg/m | kg/m |
|-----------|--------|---------|---------|----------|-------|--------|----------|----------|
| 5490 | 6700 | 60,300 | 5,540 | 4809 | 30226 | 226081 | 99166,67 | 498422,1 |

Quantity/Caritate: 4809
 Weight/Greutate: 30226
 Length/Lungime: 226081
 Net Weight/Pondere neta: 99166,67
 Gross Weight/Pondere bruta: 498422,1

| Type/Tip | | Material/Material | | Grade/Clasificatie | | Tensile Strength/Rezistenta la trageri | | Yield Strength/Rezistenta la curgere | | Elongation/Alungire | |
|----------|--------------|--------------------|---|--------------------|---|--|---|--------------------------------------|---|---------------------|---|
| Code/Cod | Design/Desen | Grade/Clasificatie | Chemical Composition/Compozitie chimica | Grade/Clasificatie | Chemical Composition/Compozitie chimica | Grade/Clasificatie | Chemical Composition/Compozitie chimica | Grade/Clasificatie | Chemical Composition/Compozitie chimica | Grade/Clasificatie | Chemical Composition/Compozitie chimica |
| B3063 | 760671 | 760671 | Test certificate ok | B3066 | 760672 | 760672 | Test certificate ok | B3071 | 760659 | 760659 | Test certificate ok |
| B3074 | 760657 | 760657 | Test certificate ok | B3079 | 760655 | 760655 | Test certificate ok | | | | |

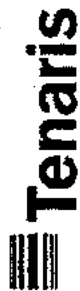
T - INTERIOR BEADED, EXTERNALLY VARNISHED BEVELLED AS PER API 5L 2004
 S - INTERIOR UNBUTTWELDED, EXTERIOR LACRTE MATRINATE CONFORME API 5L 2004

| Q | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|-------|----|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|-------|-----|
| 16 | 33 | 101 | 10 | 1 | 9 | 2 | 1 | 39 | 3 | 1 | 37 | 802 | 7,101 | 5,117 | |
| 76671 | 4 | 37 | 23 | 94 | 17 | 7 | 9 | 9 | 2 | 1 | 20 | 2 | 1 | 1 | 37 |
| 76672 | 4 | 36 | 23 | 94 | 18 | 9 | 7 | 2 | 1 | 16 | 3 | 1 | 1 | 34 | 800 |
| 76657 | 4 | 38 | 26 | 96 | 14 | 8 | 10 | 7 | 2 | 1 | 20 | 3 | 1 | 1 | 34 |
| 76655 | 4 | 36 | 27 | 93 | 14 | 5 | 9 | 6 | 2 | 1 | 18 | 3 | 1 | 1 | 32 |

Q1 = 1147 ONE CHUVA ON CHATE
 Q2 = 1147 ONE CHUVA ON CHATE
 Q3 = 1147 ONE CHUVA ON CHATE
 Q4 = 1147 ONE CHUVA ON CHATE
 Q5 = 1147 ONE CHUVA ON CHATE
 Q6 = 1147 ONE CHUVA ON CHATE
 Q7 = 1147 ONE CHUVA ON CHATE
 Q8 = 1147 ONE CHUVA ON CHATE
 Q9 = 1147 ONE CHUVA ON CHATE
 Q10 = 1147 ONE CHUVA ON CHATE
 Q11 = 1147 ONE CHUVA ON CHATE
 Q12 = 1147 ONE CHUVA ON CHATE
 Q13 = 1147 ONE CHUVA ON CHATE
 Q14 = 1147 ONE CHUVA ON CHATE
 Q15 = 1147 ONE CHUVA ON CHATE

| Type/Tip | Spec. Value/Valoare |
|------------------------------|---------------------|
| HYDRAULIC/PROBA HIDROSTATICA | PSI 5 2500,0 |

NONDESTRUCTIVE TEST - EMI ACC TO ASTM E 570: WITHOUT OBJECTIONS / CONTROL HIDROSTATICA - EMI CONP. ASTM E 570: FARA OBIECTII
 SONDESTRUCTIVE TEST - MPI ACC TO ASTM E 709: WITHOUT OBJECTIONS / CONTROL HIDROSTATICA - MPI CONP. ASTM E 709: FARA OBIECTII



SILCOTUB S.A.
 92, MIHAI NITEAZU BLVD.
 41009 ZALAU, SALAJ
 ROMANIA
 TEL: 0040 362 60070
 FAX: 0040 362 69081

U.N. 06/17224 003/003
 000006 31/07/2006
 Customer's Reference Order
 2230174/001
 Shipping Invoice No. de expedite
 00006812 - 11/07/200

Customer's Order
 VAN DERBOMEN PIPE & TUBE (CANADA) INC.
 R102006FR0000448
 Customer's order/Comanda client
 Country/Țara
 CAN
 Town/Oraș
 T2B 33 CALGARY

Product/Produs
 4646 - 32 ST. S.B.
 60,300 5,540
 O.D. mm W.T. mm

Quantity/Numar
 5490 6700
 Lg. From Lg. To

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

Quantity/Numar
 4809 30226
 Pieces/Buc. Weight/Kg

CONFORM TO API 5L PSL1 ASTM A53 GRADE B, 22 HRC, CONFORM FACE NR - 01 - 75 / 2003 BRITISH MAX. 22 HRC, CONFORM FACE NR - 01 - 75 / 2003
 ALL THE PIPES HAS BEEN TESTED BODY CURRENT ACCORDING TO ASTM E 309 / SCURT TESTE LA CORPENTIA IN CONFORMITATE CU ASTM E 309

| Standard/Standard | Year/An | Revision/Revizie | Year/An |
|-------------------|---------|------------------|---------|
| API 5L | 2004 | 43* | Ed. 1.1 |
| ASTM A 106 | 2004 | | Ed. 1.1 |
| ASME SA 106 | 2004 | 2005 | Ed. 1.1 |
| CSA Z245.1 | 2002 | | Ed. 1.1 |

VIZUAL AND DIMENSIONAL CONTROL HAS BEEN CARRIED OUT WITH SATISFACTORY RESULT
 CONTROLUL VIZUAL DIMENSIONAL S-A REALIZAT CU REZULTATE SATISFACTOARE
 STEEL IS FULLY KILLED AND PRODUCED BY ELECTRIC FURNACE TO A FINE GRAIN PRACTICE
 OTELUL ESTE PRODUS IN CUPTOR ELECTRIC COMPLET CALDAT CONFORM UNEI PRACTICI DE OBTINERE A UNUI GRAWITE FIN
 THE PRODUCT SUPPLIED IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE ORDER.
 PRODUSUL LIVRAT ESTE IN CONFORMITATE CU CERINTELE COMENZII



Quality System Certified
 9.12.100.15.067

ORDER OF QUALITY CERTIFICATION BY
 NUMBER OF CERTIFICATION CLIENTS

14140 DUMITRAS

QUALITY MANAGER
 ROMANIAN QUALITY CERTIFICATION

LEONARD MOROSUT

2X7 KH SMLS STEEL NIPPLES A106

TBE

HEAT NUMBER : 745635
TRANS AM PIPING PRODUCTS - REV'D BY:
P.O. # /Seq #: L-08 - 10164 4

Benteler Stahlrohr GmbH
Postfach 13 40
33043 Postdornum
Deutschland
Tel.: +49 5254 91-0 Fax: +49 5254 13200

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1
EN 10204:2005-01

Benteler Stahlrohr GmbH - Postfach 2008 - 33043 Postdornum - Deutschland
BHD Tubular Ltd.
6905 - 75rd Ave.
EDMONTON, AB T6B 3A5
CANADA

HT# 745635 /

BENTELER
Stahl/Rohr

Document-Nr.: 05-351130001/P
 Documents No.: 05-0946 / 10468
 Kunden-Bestell-Nr.: 1145038
 Purchase Order No.: 6823118
 No. de commande du client
 Benteler Auftrags-Nr.:
 Benteler Order No.:
 No. de commande Benteler:
 Versandreferenz-Nr.:
 Dispatch Note No.:
 No. d'avis d'expédition:
 Produkt: NAHTLOSE STAHLROHRE
 Product: SEAMLESS STEEL TUBES
 Produit: TUBES D'ACIER SANS SOUDURE

Inspection No.:
 No. du certificat:
 Hersteller:
 Manufacturer:
 Hersteller-Nr.:
 Manufacturer's brand:
 Marken des Herstellers:
 Stamp of the inspection responsible:
 Marque du producteur:
 Stamp des Abnahmebeauftragten:
 Stamp of the inspection responsible:
 Tiers des contrôleurs:
 Sachbeschreibungsbezeichnung: ELEKTROSTAHL
 Describing product: ELECTRIC FINNANCE
 Produits d'identification de l'acier: FOUR ELECTRIQUE

Lieferbedingungen: CSA Standard Z245.1-02 Category I, API Specification 8L, Forty-Third Edition, March 2004, P8L 1, ASTM-A
 Terms of delivery: 106-2004b, SS, ASME SA-106, ASME Section II Part A Edition 2004 Addenda 2005, SS, NACE MR0175/ISO
 Conditions de livraison: 15156-1:2001, NACE MR0175/ISO 15156-2:2003
 Maße - Toleranzen: ASME B36.10M-2004, ASME SA-630, ASME Section II Part A Edition 2004 Addenda 2005, ASTM-A 630-2004a
 Dimensions-tolérances:
 Dimensions-tolérances:

Stahlsorte: GRADE 260, GRADE B, GRADE X 42
 Steel grade:
 Numéro d'acier:
 Lieferzustand: Hot rolled
 Delivery condition:
 État de livraison:
 Produktionszeichnung: see attachment product marking
 Product marking:
 Marquage du produit:

| | |
|----------------------------|-------------------------|
| DATE | PC RECEIVED JUN 24 2008 |
| P.O. # | 510478 E832806 |
| SIGNATURE: | [Signature] |
| APPROVED BY Q.C. INSPECTOR | |

| Pos. Stück | Maße | Länge | Gewicht | Schweißen-Nr. | Prüfdruck | Rohr-Nr.-Gruppe | Verlängerungen |
|-------------|-------------------------------------|----------|---------|---------------|-------------------|------------------------|---------------------|
| Item Number | Dimensions | Length | Weight | Weld No. | Test pressure | Tube number group | Multiple lengths |
| Poses | Dimensions | Longueur | Poids | No. de soude | Pression d'essais | Stèle de no. des tubes | Longueurs multiples |
| | | Foot | Lbs | | bar | | |
| 0001 457 | 2" NPS * Sched. 40 18 FT - 22 FT | 18003,58 | 35246 | 745708 | 207 | 5 | |
| 0002 242 | 2" NPS * Sched. 40 38 FT - 42 FT | 9982,32 | 35909 | 536382 | 207 | 5 | |



Benteler StahlRohr GmbH
 Postfach 19 40
 32040 Paderborn
 Deutschland
 Tel.: +49.5254.81-0 Fax: +49.5254.13600

ABNAHMEPRÜFZEUGNIS EN 10204-3.1 **Document-Nr.:** 85-951130/001/P **Blatt:** 2 / 7
RECEPTION CERTIFICATE EN 10204-3.1 **Document No.:** **Page:**
CERTIFICAT DE RECEPTION EN 10204-3.1 **No. du document:**

| Pos. | Stück | Maße | Länge | Gewicht | Schmelzen-Nr. | Prüfdruck | Rohr-Nr.-Gruppe | Vierfachlängen |
|-------|--------|-------------------------------------|----------|---------|---------------|--------------------|----------------------|---------------------|
| Item | Number | Dimensions | Length | Weight | Heat No. | Test pressure | Tube number group | Multiple lengths |
| Poste | Nombre | Dimensions | Longueur | Poids | No. de coule | Pression d'épreuve | SMA de no. des tubes | Longueurs multiples |
| | | | feet | lbs | | bar | | |
| 0003 | 1054 | 2" NPS * Sched. 80 18 FT - 22 FT | 21015,29 | 105602 | 745635 | 207 | 5 | |
| 0004 | 293 | 3" NPS * Sched. 40 18 FT - 22 FT | 6251,80 | 47437 | 745690 | 207 | 5 | |
| 0006 | 230 | 4" NPS * Sched. 40 18 FT - 22 FT | 4982,02 | 54344 | 536224 | 207 | 5 | |
| 0007 | 191 | 4" NPS * Sched. 80 18 FT - 22 FT | 4195,09 | 62031 | 536310 | 207 | 5 | |

Schmelzanalyse [%] / Heat analysis (NS) / Analyse aux coules (N)

| Pos. | Schmelzen-Nr. | C | SI | MIN | P | S | CR | MO | NI | CU | V | NB | TI | B |
|-------|---------------|-------|-------|------|-------|-------|------|------|------|------|-------|-------|-------|--------|
| Item | Heat No. | | | | | | | | | | | | | |
| Poste | No. de coule | | | | | | | | | | | | | |
| 0001 | 745700 | 0,135 | 0,205 | 0,84 | 0,008 | 0,005 | 0,12 | 0,04 | 0,13 | 0,17 | 0,002 | 0,010 | 0,002 | 0,0002 |
| 0002 | 536382 | 0,130 | 0,190 | 0,82 | 0,008 | 0,006 | 0,10 | 0,02 | 0,20 | 0,15 | 0,001 | 0,010 | 0,003 | 0,0001 |
| 0003 | 745635 | 0,135 | 0,200 | 0,84 | 0,008 | 0,004 | 0,11 | 0,03 | 0,09 | 0,14 | 0,001 | 0,010 | 0,003 | 0,0001 |
| 0004 | 745690 | 0,125 | 0,210 | 0,83 | 0,007 | 0,003 | 0,09 | 0,03 | 0,10 | 0,15 | 0,001 | 0,010 | 0,003 | 0,0001 |
| 0006 | 536224 | 0,120 | 0,200 | 0,81 | 0,013 | 0,004 | 0,11 | 0,02 | 0,07 | 0,18 | 0,001 | 0,010 | 0,003 | 0,0002 |
| 0007 | 536310 | 0,140 | 0,210 | 0,82 | 0,009 | 0,002 | 0,12 | 0,04 | 0,13 | 0,11 | 0,001 | 0,010 | 0,003 | 0,0001 |

1. Formel: $CE\ IIV = C + (Mn/5) + (Cr + Mo + V/5) + (Cu + Ni/15) \leq 0,40\ %$
2. Formel: $CEV = C + F + (Mn/6) + (Si/24) + (Cu/15) + (Ni/20) + ((Cr + Mo + V + Nb)/5) + (5*B) \leq 0,40$
3. Formel: $Mn/C \geq 3/1$
4. Formel: $Cr + Cu + Mo + Nb + V \leq 1,00\ %$

Benteler Stahlrohr GmbH
 Postfach 13 40
 33043 Paderborn
 Deutschland
 Tel.: +49 5254 81-0 Fax: +49 5254 13088

BENTELER
 Stahl/Rohr

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
 INSPECTION CERTIFICATE EN 10204-3.1
 CERTIFICAT DE RECEPTION EN 10204-3.1

65-351130001/P

Publ-Nr.:
 Inspection No.:
 No. du certificat:

Blatt: 3 / 7
 Page:
 Page:

Dokument-Nr.:
 Document No.:
 No. du document:

Formelergüsse / Formulas results / Résultats des formules

| Pos. | Schmelzen-Nr | 1. Formel | 2. Formel | 3. Formel | 4. Formel |
|--------|--------------|------------|------------|------------|------------|
| Item | Melt No. | 1. Formula | 2. Formula | 3. Formula | 4. Formula |
| Posite | No. de coule | 1. Formule | 2. Formule | 3. Formule | 4. Formule |
| 0001 | 745700 | 0,327 | 0,307 | 5,222 | 0,462 |
| 0002 | 536382 | 0,314 | 0,283 | 5,308 | 0,471 |
| 0003 | 745635 | 0,319 | 0,299 | 5,222 | 0,371 |
| 0004 | 745690 | 0,304 | 0,276 | 5,640 | 0,371 |
| 0005 | 536224 | 0,298 | 0,261 | 5,750 | 0,381 |
| 0007 | 536310 | 0,325 | 0,305 | 5,957 | 0,481 |

Produktanalyse [%] / Product analysis [%] / Analyses sur produit [%]

| Pos. | Schmelzen-Nr. | C | Si | Mn | P | S | Cr | Mo | Ni | Cu | V | Nb | Ti | B |
|--------|---------------|-------|-------|------|-------|-------|------|------|------|------|-------|-------|-------|--------|
| Item | Melt No. | | | | | | | | | | | | | |
| Posite | No. de coule | | | | | | | | | | | | | |
| 0001 | 745700 | 0,140 | 0,170 | 0,80 | 0,098 | 0,005 | 0,10 | 0,02 | 0,20 | 0,14 | 0,001 | 0,010 | 0,002 | 0,0001 |
| 0001 | 745700 | 0,140 | 0,170 | 0,80 | 0,008 | 0,005 | 0,10 | 0,02 | 0,19 | 0,15 | 0,001 | 0,010 | 0,002 | 0,0001 |
| 0002 | 536382 | 0,140 | 0,170 | 0,80 | 0,008 | 0,005 | 0,10 | 0,02 | 0,20 | 0,14 | 0,002 | 0,010 | 0,002 | 0,0002 |
| 0002 | 536382 | 0,140 | 0,170 | 0,80 | 0,008 | 0,005 | 0,10 | 0,02 | 0,19 | 0,14 | 0,002 | 0,010 | 0,002 | 0,0002 |
| 0003 | 745635 | 0,130 | 0,190 | 0,81 | 0,007 | 0,003 | 0,09 | 0,03 | 0,09 | 0,13 | 0,001 | 0,010 | 0,003 | 0,0001 |
| 0003 | 745635 | 0,130 | 0,190 | 0,82 | 0,007 | 0,003 | 0,09 | 0,02 | 0,09 | 0,13 | 0,001 | 0,010 | 0,003 | 0,0001 |
| 0004 | 745690 | 0,140 | 0,180 | 0,80 | 0,008 | 0,003 | 0,08 | 0,02 | 0,13 | 0,15 | 0,002 | 0,010 | 0,002 | 0,0003 |
| 0004 | 745690 | 0,140 | 0,190 | 0,81 | 0,009 | 0,003 | 0,08 | 0,02 | 0,13 | 0,16 | 0,002 | 0,010 | 0,002 | 0,0004 |
| 0006 | 536224 | 0,140 | 0,200 | 0,86 | 0,012 | 0,003 | 0,11 | 0,02 | 0,08 | 0,16 | 0,002 | 0,010 | 0,002 | 0,0003 |
| 0006 | 536224 | 0,140 | 0,200 | 0,85 | 0,012 | 0,003 | 0,11 | 0,02 | 0,08 | 0,17 | 0,002 | 0,010 | 0,002 | 0,0002 |
| 0007 | 536310 | 0,150 | 0,180 | 0,80 | 0,009 | 0,002 | 0,12 | 0,04 | 0,12 | 0,10 | 0,002 | 0,010 | 0,002 | 0,0002 |
| 0007 | 536310 | 0,150 | 0,180 | 0,79 | 0,009 | 0,002 | 0,12 | 0,04 | 0,12 | 0,10 | 0,002 | 0,010 | 0,002 | 0,0001 |

Benteler Stahl/Rohr GmbH
 Postfach 13 40
 33045 Paderborn
 Deutschland
 Tel.: +49.5254.81-0 Fax: +49.5254.19888

Prüf-Nr.: 65-951130001/P
 Inspection No.:
 No. du certificat:

Blatt: 4 / 7
 Page:

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
 INSPECTION CERTIFICATE EN 10204-3.1
 CERTIFICAT DE RECEPTION EN 10204-3.1

1. Formel: $CE \leq 0,40$
2. Formel: $CE + Mn \leq 0,40$
3. Formel: $Mn/C \leq 0,31$
4. Formel: $Cr + Cu + Mo + Ni + V \leq 1,00$ %

Formelergebnisse / Formulas results / Résultats des formules

| Pos. | Schmelzen-Nr | 1. Formel | 2. Formel | 3. Formel | 4. Formel |
|------|--------------|------------|------------|------------|------------|
| Item | Melt No. | 1. Formula | 2. Formula | 3. Formula | 4. Formula |
| Pos. | No. de ordée | 1. Formule | 2. Formule | 3. Formule | 4. Formule |
| 0001 | 745700 | 0,320 | 0,298 | 5,714 | 0,461 |
| 0001 | 745700 | 0,320 | 0,299 | 5,714 | 0,461 |
| 0002 | 536382 | 0,320 | 0,299 | 5,714 | 0,462 |
| 0002 | 536382 | 0,320 | 0,299 | 5,714 | 0,452 |
| 0003 | 745635 | 0,304 | 0,276 | 6,231 | 0,342 |
| 0003 | 745635 | 0,304 | 0,276 | 6,208 | 0,331 |
| 0004 | 745690 | 0,312 | 0,294 | 5,714 | 0,382 |
| 0004 | 745690 | 0,315 | 0,297 | 5,786 | 0,392 |
| 0006 | 536224 | 0,326 | 0,307 | 6,143 | 0,372 |
| 0006 | 536224 | 0,325 | 0,306 | 6,071 | 0,382 |
| 0007 | 536310 | 0,340 | 0,334 | 5,000 | 0,382 |
| 0007 | 536310 | 0,329 | 0,314 | 5,267 | 0,382 |

Prüfverfahren / Test results / Résultats des essais

Die Rohre sind auf Dichtheit geprüft durch:

The tubes have been submitted to a leak tightness test by:

Les tubes ont passé un contrôle d'étanchéité par:

Hydrostatic test: acc. to CSA Z245.1, holding time min 5 seconds, Test pressure/Time-record

PASSED

Benteler Stahl/Rohr GmbH
Postfach 13 40
33049 Paderborn
Deutschland
Tel.: +49 5254 91-0 Fax: +49 5254 13666

ABNAHMEPRÜFZEUGNIS EN 10204-3.1 Dokument-Nr.: **66-351150/001/P** Blatt: **6 / 7**
INSPECTION CERTIFICATE EN 10204-3.1 Document No.: No. du certificat:
CERTIFICAT DE RECEPTION EN 10204-3.1 No. du document:

Augensichtkontrolle: **PASSED** **Biegeversuch:** **PASSED** **Maßkontrolle:** **PASSED**
 Visual inspection: Essai de chargement: Vérification des dimensions:
 Examen visuel: Essai de chargement: Vérification des dimensions:

Ringzugversuch: **PASSED**
 Flattening test:
 Essai d'aplatissement:
 Pos. / Item / Pos.: **0004, 0006, 0007**

Ergebnisse der mechanischen Prüfung / Results of mechanical testing / Résultats des essais mécaniques

Die Probenahme erfolgte an Vielfachlängen.
 The sampling was carried out on multiple lengths.
 L'echantillonnage était réalisé aux longueurs multiples.

Zugversuch Streifprobe / Tensile test strip specimen / Essai de traction bande découpée sur tube

| Pos. | Proben-Nr. | Schmelzen-Nr. | Probenabmessung | Streckgrenze | Zugfestigkeit | Dehnung | Einschmüpfung | Fla/Rm |
|---------------|---------------------|---------------|-------------------------|------------------|--------------------------|-----------------|--------------------------|--------|
| Pos. | Specimen No. | Heat No. | Specimen dimension | Yield strength | Tensile strength | Elongation | Area reduction | Fla/Rm |
| Pos. | No. de l'éprouvette | No. de coulée | Dimensions de l'éprouv. | Limite élastique | Résistance à la traction | Allongement | Coefficient de striction | Fla/Rm |
| Anforderungen | | | Fla/Rm | MPa | MPa | AZ ² | 1. Formel | |
| Requirements | | | MPa | 200-400 | 415-700 | % | 1. Formula | |
| Exigences | | | mm | 200-400 | 415-700 | MM 30 | 1. Formula | |
| 0001 | 000001 | 745700 | 19,00 X 3,80 | 370 | 474 | 34,00 | | |
| 0001 | 000002 | 745700 | 19,00 X 3,80 | 372 | 479 | 32,00 | | |
| 0002 | 000001 | 536382 | 19,00 X 3,80 | 385 | 484 | 32,00 | | |
| 0002 | 000002 | 536382 | 19,00 X 3,80 | 373 | 473 | 34,00 | | |
| 0003 | 000001 | 745635 | 19,00 X 5,50 | 341 | 468 | 41,00 | | |
| 0003 | 000002 | 745635 | 19,00 X 5,50 | 340 | 475 | 38,00 | | |
| 0004 | 000001 | 745690 | 25,40 X 5,50 | 349 | 478 | 37,00 | | |
| 0004 | 000002 | 745690 | 25,40 X 5,50 | 357 | 471 | 37,00 | | |
| 0006 | 000001 | 536224 | 25,40 X 6,00 | 358 | 482 | 32,00 | | |
| 0006 | 000002 | 536224 | 25,40 X 6,00 | 359 | 478 | 32,00 | | |
| 0007 | 000001 | 536310 | 25,40 X 8,90 | 329 | 469 | 38,00 | | |
| 0007 | 000002 | 536310 | 25,40 X 8,10 | 330 | 464 | 36,00 | | |

Benteler Stahl/Rohr GmbH
 Postfach 13 40
 33003 Paderborn
 Deutschland
 Tel.: +49.5254.81-0 Fax: +49.5254.13888

Blatt: 6 / 7
 Page: 6 / 7

Prüf-Nr.:
 Inspection No.:
 No. du certificat

Dokument-Nr.:
 Document No.:
 No. du document

65-351130001/P

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
 INSPECTION CERTIFICATE EN 10204-3.1
 CERTIFICAT DE RECEPTION EN 10204-3.1

Härtprüfung / Hardness test / Essai de dureté

| Pos. | Prüf-Nr. | Schmelzen-Nr. | Härte | HB | HV | HRB |
|---------------|------------------|---------------|----------|---------|----|-----|
| Item | Specimen No. | Melt No. | Hardness | | | |
| Poste | No. de l'éprouv. | No. de coulée | Dureté | | | |
| Anforderungen | | | HRC | | | |
| Exigences | | | | MAX 200 | | |
| 0001 | 000001 | 745700 | | 143 | | |
| 0002 | 000001 | 536382 | | 144 | | |
| 0003 | 000001 | 745635 | | 135 | | |
| 0004 | 000001 | 745690 | | 136 | | |
| 0006 | 000001 | 536224 | | 138 | | |
| 0007 | 000001 | 536310 | | 141 | | |

Fluoreszenz / Demagnetis / Démagnétiseur
 Pos. / Item / Poste: 0001, 0002, 0004, 0006, 0003, 0007
 residual magnetic field intensity max 3,5 millitesla

| Pos. | Ihr Zeichen | Kundenmaterial | Kundenbestell-Nr. |
|-------|-----------------|--------------------------|---------------------------|
| Item | Your reference | Customer's Material No. | Purchase Order No. |
| Poste | Votre référence | No. de matière du client | No. de commande du client |
| 0001 | | P.O. 104888 | 08-5846 / 104888 |
| 0002 | | P.O. 104888 | 08-5846 / 104888 |
| 0003 | | P.O. 104888 | 08-5846 / 104888 |
| 0004 | | P.O. 104888 | 08-5846 / 104888 |
| 0006 | | P.O. 104888 | 08-5846 / 104888 |
| 0007 | | P.O. 104888 | 08-5846 / 104888 |

BENTELER

Stahl/Rohr

Benteler Stahlrohr GmbH
Postfach 13 40
33048 Feddern
Deutschland
Tel.: +49 5234 31-0 Fax: +49 5234 13069

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

Vermerk / Remark / Remarque

Pos. / Item / Poste: 0001, 0003, 0002, 0003, 0002, 0002, 0003

NACE Standard: Hardness acc. to NACE MR0175/ISO 15156: HRC max 22. The material meets the requirements of NACE MR0103;
Certificate remarks: This is to confirm that the seamless linepipe supplied by Benteler and verified to CSA Standard Z245.1-02 meets the requirement for micro hardness of max. 248 HV 500.; Bend test: manifold diameter 12D, bending angle 90 degree

Pos. / Item / Poste: 0004, 0007, 0006, 0006, 0007

NACE Standard: Hardness acc. to NACE MR0175/ISO 15156: HRC max 22. The material meets the requirements of NACE MR0103;
Certificate remarks: This is to confirm that the seamless linepipe supplied by Benteler and verified to CSA Standard Z245.1-02 meets the requirement for micro hardness of max. 248 HV 500.

Beiblieft Produktkennzeichnung / Attachment product marking / Supplement marquage du produit

| Pos. | Produktkennzeichnung |
|------------------------------------|---|
| Item | Product marking |
| Poste | Marquage du produit |
| 0001, 0002, 0003, 0004, 0006, 0007 | FS: BENTELER Z.245.1, Spec.SL-PSL1, AVSA-106 0806 S5 B/X42/200 HEAT-NO. TEST P RESSURE DIMENSIONS SCHEDULE WA GERMANY P.O. 104908 |

FS: BENTELER Z.245.1, Spec.SL-PSL1, AVSA-106 0806 S5 B/X42/200 HEAT-NO. TEST P RESSURE DIMENSIONS SCHEDULE WA GERMANY P.O. 104908

FK = Fechtzeichnungs-, Liefer- und/oder Fertigungszeichnung, Zeichnung des Lieferanten, Zeichnung des Herstellers, Zeichnung des Auftraggebers
FK = Technical drawing, delivery and/or manufacturing drawing, drawing of the supplier, drawing of the manufacturer, drawing of the customer
FK = Dessin technique, livraison et/ou de fabrication, dessin du fournisseur, dessin du fabricant, dessin du client

Verfüllter(in) / Submittant venant en charge / Persona chargé : Mr Seebach, Tel.: 05254/81-4261, Fax: 4269

Direktion, 04.09.2008, TEL.: 02064.623-537 FAX: 02064.623-539

Es wird bestätigt, daß die gelieferten Erzeugnisse den vom Lieferbedingungen des Auftrages entsprechen. Dieses Dokument wurde mittels EDX erstellt und ist ohne Unterschrift rechtmäßig.
We certify that the supplied products comply with the order specification. This document was prepared by means of electronic data processing and is valid without signature.
Nous attestons que les produits livrés sont conformes aux spécifications de la commande. Ce document a été établi par traitement électronique et est valide sans signature.



PK-Nr.: 65-351130/001/P
Inspection No.:
No. du certificat:
Blatt: 7 / 7
Page:
Page:

HEAT NUMBER : 22877

TRANS AM PIPING PRODUCTS - REV'D BY: 2 X 6 XH SMLS STEEL NIPPLES A106
 Shipment/Seg #: S 7 - 1562 101



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.

9335 Encanto Drive S.E.
 Calgary, Alberta T3S 0A1 CA

Certificate Nr 16192
 Invoice Nr 1238
 Del. Note Nr 1914

CA

29.11.2007
 27.11.2007
 27.11.2007

18030 CABARZA LIGURE - Genova - Italy - P.zza Marco Cappelletti, 4 - Tel.010.487961 - Fax 010.486610 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 12 - 15

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|------|-------------|------------------------|------|---|--------------|------------------|
| 22877 | 538697 | 043 | CI-06 - 635 | 2006-2E201-0000797-043 | | P. NIPPLE TBE NPT S-80 2" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 86591 | 020 | CI-06 - 741 | 2006-2E201-0000854-020 | | P. NIPPLE TBE NPT S-80 1" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 22877 | 042 | CI-06 - 741 | 2006-2E201-0000954-042 | | P. NIPPLE TBE NPT S-160 3/4" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 86591 | 038 | CI-06 - 827 | 2007-2E201-0000011-038 | | P. NIPPLE TBE NPT S-80 2" L90mm(3.12") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 22877 | 043 | CI-06 - 635 | 2006-2E201-0000797-043 | | P. NIPPLE TBE NPT S-160 3/4" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 64589 | 032 | CI-06 - 827 | 2007-2E201-0000011-032 | | P. NIPPLE TBE NPT S-80 2" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 86591 | 036 | CI-06 - 827 | 2007-2E201-0000011-036 | | P. NIPPLE TBE NPT S-160 3/4" L151mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Si% | Mn% | P% | S% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | As% | C.E.% | OTHER ELEMENTS |
|-----------|--------|------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| 22877 | 538697 | 043 | ASTM A106/B API 5LB | 0.110 | 0.250 | 0.490 | 0.004 | 0.011 | 0.070 | 0.050 | 0.010 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.023 | 0.221 | |
| | 86591 | 020 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| | 22877 | 042 | ASTM A106/B API 5LB | 0.150 | 0.240 | 0.730 | 0.003 | 0.012 | 0.080 | 0.070 | 0.020 | 0.000 | 0.210 | 0.002 | 0.000 | 0.000 | 0.036 | 0.311 | |
| | 86591 | 038 | ASTM A106/B API 5LB | 0.150 | 0.240 | 0.730 | 0.003 | 0.012 | 0.080 | 0.070 | 0.020 | 0.000 | 0.210 | 0.002 | 0.000 | 0.000 | 0.036 | 0.311 | |
| | 22877 | 043 | ASTM A106/B API 5LB | 0.110 | 0.250 | 0.490 | 0.004 | 0.011 | 0.070 | 0.050 | 0.010 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.023 | 0.221 | |
| | 64589 | 032 | ASTM A106/B API 5LB | 0.150 | 0.250 | 0.720 | 0.010 | 0.008 | 0.040 | 0.060 | 0.010 | 0.000 | 0.240 | 0.004 | 0.000 | 0.000 | 0.000 | 0.301 | |
| | 86591 | 036 | ASTM A106/B API 5LB | 0.150 | 0.240 | 0.730 | 0.003 | 0.012 | 0.080 | 0.070 | 0.020 | 0.000 | 0.210 | 0.002 | 0.000 | 0.000 | 0.036 | 0.311 | |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HB | 90° TEST | FLATTENING TEST | TYPE TEST | IMPACT TEST | SHAPE | YIELD POINT |
|-----------|--------|------|---------------|-------------|------------------|------------|-------------------|-------------|----------|-----------------|-----------|-------------|-------|-------------|
| 22877 | 538697 | 043 | 0.00 | 314.0 | 452.0 | 32.0 | 0.0 | 163 - 166 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| | 86591 | 020 | 0.00 | 362.0 | 480.0 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| | 22877 | 042 | 0.00 | 295.0 | 432.0 | 42.0 | 0.0 | 162 - 166 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| | 86591 | 038 | 0.00 | 314.0 | 452.0 | 32.0 | 0.0 | 163 - 166 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| | 22877 | 043 | 0.00 | 295.0 | 432.0 | 42.0 | 0.0 | 162 - 166 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| | 64589 | 032 | 0.00 | 314.0 | 452.0 | 32.0 | 0.0 | 163 - 166 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| | 86591 | 036 | 0.00 | 296.0 | 488.0 | 51.0 | 0.0 | 154 - 160 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| | | | 0.00 | 295.0 | 432.0 | 42.0 | 0.0 | 162 - 166 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL |
|-----------|--------|------|----------------------------------|--------------------------------------|----------------------------|-----------------------|-----------------------|
| 22877 | 538697 | 043 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | BORIS FIZZOTTI | IML | STUDSBOLTS |
| | 86591 | 020 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | |
| | 22877 | 042 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | |
| | 86591 | 038 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | |
| | 22877 | 043 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | |
| | 64589 | 032 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | |
| | 86591 | 036 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | |

NOTES ASME B16.11/05 - ANSI B31.1/BS1.3 - IML STD - ANSI B1.1/B16.2.2.
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIER MATERIAL SPECIFICATIONS AND P.O. REQUIREMENTS

INSPECTION AUTHORITY: PC COMPRESSION
 DATE RECEIVED: JUN 24 2008
 P.O. # 50428 ES37806
 SIGNATURE: *af*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : R40
 TRANS AM PIPING PRODUCTS - REV'D BY:
 P.O. # /Seq #: L-08 - 9590 2

JB

2 X 5 XH SMLS STEEL NIPPLES A106
 TBE



Phoenix * Capitol * Camco

Cap Products

Certified Mill Test Report

Heat Code: R40 ✓
 Heat Number: 612059
 Item: 15112010: 2 X 5" XHSML BK STL NIPL
 Material: ASTM A106-1999e B / ASME SA106-2001 Edition, No Addenda

Chemistry Properties

| | | | | | | |
|-------|-------|-------|-------|------------|-------|-------|
| C | Mn | P | S | Si | Cu | Cr |
| 0.180 | 0.500 | 0.016 | 0.019 | 0.220 | 0.020 | 0.020 |
| Ni | Mo | V | Co | Al | Cb | N |
| 0.020 | 0.010 | 0.010 | | | 0.000 | |
| Pb | Sn | Ta | Ti | C Eq. Long | | |
| | | | | 0.274 | | |

Additional Chemical Properties

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |

Mechanical Properties

| | | | | |
|--------------|------------|-------------------|-----------|-----|
| Tensile(PSI) | Yield(PSI) | Elong. % in 2 in. | Reduction | BHN |
| 70000 | 45700 | 32% | | |

Charpy Minimum Impact - ft/lbs

| | | | | |
|--------|--------|--------|------|------------|
| Test 1 | Test 2 | Test 3 | Avg. | Test Temp. |
| | | | | |

Bend Test Passed
Eddy Current Passed

This material meets the requirements of the governing specifications. We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and tests conform with applicable requirements.

We further certify this material was inspected with independent inspectors conforming to the requirements of EN 10204 Section 3.1B.

Specification comments:
 MEETS HARDNESS REQUIREMENTS OF NACE MRO175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

Heat Code Remarks:

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O.# 510428 E832806
 SIGNATURE: *Ne*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : **NDO**
 TRANS AM PIPING PRODUCTS · REV'D BY:
 Shipment/Seq #: **S 6 · 1126 39**

2 X 4 1/2 XH SMLS STEEL NIPPLES A106 TBE



**Phoenix * Capitol * Camco
 Cap Products**

Commanding a Higher StandardSM

Certified Mill Test Report

2/22/2006

Customer
 TRANS AM PIPING PRODUCTS LTD. AB

 7025 44TH ST SE
 CALGARY AB, T2C4E8

Part Number
 15112009

P.O. CI-06-212

Heat No 38509
Heat Code NDO
Phoenix Order # 387732

Material ASTM A106-1999e B / ASME SA106-2001 Edition, No Adden

Description
 2 X 4-1/2" XH SMLS BK STL NIPL

Chemical Properties

| | | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|--|
| C | Mn | P | S | Si | Cu | Cr | Ni | C Eq. Long | | |
| 0.190 | 0.490 | 0.009 | 0.018 | 0.270 | 0.180 | 0.110 | 0.090 | 0.314 | | |
| Mo | V | Co | Al | Cb | N | Pb | Sr | Ta | Ti | |
| 0.010 | 0.001 | | | | | | | | | |

Additional Chemical Properties

| | | | | | | |
|--|--|--|--|--|---------------------|--|
| | | | | | Cr + Cu + Ni | |
| | | | | | 0.380 | |

Mechanical Properties

Charpy Minimum Impact -

| | | | | | | | | |
|----------------------|--------------------|--------------------------|---------------|------------|---------------|---------------|---------------|----------------|
| Tensile (PSI) | Yield (PSI) | Elong. % in 2 in. | R of A | BHN | Test 1 | Test 2 | Test 3 | Average |
| 74,000 | 49,000 | 31.0% | | | N/A | N/A | N/A | N/A |

* Hydro test passed. at 2500 psi.

* Bend test passed.

This material meets the requirements of the governing specifications We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and test conform with applicable requirements.

Comments:

MEETS HARDNESS REQUIREMENTS OF NACE MRO175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

CapProducts, Ltd.
 25 Winnipeg St
 Vanastra, ON NOM1L0

PC COMPRESSION RECEIVED JUN 24 2008

DATE

P.O. # 510428 E832806

SIGNATURE:

APPROVED BY Q.C. INSPECTOR



Phoenix * Capitol * Camco
Cap Products

1123547

Commanding a Higher Standard_{sm}

Certified Mill Test Report

2/8/2008

Customer
CE FRANKLIN LTD

P.O. 1961663-OR-2100

Heat No 724492
Heat Code XA4 ✓
Phoenix Order # 528241

BOX 6776 STN "D"
CALGARY, AB T2P2E8

Material ASTM A106-1999e B / ASME SA106-2001 Edition, No Adden

Part Number
15112008

Description
2 X 4" XHSM L BK STL NIPL

Chemical Properties

| | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|------------|----|
| C | Mn | P | S | Si | Cu | Cr | Ni | C Eq. Long | |
| 0.220 | 0.530 | 0.017 | 0.027 | 0.300 | 0.030 | 0.020 | 0.020 | 0.318 | |
| Mo | V | Co | Al | Cb | N | Pb | Sn | Ta | Ti |
| 0.010 | 0.001 | | | | | | | | |

Additional Chemical Properties

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |

| |
|--------------|
| Cr + Cu + Ni |
| 0.070 |

Mechanical Properties

Charpy Minimum Impact -

| Tensile (PSI) | Yield (PSI) | Elong. % in 2 in. | R of A | BHN | Test 1 | Test 2 | Test 3 | Average |
|---------------|-------------|-------------------|--------|-----|--------|--------|--------|---------|
| 66,500 | 42,600 | 32.0% | | | N/A | N/A | N/A | N/A |

* Hydro test passed. at 2500 psi.

* Bend test passed.

This material meets the requirements of the governing specifications We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and test conform with applicable requirements.

We further certify this material was inspected with independent inspectors conforming to the requirements of EN10204 Section 3.1B.

Comments:

MEETS HARDNESS REQUIREMENTS OF NACE MRO175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

CapProducts. Ltd.
25 Winnipeg St
Winnipeg, ON NOM 1L0

PC COMPRESSION
DATE RECEIVED JUN 13 2008

P.O. # 510395

SIGNATURE: *HP*

APPROVED BY Q.C. INSPECTOR

Line 10

HEAT NUMBER : 539229
 TRANS AM PIPING PRODUCTS - REV'D BY :
 SHIPMENT/SEQ # : 5 7 - 1468 96



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappella, 4 - Tel. 010.85.467961 - Fax 010.85.467961

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY ANIA

TRANS AM PIPING PRODUCTS LTD.
 233081 Endeavor Drive S E
 Calgary Alberta T2P 2G6
 CA

Certificate Nr 18004
 Invoice Nr 1031
 Del. Note Nr 1577
 Dated 03.10.2007
 Dated 23.09.2007
 Dated 26.09.2007

This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 4 - 16

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|------|-------------|------------------------|------|---|--------------|------------------|
| A53 | 78092 | 080 | CI-07 - 444 | 2007-2E201-0000665-080 | | FITTING 45 ELB. SW 3M 1/2" A350/LF2 | SEE NOTE | SATISFACTORY |
| TH0 | 39699 | 081 | CI-07 - 444 | 2007-2E201-0000665-081 | | FITTING TEE SW 3M 1/2" A350/LF2 | SEE NOTE | SATISFACTORY |
| | 73413 | 082 | CI-07 - 444 | 2007-2E201-0000665-082 | | FITTING COUPLING SW 3M 1/2" A350/LF2 | SEE NOTE | SATISFACTORY |
| | 538697 | 022 | CI-06 - 741 | 2006-2E201-0000954-022 | | P. NIPPLE TBE NPT S-80 1" L125mm(5") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 539229 | 021 | CI-06 - 827 | 2007-2E201-0000011-021 | | P. NIPPLE TBE NPT S-80 2" L75mm(3") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 539229 | 023 | CI-06 - 827 | 2007-2E201-0000011-023 | | P. NIPPLE TBE NPT S-80 2" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 539229 | 024 | CI-07 - 294 | 2007-2E201-0000340-024 | | P. NIPPLE TBE NPT S-80 2" L75mm(3") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 539229 | 036 | CI-06 - 635 | 2006-2E201-0000797-036 | | P. NIPPLE TBE NPT S-80 2" L65mm(2.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | | C% | S% | F% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | AP% | C.E.% | OTHER ELEMENTS |
|-----------|--------|------|--------------------|--------------------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| | | | ASTM A350 LF2 cl.1 | ASTM A350 LF2 cl.1 | | | | | | | | | | | | | | |
| A53 | 78092 | 080 | 122.65 | 50.00 | 306.0 | 588.0 | 60.0 | 0.130 | 0.060 | 0.010 | 0.005 | 0.250 | 0.001 | 0.000 | 0.000 | 0.009 | 0.371 | |
| TH0 | 39699 | 081 | 122.65 | 50.00 | 364.0 | 533.0 | 54.0 | 0.150 | 0.080 | 0.020 | 0.015 | 0.190 | 0.028 | 0.002 | 0.000 | 0.026 | 0.373 | |
| | 73413 | 082 | 122.65 | 50.00 | 325.0 | 525.0 | 56.0 | 0.100 | 0.090 | 0.010 | 0.020 | 0.180 | 0.023 | 0.000 | 0.000 | 0.026 | 0.397 | |
| | 538697 | 022 | 0.00 | 0.00 | 362.0 | 450.0 | 0.0 | 0.008 | 0.100 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| | 539229 | 021 | 0.00 | 0.00 | 355.0 | 494.0 | 0.0 | 0.009 | 0.100 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |
| | 539229 | 023 | 0.00 | 0.00 | 355.0 | 494.0 | 0.0 | 0.009 | 0.100 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |
| | 539229 | 024 | 0.00 | 0.00 | 355.0 | 494.0 | 0.0 | 0.009 | 0.100 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |
| | 539229 | 036 | 0.00 | 0.00 | 355.0 | 494.0 | 0.0 | 0.009 | 0.100 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |

NOTES: ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-18.2.2 - QUALITY CONTROL DEPARTMENT
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS PC COMPRESSION
 INSPECTION AUTHORITY: BORIS FIZZOTTI

DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR



FITTINGS IML STUDBOLTS

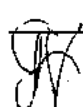
BORIS FIZZOTTI

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

Our Ref. 051423
 N10132
 073039
 073041
 073041

HEAT NUMBER : 22877

TRANS AM PIPING PRODUCTS - REV'D BY:  29

2 X 31/2 XH SMLS STEEL NIPPLES A106

SHIPMENT/SEQ # : 97 - 1536



INDUSTRIA MECCANICA LIGURE SPA

16020 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappelli, 4 - Tel. 0185-497861 - Fax 0185-466510 / MATERIAL TEST DEPARTMENT

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 233051 Endeavour Drive S.E.
 Calgary, Alberta T2P 2G5

Certificate No 18140
 Invoice No 1199
 Ord. (Order No) 4032

Dated 12 11 2007
 Dated 09 11 2007
 Dated 05 11 2007

Page 3 of 5

This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | | | | | | | | | | OTHER ELEMENTS | | | | | | | | | |
|-----------|--------|------|--|---------------|------------------|-------------|-------------------|---------------|-----------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
| | | | | | | | SEE NOTE | SATISFACTORY | SEE NOTE | SATISFACTORY | SEE NOTE | SATISFACTORY | SEE NOTE | SATISFACTORY | SEE NOTE | SATISFACTORY | | SEE NOTE | SATISFACTORY | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | 5% | 10% | 15% | 20% | 25% | 30% | 35% | 40% | 45% | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% | 95% | 100% | | |
| N59 | 77912 | 080 | ASTM A105 | 0.150 | 0.910 | 0.023 | 0.009 | 0.070 | 0.050 | 0.010 | 0.010 | 0.170 | 0.002 | 0.001 | 0.000 | 0.005 | 0.373 | | | | | | | | | |
| HBZ | 661578 | 001 | ASTM A105 | 0.181 | 0.212 | 0.015 | 0.010 | 0.059 | 0.040 | 0.020 | 0.001 | 0.082 | 0.001 | 0.001 | 0.000 | 0.023 | 0.368 | | | | | | | | | |
| 06A | 73413 | 017 | ASTM A105 | 0.195 | 0.170 | 0.018 | 0.014 | 0.060 | 0.040 | 0.010 | 0.005 | 0.150 | 0.001 | 0.001 | 0.000 | 0.022 | 0.384 | | | | | | | | | |
| N58 | AK4583 | 078 | ASTM A105 | 0.240 | 0.990 | 0.006 | 0.010 | 0.090 | 0.110 | 0.030 | 0.000 | 0.180 | 0.000 | 0.000 | 0.005 | 0.403 | | | | | | | | | | |
| 79A | 72963 | 018 | ASTM A105 | 0.185 | 0.200 | 0.023 | 0.020 | 0.110 | 0.050 | 0.010 | 0.005 | 0.160 | 0.003 | 0.001 | 0.000 | 0.019 | 0.382 | | | | | | | | | |
| N59 | 539229 | 012 | ASTM A106/B API 5L B | 0.140 | 0.230 | 0.003 | 0.008 | 0.100 | 0.080 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | | | | | | | | | |
| HBZ | 22877 | 038 | ASTM A106/B API 5L B | 0.110 | 0.250 | 0.004 | 0.011 | 0.070 | 0.060 | 0.010 | 0.000 | 0.150 | 0.002 | 0.000 | 0.000 | 0.023 | 0.221 | | | | | | | | | |
| N58 | 86591 | 050 | ASTM A106/B API 5L B | 0.150 | 0.240 | 0.003 | 0.012 | 0.090 | 0.070 | 0.020 | 0.000 | 0.210 | 0.002 | 0.000 | 0.000 | 0.036 | 0.311 | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | FLATNESS TEST | BEND TEST | MARKING NO | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | FLATNESS TEST | |
| N59 | 77912 | 080 | 122.65 | 50.00 | 361.0 | 592.0 | 32.0 | 56.0 | 160 - 168 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| HBZ | 661578 | 001 | 122.65 | 50.00 | 336.0 | 537.0 | 30.0 | 81.0 | 155 - 159 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 06A | 73413 | 017 | 122.65 | 50.00 | 316.0 | 539.0 | 32.0 | 96.0 | 160 - 164 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| N58 | AK4583 | 078 | 122.65 | 50.00 | 386.0 | 549.0 | 32.0 | 49.0 | 160 - 164 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 79A | 72963 | 018 | 122.65 | 50.00 | 312.0 | 565.0 | 33.0 | 58.0 | 163 - 166 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| N59 | 539229 | 012 | 0.00 | 0.00 | 355.0 | 494.0 | 38.0 | 0.0 | 159 - 161 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| HBZ | 22877 | 038 | 0.00 | 0.00 | 314.0 | 452.0 | 32.0 | 0.0 | 163 - 166 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| N58 | 86591 | 050 | 0.00 | 0.00 | 295.0 | 432.0 | 42.0 | 0.0 | 182 - 166 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 77912 | 080 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 661578 | 001 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | | | | | | | | |
| 06A | 73413 | 017 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | AK4583 | 078 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | | | | | | | | |
| 79A | 72963 | 018 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 539229 | 012 | ASME SA ASTM A106/A106M-06 Gr. B | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 22877 | 038 | ASME SA ASTM A106/A106M-06 Gr. B | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | 86591 | 050 | ASME SA ASTM A106/A106M-06 Gr. B | | | | | | | | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | INSPECTION AUTHORITY | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 77912 | 080 | ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B18.2.2 | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 661578 | 001 | NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIALS | | | | | | | | | | | | | | | | | | | | | | | |
| 06A | 73413 | 017 | PIPE | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | AK4583 | 078 | SPECIFICATIONS AND P.O. REQUIREMENTS - BEND TEST ON | | | | | | | | | | | | | | | | | | | | | | | |
| 79A | 72963 | 018 | NIPPLES - SATISFACTORY | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 539229 | 012 | HEAT TREATMENT | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 22877 | 038 | Normalized at 880°C-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | 86591 | 050 | Normalized at 880°C-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 77912 | 080 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 661578 | 001 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| 06A | 73413 | 017 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | AK4583 | 078 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| 79A | 72963 | 018 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 539229 | 012 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 22877 | 038 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | 86591 | 050 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MANUFACTURER'S SYMBOL | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 77912 | 080 | 041204 | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 661578 | 001 | 072087 | | | | | | | | | | | | | | | | | | | | | | | |
| 06A | 73413 | 017 | 061500 | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | AK4583 | 078 | 011206 | | | | | | | | | | | | | | | | | | | | | | | |
| 79A | 72963 | 018 | 061472 | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 539229 | 012 | 073041 | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 22877 | 038 | 073105 | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | 86591 | 050 | 073051 | | | | | | | | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | QUALITY CONTROL DEPARTMENT | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 77912 | 080 | PC COMPRESSION | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 661578 | 001 | DATE RECEIVED JUN 24 2008 | | | | | | | | | | | | | | | | | | | | | | | |
| 06A | 73413 | 017 | P.O. # 510428 E832806 | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | AK4583 | 078 | SIGNATURE: NY | | | | | | | | | | | | | | | | | | | | | | | |
| 79A | 72963 | 018 | APPROVED BY Q.C. INSPECTOR | | | | | | | | | | | | | | | | | | | | | | | |
| N59 | 539229 | 012 | FITTINGS | | | | | | | | | | | | | | | | | | | | | | | |
| HBZ | 22877 | 038 | IML | | | | | | | | | | | | | | | | | | | | | | | |
| N58 | 86591 | 050 | STUDBOLTS | | | | | | | | | | | | | | | | | | | | | | | |

DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: NY
 APPROVED BY Q.C. INSPECTOR

10



Simcoe, Ontario
Edmonton, Alberta
Montreal, Quebec

Certificate of Test

Part Number: Y3203 Description: 2x3 B XS SML NIP 106B
 Heat Code: A147
 Reference No.:
 Specification: ASTM A106-02 GRADE B/ ASME SA106 GRADE B
 Fitting Trademark: NIKOPOL STEEL PIPE

Chemical Analysis %

| Heat No. | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | V | Cb/Nb |
|--------------------------|------|------|-------|-------|------|------|------|------|------|--------|-------|
| P524777 | 0.21 | 0.52 | 0.020 | 0.031 | 0.24 | 0.03 | 0.02 | 0.03 | 0.01 | < 0.01 | |
| CE (LONG FORMULA) = 0.31 | | | | | | | | | | | |

Mechanical Properties

| Yield Strength | Tensile Strength | Elongation % 2 | Reduction Area | Hardness BHN |
|---|------------------|----------------|----------------|--------------|
| psi 48,000 | psi 70,000 | 36.00 | 0.00 | N/R |
| MPa 000 | MPa 000 | | | |
| Heat Treatment: MEETS NACE MR0175-02 HARDNESS LESS THAN OR EQUAL 22HRC | | | | |
| Hydrotest/NDE: NDE | | | Bend: GOOD | |

We certify that this is a true and correct copy of the mill certificate, issued by the manufacturer of the steel employed or the laboratory which has determined it, as retained in the records of the company. We make no representation beyond those of the manufacturer or its agent.

PG COMPRESSION

DATE RECEIVED MAR 14 2007

P.O. # 508075 INU

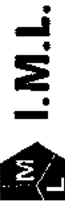
SIGNATURE *He*

APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 539229

TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]

Shipment/Seq #: 9 7 - 1468 91



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappellini, 4 - Tel. 010.467981 - Fax 010.467982

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001:2000 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.

233661 Endeavour Drive S E
Calgary Alberta T2P 2G6 CA

Certificate Nr 18004
Invoice Nr 1031
Del. Note Nr 1577

Dated 03 10 2007
Dated 28 09 2007
Dated 28 09 2007

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappellini, 4 - Tel. 010.467981 - Fax 010.467982 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity exceeding to DIN EN 10204 Page 11 - 16

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|------|-------------|------------------------|------|---|--------------|------------------|
| TN1 | 78196 | 115 | CI-07 - 380 | 2007-2E201-0000941-115 | | FITTING ROUND H.P.LUG SW 1" A105N | SEE NOTE | SATISFACTORY |
| | 78878 | 072 | CI-07 - 444 | 2007-2E201-0000995-072 | | FITTING TEE THRD NPT 3M 1/2" A350/LF2 | SEE NOTE | SATISFACTORY |
| | 74193 | 006 | CI-07 - 399 | 2007-2E201-0000374-006 | | CONC.SWAGE TBE NPT S-80 1.1/2"x1" WPB | SEE NOTE | SATISFACTORY |
| | 538697 | 021 | CI-06 - 463 | 2006-2E201-0000574-021 | | P.NIPPLE TBE NPT S-80 1" L65mm(2.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 538697 | 023 | CI-06 - 635 | 2006-2E201-0000797-023 | | -P.NIPPLE TBE NPT S-80 1" L65mm(2.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 538697 | 017 | CI-06 - 741 | 2006-2E201-0000964-017 | | P.NIPPLE TBE NPT S-80 1" L65mm(2.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 539229 | 036 | CI-06 - 635 | 2006-2E201-0000797-036 | | P.NIPPLE TBE NPT S-80 2" L65mm(2.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 538697 | 008 | CI-06 - 827 | 2007-2E201-0000011-008 | | P.NIPPLE TBE NPT S-80 2" L65mm(2.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Si% | Mn% | P% | S% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | A1% | C.E.-% | OTHER ELEMENTS |
|-----------|--------|------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----------------|
| | | | | | | | | | | | | | | | | | | | |
| TN1 | 78196 | 115 | ASTM A105 | 0.180 | 0.260 | 0.890 | 0.017 | 0.034 | 0.150 | 0.070 | 0.010 | 0.000 | 0.250 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.392 |
| | 78878 | 072 | ASTM A350 LF2 cl.1 | 0.185 | 0.220 | 0.950 | 0.023 | 0.016 | 0.110 | 0.050 | 0.010 | 0.006 | 0.180 | 0.001 | 0.000 | 0.000 | 0.017 | 0.385 | |
| | 74193 | 006 | ASTM A234 WPB | 0.180 | 0.210 | 1.040 | 0.015 | 0.008 | 0.080 | 0.050 | 0.010 | 0.004 | 0.180 | 0.022 | 0.001 | 0.000 | 0.025 | 0.392 | |
| | 538697 | 021 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| | 538697 | 023 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| | 538697 | 017 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| | 539229 | 036 | ASTM A106/B API 5LB | 0.140 | 0.230 | 0.800 | 0.003 | 0.008 | 0.100 | 0.090 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |
| | 538697 | 008 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | | | | | | | | | | | | | | | |
|-----------|--------|------|-------------------------------------|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|--|--|
| | | | | Normalizing | Normalizing | Normalizing | Normalizing | Normalizing | Normalizing | Normalizing | Normalizing | Normalizing | Normalizing | | | | | | |
| TN1 | 78196 | 115 | ASME SA ASTM A105-05 | Normalized at 880°C/920°C / Air Cool | | | | | | | | | | | | | | | |
| | 78878 | 072 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | | | | | | | | | | | | | | | |
| | 74193 | 006 | ASME SA ASTM A234/A234M-06a Gr. WPB | Normalized at 880°C / Air Cool | | | | | | | | | | | | | | | |
| | 538697 | 021 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C/920°C / Air Cool | | | | | | | | | | | | | | | |
| | 538697 | 023 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C/920°C / Air Cool | | | | | | | | | | | | | | | |
| | 538697 | 017 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C/920°C / Air Cool | | | | | | | | | | | | | | | |
| | 539229 | 036 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C/920°C / Air Cool | | | | | | | | | | | | | | | |
| | 538697 | 008 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C/920°C / Air Cool | | | | | | | | | | | | | | | |

NOTES: ASME B16.11/05 - ANSI B31.3 - IML STD. - ANSI B1.1-18.2.2 -
NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS PC CORROSION PRESSION QUALITY CONTROL DEPARTMENT
SPECIFICATIONS AND P.O. REQUIREMENTS

DATE RECEIVED JUN 24 2008

P.O. # 510478 E832800

SIGNATURE: [Signature]

APPROVED BY Q.C. INSPECTOR

BORE FIZZOTTI

FITTINGS IML STUDBOLTS

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

HEAT NUMBER : B643
 TRANS AM PIPING PRODUCTS - REV'D BY: *AB*
 Shipment/Seq #: S 7 - 1215 55

2X1 1/2 XH CONC SWAGE NIPPLE
 A234-WPB TBE



柏緯鐵工股份有限公司
 高雄縣仁武鄉萬林村仁心路 303 號
BOTH-WELL STEEL FITTINGS CO., LTD.

An ISO-9001 Registered Manufacturer



NO.303, JEN-HSIN ROAD JEN-WU HSIANG
 KAOHSIUNG HSIEN, TAIWAN R.O.C.(81460)
 TEL: (07) 371-0497, 371-1536, 372-0260 FAX: (886-7) 871-3864, 871-3882
 WEB SITE: <http://www.bothwell.com.tw> E-MAIL: bothwell@www.bothwell.com.tw or box@mail.bothwell.com.tw

MILL TEST & INSPECTION CERTIFICATE

ACCORDING TO EN10204/DIN50049/3.1.B

CUSTOMER: TRANS AM
 CRT NO: 70683

ORDER NO: 6217(CI-06-806)

INVOICE NO: BW069512038
 L/C NO:

ORIGIN: TAIWAN
 DATE: 04/06/07
 PAGE: 2

| ITEM | RAW MATERIAL HEAT NO. | BOTH WELL HT. CD. | DESCRIPTION | QUANTITY | SPECIFICATION: ASTM A234 WPB SA234 WPB-05a |
|------|-----------------------|-------------------|---|----------|--|
| 008 | 383762 | 2438 | SWAGE NIPPLE (CONC) 2" x 1-1/4" S80(XH) TBE/NPT | | DIMENSION: MSS-SP-95 - 2000 SURFACE: BY VISUAL...GOOD |
| 009 | 68B1654202 | B627 | SWAGE NIPPLE (CONC) 2" x 1-1/2" S80(XH) TBE/NPT | | |
| 009 | 68E3983202 | B643 | SWAGE NIPPLE (CONC) 2" x 1-1/2" S80(XH) TBE/NPT | | |
| 010 | 383762 | 2438 | SWAGE NIPPLE (CONC) 2" x 1" S80(XH) PRE | | |
| 011 | 68B1654202 | B627 | SWAGE NIPPLE (CONC) 2" x 1-1/2" S80(XH) PRE | | |
| 012 | 383762 | 2438 | SWAGE NIPPLE (CONC) 2" x 1" S80(XH) BLE/TSE | | |
| 013 | 68B1654202 | B627 | SWAGE NIPPLE (CONC) 2" x 1-1/2" S80(XH) BLE/TSE | | |

| ITEM | CHEMICAL COMPOSITION (%) | | | | | | | | | | | |
|------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----|
| | C | Si | Mn | P | S | Cu | Cr | Ni | Mo | V | Cb(Nb) | CE |
| Min | - | 0.100 | 0.200 | - | - | - | - | - | - | - | - | - |
| Max | 0.300 | - | 1.000 | 0.050 | 0.058 | 0.400 | 0.400 | 0.400 | 0.150 | 0.030 | - | - |
| 008 | 0.210 | 0.190 | 0.830 | 0.010 | 0.006 | 0.120 | 0.070 | 0.040 | 0.010 | 0.002 | - | - |
| 009 | 0.170 | 0.290 | 0.850 | 0.013 | 0.003 | 0.200 | 0.070 | 0.100 | 0.030 | 0.001 | - | - |
| 009 | 0.170 | 0.350 | 0.800 | 0.012 | 0.003 | 0.120 | 0.130 | 0.190 | 0.030 | 0.003 | - | - |
| 010 | 0.210 | 0.190 | 0.830 | 0.010 | 0.006 | 0.120 | 0.070 | 0.040 | 0.010 | 0.002 | - | - |
| 011 | 0.170 | 0.200 | 0.850 | 0.013 | 0.003 | 0.200 | 0.070 | 0.100 | 0.030 | 0.001 | - | - |
| 012 | 0.210 | 0.190 | 0.830 | 0.010 | 0.006 | 0.120 | 0.070 | 0.040 | 0.010 | 0.002 | - | - |
| 013 | 0.170 | 0.290 | 0.850 | 0.013 | 0.003 | 0.200 | 0.070 | 0.100 | 0.030 | 0.001 | - | - |

| ITEM | MECHANICAL TEST | | | | | Remark: NORMALIZED : 850°C |
|------|------------------------|----------------------|----------------|------------|---------------|--|
| | Tensile Strength (KSI) | Yield Strength (KSI) | Elongation (%) | R of A (%) | Hardness (HB) | |
| Min | 60.0 | 35.0 | 22.0 | - | - | WE CERTIFY THE ABOVE MENTIONED FITTINGS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS SHOWN <i>SCL</i> <i>C. Huang</i> Q.C. MANAGER INSPECTOR SHENG CHENG LEE CHUN CHEN HUANG |
| Max | 95.0 | - | - | - | 197 | |
| 008 | 78.7 | 56.4 | 29.2 | - | 149 | |
| 009 | 77.0 | 52.0 | 35.0 | - | 148 | |
| 009 | 74.9 | 47.7 | 36.0 | - | 149 | |
| 010 | 78.7 | 56.4 | 29.2 | - | 149 | |
| 011 | 77.0 | 52.0 | 35.0 | - | 140 | |
| 012 | 78.7 | 56.4 | 29.2 | - | 140 | |
| 013 | 77.0 | 52.0 | 35.0 | - | 140 | |

BV-00830 REV:0

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: *NO*
 APPROVED BY Q.C. INSPECTOR



INDUSTRIA MECCANICA LGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 7025 - 44th Street S.E.
 Calgary, Alberta T2C 4E8
 CA

Certificate No. 101367
 Invoice No. 306
 Del. Note No. 666
 Dated 31.08.2006
 Dated 31.08.2006
 Dated 31.08.2006

14030 CASARZA LGURE - Genova - Italy - P.zza Marco Capella, 4 - Tel. 0186.467661 - Fax 0186.467661 - Material Test Department This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | | | | | | | | | | | |
|-----------|-------|-------------|-------------------------------------|------------------------|--|--|-------------------|------------------|-----------|----------------|-------------|-------------|--------------|-------|-------------|-------------|-------------|-------------|----------------|
| 31K | 77919 | 005 | CI-06 - 511 | 2006-1E201-0000375-005 | | FITTING COUPLING THRD NPT 3M 4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| | 79169 | 017 | CI-06-431 | 2006-1E201-0000290-017 | | CONC SWAGE TBE NPT S-80 2"x3/4" WPB | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| | 33798 | 025 | CI-06-431 | 2006-1E201-0000290-025 | | CONC SWAGE TBE NPT S-160 1.1/2"x1" WPB | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| | 79169 | 027 | CI-06-431 | 2006-1E201-0000290-027 | | CONC SWAGE TBE NPT S-160 2"x1" WPB | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| | 79170 | 023 | CI-06 - 511 | 2006-1E201-0000375-023 | | FITTING HEX H PLUG THRD NPT 3" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| | 79169 | 018 | CI-06-431 | 2006-1E201-0000290-018 | | CONC SWAGE TBE NPT S-80 2"x1" WPB | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| 78251 | 024 | CI-06 - 511 | 2006-1E201-0000375-024 | | FITTING ROUND H.PLUG THRD NPT 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Si% | Mn% | S% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | Al% | N% | C.E.% | OTHER ELEMENTS |
| 77919 | 79169 | 005 | ASTM A105 | 0,195 | 0,160 | 0,950 | 0,020 | 0,015 | 0,110 | 0,070 | 0,010 | 0,012 | 0,250 | 0,003 | 0,001 | 0,005 | 0,000 | 0,399 | |
| 79169 | 017 | 005 | ASTM A234 WPB | 0,185 | 0,170 | 1,000 | 0,020 | 0,014 | 0,120 | 0,080 | 0,020 | 0,000 | 0,180 | 0,002 | 0,001 | 0,017 | 0,000 | 0,396 | |
| 33798 | 025 | 005 | ASTM A234 WPB | 0,205 | 0,240 | 0,970 | 0,021 | 0,017 | 0,160 | 0,080 | 0,010 | 0,000 | 0,230 | 0,003 | 0,000 | 0,005 | 0,000 | 0,421 | |
| 79169 | 027 | 005 | ASTM A234 WPB | 0,185 | 0,170 | 1,000 | 0,020 | 0,014 | 0,120 | 0,060 | 0,020 | 0,000 | 0,180 | 0,002 | 0,001 | 0,000 | 0,000 | 0,396 | |
| 79170 | 023 | 005 | ASTM A105 | 0,180 | 0,210 | 0,980 | 0,017 | 0,013 | 0,100 | 0,050 | 0,010 | 0,005 | 0,180 | 0,001 | 0,000 | 0,016 | 0,000 | 0,381 | |
| 79169 | 018 | 005 | ASTM A234 WPB | 0,185 | 0,170 | 1,000 | 0,020 | 0,014 | 0,120 | 0,060 | 0,020 | 0,000 | 0,180 | 0,002 | 0,001 | 0,000 | 0,000 | 0,396 | |
| 79169 | 018 | 005 | ASTM A234 WPB | 0,185 | 0,170 | 1,000 | 0,020 | 0,014 | 0,120 | 0,060 | 0,020 | 0,000 | 0,180 | 0,002 | 0,001 | 0,000 | 0,000 | 0,396 | |
| 78251 | 024 | 005 | ASTM A105 | 0,160 | 0,220 | 0,950 | 0,026 | 0,020 | 0,120 | 0,050 | 0,010 | 0,012 | 0,180 | 0,002 | 0,000 | 0,007 | 0,000 | 0,380 | |
| HEAT CODE | HEAT | ITEM | TEST SPECIFICATION | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | MARGINUS IN | BEND TEST | FLATWEDGE TEST | IMPACT TEST | CHARPY TEST | TYPE FACTORS | KV | TEMPERATURE | TEMPERATURE | TEMPERATURE | TEMPERATURE | TEMPERATURE |
| 77919 | 79169 | 005 | 122,65 | 512,0 | 31,0 | 55,5 | 162 - 168 | 0,0 | 0,0 | 0,0 | 20 | 86 | 90 | 0 | 0 | 0 | 0 | 0 | 0,0 |
| 79169 | 017 | 005 | 0,00 | 308,0 | 48,0 | 0,0 | 162 - 166 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0,0 |
| 33798 | 025 | 005 | 0,00 | 399,0 | 56,0 | 0,0 | 160 - 166 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0,0 |
| 79169 | 027 | 005 | 0,00 | 309,0 | 48,0 | 0,0 | 162 - 166 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0,0 |
| 79170 | 023 | 005 | 122,65 | 549,0 | 31,0 | 56,0 | 160 - 162 | 0,0 | 0,0 | 0,0 | 20 | 105 | 100 | 96 | 1 | 0 | 0 | 0 | 0,0 |
| 79169 | 018 | 005 | 0,00 | 309,0 | 48,0 | 0,0 | 162 - 166 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0,0 |
| 79169 | 018 | 005 | 0,00 | 308,0 | 48,0 | 0,0 | 162 - 166 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0,0 |
| 78251 | 024 | 005 | 122,65 | 509,0 | 32,8 | 57,3 | 150 - 159 | 0,0 | 0,0 | 0,0 | 20 | 98 | 105 | 101 | 1 | 0 | 0 | 0 | 0,0 |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | | | | | | | | | | | | | | |
| 77919 | 79169 | 005 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| 79169 | 017 | 005 | ASME SA ASTM A234/A234M-05a Gr. WPB | | | | | | | | | | | | | | | | |
| 33798 | 025 | 005 | ASME SA ASTM A234/A234M-05a Gr. WPB | | | | | | | | | | | | | | | | |
| 79169 | 027 | 005 | ASME SA ASTM A234/A234M-05a Gr. WPB | | | | | | | | | | | | | | | | |
| 79170 | 023 | 005 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| 79169 | 018 | 005 | ASME SA ASTM A234/A234M-05a Gr. WPB | | | | | | | | | | | | | | | | |
| 79169 | 018 | 005 | ASME SA ASTM A234/A234M-05a Gr. WPB | | | | | | | | | | | | | | | | |
| 78251 | 024 | 005 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | HEAT TREATMENT | | | | | | | | | | | | | | | | |
| 77919 | 79169 | 005 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| 79169 | 017 | 005 | Normalized at 880°C / Air Cool | | | | | | | | | | | | | | | | |
| 33798 | 025 | 005 | Normalized at 880°C / Air Cool | | | | | | | | | | | | | | | | |
| 79169 | 027 | 005 | Normalized at 880°C / Air Cool | | | | | | | | | | | | | | | | |
| 79170 | 023 | 005 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| 79169 | 018 | 005 | Normalized at 880°C / Air Cool | | | | | | | | | | | | | | | | |
| 79169 | 018 | 005 | Normalized at 880°C / Air Cool | | | | | | | | | | | | | | | | |
| 78251 | 024 | 005 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | INSPECTION AUTHORITY | | | | | | | | | | | | | | | | |
| 77919 | 79169 | 005 | BORIS FIZZOTTI | | | | | | | | | | | | | | | | |
| 79169 | 017 | 005 | FITTINGS IML | | | | | | | | | | | | | | | | |
| 33798 | 025 | 005 | STUD BOLTS | | | | | | | | | | | | | | | | |
| 79169 | 027 | 005 | 061171 | | | | | | | | | | | | | | | | |
| 79170 | 023 | 005 | 041180 | | | | | | | | | | | | | | | | |
| 79169 | 018 | 005 | MANUFACTURER'S SYMBOL | | | | | | | | | | | | | | | | |
| 79169 | 018 | 005 | MANUFACTURER'S SYMBOL | | | | | | | | | | | | | | | | |
| 78251 | 024 | 005 | MANUFACTURER'S SYMBOL | | | | | | | | | | | | | | | | |

NOTES ASME B16.11A05 - ANSI B31.3 - IML STD - ANSI B1.1-B16.2.2 -
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

RC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: *ml*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 79169
 TRANS AM PIPING PRODUCTS - REV'D BY: *[Signature]*
 Shipment/Seq #: 5 - 1549 30
 2X1 XH CONC SWAGE NIPPLE
 A234-WPB TBE



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - Piazza Marco Capellini, 4 - Tel.010.66.467861 - Fax.010.66.467861

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY IML

TRANS AM PIPING PRODUCTS LTD.
230061 Endeavor Drive S.E.
Calgary, Alberta T2P 2G6
CA

Certificate No 101526
Invoice Nr 67
Dist. Mesa Nr 107
Dated 14.02.2007
Dated 14.02.2007
Dated 14.02.2007

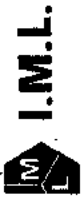
This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 4 - 5

Table with columns: HEAT CODE, HEAT, ITEM, YOUR P.O., OUR REFERENCE, Q.TY, DESCRIPTION, DIM. ACC. TO, VISUAL & DIMENS., DIM. ACC. TO, SATISFACTORY, OTHER ELEMENTS, YIELD POINT, TENSILE STRENGTH, ELONGATION, REDUCTION OF AREA, HARDNESS HB, BEND TEST, FLATTENING TEST, IMPACT TEST, TYPE (Normen), V% (Normen), Cu% (Normen), Ni% (Normen), Nb% (Normen), Mo% (Normen), Cr% (Normen), P% (Normen), S% (Normen), Mn% (Normen), Si% (Normen), C% (Normen), N% (Normen), As% (Normen), G.E.% (Normen), SHAPE, VELD POINT Minmax, and MANUFACTURER'S SYMBOL.

Table with columns: HEAT CODE, HEAT, ITEM, MATERIAL IN ACCORDANCE TO, HEAT TREATMENT, INSPECTION AUTHORITY, MANUFACTURER'S SYMBOL, FITTINGS, IML, BORIS RIZZOTTI, STUBBOLTS, and MANUFACTURER'S SYMBOL.

PC COMPRESSION
DATE RECEIVED JUN 24 2008
P.O. # 510428 E832806
SIGNATURE: [Signature]
APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 72431
TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
2X1 XH CONC SWAGE NIPPLE A234-WPB TBE
Shipment/seg #: 9 7 - 1121 35



DUSTRIA MECCANICA LIGURE SPA

18030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappelli, 4 - Tel. 0195.467661 - Fax 0195.467661

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
233051 Endeavor Drive S E
Calgary, Alberta T2P 2G6
CA

Certificate Nr. 18004
Invoice Nr. 1031
Del. Note Nr. 1527

Dated 03.10.2007
Dated 28.05.2007
Dated 28.09.2007

This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 7 - 16

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO |
|-----------|-------|------|-------------|------------------------|------|--|-----------------------|
| N29 | 72431 | 012 | CI-07-241 | 2007-2E201-0000263-012 | | CONC SWAGE PLE/TFSE NPT S-80 2"x3/4" WPB | VISUAL & DIMENS. |
| | 77912 | 060 | CI-07 - 380 | 2007-2E201-0000541-060 | | FITTING HEX BUSHING M/F THRD NPT 1.1/4"x1/4" A105N | SEE NOTE SATISFACTORY |
| | 74193 | 088 | CI-07 - 380 | 2007-2E201-0000641-088 | | FITTING COUPLING THRD NPT/SW 3M 1" A105N | SEE NOTE SATISFACTORY |
| | 72431 | 007 | CI-07 - 399 | 2007-2E201-0000574-007 | | CONC SWAGE TBE NPT S-80 2"x1/4" WPB | SEE NOTE SATISFACTORY |
| | 72431 | 009 | CI-07 - 399 | 2007-2E201-0000574-009 | | CONC SWAGE TBE NPT S-80 2"x1/4" WPB | SEE NOTE SATISFACTORY |
| 9AK | 75790 | 023 | CI-07 - 444 | 2007-2E201-0000685-023 | | FITTING HALF COUPL THRD NPT 3M 2" A105N | SEE NOTE SATISFACTORY |
| N29 | 77912 | 041 | CI-07 - 444 | 2007-2E201-0000685-041 | | FITTING HEX BUSHING M/F THRD NPT 1.1/4"x1/4" A105N | SEE NOTE SATISFACTORY |
| | 74193 | 043 | CI-07 - 444 | 2007-2E201-0000685-043 | | FITTING COUPLING THRD NPT 6M 3/4" L 76mm A105N | SEE NOTE SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | SF% | Min% | Max% | P% | C% | Mn% | Ni% | Cu% | V% | Nb% | Ti% | Mo% | Si% | REDUCTION OF AREA | ELONGATION | TENSILE STRENGTH | YIELD POINT | SECT. REDUC | TEST SPECIMEN | LENTH | FLATTENING TEST | | | IMPACT TEST | | | SHAPE | YIELD POINT |
|-----------|-------|------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|------------|------------------|-------------|-------------|---------------|--------|-----------------|-----|-----|-------------|-----|-----|-------|-------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | MPa | % | MPa | MPa | MPa | MPa | | |
| N29 | 72431 | 012 | ASTM A234 WPB | 0.195 | 0.200 | 0.970 | 0.021 | 0.014 | 0.080 | 0.050 | 0.010 | 0.005 | 0.100 | 0.002 | 0.000 | 0.000 | 0.012 | 0.387 | 46.0 | 498.0 | 309.0 | 122.65 | 50.00 | 122.65 | 50.00 | 0.0 | 0.0 | 0.0 | 100 | 108 | 1 | 0.0 |
| | 77912 | 060 | ASTM A105 | 0.190 | 0.160 | 0.910 | 0.023 | 0.008 | 0.070 | 0.050 | 0.010 | 0.010 | 0.190 | 0.002 | 0.001 | 0.000 | 0.005 | 0.374 | 31.5 | 516.0 | 322.0 | 122.65 | 50.00 | 122.65 | 50.00 | 0.0 | 0.0 | 0.0 | 107 | 104 | 1 | 0.0 |
| | 74193 | 088 | ASTM A105 | 0.180 | 0.210 | 1.040 | 0.015 | 0.008 | 0.080 | 0.050 | 0.010 | 0.021 | 0.190 | 0.002 | 0.001 | 0.000 | 0.025 | 0.392 | 32.0 | 563.0 | 306.0 | 122.65 | 50.00 | 122.65 | 50.00 | 0.0 | 0.0 | 0.0 | 105 | 106 | 1 | 0.0 |
| | 72431 | 007 | ASTM A234 WPB | 0.195 | 0.200 | 0.970 | 0.021 | 0.014 | 0.090 | 0.050 | 0.010 | 0.005 | 0.100 | 0.002 | 0.000 | 0.000 | 0.012 | 0.387 | 46.0 | 498.0 | 309.0 | 122.65 | 50.00 | 122.65 | 50.00 | 0.0 | 0.0 | 0.0 | 104 | 100 | 1 | 0.0 |
| | 72431 | 009 | ASTM A234 WPB | 0.188 | 0.200 | 0.970 | 0.021 | 0.014 | 0.090 | 0.050 | 0.010 | 0.005 | 0.100 | 0.002 | 0.000 | 0.000 | 0.012 | 0.387 | 46.0 | 498.0 | 309.0 | 122.65 | 50.00 | 122.65 | 50.00 | 0.0 | 0.0 | 0.0 | 104 | 100 | 1 | 0.0 |
| 9AK | 75790 | 023 | ASTM A105 | 0.200 | 0.200 | 0.890 | 0.020 | 0.017 | 0.150 | 0.070 | 0.020 | 0.006 | 0.200 | 0.001 | 0.000 | 0.015 | 0.401 | 31.5 | 563.0 | 366.0 | 122.65 | 50.00 | 122.65 | 50.00 | 0.0 | 0.0 | 0.0 | 104 | 100 | 1 | 0.0 | |
| N29 | 77912 | 041 | ASTM A105 | 0.190 | 0.160 | 0.910 | 0.023 | 0.008 | 0.070 | 0.050 | 0.010 | 0.010 | 0.190 | 0.002 | 0.001 | 0.000 | 0.005 | 0.374 | 31.5 | 516.0 | 322.0 | 122.65 | 50.00 | 122.65 | 50.00 | 0.0 | 0.0 | 0.0 | 107 | 104 | 1 | 0.0 |
| | 74193 | 043 | ASTM A105 | 0.180 | 0.210 | 1.040 | 0.015 | 0.008 | 0.080 | 0.050 | 0.010 | 0.021 | 0.190 | 0.002 | 0.001 | 0.000 | 0.025 | 0.392 | 32.0 | 563.0 | 306.0 | 122.65 | 50.00 | 122.65 | 50.00 | 0.0 | 0.0 | 0.0 | 105 | 106 | 1 | 0.0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | HEAT TREATMENT | | FURNACE | Our Ref. |
|-----------|-------|------|---------------------------|-----------------------------|-------------------------------------|-------------------------------------|------------------|----------|
| | | | ASME SA | ASTM | Normalized at | Normalized at | | |
| N29 | 72431 | 012 | ASME SA | ASTM A234/A234M-08a Gr. WPB | Normalized at 880°C / Air Cool | Normalized at 880°C / Air Cool | ELECTRIC FURNACE | 061351 |
| | 77912 | 060 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 041204 |
| | 74193 | 088 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 071265 |
| | 72431 | 007 | ASME SA | ASTM A234/A234M-08a Gr. WPB | Normalized at 880°C / Air Cool | Normalized at 880°C / Air Cool | ELECTRIC FURNACE | 061351 |
| | 72431 | 009 | ASME SA | ASTM A234/A234M-08a Gr. WPB | Normalized at 880°C / Air Cool | Normalized at 880°C / Air Cool | ELECTRIC FURNACE | 061351 |
| 9AK | 75790 | 023 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 071202 |
| N29 | 77912 | 041 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 041204 |
| | 74193 | 043 | ASME SA | ASTM A105-05 | Normalized at 880°-920°C / Air Cool | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | 071265 |

NOTES: ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-818.2.2 - INSPECTION AUTHORITY: QUALITY CONTROL DEPARTMENT; MANUFACTURER'S SYMBOL: MANUFACTURER'S SYMBOL
 NACE MR0175 ISO 15156/1 - MSS SP 85 - SUPPLIED MATERIALS MUST COMPLY WITH THESE SPECIFICATIONS AND P.O. REQUIREMENTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 F832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

BORIS FIZZOTTI
 FITTINGS IML STUDBOLTS

HEAT NUMBER : 72431
 TRANS AM PIPING PRODUCTS - REV'D BY: *AS*
 SHIPMENT/SEQ #: 5 7 - 1468 108
 2X1/4 KH CONC SWAGE NIPPLE
 A234-WPB TBE

2 = PS HEX HEAD PLUGS A105N



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY IRMA

TRANS AM PIPING PRODUCTS LTD.

8035 Endeavour Drive S.E.
Calgary, Alberta T2S 0A1 CA

Certificate Nr. 19487
Invoice Nr. 234
Del. Note Nr. 401

Dated 11.05.2008
Dated 07.03.2008
Dated 07.03.2008

16030 CASARZA LIGURE - Genova - Italy - Via Giancarlo Farina 28 - Tel.0106.487661 - Fax 0105.488510 - MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 19 - 10

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | | | | | | | | | | |
|--|----------------|------------|--|--|--|--|----------------------|------------------------------|------------------------|----------------|----------------|----------------|----------------------|----------------|----------------|----------------|----------------|--|
| 1A3 N90 | 79698 70284 | 114 051 | CI-08 - 190 CI-08 - 190 | 2008-2E201-0000213-114 2008-2E201-0000213-051 | | FITTING 90 ELB. SW 8M 3/4" A350LF2 FITTING HEX.H PLUG THRD NPT 2" A105N | SEE NOTE SEE NOTE | SATISFACTORY SATISFACTORY | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Si% | Mn% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | As% | C.E.% | OTHER ELEMENTS |
| 1A3 N90 | 79698 70294 | 114 051 | ASTM A350 LF2 cl.1 ASTM A105 | 0.185 0.180 | 0.230 0.230 | 0.930 0.880 | 0.014 0.016 | 0.120 0.110 | 0.050 0.060 | 0.010 0.020 | 0.005 0.008 | 0.150 0.230 | 0.002 0.001 | 0.000 0.001 | 0.000 0.000 | 0.025 0.025 | 0.360 0.367 | |
| HEAT CODE | HEAT | ITEM | TEST SPECIMEN SECT. mm | LENGHT mm | YIELD POINT N/mm ² ±0.5% | TENSILE STRENGTH N/mm ² ±1% | ELONGATION % ±0.5 | REDUCTION OF AREA % ±0.5 | HARDNESS HB | BEND TEST | FLATBEND TEST | TYPE TESTER | IMPACT TEST - JOULES | TEMP. °C | 1 | 2 | 3 | YIELD POINT N/mm ² ±0.5% |
| 1A3 N90 | 79698 70294 | 114 051 | 122,65 122,65 | 50,00 50,00 | 321,0 304,0 | 511,0 495,0 | 33,1 33,0 | 52,4 55,7 | 167 - 174 158 - 161 | 0,0 0,0 | 0,0 0,0 | KV KV | -46 20 | 1 | 44 | 102 | 1 | 0,0 0,0 |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | | | | | | | | | | | | | |
| 1A3 N90 | 79698 70294 | 114 051 | ASME SA ASTM A350-04g Gr. LF2 cl.1 ASME SA ASTM A105-05 | | | | | | | | | | | | | | | |
| HEAT TREATMENT | | | | | | | | | | | | | | | | | | |
| Normalized at 900°C / Air Cool Normalized at 860-920°C / Air Cool | | | | | | | | | | | | | | | | | | |
| FURNACE ELECTRIC FURNACE ELECTRIC FURNACE | | | | | | | | | | | | | | | | | | |
| Our Ref. 071479 071528 | | | | | | | | | | | | | | | | | | |

NOTES ASME B16.11/05 - ANSI B31.1/B31.3 - ML STD - ANSI B1.1-18.2.2 -
NACE MR0175 ISO 15156/1 - MACE MR103 - MSS SP 83 - SUPPLIED
MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

PC CONTROL DEPARTMENT
RECEIVED JUN 24 2008
BORIS FIZZOTTI

FITTINGS IML

STUBBOLTS

MANUFACTURER'S SYMBOL
MANUFACTURER'S SYMBOL

P.O. # 50428 EB37806

SIGNATURE: *W*

APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : N90
TRANS AM PIPING PRODUCTS - REV'D BY:
Shipment/Seq #: S 8 - 1087 45



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Capelli, 4 - Tel. 0185-487681 - Fax 0185-487681 - E-mail: EN 10204 Page 5 - 11

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY IRINA

TRANS AM PIPING PRODUCTS LTD.
230061 Endeavour Drive S.E.
Calgary, Alberta T2P 2C6
CA

Certificate No. 17357
Invoice No. 209
Date 12.03.2007
Dist. Note No. 458
Date 12.03.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | | | | | | | | | | | | | | | | | | | |
|-----------|-------|------|---------------------------|-------------------------------------|----------------------|--|-----------------------|-----------------------|-------------|--------|-------------|-------|-------|-------------|----------------|----------------------|----------------------------|-----------------------|-----------------------|-----|-----|-----|-----|-----|-----|------|----------------|
| HM3 | 72474 | 007 | CH-07 - 164 | 2007-2E201-0000138-087 | | FITTING 90 ELB. THRD NPT 2M 1.1/2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | | | | | | | | |
| FHI | 36561 | 012 | CH-07 - 164 | 2007-2E201-0000138-012 | | FITTING TEE THRD NPT 2M 3" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | | | | | | | | |
| HM3 | 72474 | 055 | CH-07 - 164 | 2007-2E201-0000138-055 | | FITTING 90 ELB. THRD NPT 6M 1" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | | | | | | | | |
| FEH | 74416 | 113 | CH-07 - 164 | 2007-2E201-0000138-113 | | FITTING 90 ELB. SW 3M 3" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | | | | | | | | |
| ETS | 35312 | 013 | CH-07 - 164 | 2007-2E201-0000138-013 | | FITTING TEE THRD NPT 2M 4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | | | | | | | | |
| ETS | 35312 | 013 | CH-07 - 164 | 2007-2E201-0000138-013 | | FITTING TEE THRD NPT 2M 4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | | | | | | | | |
| FCO | 38938 | 023 | CH-07 - 164 | 2007-2E201-0000138-023 | | FITTING 90 ELB. THRD NPT 3/8M 4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | | | | | | | | |
| FCO | 76564 | 059 | CH-06 - 799 | 2006-2E201-0001041-057 | | FITTING COUPLING THRD NPT 3M 3" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | 3% | 5% | 8% | 10% | 15% | 20% | 25% | 30% | 35% | 40% | 45% | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% | 95% | 100% | OTHER ELEMENTS |
| HM3 | 72474 | 007 | ASTM A105 | 0,210 | 0,220 | 0,870 | 0,100 | 0,060 | 0,020 | 0,005 | 0,250 | 0,016 | 0,000 | 0,000 | 0,012 | 0,403 | | | | | | | | | | | |
| FHI | 36561 | 012 | ASTM A105 | 0,190 | 0,240 | 0,960 | 0,120 | 0,060 | 0,010 | 0,010 | 0,150 | 0,003 | 0,000 | 0,000 | 0,005 | 0,391 | | | | | | | | | | | |
| HM3 | 72474 | 055 | ASTM A105 | 0,210 | 0,220 | 0,870 | 0,100 | 0,060 | 0,020 | 0,005 | 0,250 | 0,016 | 0,000 | 0,000 | 0,012 | 0,403 | | | | | | | | | | | |
| FEH | 74416 | 113 | ASTM A105 | 0,185 | 0,210 | 0,870 | 0,110 | 0,050 | 0,010 | 0,005 | 0,150 | 0,001 | 0,000 | 0,000 | 0,018 | 0,384 | | | | | | | | | | | |
| ETS | 35312 | 013 | ASTM A105 | 0,185 | 0,220 | 1,010 | 0,016 | 0,060 | 0,010 | 0,008 | 0,160 | 0,003 | 0,001 | 0,000 | 0,005 | 0,401 | | | | | | | | | | | |
| ETS | 35312 | 013 | ASTM A105 | 0,185 | 0,220 | 1,010 | 0,016 | 0,060 | 0,010 | 0,008 | 0,160 | 0,003 | 0,001 | 0,000 | 0,005 | 0,401 | | | | | | | | | | | |
| FCO | 38938 | 023 | ASTM A105 | 0,180 | 0,240 | 0,960 | 0,014 | 0,050 | 0,010 | 0,009 | 0,140 | 0,004 | 0,002 | 0,000 | 0,005 | 0,383 | | | | | | | | | | | |
| FCO | 76564 | 059 | ASTM A105 | 0,190 | 0,300 | 0,860 | 0,015 | 0,050 | 0,007 | 0,000 | 0,150 | 0,001 | 0,002 | 0,000 | 0,000 | 0,361 | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | FLATTENING TEST | IMPACT TEST | CHARPY | TEMPERATURE | TYPE | FACE | TEMPERATURE | HEAT TREATMENT | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | | | | | | | | |
| HM3 | 72474 | 007 | 122,65 / 50,00 | 308,0 | 528,0 | 31,0 | 54,0 | 0,0 | 160 - 168 | 0,0 | 0,0 | KV | 20 | 105 | 104 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0,0 |
| FHI | 36561 | 012 | 122,65 / 50,00 | 309,0 | 558,0 | 33,0 | 57,0 | 0,0 | 158 - 166 | 0,0 | 0,0 | KV | 20 | 110 | 114 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 0,0 |
| HM3 | 72474 | 055 | 122,65 / 50,00 | 308,0 | 526,0 | 31,0 | 54,0 | 0,0 | 160 - 168 | 0,0 | 0,0 | KV | 20 | 105 | 104 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0,0 |
| FEH | 74416 | 113 | 122,65 / 50,00 | 304,0 | 536,0 | 31,0 | 54,0 | 0,0 | 160 - 166 | 0,0 | 0,0 | KV | 20 | 98 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0,0 |
| ETS | 35312 | 013 | 122,65 / 50,00 | 308,0 | 563,0 | 32,0 | 49,0 | 0,0 | 160 - 164 | 0,0 | 0,0 | KV | 20 | 98 | 104 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 0,0 |
| ETS | 35312 | 013 | 122,65 / 50,00 | 308,0 | 563,0 | 32,0 | 49,0 | 0,0 | 160 - 164 | 0,0 | 0,0 | KV | 20 | 98 | 104 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 0,0 |
| FCO | 38938 | 023 | 122,65 / 50,00 | 335,0 | 514,0 | 32,0 | 59,0 | 0,0 | 156 - 159 | 0,0 | 0,0 | KV | 20 | 98 | 90 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 0,0 |
| FCO | 76564 | 059 | 122,65 / 50,00 | 326,0 | 526,0 | 31,0 | 70,0 | 0,0 | 154 - 158 | 0,0 | 0,0 | KV | 20 | 86 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 0,0 |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | | | | | | | | | | | | | | | | | | | |
| HM3 | 72474 | 007 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| FHI | 36561 | 012 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| HM3 | 72474 | 055 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| FEH | 74416 | 113 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| ETS | 35312 | 013 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| ETS | 35312 | 013 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| FCO | 38938 | 023 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |
| FCO | 76564 | 059 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | | | | | | | | |

NOTES ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B18.2.2 - INSPECTION AUTHORITY
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

BORIS FIZZOTTI
 FITTINGS IML STUDBOLTS

PC COMPRESSION
 DATE RECEIVED JUN 7 4 2008
 P.O. # 510428 E832806
 SIGNATURE: *nl*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : HM3
 TRANS AM PIPING PRODUCTS - REV'D BY :
 1-1/2" CL 2000 FS SCRD 90 ELB A105N
 Shipment/Seg #: 5 7 - 1161 2



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY IRMA

TRANS AM PIPING PRODUCTS LTD.

8335 Endeavour Drive S.E.
Calgary, Alberta T2S 0A1

Certificate Nr. 16593

Invoice Nr. 350

Del. Note Nr. 675

Dated 07.04.2008

Dated 04.04.2008

Dated 24.04.2008

16030 CASARZA LIGURE - Genova - Italy - Via Giancarlo Farina 25 - Tel. 010.66.497681 - Fax 010.66.497681 - This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 10 - 21

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|------|-------------|------------------------|------|---|--------------|------------------|
| 703433 | 748674 | 010 | CI-08 - 186 | 2008-2E201-000204-010 | | P. NIPPLE TBE NPT S-80 1.1/2" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 703A33 | 017 | CI-08 - 186 | 2008-2E201-000204-017 | | P. NIPPLE TBE NPT S-160 1.1/2" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 748674 | 33 | CI-07 - 691 | 2007-2E201-0001160-033 | | P. NIPPLE TBE NPT S-80 1.1/2" L65mm(2.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 748674 | 36 | CI-07 - 691 | 2007-2E201-0001160-036 | | P. NIPPLE TBE NPT S-80 1.1/2" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 70687 | 103 | CI-07 - 686 | 2007-2E201-0001127-103 | | FITTING UNION FIF SW 3M 3/4" A106N | SEE NOTE | SATISFACTORY |
| | 70294 | 101 | CI-07 - 686 | 2007-2E201-0001127-101 | | FITTING UNION FIF SW 3M 1.1/2" A106N | SEE NOTE | SATISFACTORY |
| | 78878 | 126 | CI-07 - 686 | 2007-2E201-0001127-126 | | FITTING TEE THRD NPT 3M 1/2" A350ALF2 | SEE NOTE | SATISFACTORY |
| TK6 | 78794 | 127 | CI-07 - 668 | 2007-2E201-0001127-127 | | FITTING TEE THRD NPT 3M 1" A350ALF2 | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | S1% | TREWILLE STRENGTH | YIELD POINT | TENSILE | ELONGATION | REDUCTION OF AREA | HARDNESS HB | BEAD TEST | FLATTENING TEST | TYPIC TENSILE | IMPACT TEST - JOULES/CM2 | SHARP | YIELD POINT | |
|-----------|--------|------|---------------------|-------|-------|-------------------|-------------|---------|------------|-------------------|-------------|-----------|-----------------|---------------|--------------------------|-------|-------------|-----|
| 703433 | 748674 | 010 | ASTM A106/B API 5LB | 0.130 | 0.180 | 490.0 | 366.0 | 490.0 | 38.0 | 0.0 | 161 - 163 | 0,0 | 0,0 | KV | 20 | 48 | 53 | 56 |
| | 703A33 | 017 | ASTM A106/B API 5LB | 0.190 | 0.190 | 475.0 | 334.0 | 475.0 | 48.0 | 0.0 | 155 - 159 | 0,0 | 0,0 | KV | 20 | 49 | 59 | 60 |
| | 748674 | 33 | ASTM A106/B API 5LB | 0.130 | 0.180 | 490.0 | 366.0 | 490.0 | 38.0 | 0.0 | 161 - 163 | 0,0 | 0,0 | KV | 20 | 48 | 53 | 56 |
| | 748674 | 36 | ASTM A106/B API 5LB | 0.130 | 0.180 | 490.0 | 366.0 | 490.0 | 38.0 | 0.0 | 161 - 163 | 0,0 | 0,0 | KV | 20 | 48 | 53 | 56 |
| | 70687 | 103 | ASTM A106 | 0.195 | 0.220 | 515.0 | 322.0 | 515.0 | 33.4 | 57.5 | 155 - 159 | 0,0 | 0,0 | KV | 20 | 104 | 99 | 101 |
| | 70294 | 101 | ASTM A106 | 0.180 | 0.230 | 495.0 | 301.0 | 495.0 | 33.0 | 55.8 | 158 - 163 | 0,0 | 0,0 | KV | 20 | 101 | 99 | 101 |
| | 78878 | 126 | ASTM A350 LF2 cl.1 | 0.185 | 0.220 | 529.0 | 331.0 | 529.0 | 34.6 | 58.2 | 163 - 169 | 0,0 | 0,0 | KV | -46 | 44 | 49 | 52 |
| TK6 | 78794 | 127 | ASTM A350 LF2 cl.1 | 0.190 | 0.220 | 502.0 | 311.0 | 502.0 | 35.1 | 60.4 | 158 - 164 | 0,0 | 0,0 | KV | -46 | 48 | 51 | 50 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | OUR REF. |
|-----------|--------|------|------------------------------------|--------------------------------------|----------|
| 703433 | 748674 | 010 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 860°C-920°C / Air Cool | 073041 |
| | 703A33 | 017 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 860°C-920°C / Air Cool | 073114 |
| | 748674 | 33 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 860°C-920°C / Air Cool | 073041 |
| | 748674 | 36 | ASME SA ASTM A106/A106M-06a Gr. B | Normalized at 860°C-920°C / Air Cool | 073041 |
| | 70687 | 103 | ASME SA ASTM A105-05 | Normalized at 860°C-920°C / Air Cool | 081050 |
| | 70294 | 101 | ASME SA ASTM A105-05 | Normalized at 860°C-920°C / Air Cool | 071528 |
| | 78878 | 126 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | 081085 |
| TK6 | 78794 | 127 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | 071400 |

| INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL |
|----------------------|----------------------------|-----------------------|-----------------------|
| PC COMPRESSION | BORIS FIZZOTTI | FITTINGS | IML |
| DATE RECEIVED | JUN 24 2008 | STUDBOLTS | |
| P.O. # | 510428 | | |
| SIGNATURE: | | | |
| APPROVED BY | Q.C. INSPECTOR | | |

HEAT NUMBER : 748674
TRANS AM PIPING PRODUCTS - REV'D BY: 11/2 X 4 KH SMLS STEEL NIPPLES A106
Shipment/Seg #: 8 - 1129 140

Line 2
H# 01875

31506

MATERIAL TEST CERTIFICATES



M.G.ELDBACH(SHANG) FLANGE & FITTINGS CO.,LTD.
LIJIAZHANG VILLAGE DONGXIANG COUNTY
SHANXI PROVINCE CHINA

CUSTOMER

T.F.F. CANADA INC.

PAGE 3 OF 8

CERTIFICATE: EN102463.1
CERTIFICATE #: FL1507A DATE: MAY. 07, 2008
SPECIFICATION: ASTM SA4032N AND B16.5 AND B16.7A-NACE MR0175-05
THE MATERIALS WILL SATISFY PAR 3.1.5 AND 4.3 OF THE P.E.D. ESSENTIAL SAFETY REQUIREMENTS
PRODUCT CRN NUMBER: 0911875.52

CUSTOMER REFERENCE # F-08006
OUR REFERENCE # F-08008
T.F.F. REFERENCE # F-08008

| ITEM NO. | HEAT NO. | QTY | SIZE | DESCRIPTION | CHEMICAL ANALYSIS (%) | | | | | | | | | | | | |
|----------|----------|-----|--------|----------------|-----------------------|------|------|-------|-------|------|------|-------|-------|------|------|-------|-------|
| | | | | | C | Mn | Si | S | P | Ni | Cr | Mo | V | Cb | Cu | Ce1 | Ce2 |
| 21 | 02400 | 40 | 14" | B16.5 150 RFSO | 0.20 | 0.93 | 0.26 | 0.003 | 0.014 | 0.02 | 0.03 | 0.006 | 0.004 | 0.01 | 0.05 | 0.365 | 0.366 |
| 22 | 02400 | 25 | 2" | B16.5 300 RFSO | 0.20 | 0.93 | 0.26 | 0.003 | 0.014 | 0.02 | 0.03 | 0.006 | 0.004 | 0.01 | 0.05 | 0.365 | 0.366 |
| 23 | 02400 | 25 | 3" | B16.5 300 RFSO | 0.20 | 0.93 | 0.26 | 0.003 | 0.014 | 0.02 | 0.03 | 0.006 | 0.004 | 0.01 | 0.05 | 0.365 | 0.366 |
| 24 | 02400 | 25 | 4" | B16.5 300 RFSO | 0.20 | 0.93 | 0.26 | 0.003 | 0.014 | 0.02 | 0.03 | 0.006 | 0.004 | 0.01 | 0.05 | 0.365 | 0.366 |
| 25 | 02400 | 25 | 6" | B16.5 300 RFSO | 0.20 | 0.93 | 0.26 | 0.003 | 0.014 | 0.02 | 0.03 | 0.006 | 0.004 | 0.01 | 0.05 | 0.365 | 0.366 |
| 26 | 02370 | 25 | 1/2" | B16.5 150 RFBL | 0.20 | 0.97 | 0.26 | 0.007 | 0.019 | 0.02 | 0.03 | 0.004 | 0.008 | 0.02 | 0.05 | 0.362 | 0.374 |
| 27 | 02370 | 25 | 3/4" | B16.5 150 RFBL | 0.20 | 0.97 | 0.26 | 0.007 | 0.019 | 0.02 | 0.03 | 0.004 | 0.008 | 0.02 | 0.05 | 0.362 | 0.374 |
| 28 | 01875 | 25 | 1" | B16.5 150 RFBL | 0.20 | 0.92 | 0.26 | 0.008 | 0.017 | 0.01 | 0.02 | 0.003 | 0.002 | 0.01 | 0.04 | 0.363 | 0.362 |
| 29 | 01875 | 25 | 1 1/2" | B16.5 150 RFBL | 0.20 | 0.92 | 0.26 | 0.008 | 0.017 | 0.01 | 0.02 | 0.003 | 0.002 | 0.01 | 0.04 | 0.363 | 0.362 |
| 30 | 01875 | 25 | 2" | B16.5 150 RFBL | 0.20 | 0.92 | 0.26 | 0.008 | 0.017 | 0.01 | 0.02 | 0.003 | 0.002 | 0.01 | 0.04 | 0.363 | 0.362 |

| ITEM NO. | HEAT NO. | HEAT TREATMENT | | FORGE TEMP. 945 ± 1000 C | TENSILE 460 Mpa min | MECHANICAL PROPERTIES | | | HARDNESS 187 HB max |
|----------|----------|--|-------------|--------------------------|---------------------|-----------------------|---------------|----------------|---------------------|
| | | Normalized at temperature between 843 C and 917 C - Cooled in still air. | TEMP. 850 C | | | YIELD 358 Mpa min | ELONG 21% min | R OF A 30% min | |
| 21 | 02400 | Normalized | 850 C | 516 Mpa | 331 Mpa | 31 % | 60 % | 166 HB | |
| 22 | 02400 | Normalized | 850 C | 516 Mpa | 331 Mpa | 31 % | 80 % | 166 HB | |
| 23 | 02400 | Normalized | 850 C | 516 Mpa | 331 Mpa | 31 % | 80 % | 166 HB | |
| 24 | 02400 | Normalized | 850 C | 516 Mpa | 331 Mpa | 31 % | 80 % | 166 HB | |
| 25 | 02400 | Normalized | 850 C | 516 Mpa | 331 Mpa | 31 % | 80 % | 166 HB | |
| 26 | 02370 | Normalized | 850 C | 505 Mpa | 343 Mpa | 33 % | 84 % | 166 HB | |
| 27 | 02370 | Normalized | 850 C | 505 Mpa | 343 Mpa | 33 % | 84 % | 166 HB | |
| 28 | 01875 | Normalized | 850 C | 503 Mpa | 332 Mpa | 36 % | 87 % | 166 HB | |
| 29 | 01875 | Normalized | 850 C | 503 Mpa | 332 Mpa | 36 % | 87 % | 166 HB | |
| 30 | 01875 | Normalized | 850 C | 503 Mpa | 332 Mpa | 36 % | 87 % | 166 HB | |

Signature/Date: *[Signature]* 3/10/08
MG THE TRADEMARK OF QUALITY
 DATE RECEIVED JUN 13 2008
 P.O. # 510395
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR

*1) Ce1 - C + Mn/5 - 0.4Max
 *2) - (Ce1) + (Cr+Mo+V)/3 + (Cu+Ni)/5 - 0.43max
 We hereby certify that the product listed here has been inspected and tested in accordance with the conditions and requirements of the purchase order and unless otherwise stated conforms in all respects to the specifications, drawings relevant thereto, carbon and dimensional check according to relevant standard.



SHREE GANESH FORGINGS LIMITED

C-3/C, T.T.C. IND. AREA, THANE BELAPUR ROAD, PAWNE, NAVI MUMBAI, INDIA



RAMTUV

QAD/F04A-01

INSPECTION CERTIFICATE - EN 10204/3.1

PED Certificate No. 04 202 2 440 05 31199 and AD-2000 Merkblatt WO Certificate No. 04202W1300200016

| | | | | | |
|----------|--------------------------------|-----------------------------|---|-----------------------|-------------------|
| NT | M/S. CE FRANKLIN | PRODUCT : | MACHINED CARBON STEEL FORGED FLANGES | CERTIFICATE NO.: | EXP/2007-08/ 2453 |
| ER NO. : | 1936122 - OR - 2100 | MATERIAL SPECIFICATION: | ASTM / ASME A5A105N AND CSA Z245.12 Gr. 246 CAT B | DATE | : 3.05.2008 |
| E | : 24.12.2007 | DIMENSIONAL SPECIFICATION : | ASME B 16.5 | MANUFACTURER'S BRAND: | |
| ICE NO.: | EXP/2007-08/ 291 DT.31.03.2008 | | | INSPECTORS STAMP: | |

CHEMICAL ANALYSIS

| ITEM DESCRIPTION | H.NO./I.CODE | QTY. | % C | % Mn | % Si | % S | % P | % Cr | % Ni | % Mo | % Cu | % V | % Nb | % B | % C.E | ART.NO. |
|--------------------------|--------------|------|-----|------|------|------|------|------|------|------|------|------|------|-----|-------|---------|
| ½" 150 LBS SWRF XH PN 20 | A-258 /1419 | 50 | .21 | .84 | .19 | .022 | .020 | .034 | .004 | .015 | .026 | .003 | .003 | -- | .36 | 1070254 |
| ¾" 150 LBS SWRF XH PN 20 | A-258 /1419 | 50 | .21 | .84 | .19 | .022 | .020 | .034 | .004 | .015 | .026 | .003 | .003 | -- | .36 | 1070262 |
| 2" 150 LBS SWRF XH PN 20 | 712363 /1614 | 75 | .20 | .77 | .17 | .023 | .033 | .029 | .004 | .015 | .008 | .004 | .005 | -- | .34 | 1075012 |
| 1" 150 LBS THDRF PN 20 | A-258 /1419 | 50 | .21 | .84 | .19 | .022 | .020 | .034 | .004 | .015 | .026 | .003 | .003 | -- | .36 | 1068592 |

MECHANICAL PROPERTIES

| H.NO./I.CODE | TENSILE STRENGTH Rm N/mm² | YIELD STRENGTH Rp N/mm² 0.2% | % Elongation % A G.L.= 50 mm | % Reduction Area % Z | Hardness BHN | MICRO STRUCTURE | HEAT TREATMENT |
|--------------|---------------------------|------------------------------|------------------------------|----------------------|--------------|-----------------|----------------|
| A-258 /1419 | 503 | 319 | 32.00 | 66.72 | 163 | -- | NORMALIZED |
| A-258 /1419 | 503 | 319 | 32.00 | 66.72 | 163 | -- | NORMALIZED |
| 712363 /1614 | 504 | 309 | 32.00 | 58.15 | 153 | -- | NORMALIZED |
| A-258 /1419 | 503 | 319 | 32.00 | 66.72 | 163 | -- | NORMALIZED |

- ARKS :**
- 1) CHECKED FOR HARDNESS AND FOUND OK
 - 2) NO WELDING DONE ON ANY PART OF JOB.
 - 3) Tensile test carried out at 50mm gauge length with 10mm Die.
 - 4) AS PER NACE MR-0175-2003

We certify that the material have been manufactured, tested and examined in accordance with requirement of the ordered standard and all test result are acceptable.

WORK INSPECTOR

PC COMPRESSION
RECEIVED JUL 08 2008
GULY

P.O.# 57055
SIGNATURE: *N*
APPROVED BY Q.C. INSPECTOR

DT.

M.E.G.A.

CLIENTE
Customer
Client

CE FRANKLIN LTD.

CERTIFICATO N. 544526 FOLIO 9
Certificato N. Sheet
Certificat N. Feuille

1900 - 300 - 5th AVENUE S.W.
CALGARY, ALBERTA, CANADA T2P 3C4

DATA / Date 15/10/07

CERTIFICATO DI COLLAUDO
TEST CERTIFICATE
CERTIFICAT DE CONTROLE

COMPANY
WITH QUALITY SYSTEM
CERTIFIED BY DNV
ISO 9001

ORDINE
Purchase order
Commande

1704179-DR-2100

CONMESSA 81350
Job #
Confirmation de commande

| PROVA Test Epreuve | MATERIALE Steel quality / Matière | COLATA Heat / Coulée | C % | Si % | Mn % | S % | P % | Cr % | Ni % | Mo % | Ti % | Cu % | V % | Al % | CE % |
|--------------------------|--------------------------------------|-------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| DCDS | ASTM A105/05 | 58340701.3 | 0.190 ---> Nb% = 0.001 | 0.230 | 0.980 | 0.005 | 0.012 | 00.13 | 00.07 | 0.030 | 0.020 | 0.110 | 0.001 | 0.018 | 0.397 |
| FCXR | ASTM A105/05 | 29387 | 0.190 ---> Nb% = 0.001 B % = 0.000 | 0.280 | 0.760 | 0.004 | 0.007 | 00.07 | 00.03 | 0.005 | 0.000 | 0.050 | 0.001 | 0.032 | 0.337 |
| FCXT | ASTM A105/05 | 15456 | 0.210 ---> Nb% = 0.001 B % = 0.000 | 0.270 | 0.920 | 0.003 | 0.008 | 00.11 | 00.17 | 0.020 | 0.002 | 0.140 | 0.002 | 0.025 | 0.410 |
| FCXS | ASTM A105/05 | 15747 | 0.217 ---> Nb% = 0.001 B % = 0.000 | 0.230 | 0.950 | 0.002 | 0.014 | 00.11 | 00.15 | 0.020 | 0.004 | 0.110 | 0.004 | 0.019 | 0.419 |
| FCXU | ASTM A105/05 | 15747 | 0.217 ---> Nb% = 0.001 B % = 0.0002 | 0.230 | 0.950 | 0.002 | 0.014 | 00.11 | 00.15 | 0.020 | 0.004 | 0.110 | 0.004 | 0.019 | 0.419 |
| LULB | ASTM A105/05 | 04/72191 | 0.200 ---> Nb% = 0.000 B % = 0.000 | 0.210 | 0.890 | 0.026 | 0.018 | 00.11 | 00.06 | 0.010 | 0.010 | 0.190 | 0.002 | 0.007 | 0.389 |

| PROVA Test Epreuve | PROVETTA Test specimen / Epreuve | | SNERVAMENTO Al/mm ² Yield point Limite d'élasticité | ROTTURA Al/mm ² Tensile strength Rupture | ALLUNGAMENTO % ≥ Elongation Allongement | CONTRAZIONE % Reduction of area Striction | DUREZZA HB Hardness Dureté | PIEGA Bend test Pliage | SCHACC. Flat. test Aplatiss. | RESILLENZA Impact test / Resilience | | | |
|--------------------------|-------------------------------------|--------------------------------|---|--|--|--|-------------------------------------|------------------------------|------------------------------------|--|--------------|--------------------|-------------------------|
| | SEZIONE Section / Sect. | LUNGHEZZA Length / Longueur | | | | | | | | UNITA MIS. Unit system | TIPO Type | T. °C Test temp | VALORE / Value / Donnée |
| DCDS | 1 | 30.6 25.0 | 363.0 | 558.0 | 28.6 | 61.4 | 170-175 | | | J | KV | 0 | 38-34-38 |
| FCXR | 1 | 30.6 25.0 | 294.0 | 502.0 | 34.3 | 71.5 | 140-143 | | | J | KV | 0 | 56-46-42 |
| FCXT | 1 | 30.6 25.0 | 312.0 | 538.0 | 29.6 | 67.4 | 154-159 | | | J | KV | 0 | 46-40-48 |
| FCXS | 1 | 30.6 25.0 | 343.0 | 544.0 | 29.1 | 64.0 | 161-167 | | | J | KV | 0 | 46-50-42 |
| FCXU | 1 | 30.6 25.0 | 322.0 | 534.0 | 29.6 | 67.4 | 150-156 | | | J | KV | 0 | 44-58-50 |
| LULB | 1 | 30.6 25.0 | 313.0 | 538.0 | 29.2 | 67.3 | 156-163 | | | J | KV | 0 | 46-56-50 |

PROVA Test Epreuve NOTE / Remarks / Notes EN10204/3.1

FORMA Shape / Forme : 1 = 2 =

DCDS ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10303.03 M.L.*241939 MEGA

FCXR ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10262.04 MET.LOMB.*247523 MEGA*

FCXT ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10258.04 MET.LOM.*247523 MEGA*

FCXS ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10261+10260.04 MET.LOMB.*247523 MEGA*

FCXU ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10257.04 METALM.LOMB.*247523 MEGA*

LULB ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10029.06 M.L.*530314 MEGA*

| PROVA Test Epreuve | POS. Item Pos. | QUANTITA Quantity Quantité | CODICE CLIENTE Customer code Code client | DESCRIZIONE / Description / Description | VISUAL AND DIMENSIONAL |
|--------------------------|----------------------|----------------------------------|--|---|---------------------------|
| DCDS | 088 | 75 | 1095697 | UNION S. 3000 NPT A/SA105N 3/8 | male OK |
| FCXR | 089 | 1200 | 1096091 | UNION S. 3000 NPT A/SA105N 1/2 | male+female OK |
| FCXT | 089 | 600 | 1096091 | UNION S. 3000 NPT A/SA105N 1/2 | nut OK |
| FCXS | 090 | 600 | 1094395 | UNION S. 3000 NPT A/SA105N 3/4 | male+female OK |
| FCXU | 090 | 300 | 1094395 | UNION S. 3000 NPT A/SA105N 3/4 | nut OK |
| LULB | 091 | 2000 | 1092648 | UNION S. 3000 NPT A/SA105N 1 | nut OK |

PC COMPRESSION
DATE RECEIVED JAN 17 2008
P.O. # 509646
SIGNATURE: *W*
APPROVED BY Q.C. INSPECTOR

NOTE / Remarks / Notes

MATERIAL ACCORDING TO NACE MR0175/ 2003.

INTE UFFICIALE DI COLLAUDO
Inspection Authority
Service Inspection Office

CAPO COLLAUDO
Chief Inspection DP
Responsible assurance quality

DOC. CERT. M.E.G.A.
LUCIA MARCONI



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
23961 Endeavor Drive S.E.
Calgary, Alberta T2P 2G5
CA

Certificate No 17277
Invoice No 160
Date 16.02.2007
Del. Note No 300
Date 16.02.2007

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappelletti, 4 - Tel.010-497661 - Fax 010-4681816 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 1 - 6

Main inspection table with columns: HEAT CODE, HEAT, ITEM, YOUR P.O., OUR REFERENCE, Q.TY, DESCRIPTION, DIM. ACC. TO, VISUAL & DIMENS., C.E.-%, AT%, NP%, V%, CU%, TP%, Mo%, Ni%, Cr%, P%, S%, Mn%, C%, YIELD POINT, ELONGATION, REDUCTION OF AREA, TENSILE STRENGTH, HARDNESS, FLATNESS TEST, IMPACT TEST, TYPE (Kv/min), KV, HEAT TREATMENT, FURNACE, STEEL MILL, Our Ref.

Summary table with columns: HEAT CODE, HEAT, ITEM, INSPECTION AUTHORITY, BORIS FIZZOTTI, FITTINGS, IML, STUDBOLTS

PC COMPRESSION
DATE RECEIVED JUN 24 2008
P.O.# 5104728 E832806
SIGNATURE: M
APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : UX4
TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
1" CL 3000 FS SCRD UNION A105N
Shipment/Seq #: 8 7 - 1111 8



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
233051 Enclave Drive S.E.
Calgary, Alberta T2P 2P6
CA

Certificate No. 17217
Invoice No. 169
Del. Note No. 300

20.02.2007 Dated
16.02.2007 Dated
16.02.2007 Dated

HEAT NUMBER : UX5

TRANS AM PIPING PRODUCTS - REV'D BY: A105N

Shipment/Seq #: 9 7 - 1111 9

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Capponi,4 - Tel.0185.487681 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 2 - 5

Table with columns: HEAT CODE, HEAT, ITEM, YOUR P.O., QTY, DESCRIPTION, DIM. ACC. TO, VISUAL & DIMENS., SATISFACTORY, etc. Includes material specifications for A105N fittings and pipe nipples.

NOTES
ASME B16.11/06 - ANSI B31.1/83.1.3 - IM, STD - ANSI B1.1-B16.2.2 -
MACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS
SPECIFICATIONS AND P.O. REQUIREMENTS



STUDBOLTS

FITTINGS

BORIS FIZZOTTI

IML

QUALITY CONTROL DEPARTMENT

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

M.E.G.A.

CLIENTE
Customer
Client

CE FRANKLIN LTD.

CERTIFICATO N. 543176 FOGLIO 1
Certificat N. Sheet 1
Certificat N. Feuille

1900 - 300 - 5th AVENUE S.W.
CALGARY, ALBERTA, CANADA T2P 3C4

DATA / Date 29/08/07

CERTIFICATO DI COLLAUDO
TEST CERTIFICATE
CERTIFICAT DE CONTROLE

COMPANY
WITH QUALITY SYSTEM
CERTIFIED BY DNV
ISO 9001

ORDINE
Purchase order
Commande

1777050-OR-2100

COMMENDA
Job N. 82363
Confirmation de commande

| PROVA Test Epreuve | MATERIALE Steel quality / Matière | COLATA Heat / Cooled | C % | Si % | Mn % | S % | P % | Cr % | Ni % | Mo % | Ti % | Cu % | V % | Al % | CE % |
|--------------------------|--------------------------------------|-------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
| NNAX | ASTM A105/05 | 06/79328 | 0.195 ---> | 0.220 Nb% 0.001 | 0.920 | 0.008 | 0.018 | 00.08 | 00.04 | 0.010 | 0.025 | 0.120 | 0.019 | 0.025 | 0.380 CEs= 0.348 |
| NAAR | ASTM A105/05 | 1T 27092 | 0.190 ---> | 0.230 Nb% 0.002 | 0.870 | 0.007 | 0.008 | 00.06 | 00.13 | 0.010 | 0.003 | 0.180 | 0.001 | 0.025 | 0.369 CEs= 0.335 |
| NDCL | ASTM A105/03 | 06/78612 | 0.195 ---> | 0.170 Nb% 0.000 | 0.890 | 0.010 | 0.014 | 00.10 | 00.05 | 0.010 | 0.019 | 0.160 | 0.017 | 0.023 | 0.382 CEs= 0.343 |
| NTBN | ASTM A105/05 | 1T 25641 | 0.200 ---> | 0.240 Nb% 0.000 | 0.890 | 0.012 | 0.017 | 00.17 | 00.10 | 0.030 | 0.002 | 0.180 | 0.000 | 0.033 | 0.406 CEs= 0.343 |
| NADL | ASTM A105/03 | 0633874 | 0.180 ---> | 0.240 Nb% 0.002 | 1.080 | 0.003 | 0.012 | 00.12 | 00.01 | 0.005 | 0.000 | 0.025 | 0.003 | 0.023 | 0.387 |
| NCNS | ASTM A105/03 | 12202 | 0.160 ---> | 0.230 Nb% 0.000 | 0.940 | 0.007 | 0.009 | 00.10 | 00.12 | 0.020 | 0.000 | 0.200 | 0.000 | 0.026 | 0.361 |

| PROVA Test Epreuve | PROVETTA Test specimen / Epreuve | | SNERVAMENTO Yield point Limite d'élasticité | ROTTURA Rupture Tensile strength | ALLUNGAMENTO % elongation Allongement | CONTRAZIONE % reduction of area Striction | DUREZZA HB Hardness Dureté | PIEBA Bend test Plage | DEVIAC. Flat. test Apatiliss. | RESILIENZA Impact test / Résilience | | | |
|--------------------------|-------------------------------------|--------------------------------|---|--|---|---|-------------------------------------|-----------------------------|-------------------------------------|--|-------------|--------------------|--------------------------|
| | SEZIONE Section / Sect. | LUNGHEZZA Length / Longueur | | | | | | | | UNITA' MIS. Unit system | TPO Type | T. °C Test temp | VALORE / Value / Données |
| NNAX | 1 | 30.6 25.0 | 298.0 | 525.0 | 31.3 | 68.8 | 146-149 | | | J | KV | 0 | 48-52-58 |
| NAAR | 1 | 30.6 25.0 | 309.0 | 530.0 | 28.7 | 66.6 | 149-154 | | | J | KV | 0 | 48-52-50 |
| NDCL | 1 | 30.6 25.0 | 303.0 | 510.0 | 31.3 | 68.6 | 146-156 | | | J | KV | 0 | 64-62-52 |
| NTBN | 1 | 30.6 25.0 | 312.5 | 518.6 | 31.5 | 69.4 | 149-152 | | | J | KV | 0 | 68-82-60 |
| NADL | 1 | 60.1 35.0 | 308.0 | 528.0 | 28.0 | 66.0 | 140-145 | | | J | KV | 0 | 46-52-54 |
| NCNS | 1 | 30.6 25.0 | 318.0 | 540.0 | 28.2 | 66.6 | 156-163 | | | J | KV | 0 | 56-58-50 |

NOTE / Remarks / Notes: EN10204/3.1

FORMA Shape / Forme : 1 = 2 =

NNAX ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.8760.06 ISMA*533234 MEGA*

NAAR ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.9168.MEGA/I*539532 MEGA*

NDCL ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.8642.06 MEGA/ISMA*531508 MEGA*

NTBN ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.8978.06 MEGA/ISMA*536087 MEGA*

NADL ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.87.36.06 MEGA/ISMA*532601 MEGA*

NCNS ELECT. FURNACE-NORMALIZED AT 920 C COOLED IN STILL AIR. /CERT. 29.06 EVASI*530822 MEGA*

| PROVA Test Epreuve | POS. Item Pos. | QUANTITÀ Quantity Quantité | CODICE CLIENTE Customer code Code client | DESCRIZIONE / Description / Description | VISUAL AND DIMENSIONAL |
|--------------------------|----------------------|----------------------------------|--|---|---------------------------|
| NNAX | 003 | 600 | 1096411 | 90 DEG. ELBOW S. 2000 NPT A/SA105N 1/2 | OK |
| NAAR | 004 | 3887 | 1096526 | 90 DEG. ELBOW S. 2000 NPT A/SA105N 1 | OK |
| NDCL | 004 | 1380 | 1096526 | 90 DEG. ELBOW S. 2000 NPT A/SA105N 1 | OK |
| NTBN | 004 | 733 | 1096526 | 90 DEG. ELBOW S. 2000 NPT A/SA105N 1 | OK |
| NADL | 015 | 2000 | 1094671 | TEE S. 2000 NPT A/SA105N 1 | OK |
| NCNS | 022 | 500 | 1095101 | 90 DEG. ELBOW S. 3000 NPT A/SA105N 1/4 | OK |

PC COMPRESSION
 DATE RECEIVED JUN 06 2008
 P.O. # 510340
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR

NOTE / Remarks / Notes: MATERIAL ACCORDING TO NACE MR0175/ 2003.

ENTE UFFICIALE DI COLLAUDO
Inspection Authority
Service Inspection Official

CAPO COLLAUDO
Chief Inspection DPT
Responsible assurance quality

DOC. CE M.E.G.A.
Ser. [Signature]

MEGA

CLIENTE
Customer
Client

CE FRANKLIN LTD.

CERTIFICATO N. 543176 FOLIO 1
Certificate N. Sheet
Certificat N. Feuille

1900 - 300 - 5th AVENUE S.W.
CALGARY, ALBERTA, CANADA T2P 3C4

DATA / Date 29/08/07

CERTIFICATO DI COLLAUDO
TEST CERTIFICATE
CERTIFICAT DE CONTROLE

COMPANY
WITH QUALITY SYSTEM
CERTIFIED BY DNV
ISO 9001

ORDINE
Purchase order
Commande

1777050-OR-2100

COMMESSA 82363
Job N.
Confirmation de commande

| PROVA Test Epreuve | MATERIALE Steel quality / Matière | COLATA Heat / Cooled | C % | Si % | Mn % | S % | P % | Cr % | RE % | Mo % | Ti % | Cu % | V % | Al % | CE % |
|--------------------------|--------------------------------------|-------------------------|---------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| NNAX | ASTM A105/05 | 06/79328 | 0.195 ---> | 0.220 Nb % = 0.001 | 0.920 | 0.008 | 0.018 | 00.08 | 00.04 | 0.010 | 0.025 | 0.120 | 0.019 | 0.026 | 0.380 |
| NAAR | ASTM A105/05 | 1T 27092 | 0.190 ---> | 0.230 Nb % = 0.002 N % = 0.000 | 0.870 | 0.007 | 0.008 | 00.06 | 00.13 | 0.010 | 0.003 | 0.180 | 0.001 | 0.025 | 0.369 |
| NDCL | ASTM A105/03 | 06/78612 | 0.195 ---> | 0.170 Nb % = 0.000 | 0.890 | 0.010 | 0.014 | 00.10 | 00.05 | 0.010 | 0.019 | 0.160 | 0.017 | 0.023 | 0.382 |
| NTBN | ASTM A105/05 | 1T 25641 | 0.200 ---> | 0.240 Nb % = 0.000 | 0.890 | 0.012 | 0.017 | 00.17 | 00.10 | 0.030 | 0.002 | 0.180 | 0.000 | 0.033 | 0.406 |
| NADL | ASTM A105/03 | 0633874 | 0.180 ---> | 0.240 Nb % = 0.002 | 1.080 | 0.003 | 0.012 | 00.12 | 00.01 | 0.005 | 0.000 | 0.025 | 0.003 | 0.023 | 0.387 |
| NCNS | ASTM A105/03 | 12202 | 0.160 ---> | 0.230 Nb % = 0.000 | 0.940 | 0.007 | 0.009 | 00.10 | 00.12 | 0.020 | 0.000 | 0.200 | 0.000 | 0.026 | 0.361 |

| PROVA Test Epreuve | PROVETTA Test specimen / Epreuve | | SMERAMENTO N/mm ² Yield point Limite d'élasticité | ROTTURA N/mm ² Tensile strength Rupture | ALLUNGAMENTO % Elongation Allongement | CONTRAZIONE % Reduction of area Striction | DUREZZA HB Hardness Dureté | PIEGA Bend test Pliage | SCHACC. Flat. test Aplatis. | RESISTENZA Impact test / Résistance | | | |
|--------------------------|-------------------------------------|--------------------------------|---|---|--|--|-------------------------------------|------------------------------|-----------------------------------|--|-------------|--------------------|--------------------------|
| | SEZIONE Section / Sect. | LUNGHEZZA Length / Longueur | | | | | | | | UNITÀ MIS. Unit system | TPO Type | T. °C Test temp | VALORE / Value / Données |
| NNAX | 1 | 30.6 25.0 | 298.0 | 525.0 | 31.3 | 68.8 | 146-149 | | | J | KV | 0 | 48-52-58 |
| NAAR | 1 | 30.6 25.0 | 309.0 | 530.0 | 28.7 | 66.6 | 149-154 | | | J | KV | 0 | 48-52-50 |
| NDCL | 1 | 30.6 25.0 | 303.0 | 510.0 | 31.3 | 68.6 | 146-156 | | | J | KV | 0 | 64-62-52 |
| NTBN | 1 | 30.6 25.0 | 312.5 | 518.6 | 31.5 | 69.4 | 149-152 | | | J | KV | 0 | 68-82-60 |
| NADL | 1 | 60.1 35.0 | 308.0 | 528.0 | 28.0 | 66.0 | 140-145 | | | J | KV | 0 | 46-52-54 |
| NCNS | 1 | 30.6 25.0 | 318.0 | 540.0 | 28.2 | 66.6 | 156-163 | | | J | KV | 0 | 56-58-50 |

NOTE / Remarks / Notes: EN10204/3.1

FORMA Shape / Form: 1 = 2 =

| | |
|------|---|
| NNAX | ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.8760.06 ISMA*533234 MEGA* |
| NAAR | ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.9168.MEGA/I*539532 MEGA* |
| NDCL | ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.8642.06 MEGA/ISMA*531508 MEGA* |
| NTBN | ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.8978.06 MEGA/ISMA*536087 MEGA* |
| NADL | ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.87.36.06 MEGA/ISMA*532601 MEGA* |
| NCNS | ELECT. FURNACE-NORMALIZED AT 920 C COOLED IN STILL AIR. /CERT. 29.06 EVASI*530822 MEGA* |

| PROVA Test Epreuve | POS. Item Pos. | QUANTITÀ Quantity Quantité | CODICE CLIENTE Customer code Code client | DESCRIZIONE / Description / Description | VISUAL AND DIMENSIONAL |
|--------------------------|----------------------|----------------------------------|--|---|---------------------------|
| NNAX | 003 | 600 | 1096411 | 90 DEG. ELBOW S. 2000 NPT A/SA105N 1/2 | OK |
| NAAR | 004 | 3887 | 1096526 | 90 DEG. ELBOW S. 2000 NPT A/SA105N 1 | OK |
| NDCL | 004 | 1380 | 1096526 | 90 DEG. ELBOW S. 2000 NPT A/SA105N 1 | OK |
| NTBN | 004 | 733 | 1096526 | 90 DEG. ELBOW S. 2000 NPT A/SA105N 1 | OK |
| NADL | 015 | 2000 | 1094571 | TEE S. 2000 NPT A/SA105N 1 | OK |
| NCNS | 022 | 500 | 1095101 | 90 DEG. ELBOW S. 3000 NPT A/SA105N 1/4 | OK |

PC COMPRESSION
DATE RECEIVED JUN 06 2008
P.O. # S10340
SIGNATURE: *[Signature]*
APPROVED BY Q.C. INSPECTOR

| | | |
|--|--|--|
| NOTE / Remarks / Notes | ENTE UFFICIALE DI COLLAUDO Inspection Authority Service Inspection Offices | CAPO COLLAUDO Chief Inspection DPT Responsable assurance qualité |
| MATERIAL ACCORDING TO NACE MR0175/ 2003. | | DOC. CE MEGA. Service Inspection |



INDUSTRIA MECCANICA LIGURE SPA

14000 CASARZA LIGURE - Genova - Italy - P.zza Marco Capponi,4 - Tel.0185.467861 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA
TRANS AM PIPING PRODUCTS LTD.
7025 - 44th Street S E
Calgary, Alberta T2C 4E9 CA
Certificate No 15724
Invoice No
Date 12.06.2005
Def. Note No 1522
Date 12.06.2005

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DMR. ACC. TO | VISUAL & DIMENS. |
|-----------|-------|------|------------------------------------|---------------|------|---|--------------|------------------|
| TG3 | 79959 | 093 | CI-05 - 620 2005-2E201-0000914-093 | | | FITTING TEE SW 6M 1 1/2" A105N | SEE NOTE | SATISFACTORY |
| ZZ4 | 76177 | 094 | CI-05 - 620 2005-2E201-0000914-094 | | | FITTING 45 ELB. SW 6M 3/4" A105N | SEE NOTE | SATISFACTORY |
| GR2 | 39700 | 096 | CI-05 - 620 2006-2E201-0000914-096 | | | FITTING 45 ELB. SW 6M 1 1/2" A105N | SEE NOTE | SATISFACTORY |
| GP8 | 70200 | 097 | CI-05 - 620 2005-2E201-0000914-097 | | | FITTING 45 ELB. SW 6M 2" A105N | SEE NOTE | SATISFACTORY |
| | 78703 | 101 | CI-05 - 620 2005-2E201-0000914-101 | | | FITTING CAP THRU NPT 3M 1 1/2" A350/LF2 | SEE NOTE | SATISFACTORY |
| ZZ2 | 78017 | 104 | CI-05 - 620 2005-2E201-0000914-104 | | | FITTING 45 ELB. SW 3M 3/4" A350/LF2 | SEE NOTE | SATISFACTORY |
| H52 | 74285 | 110 | CI-05 - 620 2005-2E201-0000914-110 | | | FITTING 90 ELB. SW 6M 1" A350/LF2 | SEE NOTE | SATISFACTORY |
| GU9 | 75349 | 002 | CI-05 - 620 2005-2E201-0000914-002 | | | FITTING 90 ELB. THRD NPT 2M 1" A105N | SEE NOTE | SATISFACTORY |

| ITEM | HEAT | MATERIAL | YIELD POINT MINED MPa | TENSILE STRENGTH MINED MPa | ELONGATION % L ₅₀ | REDUCTION OF AREA % R _{4.5} | IMPACT TEST Joule/cm ² | FLATTENING TEST Type test/mm | HAZARD TEST KV | SHAPE I/O 2+D | YIELD POINT MINED MPa |
|------|-------|----------|--------------------------|-------------------------------|---------------------------------|---|--------------------------------------|---------------------------------|-------------------|------------------|--------------------------|
| TG3 | 79959 | 093 | 122,65 | 50,00 | 32,0 | 57,5 | 154 - 162 | 0,0 | 0,0 | 1 | 104 |
| ZZ4 | 76177 | 094 | 122,65 | 50,00 | 33,0 | 56,0 | 158 - 162 | 0,0 | 0,0 | 1 | 105 |
| GR2 | 39700 | 096 | 122,65 | 50,00 | 34,0 | 56,0 | 160 - 162 | 0,0 | 0,0 | 1 | 110 |
| GP8 | 70200 | 097 | 122,65 | 50,00 | 34,0 | 54,0 | 160 - 166 | 0,0 | 0,0 | 1 | 110 |
| | 78703 | 101 | 122,65 | 50,00 | 31,0 | 56,0 | 160 - 166 | 0,0 | 0,0 | 1 | 98 |
| ZZ2 | 78017 | 104 | 122,65 | 50,00 | 31,0 | 56,0 | 160 - 164 | 0,0 | 0,0 | 1 | 80 |
| H52 | 74285 | 110 | 122,65 | 50,00 | 31,0 | 54,0 | 150 - 158 | 0,0 | 0,0 | 1 | 60 |
| GU9 | 75349 | 002 | 122,65 | 50,00 | 34,0 | 56,0 | 160 - 166 | 0,0 | 0,0 | 1 | 50 |

| ITEM | HEAT | MATERIAL IN ACCORDANCE TO | YIELD POINT MINED MPa | TENSILE STRENGTH MINED MPa | ELONGATION % L ₅₀ | REDUCTION OF AREA % R _{4.5} | IMPACT TEST Joule/cm ² | FLATTENING TEST Type test/mm | HAZARD TEST KV | SHAPE I/O 2+D | YIELD POINT MINED MPa |
|------|-------|---------------------------|------------------------------------|-------------------------------|---------------------------------|---|--------------------------------------|---------------------------------|-------------------|------------------|--------------------------|
| TG3 | 79959 | 093 | ASME SA ASTM A105-03 | | | | | | | STEEL MILL | Our Ref. |
| ZZ4 | 76177 | 094 | ASME SA ASTM A105-03 | | | | | | | ELECTRIC FURNACE | 041321 |
| GR2 | 39700 | 096 | ASME SA ASTM A105-03 | | | | | | | ELECTRIC FURNACE | 041034 |
| GP8 | 70200 | 097 | ASME SA ASTM A105-03 | | | | | | | ELECTRIC FURNACE | 051025 |
| | 78703 | 101 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | | | | | | | ELECTRIC FURNACE | 041364 |
| ZZ2 | 78017 | 104 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | | | | | | | ELECTRIC FURNACE | 021407 |
| H52 | 74285 | 110 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | | | | | | | ELECTRIC FURNACE | 041169 |
| GU9 | 75349 | 002 | ASME SA ASTM A105-03 | | | | | | | ELECTRIC FURNACE | 051189 |

NOTES ASME B16.11/01 - BS 3799 - ANSI B31.1/R31.3 - IML STD - ANSII
 B1.1-B18.2.2 - NACE MR0175 ISO 15156/1 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

INSPECTION AUTHORITY
 BORIS PIZZOTTI
 FITTINGS IML
 STUBOLTS

PC COMPRESSION
 DATE RECEIVED JUN 7 4 2008
 P.O. # 510478 E832806
 SIGNATURE: *h*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : GU9
 TRANS AM PIPING PRODUCTS - REV'D BY: *B*
 SHIPMENT/SEG #: 5 5 - 1577

1" CL 2000 FS SCRD TEE A105N

TRANS AM PIPING PRODUCTS - REV'D BY: *DF* SHIPMENT/SEQ #: 5 7 - 1012 15



INDUSTRIA MECCANICA LIGURE SPA

10030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappella, 4 - Tel. 0185.467651 - Fax 0185.465616 / MATERIAL TEST ORDPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 1 - 5

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001-2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 233061 Endeavor Drive S.E.
 Calgary, Alberta T2P 2G5
 CA

Certificate No.: 17061
 Invoice No.: 13
 Del. Note No.: 10
 Dated: 10.01.2007
 Dated: 03.01.2007
 Dated: 03.01.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIAM. ACC. TO | VISUAL & DIMENS. | | | | | | | | | | | |
|-----------|------|------|-------------------------------------|---------------|------------------|---|-------------------|------------------|-----------|-----------------|-------------|--------|------------|-----------|-------------|--------|------------|-------|----------------|
| 72290 | 008 | 008 | CI-05-799-2006-2E201-0001041-008 | | | FITTING 90 ELB. THRD NPT 2M 2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| 72290 | 008 | 008 | CI-05-799-2006-2E201-0001041-008 | | | FITTING 90 ELB. THRD NPT 2M 2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| 72290 | 008 | 008 | CI-05-799-2006-2E201-0001041-008 | | | FITTING 90 ELB. THRD NPT 2M 2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| 72290 | 008 | 008 | CI-05-799-2006-2E201-0001041-008 | | | FITTING 90 ELB. THRD NPT 2M 2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| 55523 | 021 | 021 | CI-05-332-2006-2E201-000395-021 | | | P. NIPPLE TEE NPT S-80 1.1/2" L51mm(2") A105B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| 72966 | 014 | 014 | CI-05-799-2006-2E201-0001041-014 | | | FITTING TEE THRD NPT 2M 1" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| 17980 | 012 | 012 | CI-05-799-2006-2E201-0001041-012 | | | FITTING TEE THRD NPT 2M 1/2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| 77612 | 013 | 013 | CI-05-799-2006-2E201-0001041-013 | | | FITTING TEE THRD NPT 2M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | MIN% | 8% | 9% | P% | C% | NIP% | NI% | TI% | CU% | V% | MP% | N% | AP% | C.E.% | OTHER ELEMENTS |
| 72290 | 008 | 008 | ASTM A105 | 0,190 | 1,070 | 0,021 | 0,014 | 0,060 | 0,050 | 0,010 | 0,010 | 0,005 | 0,200 | 0,003 | 0,001 | 0,000 | 0,024 | 0,400 | |
| 72290 | 008 | 008 | ASTM A105 | 0,190 | 1,070 | 0,021 | 0,014 | 0,060 | 0,050 | 0,010 | 0,010 | 0,005 | 0,200 | 0,003 | 0,001 | 0,000 | 0,024 | 0,400 | |
| 72290 | 008 | 008 | ASTM A105 | 0,190 | 1,070 | 0,021 | 0,014 | 0,060 | 0,050 | 0,010 | 0,010 | 0,005 | 0,200 | 0,003 | 0,001 | 0,000 | 0,024 | 0,400 | |
| 55523 | 021 | 021 | ASTM A105B/API 5LB | 0,150 | 0,640 | 0,015 | 0,009 | 0,040 | 0,060 | 0,010 | 0,010 | 0,000 | 0,230 | 0,005 | 0,000 | 0,000 | 0,000 | 0,287 | |
| 72966 | 014 | 014 | ASTM A105 | 0,185 | 0,200 | 0,950 | 0,017 | 0,019 | 0,110 | 0,060 | 0,110 | 0,006 | 0,190 | 0,003 | 0,000 | 0,000 | 0,021 | 0,386 | |
| 17980 | 012 | 012 | ASTM A105 | 0,180 | 0,250 | 0,880 | 0,015 | 0,009 | 0,060 | 0,110 | 0,020 | 0,007 | 0,290 | 0,001 | 0,001 | 0,000 | 0,033 | 0,370 | |
| 77612 | 013 | 013 | ASTM A105 | 0,185 | 0,200 | 0,900 | 0,021 | 0,013 | 0,100 | 0,050 | 0,010 | 0,005 | 0,190 | 0,002 | 0,001 | 0,000 | 0,014 | 0,374 | |
| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS | BEND TEST | FLATTENING TEST | IMPACT TEST | CHARPY | PLATE TEST | TYPE TEST | TEMPERATURE | SHAPES | WELD POINT | | |
| 72290 | 008 | 008 | 122,65 | 50,00 | 335,0 | 31,0 | 68,0 | 164 - 166 | 0,0 | 0,0 | KV | 109 | 0,0 | 1 | 1 | 1 | 0,0 | | |
| 72290 | 008 | 008 | 122,65 | 50,00 | 335,0 | 31,0 | 68,0 | 164 - 166 | 0,0 | 0,0 | KV | 109 | 0,0 | 1 | 1 | 1 | 0,0 | | |
| 72290 | 008 | 008 | 122,65 | 50,00 | 335,0 | 31,0 | 68,0 | 164 - 166 | 0,0 | 0,0 | KV | 109 | 0,0 | 1 | 1 | 1 | 0,0 | | |
| 55523 | 021 | 021 | 0,00 | 0,00 | 313,0 | 32,0 | 0,0 | 156 - 162 | 0,0 | 0,0 | KV | 0 | 0,0 | 0 | 0 | 0 | 0,0 | | |
| 72966 | 014 | 014 | 122,65 | 50,00 | 306,0 | 32,0 | 57,0 | 158 - 166 | 0,0 | 0,0 | KV | 98 | 0,0 | 1 | 1 | 1 | 0,0 | | |
| 17980 | 012 | 012 | 122,65 | 50,00 | 306,0 | 34,0 | 56,0 | 160 - 164 | 0,0 | 0,0 | KV | 100 | 0,0 | 1 | 1 | 1 | 0,0 | | |
| 77612 | 013 | 013 | 122,65 | 50,00 | 334,0 | 35,0 | 55,0 | 158 - 166 | 0,0 | 0,0 | KV | 104 | 0,0 | 1 | 1 | 1 | 0,0 | | |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| 55523 | 021 | 021 | ASME SA ASTM A105/A160M-04p Gr. B | | | | | | | | | | | | | | | | |
| 72966 | 014 | 014 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| 17980 | 012 | 012 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| 77612 | 013 | 013 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | HEAT TREATMENT | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| 55523 | 021 | 021 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| 72966 | 014 | 014 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| 17980 | 012 | 012 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| 77612 | 013 | 013 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | FURNACE | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | |
| 55523 | 021 | 021 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | |
| 72966 | 014 | 014 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | |
| 17980 | 012 | 012 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | |
| 77612 | 013 | 013 | ELECTRIC FURNACE | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | STEEL MILL | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | RIVA ACCIAI | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | RIVA ACCIAI | | | | | | | | | | | | | | | | |
| 72290 | 008 | 008 | RIVA ACCIAI | | | | | | | | | | | | | | | | |
| 55523 | 021 | 021 | PODBREZOVA | | | | | | | | | | | | | | | | |
| 72966 | 014 | 014 | RIVA ACCIAI | | | | | | | | | | | | | | | | |
| 17980 | 012 | 012 | LEALI SPA | | | | | | | | | | | | | | | | |
| 77612 | 013 | 013 | RIVA ACCIAI | | | | | | | | | | | | | | | | |

NOTES
 ASME B16.11/05 - ANSI B31.3 - RML STD - ANSI B1.1-18.2.2 -
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E83286
 SIGNATURE: *af*
 APPROVED BY Q.C. INSPECTOR

BORIS PIZZOTTI
 FITTINGS
 IML
 STUDBOLTS



HEAT NUMBER : 2610
 TRANS AM PIPING PRODUCTS - REV'D BY: AB
 Shipment/Seq #: S 7 - 1096 26

1X1/2 CL 3000 FS SCR D RED TEE
 A105N



柏維鐵工股份有限公司
 高雄縣仁武鄉萬林村仁心路 303 號

BOTH-WELL STEEL FITTINGS CO., LTD.
 NO.303, JEN-HSIANG ROAD JEN-WU HSIANG
 KAOHSIUNG HSIEN, TAIWAN R.O.C.(81460)

An ISO-9001 Registered Manufacturer



TEL: (07) 371-0497, 371-1536, 372-0260 FAX: (886-7) 371-3864, 371-3882
 WEB SITE: <http://www.bothwell.com.tw> E-MAIL: bothwell@www.bothwell.com.tw or box@mail.bothwell.com.tw

MILL TEST & INSPECTION CERTIFICATE

ACCORDING TO EN10204/DIN50049/3.1 B

ORIGIN: TAIWAN

CUSTOMER: TRANS AM
 CERT NO: 70297

ORDER NO: 6092(CI-06-720)

INVOICE NO: BW09510107

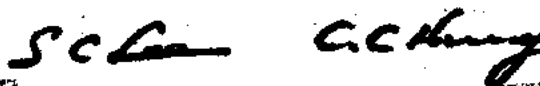
L/C NO:

DATE: 01/31/07

PAGE: 12

| ITEM | RAW MATERIAL HEAT NO. | BOTH WELL HT. CO. | DESCRIPTION | QUANTITY | SPECIFICATION: ASTM / ASME A/SA 105N - 05 DIMENSION: ASME B16.11 - 2001 SURFACE: BY VISUAL...GOOD |
|------|-----------------------|-------------------|------------------------------|----------|---|
| 046 | 387034 | 2508 | RED.CPLG 2"× 1" 3000# NPT | | |
| 047 | AL0189 | 598 | RED.TEE 1/2"× 3/8" 3000# NPT | | |
| 047 | AL0189 | 598 | RED.TEE 1/2"× 3/8" 3000# NPT | | |
| 048 | 390884 | 2610 | RED.TEE 1"× 1/4" 3000# NPT | | |
| 049 | 388861 | 2585 | RED.TEE 1"× 1/2" 3000# NPT | | |
| 049 | 390884 | 2610 | RED.TEE 1"× 1/2" 3000# NPT | | |
| 050 | 388839 | 2571 | RED.TEE 1"× 3/4" 3000# NPT | | |

| ITEM | CHEMICAL COMPOSITION (%) | | | | | | | | | | | |
|------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| | C | Si | Mn | P | S | Cu | Cr | Ni | Mo | V | Cb(Nb) | CE |
| Min | - | 0.100 | 0.000 | - | - | - | - | - | - | - | - | - |
| Max | 0.350 | 0.350 | 1.050 | 0.035 | 0.040 | 0.400 | 0.300 | 0.400 | 0.120 | 0.050 | 0.020 | 0.430 |
| 046 | 0.210 | 0.190 | 0.880 | 0.014 | 0.011 | 0.000 | 0.080 | 0.040 | 0.010 | 0.002 | 0.000 | 0.380 |
| 047 | 0.200 | 0.190 | 0.790 | 0.012 | 0.011 | 0.010 | 0.020 | 0.010 | 0.010 | 0.000 | 0.000 | 0.330 |
| 047 | 0.190 | 0.190 | 0.810 | 0.011 | 0.011 | 0.010 | 0.020 | 0.010 | 0.010 | 0.000 | 0.000 | 0.332 |
| 048 | 0.220 | 0.220 | 0.900 | 0.011 | 0.015 | 0.140 | 0.070 | 0.080 | 0.020 | 0.064 | 0.062 | 0.402 |
| 049 | 0.190 | 0.190 | 0.840 | 0.017 | 0.011 | 0.100 | 0.110 | 0.050 | 0.020 | 0.062 | 0.002 | 0.370 |
| 049 | 0.220 | 0.220 | 0.900 | 0.011 | 0.015 | 0.140 | 0.070 | 0.080 | 0.020 | 0.064 | 0.062 | 0.402 |
| 050 | 0.200 | 0.190 | 0.850 | 0.010 | 0.009 | 0.120 | 0.120 | 0.050 | 0.020 | 0.062 | 0.062 | 0.381 |

| ITEM | MECHANICAL TEST | | | | | Remark: NORMALIZED : 850°C CONFORMS TO NACE MR0175-2003/MR0103 STEEL MAKING PROCESS: ELECTRIC FURNACE |
|------|------------------------|----------------------|-----------------|------------|---------------|---|
| | Tensile Strength (KSI) | Yield Strength (KSI) | Elen-gation (%) | R of A (%) | Hardness (HB) | |
| Min | 70.0 | 36.0 | 22.0 | 30.0 | - | WE CERTIFY THE ABOVE MENTIONED FITTINGS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS SHOWN |
| Max | - | - | - | - | 187 | |
| 046 | 77.8 | 57.5 | 32.8 | 64.0 | 141 |  Q.C. MANAGER SHENG CHENG LEE PC COMPRESSOR INSPECTOR JUN CHANG HSANG 4 2008 |
| 047 | 76.0 | 54.4 | 38.4 | 60.3 | 152 | |
| 047 | 73.4 | 49.0 | 37.6 | 57.6 | 150 | |
| 048 | 77.6 | 56.0 | 28.6 | 63.3 | 141 | |
| 049 | 78.1 | 54.2 | 31.4 | 65.8 | 143 | |
| 049 | 77.0 | 56.0 | 28.6 | 63.3 | 141 | |
| 050 | 77.5 | 60.2 | 30.8 | 64.1 | 142 | |

BW-50839 REV:0



INDUSTRIA MECCANICA LOURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

TRANS AM PIPING PRODUCTS LTD.

7035 - 44th Street S.E.
Calgary, Alberta T2C 6E9

Certificate Nr. 16894
Invoice Nr. 1005
Del. Note Nr. 1958

25.09.2006
25.09.2006
25.09.2006

10000 CASARUA LOURE - Genova - Italy - P.zza Marco Cappelletti, 4 - Tel.010.4676951 - Fax 010.4665816/MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 6 - 10

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OLK REFERENCE | QTY | DESCRIPTION | DIM ACC. TO | VISUAL & DIMENS. |
|-----------|-------|------|------------------------------------|---------------|-----|--|-------------|------------------|
| HB0 | 78092 | 012 | CI-06 - 510-2006-2E201-0000863-012 | | | FITTING CROSS THRD NPT 2M 1" A105N | SEE NOTE | SATISFACTORY |
| | 55287 | 003 | CI-06 - 635-2006-2E201-0000797-003 | | | P.NIPPLE TBE NPT S-80 1/4" L51mm(2") A105B/API 5LB | SEE NOTE | SATISFACTORY |
| | 75358 | 018 | CI-06 - 636-2006-2E201-0000802-018 | | | FITTING 90 ELB. THRD NPT 3M 3/8" A105N | SEE NOTE | SATISFACTORY |
| | 55175 | 027 | CI-06 - 168-2006-2E201-0000143-027 | | | FITTING COUPLING THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY |
| | 78092 | 036 | CI-06 - 636-2006-2E201-0000802-036 | | | P.NIPPLE TBE NPT S-80 1/2" L150mm(6") A105B/API 5LB | SEE NOTE | SATISFACTORY |
| GZ5 | 87581 | 019 | CI-06 - 332-2006-2E201-0000395-019 | | | IP.NIPPLE TBE NPT S-80 1/4" L115mm(4 1/2") A105B/API 5LB | SEE NOTE | SATISFACTORY |
| | 87581 | 020 | CI-06 - 332-2006-2E201-0000395-020 | | | P.NIPPLE TBE NPT S-80 1/4" L150mm(6") A105B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | SM% | MIN% | P% | Cr% | Ni% | Mo% | Ti% | CU% | V% | Nb% | N% | AN% | CE% | OTHER ELEMENTS |
|-----------|-------|------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| HB0 | 78092 | 012 | ASTM A105 | 0.180 | 0.150 | 0.650 | 0.020 | 0.130 | 0.060 | 0.010 | 0.005 | 0.250 | 0.001 | 0.000 | 0.000 | 0.009 | 0.371 | |
| | 55287 | 003 | ASTM A105B API 5LB | 0.130 | 0.240 | 0.640 | 0.010 | 0.008 | 0.100 | 0.020 | 0.000 | 0.230 | 0.007 | 0.000 | 0.000 | 0.013 | 0.278 | |
| GZ5 | 75358 | 018 | ASTM A105 | 0.180 | 0.200 | 0.870 | 0.021 | 0.011 | 0.100 | 0.080 | 0.020 | 0.001 | 0.220 | 0.002 | 0.000 | 0.013 | 0.369 | |
| | 78092 | 036 | ASTM A105 | 0.180 | 0.190 | 0.850 | 0.020 | 0.130 | 0.060 | 0.010 | 0.005 | 0.250 | 0.001 | 0.000 | 0.000 | 0.009 | 0.371 | |
| HB0 | 55175 | 027 | ASTM A105B API 5LB | 0.130 | 0.230 | 0.640 | 0.007 | 0.003 | 0.040 | 0.050 | 0.010 | 0.140 | 0.005 | 0.000 | 0.000 | 0.000 | 0.260 | |
| | 78092 | 036 | ASTM A105 | 0.180 | 0.190 | 0.850 | 0.020 | 0.130 | 0.060 | 0.010 | 0.005 | 0.250 | 0.001 | 0.000 | 0.000 | 0.009 | 0.371 | |
| GZ5 | 87581 | 019 | ASTM A105B API 5LB | 0.150 | 0.220 | 0.690 | 0.008 | 0.070 | 0.120 | 0.020 | 0.000 | 0.190 | 0.000 | 0.000 | 0.000 | 0.021 | 0.000 | |
| | 87581 | 020 | ASTM A105B API 5LB | 0.150 | 0.220 | 0.690 | 0.008 | 0.070 | 0.120 | 0.020 | 0.000 | 0.190 | 0.000 | 0.000 | 0.000 | 0.021 | 0.000 | |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | FLATTENING TEST | BEND TEST | IMPACT TEST | SIMPLE | | | WELD POINT | | | |
|-----------|-------|------|---------------|-------------|------------------|------------|-------------------|-----------------|-----------|-------------|--------|-----|-----|------------|---------|---------|---------|
| | | | | | | | | | | | MPa | MPa | % | | 10° Z-0 | 10° Z-1 | 10° Z-2 |
| HB0 | 78092 | 012 | 122.65 | 50.00 | 306.0 | 34.0 | 56.0 | 0.0 | 162 - 154 | 0.0 | KV | 20 | 88 | 96 | 95 | 1 | 0.0 |
| | 55287 | 003 | 0.00 | 0.00 | 317.0 | 40.0 | 0.0 | 0.0 | 162 - 165 | 0.0 | KV | 20 | 103 | 100 | 105 | 1 | 0.0 |
| GZ5 | 75358 | 018 | 122.65 | 50.00 | 322.0 | 36.0 | 59.0 | 0.0 | 152 - 159 | 0.0 | KV | 20 | 104 | 107 | 100 | 1 | 0.0 |
| | 78092 | 036 | 122.65 | 50.00 | 320.0 | 35.0 | 56.0 | 0.0 | 158 - 164 | 0.0 | KV | 20 | 104 | 107 | 100 | 1 | 0.0 |
| HB0 | 55175 | 027 | 0.00 | 0.00 | 372.0 | 44.0 | 0.0 | 0.0 | 156 - 160 | 0.0 | KV | 20 | 104 | 107 | 100 | 1 | 0.0 |
| | 78092 | 036 | 122.65 | 50.00 | 320.0 | 35.0 | 58.0 | 0.0 | 158 - 164 | 0.0 | KV | 20 | 104 | 107 | 100 | 1 | 0.0 |
| GZ5 | 87581 | 019 | 0.00 | 0.00 | 308.0 | 46.0 | 0.0 | 0.0 | 156 - 160 | 0.0 | KV | 20 | 104 | 107 | 100 | 1 | 0.0 |
| | 87581 | 020 | 0.00 | 0.00 | 306.0 | 46.0 | 0.0 | 0.0 | 156 - 160 | 0.0 | KV | 20 | 104 | 107 | 100 | 1 | 0.0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | HEAT TREATMENT | FURNACE | STEEL MILL | Our Ref. |
|-----------|-------|------|---------------------------|------|----------------------|-------------------------------------|------------------|-------------|----------|
| | | | ASME SA | ASTM | EN | | | | |
| HB0 | 78092 | 012 | ASME SA | ASTM | A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 051423 |
| | 55287 | 003 | ASME SA | ASTM | A106/A160M-04b Gr. B | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | PODBREZOVA | 063070 |
| GZ5 | 75358 | 018 | ASME SA | ASTM | A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 051240 |
| | 78092 | 036 | ASME SA | ASTM | A106/A160M-04b Gr. B | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | PODBREZOVA | 051423 |
| HB0 | 55175 | 027 | ASME SA | ASTM | A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | PODBREZOVA | 063076 |
| | 78092 | 036 | ASME SA | ASTM | A106/A160M-04b Gr. B | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 051423 |
| GZ5 | 87581 | 019 | ASME SA | ASTM | A106/A160M-04b Gr. B | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 033091 |
| | 87581 | 020 | ASME SA | ASTM | A106/A160M-04b Gr. B | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 033091 |

NOTES ASME B16.11/05 - ANSI B31.1/3.1 - IM. STD - ANSI B1.1-B18.2.2 -
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

BORIS FIZZOTTI
 FITTINGS IML
 STUDBOLTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 PO # S10428 E832806
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : HB0
 TRANS AM PIPING PRODUCTS - REV'D BY: *[Signature]*
 1" CL 2000 FS SCRD CROSS A105N
 Shipment/Seq # : 6 - 1557

WUXI DINGYUAN PRECISION COLD-DRAWN STEEL PIPE CO., LTD

CONTRACT NO: 100008
 NAME OF CUSTOMER: WEIFANG STEEL CANADA LTD.
 DESCRIPTION: SEAMLESS STEEL PIPE
 TOTAL: 200 pieces
 DATE: 15-Jun-07

AS bundles, 63.98 MT
 SPECIFICATION: ASTM/AISME A106 B-2004, NACE MRO-175-2003

Address: Changzhou Industrial Area, Wuxi City, Jiangsu Province, 214181, P.R.China
 Tel: 0086-510-82213204
 Fax: 0086-510-82218887

| NO. | BATCH NO. | HEAT NO. | STEEL GRADE | SIZE | QUANTITY | WEIGHT (MT) | CERTIFICATE NO: 07061802 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|------------------------|----------------|--------------------------------|-----------------------------|------------------------|--------------------------|--------|-----|-------|-----|----------------------|------------------------|----------------|-------------|-----------------------------|------------------------|----------------|---|---------------|---------------|---------|-------|-------|------|------|------|---------------|---------------|---------|----|------|------|-------|-------|---------------|---------------|---------|-------|---|-------|---|------|---------------|---------------|---------|------|------|------|-------|---|---------------|---------------|---------|------|-------|-------|------|------|---------------|---------------|---------|-------|---|------|------|-------|---------------|---------------|---------|------|-------|-----|-------|---|---------------|---------------|---------|-------|------|------|------|-------|---------------|---------------|---------|------|------|-------|-------|------|---------------|---------------|---------|----|-------|-----|------|------|-------|-------|------|------|------|-------|---|-------|---|------|------|-------|-------|------|------|------|-------|---|-------|----|------|------|-------|-------|------|------|------|-------|---|-------|---|--|--|--|--|--|--|--|--|--|--|-----|----------------------|------------------------|----------------|-------------|-----------------------------|------------------------|----------------|---|---------------|---------------|---------|----|---|-----|---|---|---------------|---------------|---------|----|---|-----|---|---|---------------|---------------|---------|----|---|-----|---|---|---------------|---------------|---------|----|---|-----|---|---|---------------|---------------|---------|----|---|-----|---|---|---------------|---------------|---------|----|---|-----|---|---|---------------|---------------|---------|----|---|-----|---|---|---------------|---------------|---------|----|---|-----|---|---|---------------|---------------|---------|----|---|-----|---|----|---------------|---------------|---------|----|---|-----|---|
| | | | | | | | PACKS | FEET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 7807032-3 | Y070481 | GR.B | 1 1/2 XH BLK ABA 1088 PIPE SRL | 5 | 3,000 | 07061802 | 13,481 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 5107033-3 | Y070482 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 8207034-1 | Y070483 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 5207035-2 | Y070484 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 8207036-1 | Y070485 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 5207037-2 | Y070486 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 8207038-1 | Y070487 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 5107039-3 | Y070488 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 8107040-1 | Y070489 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 7107041-3 | Y070490 | | | 5 | 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p align="center">CHEMICAL COMPOSITION %</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>C</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Cu</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>W</th> <th>V</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.21</td><td>0.20</td><td>0.013</td><td>0.013</td><td>0.18</td><td>0.08</td><td>0.05</td><td>0.042</td><td>/</td><td>0.002</td></tr> <tr><td>2</td><td>0.18</td><td>0.19</td><td>0.013</td><td>0.005</td><td>0.16</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr><td>3</td><td>0.18</td><td>0.19</td><td>0.013</td><td>0.005</td><td>0.18</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr><td>4</td><td>0.18</td><td>0.19</td><td>0.013</td><td>0.008</td><td>0.18</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr><td>5</td><td>0.18</td><td>0.19</td><td>0.013</td><td>0.008</td><td>0.18</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr><td>6</td><td>0.18</td><td>0.19</td><td>0.013</td><td>0.008</td><td>0.18</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr><td>7</td><td>0.18</td><td>0.19</td><td>0.013</td><td>0.008</td><td>0.18</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr><td>8</td><td>0.18</td><td>0.19</td><td>0.013</td><td>0.008</td><td>0.18</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr><td>9</td><td>0.18</td><td>0.19</td><td>0.013</td><td>0.008</td><td>0.18</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr><td>10</td><td>0.21</td><td>0.21</td><td>0.013</td><td>0.008</td><td>0.18</td><td>0.08</td><td>0.04</td><td>0.040</td><td>/</td><td>0.003</td></tr> <tr> <td colspan="11"> <p align="center">MECHANICAL PROPERTIES</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>YIELD STRENGTH (MPa)</th> <th>TENSILE STRENGTH (MPa)</th> <th>ELONGATION (%)</th> <th>FLATEN TEST</th> <th>CHARPY IMPACT TEST (Joules)</th> <th>HYDROSTATIC TEST (PSI)</th> <th>HEAT TREATMENT</th> </tr> </thead> <tbody> <tr><td>1</td><td>50180 / 52380</td><td>70540 / 74450</td><td>54.088%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>2</td><td>48640 / 49430</td><td>69450 / 67830</td><td>48.548%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>3</td><td>47270 / 49730</td><td>69180 / 64580</td><td>47.594%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>4</td><td>48840 / 49480</td><td>68710 / 68380</td><td>48.194%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>5</td><td>48800 / 48730</td><td>68480 / 68280</td><td>48.182%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>6</td><td>48000 / 48730</td><td>68550 / 68040</td><td>48.097%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>7</td><td>47270 / 48480</td><td>67300 / 68080</td><td>48.187%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>8</td><td>48280 / 48510</td><td>68180 / 68420</td><td>48.184%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>9</td><td>48730 / 48480</td><td>68480 / 68080</td><td>48.184%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>10</td><td>48000 / 52380</td><td>68300 / 71270</td><td>48.081%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> </tbody> </table> </td> </tr> </tbody> </table> | | | | | | | | | NO. | C | Mn | P | S | Cu | Cr | Ni | Mo | W | V | 1 | 0.21 | 0.20 | 0.013 | 0.013 | 0.18 | 0.08 | 0.05 | 0.042 | / | 0.002 | 2 | 0.18 | 0.19 | 0.013 | 0.005 | 0.16 | 0.08 | 0.04 | 0.040 | / | 0.003 | 3 | 0.18 | 0.19 | 0.013 | 0.005 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | 4 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | 5 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | 6 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | 7 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | 8 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | 9 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | 10 | 0.21 | 0.21 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | <p align="center">MECHANICAL PROPERTIES</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>YIELD STRENGTH (MPa)</th> <th>TENSILE STRENGTH (MPa)</th> <th>ELONGATION (%)</th> <th>FLATEN TEST</th> <th>CHARPY IMPACT TEST (Joules)</th> <th>HYDROSTATIC TEST (PSI)</th> <th>HEAT TREATMENT</th> </tr> </thead> <tbody> <tr><td>1</td><td>50180 / 52380</td><td>70540 / 74450</td><td>54.088%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>2</td><td>48640 / 49430</td><td>69450 / 67830</td><td>48.548%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>3</td><td>47270 / 49730</td><td>69180 / 64580</td><td>47.594%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>4</td><td>48840 / 49480</td><td>68710 / 68380</td><td>48.194%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>5</td><td>48800 / 48730</td><td>68480 / 68280</td><td>48.182%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>6</td><td>48000 / 48730</td><td>68550 / 68040</td><td>48.097%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>7</td><td>47270 / 48480</td><td>67300 / 68080</td><td>48.187%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>8</td><td>48280 / 48510</td><td>68180 / 68420</td><td>48.184%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>9</td><td>48730 / 48480</td><td>68480 / 68080</td><td>48.184%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>10</td><td>48000 / 52380</td><td>68300 / 71270</td><td>48.081%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> </tbody> </table> | | | | | | | | | | | NO. | YIELD STRENGTH (MPa) | TENSILE STRENGTH (MPa) | ELONGATION (%) | FLATEN TEST | CHARPY IMPACT TEST (Joules) | HYDROSTATIC TEST (PSI) | HEAT TREATMENT | 1 | 50180 / 52380 | 70540 / 74450 | 54.088% | OK | / | 500 | / | 2 | 48640 / 49430 | 69450 / 67830 | 48.548% | OK | / | 500 | / | 3 | 47270 / 49730 | 69180 / 64580 | 47.594% | OK | / | 500 | / | 4 | 48840 / 49480 | 68710 / 68380 | 48.194% | OK | / | 500 | / | 5 | 48800 / 48730 | 68480 / 68280 | 48.182% | OK | / | 500 | / | 6 | 48000 / 48730 | 68550 / 68040 | 48.097% | OK | / | 500 | / | 7 | 47270 / 48480 | 67300 / 68080 | 48.187% | OK | / | 500 | / | 8 | 48280 / 48510 | 68180 / 68420 | 48.184% | OK | / | 500 | / | 9 | 48730 / 48480 | 68480 / 68080 | 48.184% | OK | / | 500 | / | 10 | 48000 / 52380 | 68300 / 71270 | 48.081% | OK | / | 500 | / |
| NO. | C | Mn | P | S | Cu | Cr | Ni | Mo | W | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.21 | 0.20 | 0.013 | 0.013 | 0.18 | 0.08 | 0.05 | 0.042 | / | 0.002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 0.18 | 0.19 | 0.013 | 0.005 | 0.16 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 0.18 | 0.19 | 0.013 | 0.005 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 0.18 | 0.19 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 0.21 | 0.21 | 0.013 | 0.008 | 0.18 | 0.08 | 0.04 | 0.040 | / | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p align="center">MECHANICAL PROPERTIES</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>YIELD STRENGTH (MPa)</th> <th>TENSILE STRENGTH (MPa)</th> <th>ELONGATION (%)</th> <th>FLATEN TEST</th> <th>CHARPY IMPACT TEST (Joules)</th> <th>HYDROSTATIC TEST (PSI)</th> <th>HEAT TREATMENT</th> </tr> </thead> <tbody> <tr><td>1</td><td>50180 / 52380</td><td>70540 / 74450</td><td>54.088%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>2</td><td>48640 / 49430</td><td>69450 / 67830</td><td>48.548%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>3</td><td>47270 / 49730</td><td>69180 / 64580</td><td>47.594%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>4</td><td>48840 / 49480</td><td>68710 / 68380</td><td>48.194%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>5</td><td>48800 / 48730</td><td>68480 / 68280</td><td>48.182%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>6</td><td>48000 / 48730</td><td>68550 / 68040</td><td>48.097%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>7</td><td>47270 / 48480</td><td>67300 / 68080</td><td>48.187%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>8</td><td>48280 / 48510</td><td>68180 / 68420</td><td>48.184%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>9</td><td>48730 / 48480</td><td>68480 / 68080</td><td>48.184%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> <tr><td>10</td><td>48000 / 52380</td><td>68300 / 71270</td><td>48.081%</td><td>OK</td><td>/</td><td>500</td><td>/</td></tr> </tbody> </table> | | | | | | | | | | | NO. | YIELD STRENGTH (MPa) | TENSILE STRENGTH (MPa) | ELONGATION (%) | FLATEN TEST | CHARPY IMPACT TEST (Joules) | HYDROSTATIC TEST (PSI) | HEAT TREATMENT | 1 | 50180 / 52380 | 70540 / 74450 | 54.088% | OK | / | 500 | / | 2 | 48640 / 49430 | 69450 / 67830 | 48.548% | OK | / | 500 | / | 3 | 47270 / 49730 | 69180 / 64580 | 47.594% | OK | / | 500 | / | 4 | 48840 / 49480 | 68710 / 68380 | 48.194% | OK | / | 500 | / | 5 | 48800 / 48730 | 68480 / 68280 | 48.182% | OK | / | 500 | / | 6 | 48000 / 48730 | 68550 / 68040 | 48.097% | OK | / | 500 | / | 7 | 47270 / 48480 | 67300 / 68080 | 48.187% | OK | / | 500 | / | 8 | 48280 / 48510 | 68180 / 68420 | 48.184% | OK | / | 500 | / | 9 | 48730 / 48480 | 68480 / 68080 | 48.184% | OK | / | 500 | / | 10 | 48000 / 52380 | 68300 / 71270 | 48.081% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO. | YIELD STRENGTH (MPa) | TENSILE STRENGTH (MPa) | ELONGATION (%) | FLATEN TEST | CHARPY IMPACT TEST (Joules) | HYDROSTATIC TEST (PSI) | HEAT TREATMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 50180 / 52380 | 70540 / 74450 | 54.088% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 48640 / 49430 | 69450 / 67830 | 48.548% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 47270 / 49730 | 69180 / 64580 | 47.594% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 48840 / 49480 | 68710 / 68380 | 48.194% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 48800 / 48730 | 68480 / 68280 | 48.182% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 48000 / 48730 | 68550 / 68040 | 48.097% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 47270 / 48480 | 67300 / 68080 | 48.187% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 48280 / 48510 | 68180 / 68420 | 48.184% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 48730 / 48480 | 68480 / 68080 | 48.184% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 48000 / 52380 | 68300 / 71270 | 48.081% | OK | / | 500 | / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

REMARKS:
 1. We hereby certify that this certificate of quality is true and signed by the manufacturer.
 2. We hereby certify that the properties described herein meet the requirement of the above spec.
 3. We hereby certify that this certificate is issued accordance with EN10204 3.1A.
 4. Origin: Made in China



PC COMPRESSION
 DATE RECEIVED APR 15 2008
 P.O. # 510032
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : Y07020732
 TRANS AM PIPING PRODUCTS - REV'D BY: 1
 P.O. # / Seq #: L-08 - 8048

HEAT NUMBER : 23651
 TRANS AM PIPING PRODUCTS - REV D BY: [Signature]
 Shipment/Seq #: 5 8 - 1066 140



INDUSTRIA MECCANICA LIGURE SPA

18039 CASARZA LIGURE - Genova - Italy - Via Giuseppe Farina 25 - Tel. 0185-495781 - Fax 0185-495780

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001-2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 9335 Endeavor Drive SE.
 Calgary, Alberta T2S 0A1
 CA

Certificate Nr. 19442
 Invoice Nr. 179
 Del. Note Nr. 315
 Dated 26.02.2008
 Dated 22.02.2008
 Dated 22.02.2008

18039 CASARZA LIGURE - Genova - Italy - Via Giuseppe Farina 25 - Tel. 0185-495781 - Fax 0185-495780 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 11 - 20

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|------|------|-------------|------------------------|------|---|--------------|------------------|
| 45801 | 052 | 052 | CI-06 - 827 | 2007-2E201-000011-052 | | P. NIPPLE TBE NPT S-160 2" L115mm(4.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 87456 | 067 | 067 | CI-06 - 827 | 2007-2E201-000011-067 | | P. NIPPLE TBE NPT S-XXS 2" L125mm(5") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 23651 | 068 | 068 | CI-06 - 827 | 2007-2E201-000011-068 | | P. NIPPLE TBE NPT S-80 1" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 22877 | 021 | 021 | CI-07 - 691 | 2007-2E201-000082-001 | | P. NIPPLE TBE NPT S-80 2" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 55178 | 20 | 20 | CI-07 - 691 | 2007-2E201-000180-020 | | P. NIPPLE TBE NPT S-80 3/4" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 23651 | 24 | 24 | CI-07 - 691 | 2007-2E201-0001190-024 | | P. NIPPLE TBE NPT S-80 1" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 539229 | 41 | 41 | CI-07 - 691 | 2007-2E201-0001190-041 | | P. NIPPLE TBE NPT S-80 2" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 22877 | 41 | 41 | CI-07 - 691 | 2007-2E201-0001190-041 | | P. NIPPLE TBE NPT S-80 2" L205mm (8") A106B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | TEST SPECIFICATION | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS | SEMI TEST | FLATTENING TEST | TYPE (a) (b) (mm) | IMPACT TEST - JOYCE/CM | SHAPE | YIELD POINT | OUR REF. |
|-----------|------|------|---------------------|-------------|------------------|------------|-------------------|-----------|-----------|-----------------|-------------------|------------------------|-------|-------------|----------|
| 45801 | 052 | 052 | ASTM A106/B API 5LB | 293.0 | 422.0 | 31.0 | 0.0 | 164 - 173 | 0.0 | 0.0 | KV | 20 | 46 | 48 | 073095 |
| 87456 | 067 | 067 | ASTM A106/B API 5LB | 296.0 | 422.0 | 44.2 | 0.0 | 163 - 166 | 0.0 | 0.0 | KV | 20 | 54 | 58 | 073101 |
| 23651 | 068 | 068 | ASTM A106/B API 5LB | 328.0 | 472.0 | 32.0 | 0.0 | 163 - 164 | 0.0 | 0.0 | KV | 20 | 49 | 55 | 073115 |
| 22877 | 021 | 021 | ASTM A106/B API 5LB | 314.0 | 482.0 | 36.0 | 0.0 | 163 - 166 | 0.0 | 0.0 | KV | 20 | 53 | 60 | 073105 |
| 55178 | 20 | 20 | ASTM A106/B API 5LB | 407.0 | 527.0 | 39.0 | 0.0 | 160 - 162 | 0.0 | 0.0 | KV | 20 | 54 | 55 | 063028 |
| 23651 | 24 | 24 | ASTM A106/B API 5LB | 328.0 | 472.0 | 39.0 | 0.0 | 158 - 164 | 0.0 | 0.0 | KV | 20 | 49 | 56 | 073115 |
| 539229 | 41 | 41 | ASTM A106/B API 5LB | 355.0 | 494.0 | 38.0 | 0.0 | 159 - 161 | 0.0 | 0.0 | KV | 20 | 47 | 52 | 073041 |
| 22877 | 41 | 41 | ASTM A106/B API 5LB | 314.0 | 452.0 | 32.0 | 0.0 | 163 - 166 | 0.0 | 0.0 | KV | 20 | 53 | 60 | 073105 |


HEAT TREATMENT
 Normalized at 880°C-920°C / Air Cool
 Normalized at 850°C-920°C / Air Cool
 Normalized at 860°C-920°C / Air Cool
 Normalized at 850°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool

INSPECTION AUTHORITY
 QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL
 MANUFACTURER'S SYMBOL

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

INSPECTION AUTHORITY
 QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL
 MANUFACTURER'S SYMBOL

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : R4D
 TRANS AM PIPING PRODUCTS - REV'D BY: 
 P.O. # /Seq #: L-07 - 9198 3

1 X 7 XH SMLS STEEL NIPPLES A106
 TBE



Phoenix * Capitol * Camco

Cap Products

Certified Mill Test Report

PC COMPRESSION
 DATE RECEIVED MAY 24 2007
 NO # 508381
 SIGNATURE:

Heat Code: R4D ✓
 Heat Number: P624634
 Item: 15111014: 1X7 XHSML BK STL NIPL ✓
 Material: ASTM A106-1999e B / ASME SA106-2001 Edition, No Addenda

Chemistry Properties

| | | | | | | |
|-------|-------|-------|-------|------------|-------|-------|
| C | Mn | P | S | Si | Cu | Cr |
| 0.220 | 0.580 | 0.013 | 0.017 | 0.240 | 0.030 | 0.020 |
| Ni | Mo | V | Co | Al | Cb | N |
| 0.020 | 0.010 | 0.010 | | | | |
| Pb | Sn | Ta | Ti | C Eq. Long | | |
| | | | | 0.328 | | |

Additional Chemical Properties

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |

Mechanical Properties

| | | | | |
|--------------|------------|-------------------|-----------|-----|
| Tensile(PSI) | Yield(PSI) | Elong. % in 2 in. | Reduction | BHN |
| 69500 | 47000 | 35% | | |

Charpy Minimum Impact - ft/lbs

| | | | | |
|--------|--------|--------|------|------------|
| Test 1 | Test 2 | Test 3 | Avg. | Test Temp. |
| | | | | |

Hydro Test Passed

This material meets the requirements of the governing specifications. We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and tests conform with applicable requirements.

Specification comments:

MEETS HARDNESS REQUIREMENTS OF NACE MR0175 LATEST EDITION, CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

Heat Code Remarks:

HEAT NUMBER : 88T
 TRANS AM PIPING PRODUCTS - REV'D BY: *AK*
 Shipment/Seq #: S 7 - 1273 23

1 X 6 XH SMLS STEEL NIPPLES A106
 TBE



**Phoenix * Capitol * Camco
 Cap Products**

Commanding a Higher Standard™

Certified Mill Test Report

4/30/2007

Customer
 TRANS AM PIPING PRODUCTS LTD. AB
 233061 ENDEAVOUR DRIVE S.E.
 CALGARY, AB T2P 2G6
Part Number
 15111012

P.O. CI-07-324

Heat No P925869
Heat Code 88T
Phoenix Order # 470912

Material ASTM A106-1999e B / ASME SA106-2001 Edition, No Adden

Description
 1 X 6" XHSML BLK NIPL

Chemical Properties

| C | Mn | P | S | Si | Cu | Cr | Ni |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.200 | 0.520 | 0.023 | 0.025 | 0.240 | 0.030 | 0.020 | 0.020 |

| |
|-------------------|
| C Eq. Long |
| 0.296 |

| Mo | V | Co | Al | Cb | N | Pb | Sn | Ta | Ti |
|-------|-------|----|----|----|---|----|----|----|----|
| 0.010 | 0.001 | | | | | | | | |

Additional Chemical Properties

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |

| |
|---------------------|
| Cr + Cu + Ni |
| 0.070 |

Mechanical Properties

| Tensile (PSI) | Yield (PSI) | Elong. % in 2 in. | R of A | BHN |
|---------------|-------------|-------------------|--------|-----|
| 71,000 | 44,400 | 33.0% | | |

Charpy Minimum Impact -

| Test 1 | Test 2 | Test 3 | Average |
|--------|--------|--------|---------|
| N/A | N/A | N/A | N/A |

* Eddy Current test passed.

* Bend test passed.

This material meets the requirements of the governing specifications. We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and test conform with applicable requirements.

Comments:

MEETS HARDNESS REQUIREMENTS OF NACE MR0175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

PC COMPLETION
 DATE RECEIVED MAY 05 2007
 P.O. # 508317
 SIGNATURE: *HC*
 APPROVED BY Q.C. INSPECTOR

CapProducts. Ltd.
 25 Winnipeg St
 Varnastra, ON N0M 1L0



Phoenix * Capitol * Camco Cap Products

1118887

Certified Mill Test Report

Commanding a Higher Standardsm

5/14/2008

Customer
CE FRANKLIN LTD

P.O. 2031424-OR-2100

Heat No 138958
Heat Code YT4 J
Phoenix Order # 548533

BOX 6776 STN "D"
CALGARY, AB T2P2E8

Material ASTM A106-1999e B / ASME SA106-2001 Edition, No Adden

Part Number
15111011

Description
1 X 5-1/2" XHSML BLK NIPL

Chemical Properties

| | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|------------|----|
| C | Mn | P | S | Si | Cu | Cr | Ni | C Eq. Long | |
| 0.140 | 0.860 | 0.008 | 0.003 | 0.190 | 0.140 | 0.170 | 0.120 | 0.343 | |
| Mo | V | Co | Al | Cb | N | Pb | Sn | Ta | Ti |
| 0.040 | 0.001 | | | | | | | | |

Additional Chemical Properties

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |

| |
|--------------|
| Cr + Cu + Ni |
| 0.430 |

Mechanical Properties

Charpy Minimum Impact -

| | | | | | | | | |
|---------------|-------------|-------------------|--------|-----|--------|--------|--------|---------|
| Tensile (PSI) | Yield (PSI) | Elong. % in 2 in. | R of A | BHN | Test 1 | Test 2 | Test 3 | Average |
| 70,779 | 50,328 | 50.0% | | 144 | N/A | N/A | N/A | N/A |

* Bend test passed.

This material meets the requirements of the governing specifications We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and test conform with applicable requirements.

We further certify this material was inspected with independent inspectors conforming to the requirements of EN10204 Section 3.1B.

Comments:

MEETS HARDNESS REQUIREMENTS OF NACE MRO175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

CapProducts, Ltd.
Winnipeg St
Vahastra, ON NOM 1L0

PC COMPRESSION
DATE RECEIVED JUN 06 2008

P.O. # 510340

SIGNATURE: *W*

APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 528697

TRANS AM PIPING PRODUCTS - REV'D BY: 57 - 1520 116

Shipment/Seq #: 57 - 1520 116



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Capovilla, 4 - Tel. 010.65.467881 - Fax 010.65.467881

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
233061 Eddowes Drive S.E.
Calgary Alberta T2P 2G6

Certificate Nr 18087
Invoice Nr 1135
Dated 24 10 2007
Dated 24 10 2007
Dated 24 10 2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DWG. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|------|-------------|------------------------|------|---|--------------|------------------|
| 528697 | 538697 | 028 | CI-06 - 635 | 2006-2E201-0000797-028 | | P.NIPPLE TBE NPT S-80 1" L140mm(5.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 528697 | 538697 | 023 | CI-06 - 741 | 2006-2E201-0000854-023 | | P.NIPPLE TBE NPT S-80 1" L140mm(5.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 528697 | 539229 | 029 | CI-06 - 741 | 2006-2E201-0000954-029 | | P.NIPPLE TBE NPT S-80 2" L90mm(3.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 528697 | 71678 | 045 | CI-06 - 741 | 2006-2E201-0000954-045 | | P.NIPPLE TBE NPT S-160 1.1/2" L90mm(3.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 528697 | 71678 | 046 | CI-06 - 827 | 2007-2E201-0000011-046 | | P.NIPPLE TBE NPT S-160 1.1/2" L75mm(3") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 528697 | 71730 | 049 | CI-06 - 827 | 2007-2E201-0000011-049 | | P.NIPPLE TBE NPT S-160 2" L75mm(3") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 528697 | 71730 | 051 | CI-06 - 827 | 2007-2E201-0000011-051 | | P.NIPPLE TBE NPT S-160 2" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 528697 | 71730 | 053 | CI-06 - 827 | 2007-2E201-0000011-053 | | P.NIPPLE TBE NPT S-160 2" L180mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | SW% | TENSILE STRENGTH N/mm ² Min/Max | YIELD POINT N/mm ² Min/Max | SECT. max mm | TEST SPECIMEN LEIGHT mm | ELONGATION % | REDUCTION OF AREA % | BEND TEST HARDNESS IR | FLATTENING TEST | | | TYPE (a-t/mm) | IMPACT TEST - JOULES/CM ² | | | SHAPE 1" O 2" O | YIELD POINT N/mm ² Min/Max |
|-----------|--------|------|---------------------|-------|-------|---|--|-----------------|----------------------------|-----------------|------------------------|--------------------------|-----------------|-----|-----|---------------|--------------------------------------|-----|-----|--------------------|--|
| | | | | | | | | | | | | | MPa | MPa | MPa | | MPa | MPa | MPa | | |
| 528697 | 538697 | 028 | ASTM A106/B API 5LB | 0.120 | 0.220 | 450.0 | 362.0 | 0.00 | 0.00 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 528697 | 538697 | 023 | ASTM A106/B API 5LB | 0.120 | 0.220 | 450.0 | 362.0 | 0.00 | 0.00 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 528697 | 539229 | 029 | ASTM A106/B API 5LB | 0.140 | 0.230 | 494.0 | 355.0 | 0.00 | 0.00 | 38.0 | 0.0 | 159 - 161 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 528697 | 71678 | 045 | ASTM A106/B API 5LB | 0.150 | 0.230 | 506.0 | 371.0 | 0.00 | 0.00 | 30.2 | 0.0 | 166 - 171 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 528697 | 71678 | 046 | ASTM A106/B API 5LB | 0.130 | 0.230 | 506.0 | 371.0 | 0.00 | 0.00 | 30.2 | 0.0 | 166 - 171 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 528697 | 71730 | 049 | ASTM A106/B API 5LB | 0.130 | 0.230 | 492.0 | 381.0 | 0.00 | 0.00 | 34.0 | 0.0 | 163 - 166 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 528697 | 71730 | 051 | ASTM A106/B API 5LB | 0.130 | 0.230 | 492.0 | 381.0 | 0.00 | 0.00 | 34.0 | 0.0 | 163 - 166 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 528697 | 71730 | 053 | ASTM A106/B API 5LB | 0.130 | 0.230 | 492.0 | 381.0 | 0.00 | 0.00 | 34.0 | 0.0 | 163 - 166 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |

HEAT TREATMENT: Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 850°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool

| OUR REF. | MANUFACTURER'S SYMBOL | DEPARTMENT | CONTROL SYMBOL | QUALITY CONTROL SYMBOL | MANUFACTURER'S SYMBOL |
|----------|-----------------------|------------|----------------|------------------------|-----------------------|
| 073039 | | | | | |
| 073039 | | | | | |
| 073041 | | | | | |
| 073065 | | | | | |
| 073085 | | | | | |
| 073037 | | | | | |
| 073037 | | | | | |



STUDBOLTS

FITTINGS

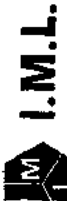
IML

BORIS TIZZOTTI

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 50428 E832806
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR

NOTES
 ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1/B1.2
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

HEAT NUMBER : 538697
 TRANS AM PIPING PRODUCTS - REV'D BY: *[Signature]*
 SHIPMENT/SEG #: 5 7 - 1468 88



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappelletti, 4 - Tel.0165.467651 - Fax 0165.467650 - This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 4 - 16

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001-2000
 CERTIFIED BY RINA
 233951 Endeavor Drive S E
 Calgary, Alberta T2P 2G6

TRANS AM PIPING PRODUCTS LTD.

233951 Endeavor Drive S E
 Calgary, Alberta T2P 2G6

Certificate Nr 18004
 Invoice Nr 1031
 Dated 26.09.2007
 Del. Note Nr 1577
 Dated 28.09.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | C% | SIV | MIN% | S% | P% | CR% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | AI% | CE.% | OTHER ELEMENTS | |
|-----------|--------|------|-------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-------------------------------|
| A53 | 78092 | 080 | CI-07 - 444 | 2007-2E201-00008665-080 | 0.180 | 0.190 | 0.850 | 0.020 | 0.020 | 0.130 | 0.060 | 0.010 | 0.005 | 0.250 | 0.001 | 0.000 | 0.000 | 0.009 | 0.371 | | DIM. ACC. TO VISUAL & DIMENS. |
| TH0 | 39699 | 081 | CI-07 - 444 | 2007-2E201-00008665-081 | 0.190 | 0.230 | 1.100 | 0.015 | 0.016 | 0.150 | 0.080 | 0.020 | 0.015 | 0.190 | 0.028 | 0.002 | 0.000 | 0.025 | 0.373 | | SEE NOTE SATISFACTORY |
| | 73413 | 082 | CI-07 - 444 | 2007-2E201-00008665-082 | 0.180 | 0.180 | 1.070 | 0.013 | 0.014 | 0.080 | 0.060 | 0.010 | 0.020 | 0.180 | 0.023 | 0.000 | 0.000 | 0.026 | 0.397 | | SEE NOTE SATISFACTORY |
| | 538697 | 022 | CI-06 - 741 | 2006-2E201-0000954-022 | 0.120 | 0.220 | 0.800 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | | SEE NOTE SATISFACTORY |
| | 539229 | 021 | CI-06 - 827 | 2007-2E201-0000011-021 | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | | SEE NOTE SATISFACTORY |
| | 539229 | 023 | CI-06 - 827 | 2007-2E201-0000011-023 | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | | SEE NOTE SATISFACTORY |
| | 539229 | 024 | CI-07 - 294 | 2007-2E201-0000340-024 | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | | SEE NOTE SATISFACTORY |
| | 539229 | 036 | CI-06 - 635 | 2006-2E201-0000797-036 | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | | SEE NOTE SATISFACTORY |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HV | FLATNESS TEST | | | BEND TEST | | | TYPE | KV | TEMP. TEST | IMPACT TEST | | | SHAPE | YIELD POINT |
|-----------|--------|------|---------------|-------------|------------------|------------|-------------------|-------------|---------------|------|------|-----------|------|------|------|----|------------|-------------|------|------|-------|-------------|
| | | | | | | | | | mm/m | mm/m | mm/m | mm/m | mm/m | mm/m | | | | mm/m | mm/m | mm/m | | |
| A53 | 78092 | 080 | 122,65 | 50,00 | 306,0 | 36,0 | 50,0 | 165-164 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 60 | 57 | 1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| TH0 | 39699 | 081 | 122,65 | 50,00 | 364,0 | 31,9 | 54,0 | 160-162 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 60 | 59 | 1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | 73413 | 082 | 122,66 | 50,00 | 325,0 | 31,9 | 56,0 | 152-165 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 50 | 52 | 0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | 538697 | 022 | 0,00 | 0,00 | 362,0 | 52,5 | 0,0 | 165-167 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | 539229 | 021 | 0,00 | 0,00 | 365,0 | 38,0 | 0,0 | 169-161 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | 539229 | 023 | 0,00 | 0,00 | 355,0 | 38,0 | 0,0 | 169-161 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | 539229 | 024 | 0,00 | 0,00 | 355,0 | 38,0 | 0,0 | 159-161 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | 539229 | 036 | 0,00 | 0,00 | 355,0 | 38,0 | 0,0 | 159-161 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | HEAT TREATMENT | | FURNACE | Our Ref |
|-----------|--------|------|------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|------------------|---------|
| | | | ASME SA ASTM A350-04a Gr. LF2 cl.1 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | Normalized at 900°C / Air Cool | | |
| A53 | 78092 | 080 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | Normalized at 900°C / Air Cool | ELECTRIC FURNACE | 051423 |
| TH0 | 39699 | 081 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | Normalized at 900°C / Air Cool | ELECTRIC FURNACE | 051423 |
| | 73413 | 082 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | Normalized at 900°C / Air Cool | ELECTRIC FURNACE | 051423 |
| | 538697 | 022 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073039 |
| | 539229 | 021 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073041 |
| | 539229 | 023 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073041 |
| | 539229 | 024 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073041 |
| | 539229 | 036 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073041 |

INSPECTION AUTHORITY: *[Signature]* QUALITY CONTROL DEPARTMENT: MANUFACTURER'S SYMBOL: MANUFACTURER'S SYMBOL: *[Symbol]*
 IML
 FITTINGS
 STUDBOLTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 50428 E832806
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 538697
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature] 97
 Shipment/Seg # : 5 7 - 1432



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Capellini, 4 - Tel. 0185.467461 - Fax. 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 13 - 16

INSPECTION CERTIFICATE EN 10204:2004 (3.1)
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 233661 Encosari Drive S.E.
 Calgary, Alberta T2P 2G6
 CA

Certificate No. 17887
 Invoice Nr 918
 Dated 30.08.2007
 Del. Note Nr 1403
 Dated 30.08.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|------|-------------|------------------------|---------------|------|--|--------------|------------------|
| 538697 | 021 | CI-06 - 741 | 2006-2E201-0000954-021 | | | P. NIPPLE TBE NPT S-80 2" L115mm(4 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 539229 | 032 | CI-06 - 741 | 2006-2E201-0000954-032 | | | P. NIPPLE TBE NPT S-80 2" L125mm(5") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 539229 | 025 | CI-06 - 827 | 2007-2E201-0000011-025 | | | P. NIPPLE TBE NPT S-80 1" L125mm(5") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 538697 | 027 | CI-06 - 635 | 2006-2E201-0000797-027 | | | P. NIPPLE TBE NPT S-80 1" L115mm(4 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 539229 | 042 | CI-06 - 635 | 2006-2E201-0000797-042 | | | P. NIPPLE TBE NPT S-80 2" L140mm(5 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 538697 | 021 | CI-06 - 741 | 2006-2E201-0000954-021 | | | P. NIPPLE TBE NPT S-80 1" L115mm(4 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 72431 | 021 | CI-06 - 805 | 2006-2E201-0001072-021 | | | CONC. SWAGE TBE NPT S-160 2"x1/2" WPB | SEE NOTE | SATISFACTORY |
| 539229 | 026 | CI-06 - 827 | 2007-2E201-0000011-026 | | | P. NIPPLE TBE NPT S-80 2" L140mm(5 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Si% | Mn% | P% | S% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | Al% | C.E.% | OTHER ELEMENTS |
|-----------|------|---------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| 538697 | 021 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| 539229 | 032 | ASTM A106/B API 5LB | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |
| 539229 | 025 | ASTM A106/B API 5LB | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |
| 538697 | 027 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| 539229 | 042 | ASTM A106/B API 5LB | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |
| 538697 | 021 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| 72431 | 021 | ASTM A234 WPB | 0.195 | 0.200 | 0.970 | 0.021 | 0.014 | 0.090 | 0.010 | 0.010 | 0.005 | 0.100 | 0.002 | 0.000 | 0.000 | 0.000 | 0.012 | 0.387 | |
| 539229 | 026 | ASTM A106/B API 5LB | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | |

| HEAT CODE | HEAT | ITEM | SECT. mm | LENGTH mm | YIELD POINT N/mm ² min | TENSILE STRENGTH N/mm ² min | ELONGATION % | REDUCTION OF AREA % | HARDNESS HV | BEAM TEST | FLATTENING TEST | IMPACT TEST - JULES/cm ² | SHAPE | YIELD POINT N/mm ² min |
|-----------|------|--------|----------|-----------|-----------------------------------|--|--------------|---------------------|-------------|-----------|-----------------|-------------------------------------|-------|-----------------------------------|
| 538697 | 021 | 0.00 | 0.00 | 362.0 | 450.0 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| 539229 | 032 | 0.00 | 0.00 | 355.0 | 494.0 | 38.0 | 0.0 | 159 - 161 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| 539229 | 025 | 0.00 | 0.00 | 355.0 | 494.0 | 38.0 | 0.0 | 159 - 161 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| 538697 | 027 | 0.00 | 0.00 | 362.0 | 450.0 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| 539229 | 042 | 0.00 | 0.00 | 355.0 | 494.0 | 38.0 | 0.0 | 159 - 161 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| 538697 | 021 | 0.00 | 0.00 | 362.0 | 450.0 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| 72431 | 021 | 122.65 | 50.00 | 309.0 | 498.0 | 46.0 | 0.0 | 156 - 162 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |
| 539229 | 026 | 0.00 | 0.00 | 355.0 | 494.0 | 38.0 | 0.0 | 159 - 161 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | FURNACE | Our Ref |
|-----------|------|-------------------------------------|-------------------------------------|--------------------------------------|------------------|---------|
| 538697 | 021 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073039 |
| 539229 | 032 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073041 |
| 539229 | 025 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073041 |
| 538697 | 027 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073039 |
| 539229 | 042 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073041 |
| 538697 | 021 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073039 |
| 72431 | 021 | ASME SA ASTM A234/A234M-06a Gr. WPB | ASME SA ASTM A234/A234M-06a Gr. WPB | Normalized at 880°C / Air Cool | ELECTRIC FURNACE | 061351 |
| 539229 | 026 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | 073041 |

NOTES: ASME B76/T105 - ANSI B31.3 - TRIP STD - ANSI B1.1-818.2.2 - INSPECTION AUTHORITY - QUALITY CONTROL DEPARTMENT - MANUFACTURER'S SYMBOL - MANUFACTURER'S SYMBOL
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

BORIS FIZZOTTI
 FITTINGS IML STUDBOLTS

PC COMPRESSION

DATE RECEIVED JUN 24 2008

P.O.# 510478 E83286

SIGNATURE: [Signature]

APPROVED BY Q.C. INSPECTOR



Phoenix * Capitol * Camco

112228Y

Cap Products

Commanding a Higher Standardsm

Certified Mill Test Report

2/20/2008

Customer
CE FRANKLIN LTD

P.O. 1971274-OR-2100

Heat No 23833
Heat Code X9U J
Phoenix Order # 530538

BOX 6776 STN "D"
CALGARY, AB T2P2E8

Material ASTM A106-1999e B / ASME SA106-2001 Edition, No Adden

Part Number
15111008

Description
1 X 4" XHSM L BLK NIPL

Chemical Properties

| | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|------------|----|
| C | Mn | P | S | Si | Cu | Cr | Ni | C Eq. Long | |
| 0.130 | 0.570 | 0.014 | 0.004 | 0.200 | 0.270 | 0.100 | 0.100 | 0.274 | |
| Mo | V | Co | Al | Cb | N | Pb | Sn | Ta | Ti |
| 0.020 | 0.002 | | | | | | | | |

Additional Chemical Properties

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |

| |
|--------------|
| Cr + Cu + Ni |
| 0.470 |

Mechanical Properties

Charpy Minimum Impact -

| | | | | | | | | |
|---------------|-------------|-------------------|--------|-----|--------|--------|--------|---------|
| Tensile (PSI) | Yield (PSI) | Elong. % in 2 in. | R of A | BHN | Test 1 | Test 2 | Test 3 | Average |
| 67,800 | 51,600 | 35.0% | | | N/A | N/A | N/A | N/A |

* Hydro test passed. at 2500 psi.

* Bend test passed.

This material meets the requirements of the governing specifications We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and test conform with applicable requirements.

We further certify this material was inspected with independent inspectors conforming to the requirements of EN10204 Section 3.1B.

Comments:

MEETS HARDNESS REQUIREMENTS OF NACE MRO175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

Cap Products, Ltd.
 200 Winnipeg St
 Vanara, ON N0M 1L0

PC COMPRESSION
 DATE RECEIVED JUN 06 2008

P.O. # 510340

SIGNATURE: *[Signature]*

APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 23651
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
 Shipment/Seg #: S 8 - 1019 119

1 X 4 XH SMLS STEEL NIPPLES A106
 TBE



INDUSTRIA MECCANICA LIQURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 9335 Enclave Drive S.E.
 Calgary, Alberta T2S 0A1
 CA

Certificate Nr 18314
 Invoice Nr 59
 Del. Note Nr 103

Dated 23.01.2008
 Dated 18.01.2008
 Dated 18.01.2008

16430 CASARZA LIQURE - Genova - Italy - Via Giancarlo Farina 26 - Tel.01038.467861 - Fax 01038.467861 - Material test department This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 14 - 17

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | QTY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | | | | | | | | | | |
|-----------|-------|-------|-----------------------------------|--------------------------------------|-----------------------------------|--|---------------------------|----------------------|-----------------|----------------------|-------------|----------|--------------------------|-------|-------|-------|-------|----------------|
| 70294 | 23651 | 013 | CI-07 - 575 | 2007-2E201-0000924-013 | | CONC. SWAGE TBE NPT S-160 1.127"x3/4" WPB | SEE NOTE | SATISFACTORY | | | | | | | | | | |
| | | 012 | CI-06 - 827 | 2007-2E201-0000011-012 | | P. NIPPLE TBE NPT S-80 1" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | | |
| | | 014 | CI-07 - 294 | 2007-2E201-0000340-014 | | P. NIPPLE TBE NPT S-80 1" L90mm(3.12") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | | |
| | | 016 | CI-07 - 294 | 2007-2E201-0000340-016 | | P. NIPPLE TBE NPT S-80 1" L125mm(5") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | | |
| | | 008 | CI-07 - 450 | 2007-2E201-00000572-008 | | P. NIPPLE TBE NPT S-80 1" L125mm(5") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | | |
| | | 14 | CI-07 - 691 | 2007-2E201-0001160-014 | | P. NIPPLE TBE NPT S-80 1/2" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | | |
| | | 22 | CI-07 - 691 | 2007-2E201-0001160-022 | | P. NIPPLE TBE NPT S-80 3/4" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | | |
| | | 015 | CI-07 - 294 | 2007-2E201-0000340-015 | | P. NIPPLE TBE NPT S-80 1" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | S% | Mn% | P% | Cr% | Ni% | Mo% | TP% | Cu% | V% | Nb% | N% | Al% | C.E.% | OTHER ELEMENTS |
| 70294 | 23651 | 013 | ASTM A234 WPB | 0.180 | 0.230 | 0.650 | 0.022 | 0.110 | 0.080 | 0.020 | 0.000 | 0.230 | 0.001 | 0.001 | 0.000 | 0.025 | 0.367 | |
| | | 012 | ASTM A106B API 5LB | 0.100 | 0.260 | 0.460 | 0.003 | 0.040 | 0.110 | 0.020 | 0.000 | 0.230 | 0.001 | 0.000 | 0.000 | 0.022 | 0.212 | |
| | | 014 | ASTM A106B API 5LB | 0.100 | 0.260 | 0.460 | 0.003 | 0.040 | 0.110 | 0.020 | 0.000 | 0.230 | 0.001 | 0.000 | 0.000 | 0.022 | 0.212 | |
| | | 016 | ASTM A106B API 5LB | 0.100 | 0.260 | 0.460 | 0.003 | 0.040 | 0.110 | 0.020 | 0.000 | 0.230 | 0.001 | 0.000 | 0.000 | 0.022 | 0.212 | |
| | | 008 | ASTM A106B API 5LB | 0.100 | 0.260 | 0.460 | 0.003 | 0.040 | 0.110 | 0.020 | 0.000 | 0.230 | 0.001 | 0.000 | 0.000 | 0.022 | 0.212 | |
| | | 14 | ASTM A106B API 5LB | 0.135 | 0.240 | 0.610 | 0.004 | 0.040 | 0.170 | 0.100 | 0.040 | 0.160 | 0.002 | 0.000 | 0.000 | 0.334 | | |
| | | 22 | ASTM A106B API 5LB | 0.135 | 0.210 | 0.790 | 0.006 | 0.067 | 0.100 | 0.040 | 0.000 | 0.140 | 0.002 | 0.000 | 0.000 | 0.311 | | |
| | | 23651 | ASTM A106B API 5LB | 0.100 | 0.260 | 0.460 | 0.003 | 0.040 | 0.110 | 0.020 | 0.000 | 0.230 | 0.001 | 0.000 | 0.000 | 0.022 | 0.212 | |
| HEAT CODE | HEAT | ITEM | TEST SPECIFICATION | YIELD POINT NOMINAL - MPa | TENSILE STRENGTH NOMINAL - MPa | ELONGATION % 5g | REDUCTION OF AREA % 5g | SEMI TEST FURNACE | FLATTENING TEST | IMPACT TEST - JOULES | TYPE NUMBER | SHAPE | YIELD POINT MIN - MPa | | | | | |
| 70294 | 23651 | 013 | 0,00 | 322,0 | 502,0 | 31,5 | 50,2 | 155 - 159 | 0,0 | 0 | 0 | 0 | 0,0 | | | | | |
| | | 012 | 0,00 | 328,0 | 472,0 | 38,0 | 0,0 | 158 - 164 | 0,0 | 0 | 0 | 0 | 0,0 | | | | | |
| | | 014 | 0,00 | 328,0 | 472,0 | 38,0 | 0,0 | 158 - 164 | 0,0 | 0 | 0 | 0 | 0,0 | | | | | |
| | | 016 | 0,00 | 328,0 | 472,0 | 38,0 | 0,0 | 158 - 164 | 0,0 | 0 | 0 | 0 | 0,0 | | | | | |
| | | 008 | 0,00 | 328,0 | 472,0 | 38,0 | 0,0 | 158 - 164 | 0,0 | 0 | 0 | 0 | 0,0 | | | | | |
| | | 14 | 0,00 | 351,0 | 495,0 | 43,0 | 0,0 | 169 - 170 | 0,0 | 0 | 0 | 0 | 0,0 | | | | | |
| | | 22 | 0,00 | 306,0 | 488,0 | 54,0 | 0,0 | 162 - 166 | 0,0 | 0 | 0 | 0 | 0,0 | | | | | |
| | | 23651 | 0,00 | 328,0 | 472,0 | 39,0 | 0,0 | 158 - 164 | 0,0 | 0 | 0 | 0 | 0,0 | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | | | | FURNACE | | | | Our Ref. | | | | | | |
| 70294 | 23651 | 013 | ASME SA ASTM A234/A234M-06a Gr. B | Normalized at 880°C / Air Cool | | | | ELECTRIC FURNACE | | | | 071528 | | | | | | |
| | | 012 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | | ELECTRIC FURNACE | | | | 073115 | | | | | | |
| | | 014 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | | ELECTRIC FURNACE | | | | 073115 | | | | | | |
| | | 016 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | | ELECTRIC FURNACE | | | | 073115 | | | | | | |
| | | 008 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | | ELECTRIC FURNACE | | | | 073115 | | | | | | |
| | | 14 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | | ELECTRIC FURNACE | | | | 073042 | | | | | | |
| | | 22 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | | ELECTRIC FURNACE | | | | 073039 | | | | | | |
| | | 23651 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | | | | ELECTRIC FURNACE | | | | 073115 | | | | | | |

INSPECTION AUTHORITY: [Signature]

QUALITY CONTROL DEPARTMENT: [Signature]

MANUFACTURER'S SYMBOL: IML

MANUFACTURER'S SYMBOL: IML

FITTINGS: IML

STUD BOLTS: [Symbol]

DATE RECEIVED: JUN 24 2008

PO. # 510478

SIGNATURE: [Signature]

APPROVED BY Q.C. INSPECTOR

PC COMPRESSION

INSPECTION AUTHORITY: [Signature]

QUALITY CONTROL DEPARTMENT: [Signature]

MANUFACTURER'S SYMBOL: IML

MANUFACTURER'S SYMBOL: IML

FITTINGS: IML

STUD BOLTS: [Symbol]

DATE RECEIVED: JUN 24 2008

PO. # 510478

SIGNATURE: [Signature]

APPROVED BY Q.C. INSPECTOR

Wuxi Erquan Special Steel Tube Co., Ltd.
 19 Nanhu Middle Road Nanquan Town
 Wuxi City Jiangsu China

MILL TEST CERTIFICATE

2520370

| | | | |
|----------|------------------|----------------------------|-------------|
| DATE | DEC.25,2007 | CERTIFICATE NO:070802-1-14 | PAGE 1 OF 1 |
| CUSTOMER | CCTF CORPORATION | PURCHASE ORDER NO: 4023053 | |

| DIMENSION: ODxWTxL,mm | HEAT NO. | Pcs. | Total pcs. | Total Lengths m | Total Weight kg | Bundles |
|--------------------------|-------------|------|------------|--------------------|--------------------|---------|
| 1 x XII x 20*22" | Y706-1082 ✓ | 61 | 61 | 401.2 | 1260 | 1 |

| | |
|---------------------|---|
| SPECIFICATION | ASME SA106 EDITION 2004/ASTM A106 EDITION 2004B/ NACE MR0175 EDITION 2003 |
| MATERIAL | GR.B |
| MANUFACTURE PROCESS | SEAMLESS COLD DRAWING |
| HEAT TREATMENT | FULLY ANNEALED AT 730°C |
| DESCRIPTION | CARBON STEEL SEAMLESS PIPES |

| CHEMICAL ANALYSES | | | | | | | | | | |
|-------------------|------|------|------|-------|-------|------|------|------|-------|-------|
| HEAT NO. | C | Si | Mn | P | S | Cr | Ni | Cu | V | Mo |
| Y706-1082 | 0.20 | 0.21 | 0.53 | 0.013 | 0.008 | 0.03 | 0.01 | 0.04 | 0.000 | 0.000 |

| PHYSICAL PROPERTIES | | | | | |
|---------------------|---------------|-----------------------|-----------------------|----------------------|----------|
| HEAT NO. | Sample no. | TENSILE STRENGTH | YIELD STRENGTH | ELONGATION | HARDNESS |
| | | Result(Mpa) MIN415 | Result(Mpa) MIN240 | Result(%) GL=50mm | HRB |
| Y706-1082 | H334456-712-2 | 460 | 315 | 40 | 82 |
| Y706-1082 | H334456-712-2 | 465 | 320 | 36 | 83 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | |
|-------------------|--------------------------|--|
| BENDING TEST | SATISFACTORY | LOT NO.: H334456-712-2 BATCH NO: EQ070802-1 |
| FLATTENING TEST | NOT APPLICABLE | |
| FLARING TEST | NOT APPLICABLE | |
| HYDROSTATIC TEST | SATISFACTORY(2500psi,5s) | |
| NDE: EDDY CURRENT | SATISFACTORY | |

"HEAT NUMBER ON EACH TUBE CORRELATE WITH MILL TEST CERTIFICATE,EACH TUBE 100% EDDY CURRENT&HYDROSTATIC TESTED"

I CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MANUFACTURED WITH THE ORDERED SPECIFICATION AND THAT THE TEST INFORMATION IS CORRECT AND CONTAINED IN THE RECORDS OF THE COMPANY.

SIGNATURE OF QA/QC DEPT

PC COMPRESSION
 RECEIVED MAY 22 2008
 DATE
 P.O. # 510257
 SIGNATURE: AD
 APPROVED BY Q.C. INSPECTOR

Line 4

Line 4 1123491

MAY 10 2007
E 11067 1" XA 1A106
HT#
Y-0606755

SIC NO: SUNSYL06-40407M03P04-12 (336)
SEAMLESS CARBON STEEL PIPE PER PURCHASE
ORDER: 45000642
TEL: 0519 8819635 FAX: 0519 8809635 ZIP: 213013

产品质量证明书

MILL TEST CERTIFICATE

EN10204/3.1.B

| | | | |
|------------------------------------|--|------------------------------|-------------------------------|
| 产品名称 PRODUCT | SEAMLESS CARBON STEEL PIPE | 证书号 CERTIFICATION NO. | 426110172007130 |
| 订货单位 CUSTOMER | SUNS INTERNATIONAL TRADING LIMITED | 订货合同 CONTRACT NO. | SUNSYL06-40407M03P04-12 (336) |
| 收货单位 PURCHASER | VAN LEEUWEN PIPE & TUBE (CANADA) INC. | 签发日期 DATE OF ISSUE | 2006-12-22 |
| 标准 SPECIFICATION | ASTM/ASME A/SA106 GR.B SECTION II 2004 EDITION ADDENDA A05 | 许可证号 LICENSE NO. | |
| 客户代号 CUSTOMER'S NO. | | 交货日期 DATE OF DELIVERY | |
| 交货日期 DATE OF DELIVERY | | 客户定单编号 CUSTOMER ORDER NO. | P.O.45000642 |
| 工厂检验印章 STAMP OF MILL INSPECTION | | | |

| 制造方法 MAKING METHOD | 冲击试验 COLD DRAWN | 硬度 STEEL GRADE | 交货状态 DELIVERY CONDITION | 化学成分 (%) CHEMICAL COMPOSITION % | 退火 ANNEALED | 规格 SPECIFICATION | 1" x SCH80 | 长度 LENGTH | 重量 WEIGHT | | | | | | | | | | |
|-------------------------------|--------------------|-------------------|----------------------------|------------------------------------|----------------|---------------------|------------|--------------|--------------|----|---|----|---|---|------|-------|----|------|--------|
| 试验批号 HEAT NO. TEST LOT NO. | 屈服强度 T.S 度 Y.S | 抗拉强度 T.S 度 Y.S | 伸长率 E (FT-LB) | 冲击试验 IMPACT TEST | 硬度 HARDNESS | 冲击试验 IMPACT TEST | 化学成分 (%) | 化学成分 (%) | 化学成分 (%) | | | | | | | | | | |
| 42611462 | ≥415 | ≥240 | ≥30 | — | — | — | — | — | — | | | | | | | | | | |
| 42611463 | 455/445 | 325/320 | 50/51.5 | 73/74 | 16 | 20 | 52 | 7 | 5 | 13 | 4 | 13 | 5 | 5 | 3.25 | 0.40% | 3 | 268 | 5.304 |
| 42611464 | 445/450 | 330/335 | 50/51 | 73/74 | 16 | 20 | 52 | 7 | 5 | 13 | 4 | 13 | 5 | 5 | 3.25 | 0.40% | 3 | 253 | 5.234 |
| 42611465 | 475/460 | 330/335 | 51/52 | 73/74 | 16 | 20 | 52 | 7 | 5 | 13 | 4 | 13 | 5 | 5 | 3.25 | 0.40% | 4 | 364 | 7.04 |
| 42612124 | 455/450 | 332/327 | 51.5/51 | 74/75 | 16 | 20 | 52 | 7 | 5 | 13 | 4 | 13 | 5 | 5 | 3.25 | 0.40% | 4 | 364 | 7.028 |
| 42612125 | 446/450 | 322/327 | 45.5/46 | 74/75 | 16 | 20 | 52 | 7 | 5 | 13 | 4 | 13 | 5 | 5 | 3.25 | 0.40% | 4 | 364 | 7.038 |
| 42612126 | 446/450 | 322/327 | 45.5/46 | 74/75 | 16 | 20 | 52 | 7 | 5 | 13 | 4 | 13 | 5 | 5 | 3.25 | 0.40% | 2 | 169 | 3.264 |
| 总计 (TOTAL) | | | | | | | | | | | | | | | | | 小计 | 总计 | 总计 |
| | | | | | | | | | | | | | | | | | 20 | 1782 | 34.908 |

注: 1. 化学成分分析 THIS CHEMICAL COMPOSITION IS BASED ON ANALYSIS OF PRODUCT ANALYSIS SAME AS PRODUCT ANALYSIS
2. 水压试验 HYDROSTATIC TEST TIME 8 Sec
3. 水压试验 HYDROSTATIC TEST TIME 8 Sec
4. 水压试验 HYDROSTATIC TEST TIME 8 Sec
5. 水压试验 HYDROSTATIC TEST TIME 8 Sec
6. 水压试验 HYDROSTATIC TEST TIME 8 Sec
7. 水压试验 HYDROSTATIC TEST TIME 8 Sec
8. 水压试验 HYDROSTATIC TEST TIME 8 Sec
9. 水压试验 HYDROSTATIC TEST TIME 8 Sec
10. 水压试验 HYDROSTATIC TEST TIME 8 Sec
11. 水压试验 HYDROSTATIC TEST TIME 8 Sec
12. 水压试验 HYDROSTATIC TEST TIME 8 Sec
13. 水压试验 HYDROSTATIC TEST TIME 8 Sec
14. 水压试验 HYDROSTATIC TEST TIME 8 Sec
15. 水压试验 HYDROSTATIC TEST TIME 8 Sec
16. 水压试验 HYDROSTATIC TEST TIME 8 Sec
17. 水压试验 HYDROSTATIC TEST TIME 8 Sec
18. 水压试验 HYDROSTATIC TEST TIME 8 Sec
19. 水压试验 HYDROSTATIC TEST TIME 8 Sec
20. 水压试验 HYDROSTATIC TEST TIME 8 Sec
21. 水压试验 HYDROSTATIC TEST TIME 8 Sec
22. 水压试验 HYDROSTATIC TEST TIME 8 Sec
23. 水压试验 HYDROSTATIC TEST TIME 8 Sec
24. 水压试验 HYDROSTATIC TEST TIME 8 Sec
25. 水压试验 HYDROSTATIC TEST TIME 8 Sec
26. 水压试验 HYDROSTATIC TEST TIME 8 Sec
27. 水压试验 HYDROSTATIC TEST TIME 8 Sec
28. 水压试验 HYDROSTATIC TEST TIME 8 Sec
29. 水压试验 HYDROSTATIC TEST TIME 8 Sec
30. 水压试验 HYDROSTATIC TEST TIME 8 Sec
31. 水压试验 HYDROSTATIC TEST TIME 8 Sec
32. 水压试验 HYDROSTATIC TEST TIME 8 Sec
33. 水压试验 HYDROSTATIC TEST TIME 8 Sec
34. 水压试验 HYDROSTATIC TEST TIME 8 Sec
35. 水压试验 HYDROSTATIC TEST TIME 8 Sec
36. 水压试验 HYDROSTATIC TEST TIME 8 Sec
37. 水压试验 HYDROSTATIC TEST TIME 8 Sec
38. 水压试验 HYDROSTATIC TEST TIME 8 Sec
39. 水压试验 HYDROSTATIC TEST TIME 8 Sec
40. 水压试验 HYDROSTATIC TEST TIME 8 Sec
41. 水压试验 HYDROSTATIC TEST TIME 8 Sec
42. 水压试验 HYDROSTATIC TEST TIME 8 Sec
43. 水压试验 HYDROSTATIC TEST TIME 8 Sec
44. 水压试验 HYDROSTATIC TEST TIME 8 Sec
45. 水压试验 HYDROSTATIC TEST TIME 8 Sec
46. 水压试验 HYDROSTATIC TEST TIME 8 Sec
47. 水压试验 HYDROSTATIC TEST TIME 8 Sec
48. 水压试验 HYDROSTATIC TEST TIME 8 Sec
49. 水压试验 HYDROSTATIC TEST TIME 8 Sec
50. 水压试验 HYDROSTATIC TEST TIME 8 Sec
51. 水压试验 HYDROSTATIC TEST TIME 8 Sec
52. 水压试验 HYDROSTATIC TEST TIME 8 Sec
53. 水压试验 HYDROSTATIC TEST TIME 8 Sec
54. 水压试验 HYDROSTATIC TEST TIME 8 Sec
55. 水压试验 HYDROSTATIC TEST TIME 8 Sec
56. 水压试验 HYDROSTATIC TEST TIME 8 Sec
57. 水压试验 HYDROSTATIC TEST TIME 8 Sec
58. 水压试验 HYDROSTATIC TEST TIME 8 Sec
59. 水压试验 HYDROSTATIC TEST TIME 8 Sec
60. 水压试验 HYDROSTATIC TEST TIME 8 Sec
61. 水压试验 HYDROSTATIC TEST TIME 8 Sec
62. 水压试验 HYDROSTATIC TEST TIME 8 Sec
63. 水压试验 HYDROSTATIC TEST TIME 8 Sec
64. 水压试验 HYDROSTATIC TEST TIME 8 Sec
65. 水压试验 HYDROSTATIC TEST TIME 8 Sec
66. 水压试验 HYDROSTATIC TEST TIME 8 Sec
67. 水压试验 HYDROSTATIC TEST TIME 8 Sec
68. 水压试验 HYDROSTATIC TEST TIME 8 Sec
69. 水压试验 HYDROSTATIC TEST TIME 8 Sec
70. 水压试验 HYDROSTATIC TEST TIME 8 Sec
71. 水压试验 HYDROSTATIC TEST TIME 8 Sec
72. 水压试验 HYDROSTATIC TEST TIME 8 Sec
73. 水压试验 HYDROSTATIC TEST TIME 8 Sec
74. 水压试验 HYDROSTATIC TEST TIME 8 Sec
75. 水压试验 HYDROSTATIC TEST TIME 8 Sec
76. 水压试验 HYDROSTATIC TEST TIME 8 Sec
77. 水压试验 HYDROSTATIC TEST TIME 8 Sec
78. 水压试验 HYDROSTATIC TEST TIME 8 Sec
79. 水压试验 HYDROSTATIC TEST TIME 8 Sec
80. 水压试验 HYDROSTATIC TEST TIME 8 Sec
81. 水压试验 HYDROSTATIC TEST TIME 8 Sec
82. 水压试验 HYDROSTATIC TEST TIME 8 Sec
83. 水压试验 HYDROSTATIC TEST TIME 8 Sec
84. 水压试验 HYDROSTATIC TEST TIME 8 Sec
85. 水压试验 HYDROSTATIC TEST TIME 8 Sec
86. 水压试验 HYDROSTATIC TEST TIME 8 Sec
87. 水压试验 HYDROSTATIC TEST TIME 8 Sec
88. 水压试验 HYDROSTATIC TEST TIME 8 Sec
89. 水压试验 HYDROSTATIC TEST TIME 8 Sec
90. 水压试验 HYDROSTATIC TEST TIME 8 Sec
91. 水压试验 HYDROSTATIC TEST TIME 8 Sec
92. 水压试验 HYDROSTATIC TEST TIME 8 Sec
93. 水压试验 HYDROSTATIC TEST TIME 8 Sec
94. 水压试验 HYDROSTATIC TEST TIME 8 Sec
95. 水压试验 HYDROSTATIC TEST TIME 8 Sec
96. 水压试验 HYDROSTATIC TEST TIME 8 Sec
97. 水压试验 HYDROSTATIC TEST TIME 8 Sec
98. 水压试验 HYDROSTATIC TEST TIME 8 Sec
99. 水压试验 HYDROSTATIC TEST TIME 8 Sec
100. 水压试验 HYDROSTATIC TEST TIME 8 Sec

DATE RECEIVED MAY 2 2 2007
P.O. #
SIGNATURE: M
APPROVED BY Q.C. INSPECTOR

此证书仅用于证明材料符合标准, 并不符合标准的要求
THIS CERTIFICATE IS ONLY FOR THE PURPOSE OF PROOFING THE MATERIAL IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE MATERIAL SPECIFICATION

HEAT NUMBER : 538697 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature] SHIPMENT/SEQ #: S 7 - 1520 99



INDUSTRIA MECCANICA LIGURE SPA

16020 CASARZA LIGURE - Italy - P.zza Marco Capelli, 4 - Tel. 0185.457861 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 12 - 21

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA
 233061 Enderoni Drive S E
 Calgary, Alberta T2P 2G5
 CA

TRANS AM PIPING PRODUCTS LTD.
 Certificate Nr 18097
 Invoice Nr 1135
 Del. Note Nr 1745
 Dated 24.10.2007
 Dated 24.10.2007
 Dated 24.10.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | | | | | | | | | | C.E.% | OTHER ELEMENTS | | |
|-----------|--------|------|-------------|------------------------|------|--|--------------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|-------|----------------|----------|--------------|
| | | | | | | | SEE NOTE | SATISFACTORY | SEE NOTE | SATISFACTORY | SEE NOTE | SATISFACTORY | SEE NOTE | SATISFACTORY | SEE NOTE | SATISFACTORY | | | SEE NOTE | SATISFACTORY |
| A48 | 78878 | 104 | CH-07 - 530 | 2007-2E201-0000820-104 | | FITTING 90 ELB. SW 3M 3/4" A350/LF2 | Mn% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | AP% | | | |
| FPU | 73286 | 112 | CI-07 - 530 | 2007-2E201-0000820-112 | | FITTING TEE SW 3M 2" A350/LF2 | 0.960 | 0.023 | 0.016 | 0.110 | 0.050 | 0.010 | 0.006 | 0.180 | 0.001 | 0.000 | 0.000 | 0.017 | 0.385 | |
| | 78092 | 114 | CI-07 - 530 | 2007-2E201-0000820-114 | | FITTING COUPLING SW 3M 1-1/2" A350/LF2 | 1.090 | 0.015 | 0.011 | 0.100 | 0.050 | 0.010 | 0.019 | 0.140 | 0.023 | 0.000 | 0.000 | 0.025 | 0.421 | |
| A34 | 77255 | 119 | CH-07 - 530 | 2007-2E201-0000820-119 | | FITTING 90 ELB. SW 6M 3/4" A350/LF2 | 0.850 | 0.020 | 0.020 | 0.130 | 0.060 | 0.010 | 0.005 | 0.250 | 0.001 | 0.000 | 0.000 | 0.009 | 0.371 | |
| | 76573 | 121 | CI-07 - 530 | 2007-2E201-0000820-121 | | FITTING COUPLING SW 6M 1" A350/LF2 | 0.900 | 0.017 | 0.011 | 0.070 | 0.040 | 0.010 | 0.005 | 0.130 | 0.000 | 0.000 | 0.000 | 0.013 | 0.357 | |
| | 538697 | 018 | CI-05 - 741 | 2005-2E201-0000954-018 | | P. NIPPLE TBE NPT S-80 1" L75mm(3") A106B/API 5LB | 0.990 | 0.019 | 0.019 | 0.100 | 0.050 | 0.010 | 0.008 | 0.180 | 0.003 | 0.000 | 0.000 | 0.005 | 0.361 | |
| | 86591 | 064 | CI-06 - 741 | 2006-2E201-0000954-064 | | P. NIPPLE PBE S-160 3/4" L150mm(6") A106B/API 5LB | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| | 538697 | 025 | CI-06 - 635 | 2005-2E201-0000797-025 | | P. NIPPLE TBE NPT S-80 1" L90mm(3.12") A106B/API 5LB | 0.730 | 0.003 | 0.012 | 0.080 | 0.070 | 0.020 | 0.000 | 0.210 | 0.002 | 0.000 | 0.000 | 0.038 | 0.311 | |
| | 538697 | 025 | CI-06 - 635 | 2005-2E201-0000797-025 | | P. NIPPLE TBE NPT S-80 1" L90mm(3.12") A106B/API 5LB | 0.820 | 0.006 | 0.008 | 0.100 | 0.100 | 0.030 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | LENGTH mm | YIELD POINT Minus +0.2% | TENSILE STRENGTH Minus +0.2% | ELONGATION 50% Minus +0.2% | REDUCTION OF AREA Minus +0.2% | HARDNESS HB | FLATTENING TEST | | | IMPACT TEST - JOULE TEST | | | VIBRO POINT Minus +0.1% | | |
|-----------|--------|------|---------------|-----------|-------------------------|------------------------------|----------------------------|-------------------------------|-------------|-----------------|-----|-----|--------------------------|----|----|-------------------------|----|-----|
| | | | | | | | | | | TYPE | mm | mm | mm | mm | mm | | mm | mm |
| A48 | 78878 | 104 | 122.65 | 50.00 | 329.0 | 532.0 | 33.5 | 58.0 | 165 - 173 | 0.0 | 0.0 | 0.0 | 0.0 | 49 | 50 | 52 | 1 | 0.0 |
| FPU | 73286 | 112 | 122.65 | 50.00 | 343.0 | 557.0 | 32.0 | 57.0 | 166 - 170 | 0.0 | 0.0 | 0.0 | 0.0 | 49 | 56 | 41 | 1 | 0.0 |
| | 78092 | 114 | 122.65 | 50.00 | 309.0 | 536.0 | 31.0 | 56.0 | 160 - 166 | 0.0 | 0.0 | 0.0 | 0.0 | 46 | 54 | 50 | 1 | 0.0 |
| A34 | 77255 | 119 | 122.65 | 50.00 | 306.0 | 548.0 | 31.0 | 54.0 | 160 - 166 | 0.0 | 0.0 | 0.0 | 0.0 | 46 | 54 | 50 | 1 | 0.0 |
| | 76573 | 121 | 122.65 | 50.00 | 327.0 | 530.0 | 31.0 | 58.0 | 158 - 163 | 0.0 | 0.0 | 0.0 | 0.0 | 46 | 50 | 44 | 1 | 0.0 |
| | 538697 | 018 | 0.00 | 0.00 | 362.0 | 450.0 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.0 |
| | 86591 | 064 | 0.00 | 0.00 | 295.0 | 432.0 | 42.0 | 0.0 | 162 - 166 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.0 |
| | 538697 | 025 | 0.00 | 0.00 | 362.0 | 450.0 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.0 |

HEAT TREATMENT: ELECTRIC FURNACE
 Normalized at 900°C / Air Cool
 Normalized at 900°C / Air Cool
 Normalized at 900°C / Air Cool
 Normalized at 900°C / Air Cool
 Normalized at 860°C-920°C / Air Cool
 Normalized at 860°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool

INSPECTION AUTHORITY: BORIS FIZZOTTI
 QUALITY CONTROL DEPARTMENT: IML
 MANUFACTURER'S SYMBOL: STUDBOLTS

DATE RECEIVED JUN 24 2008
 P.O. # 510478 883286
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 538697 TRANS AM PIPING PRODUCTS - REV'D BY: 1 X 21/2 XH SMLS STEEL NIPPLES A106



INDUSTRIA MECCANICA LIGURE SPA

16039 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappellini 4 - Tel. 0185.487681 - Fax 0185.486510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 11 - 16

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY IRINA

TRANS AM PIPING PRODUCTS LTD.
 233051 Endeavor Drive SE
 Calgary, Alberta T2P 2G8 CA

Certificate No 18004
 Invoice No 1031
 Dated 28.06.2007
 Del. Note No 1577
 Dated 28.06.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | MATERIAL TEST DEPARTMENT | | | | | | | | | | OTHER ELEMENTS | |
|---|--------|------|-------------------------------------|---------------|-------|-------------|--------------|------------------|--------------------------|-----------------------------------|--|--------------|---------------------|--------------|---------|-----------------|---------------|--------------------------|----------------|-------------------|
| | | | | | | | | | SECT. mm | YIELD POINT N/mm ² min | TENSILE STRENGTH N/mm ² min | ELONGATION % | REDUCTION OF AREA % | HARDNESS HRC | REBOUND | FLATTENING TEST | TYPE WH/WH/WH | IMPACT TEST - JOULIBRIDE | | SHAPE 1=O 2=D 3=I |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Si% | Mn% | P% | S% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | AV% | C.E.% | | |
| TN1 | 78196 | 115 | ASTM A105 | 0.180 | 0.280 | 0.850 | 0.034 | 0.150 | 0.070 | 0.010 | 0.010 | 0.000 | 0.250 | 0.002 | 0.000 | 0.000 | 0.000 | 0.382 | | |
| | 78878 | 072 | ASTM A350 LF2 cl.1 | 0.185 | 0.220 | 0.960 | 0.023 | 0.110 | 0.050 | 0.010 | 0.010 | 0.006 | 0.180 | 0.001 | 0.000 | 0.000 | 0.017 | 0.365 | | |
| | 74193 | 006 | ASTM A234 WPB | 0.180 | 0.210 | 1.040 | 0.015 | 0.060 | 0.050 | 0.010 | 0.000 | 0.000 | 0.190 | 0.022 | 0.001 | 0.000 | 0.025 | 0.352 | | |
| | 538697 | 021 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.030 | 0.000 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | | |
| | 538697 | 023 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.030 | 0.000 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | | |
| | 538697 | 017 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.030 | 0.000 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | | |
| | 539229 | 036 | ASTM A106/B API 5LB | 0.140 | 0.230 | 0.800 | 0.003 | 0.009 | 0.100 | 0.080 | 0.020 | 0.000 | 0.130 | 0.002 | 0.000 | 0.000 | 0.000 | 0.312 | | |
| | 538697 | 008 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.008 | 0.100 | 0.030 | 0.000 | 0.000 | 0.130 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | | |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | | | | | | | | | | | | | | | |
| TN1 | 78196 | 115 | ASME SA ASTM A105-05 | | | | | | | | | | | | | | | | | |
| | 78878 | 072 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | | | | | | | | | | | | | | | | | |
| | 74193 | 006 | ASME SA ASTM A234/A234M-05a Gr. WPB | | | | | | | | | | | | | | | | | |
| | 538697 | 021 | ASME SA ASTM A106/A106M-05 Gr. B | | | | | | | | | | | | | | | | | |
| | 538697 | 023 | ASME SA ASTM A106/A106M-05 Gr. B | | | | | | | | | | | | | | | | | |
| | 538697 | 017 | ASME SA ASTM A106/A106M-05 Gr. B | | | | | | | | | | | | | | | | | |
| | 539229 | 036 | ASME SA ASTM A106/A106M-05 Gr. B | | | | | | | | | | | | | | | | | |
| | 538697 | 008 | ASME SA ASTM A106/A106M-05 Gr. B | | | | | | | | | | | | | | | | | |
| NOTES ASME B16.11/05 - ANSI B31.1/BS1.3 - IML STD - ANSIPR-10-1999 NACE MR0175 ISO 15156/1 - MISS SP 83 - SUPPLIED MATERIAL MEETS PRESSION SPECIFICATIONS AND P.O. REQUIREMENTS | | | | | | | | | | | | | | | | | | | | |

| HEAT CODE | HEAT | ITEM | OUR REF. |
|-----------|--------|------|----------|
| TN1 | 78196 | 115 | 062010 |
| | 78878 | 072 | 061085 |
| | 74193 | 006 | 071265 |
| | 538697 | 021 | 073039 |
| | 538697 | 023 | 073039 |
| | 538697 | 017 | 073039 |
| | 539229 | 036 | 073041 |
| | 538697 | 008 | 073039 |

DATE RECEIVED JUN 24 2008
 P.O. # 510478 E832806
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

BORIS FIZZOTTI
 FITTINGS IML STUDBOLTS





Phoenix * Capitol * Camco

Cap Products 1121171

Certified Mill Test Report

Commanding a Higher Standard

4/18/2008

Customer CE FRANKLIN LTD

P.O. 2017458-OR-2100

Heat No 23833
Heat Code X9U
Phoenix Order # 543552

BOX 6776 STN "D"
CALGARY, AB T2P2E8

Material ASTM A106-1999e B / ASME SA106-2001 Edition, No Adden

Part Number 15111004

Description 1 X 2" XHSMLS BLK NIP

Chemical Properties

Table with chemical composition data including C, Mn, P, S, Si, Cu, Cr, Ni, Mo, V, Co, Al, Cb, N, Pb, Sn, Ta, Ti, and C Eq. Long.

Additional Chemical Properties

Table for additional chemical properties with empty cells.

Table showing Cr + Cu + Ni = 0.470

Mechanical Properties

Charpy Minimum Impact -

Table with mechanical properties: Tensile (PSI), Yield (PSI), Elong. % in 2 in., R of A, BHN, Test 1, Test 2, Test 3, Average.

* Hydro test passed. at 2500 psi.

* Bend test passed.

This material meets the requirements of the governing specifications We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and test conform with applicable requirements.

We further certify this material was inspected with independent inspectors conforming to the requirements of EN10204 Section 3.1B.

Comments:

MEETS HARDNESS REQUIREMENTS OF NACE MRO175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

CapProducts, Ltd.

25 Winnipeg St
Windsor, ON N0M 1L0

PC COMPRESSION RECEIVED JUN 06 2008
DATE
P.O. # 510340
SIGNATURE: [Signature]
APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 53878
 TRANS AM PIPING PRODUCTS - REV'D BY: TBF
 1 X 2 XH SMLS STEEL NIPPLES A106



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Capelli,4 - Tel.010.54.67861 - Fax.010.54.67861
 COMPANY WITH QUALITY SYSTEM ISO 9001-2000
 CERTIFIED BY IRMA

INSPECTION CERTIFICATE EN 10204-2004 / 3.1
 TRANSA AM PIPING PRODUCTS LTD.
 253061 Endeavor Drive S.E.
 Calgary, Alberta T2P 2C8 CA


05.08.2007
 31.07.2007
 31.07.2007
 31.07.2007
 31.07.2007

This certificate has been generated by computer and need not to be signed for validity according to EN 10204 Page 14 - 15

| HEAT CODE | HEAT | ITEM | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DMA. ACC. TO | VISUAL & DIMENS. | MATERIAL TEST | | | | | | | | | | OTHER ELEMENTS | | | | | |
|--|------|------|-------------------------------------|--------------------------------|----------------------------------|---------------------------------------|---|-----------------------|------------------|----------------------------|----------------------------------|---------------------------------------|----------------------|-----------------------|----------------------------------|------------------|--------------|-------|----------------------|----------------|-------|----------------------------------|---|---|--|
| | | | | | | | | | | TEST APPROXIM. WEIGHT (kg) | YIELD POINT (N/mm ²) | TENSILE STRENGTH (N/mm ²) | ELONGATION (mm/mm) | REDUCTION OF AREA (%) | IMPRESSIVE | SEMI-T | PLATTEN TEST | TYPE | IMPACT TEST - JOULES | | SCALE | YIELD POINT (N/mm ²) | | | |
| | | | | | | | | | | MPa | % | % | MPa | % | % | % | % | % | % | % | % | % | % | % | |
| 72433 | | 012 | ASTM A234 WPB | CI-06 - 805 | 2006-2E201-0001075-012 | | CONC.SWAGE TBE NPT S-80 2"x1" WPB | SEE NOTE | SATISFACTORY | 0,230 | 0,195 | 0,012 | 0,080 | 0,050 | 0,010 | 0,000 | 0,190 | 0,002 | 0,001 | 0,000 | 0,013 | 0,385 | | | |
| 538981 | | 040 | ASTM A106B API 5LB | CI-06 - 827 | 2007-2E201-0000011-040 | | P.NIPPLE TBE NPT S-160 1" L65mm(2 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY | 0,210 | 0,130 | 0,009 | 0,140 | 0,110 | 0,040 | 0,000 | 0,200 | 0,001 | 0,000 | 0,000 | 0,000 | 0,317 | | | |
| 72433 | | 008 | ASTM A234 WPB | CI-07-241 | 2007-2E201-0000269-008 | | CONC.SWAGE TBE NPT S-80 2"x1" WPB | SEE NOTE | SATISFACTORY | 0,230 | 0,185 | 0,012 | 0,080 | 0,050 | 0,010 | 0,000 | 0,130 | 0,002 | 0,001 | 0,000 | 0,013 | 0,385 | | | |
| 75791 | | 073 | ASTM A350 LF2 d.1 | CI-07 - 297 | 2007-2E201-0000339-073 | | FITTING COUPLING THRD NPT 6M 3/4" A350/LF2 | SEE NOTE | SATISFACTORY | 0,190 | 0,180 | 0,015 | 0,100 | 0,060 | 0,010 | 0,005 | 0,200 | 0,002 | 0,001 | 0,000 | 0,020 | 0,373 | | | |
| 75791 | | 143 | ASTM A350 LF2 d.1 | CI-07 - 380 | 2007-2E201-0000541-143 | | FITTING COUPLING THRD NPT 6M 3/4" A350/LF2 | SEE NOTE | SATISFACTORY | 0,190 | 0,180 | 0,015 | 0,100 | 0,060 | 0,010 | 0,005 | 0,200 | 0,002 | 0,001 | 0,000 | 0,020 | 0,373 | | | |
| 72433 | | 009 | ASTM A234 WPB | CI-07 - 399 | 2007-2E201-0000574-009 | | CONC.SWAGE TBE NPT S-80 2"x1" WPB | SEE NOTE | SATISFACTORY | 0,230 | 0,195 | 0,012 | 0,080 | 0,050 | 0,010 | 0,000 | 0,130 | 0,002 | 0,001 | 0,000 | 0,013 | 0,385 | | | |
| 53878 | | 020 | ASTM A106B API 5LB | CI-06 - 463 | 2006-2E201-0000574-020 | | P.NIPPLE TBE NPT S-80 1" L51mm(2") A106B/API 5LB | SEE NOTE | SATISFACTORY | 0,230 | 0,150 | 0,009 | 0,080 | 0,070 | 0,010 | 0,000 | 0,240 | 0,005 | 0,000 | 0,000 | 0,000 | 0,266 | | | |
| 53878 | | 022 | ASTM A106B API 5LB | CI-06 - 635 | 2006-2E201-0000797-022 | | P.NIPPLE TBE NPT S-80 1" L51mm(2") A106B/API 5LB | SEE NOTE | SATISFACTORY | 0,230 | 0,150 | 0,009 | 0,080 | 0,070 | 0,010 | 0,000 | 0,240 | 0,005 | 0,000 | 0,000 | 0,000 | 0,266 | | | |
| HEAT CODE | HEAT | ITEM | ITEM | TEST APPROXIM. WEIGHT (kg) | YIELD POINT (N/mm ²) | TENSILE STRENGTH (N/mm ²) | ELONGATION (mm/mm) | REDUCTION OF AREA (%) | IMPRESSIVE | SEMI-T | PLATTEN TEST | TYPE | IMPACT TEST - JOULES | SCALE | YIELD POINT (N/mm ²) | | | | | | | | | | |
| 72433 | | 012 | ASME SA ASTM A234/A234M-06a Gr. WPB | 0,00 | 0,00 | 314,0 | 58,0 | 0,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 538981 | | 040 | ASME SA ASTM A106/A106M-06 Gr. B | 0,00 | 0,00 | 304,0 | 49,0 | 0,0 | 160 - 164 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 72433 | | 008 | ASME SA ASTM A234/A234M-06a Gr. WPB | 0,00 | 0,00 | 314,0 | 58,0 | 0,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 75791 | | 073 | ASME SA ASTM A350-04a Gr. LF2 d.1 | 122,65 | 50,00 | 321,0 | 32,0 | 59,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 33 | 36 | 39 | | | | | | | | | | |
| 75791 | | 143 | ASME SA ASTM A350-04a Gr. LF2 d.1 | 122,65 | 50,00 | 321,0 | 32,0 | 59,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 33 | 36 | 39 | | | | | | | | | | |
| 72433 | | 009 | ASME SA ASTM A234/A234M-06a Gr. WPB | 0,00 | 0,00 | 314,0 | 58,0 | 0,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 53878 | | 020 | ASME SA ASTM A106/A106M-06 Gr. B | 0,00 | 0,00 | 309,0 | 52,0 | 0,0 | 154 - 162 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 53878 | | 022 | ASME SA ASTM A106/A106M-06 Gr. B | 0,00 | 0,00 | 308,0 | 52,0 | 0,0 | 154 - 162 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | ITEM | TEST APPROXIM. WEIGHT (kg) | YIELD POINT (N/mm ²) | TENSILE STRENGTH (N/mm ²) | ELONGATION (mm/mm) | REDUCTION OF AREA (%) | IMPRESSIVE | SEMI-T | PLATTEN TEST | TYPE | IMPACT TEST - JOULES | SCALE | YIELD POINT (N/mm ²) | | | | | | | | | | |
| 72433 | | 012 | ASME SA ASTM A234/A234M-06a Gr. WPB | 0,00 | 0,00 | 314,0 | 58,0 | 0,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 538981 | | 040 | ASME SA ASTM A106/A106M-06 Gr. B | 0,00 | 0,00 | 304,0 | 49,0 | 0,0 | 160 - 164 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 72433 | | 008 | ASME SA ASTM A234/A234M-06a Gr. WPB | 0,00 | 0,00 | 314,0 | 58,0 | 0,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 75791 | | 073 | ASME SA ASTM A350-04a Gr. LF2 d.1 | 122,65 | 50,00 | 321,0 | 32,0 | 59,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 33 | 36 | 39 | | | | | | | | | | |
| 75791 | | 143 | ASME SA ASTM A350-04a Gr. LF2 d.1 | 122,65 | 50,00 | 321,0 | 32,0 | 59,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 33 | 36 | 39 | | | | | | | | | | |
| 72433 | | 009 | ASME SA ASTM A234/A234M-06a Gr. WPB | 0,00 | 0,00 | 314,0 | 58,0 | 0,0 | 166 - 171 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 53878 | | 020 | ASME SA ASTM A106/A106M-06 Gr. B | 0,00 | 0,00 | 309,0 | 52,0 | 0,0 | 154 - 162 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| 53878 | | 022 | ASME SA ASTM A106/A106M-06 Gr. B | 0,00 | 0,00 | 308,0 | 52,0 | 0,0 | 154 - 162 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | | | | | | | | | |
| MATERIAL IN ACCORDANCE TO | | | | | | | | | | | | | | | | | | | | | | | | | |
| 72433 | | 012 | ASME SA ASTM A234/A234M-06a Gr. WPB | Normalized at 880°C / Air Cool | | | | | | | | | | | | FURNACE | Our Ref. | | | | | | | | |
| 538981 | | 040 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C / Air Cool | | | | | | | | | | | | ELECTRIC FURNACE | N10307 | | | | | | | | |
| 72433 | | 008 | ASME SA ASTM A234/A234M-06a Gr. WPB | Normalized at 880°C / Air Cool | | | | | | | | | | | | ELECTRIC FURNACE | 073042 | | | | | | | | |
| 75791 | | 073 | ASME SA ASTM A350-04a Gr. LF2 d.1 | Normalized at 900°C / Air Cool | | | | | | | | | | | | ELECTRIC FURNACE | N10307 | | | | | | | | |
| 75791 | | 143 | ASME SA ASTM A350-04a Gr. LF2 d.1 | Normalized at 900°C / Air Cool | | | | | | | | | | | | ELECTRIC FURNACE | 071125 | | | | | | | | |
| 72433 | | 009 | ASME SA ASTM A234/A234M-06a Gr. WPB | Normalized at 880°C / Air Cool | | | | | | | | | | | | ELECTRIC FURNACE | N10307 | | | | | | | | |
| 53878 | | 020 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C / Air Cool | | | | | | | | | | | | ELECTRIC FURNACE | 071125 | | | | | | | | |
| 53878 | | 022 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C / Air Cool | | | | | | | | | | | | ELECTRIC FURNACE | 073034 | | | | | | | | |
| NOTES ASME B16.11/05 - ANSI B31.1/BS1.3 - IML STD - ANSI B1.1-818.2.2 - NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| INSPECTION AUTHORITY | | | | | | | | | | | | | | | | | | | | | | | | | |
| QUALITY CONTROL DEPARTMENT | | | | | | | | | | | | | | | | | | | | | | | | | |
| MANUFACTURER'S SYMBOL | | | | | | | | | | | | | | | | | | | | | | | | | |
| FITTINGS | | | | | | | | | | | | | | | | | | | | | | | | | |
| IML | | | | | | | | | | | | | | | | | | | | | | | | | |
| STUD BOLTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| FORIS FIZZOTTI | | | | | | | | | | | | | | | | | | | | | | | | | |
| PC COMPRESSION | | | | | | | | | | | | | | | | | | | | | | | | | |
| DATE RECEIVED JUN 24 2008 | | | | | | | | | | | | | | | | | | | | | | | | | |
| P.O. # 510428 EB32806 | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIGNATURE: 10 | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED BY Q.C. INSPECTOR | | | | | | | | | | | | | | | | | | | | | | | | | |

DATE RECEIVED JUN 24 2008
 P.O. # 510428 EB32806
 SIGNATURE: 10
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 79141

TRANS AM PIPING PRODUCTS - REV'D BY:  SHIPMENT/SEQ #: 8 - 1013 132

1X3/4 XH CONC SWAGE NIPPLE
A234-WPB TBE



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
9335 Empress Drive S.E.
Calgary, Alberta T2S 0A1
CA

Certificate Nr 18270
Invoice Nr 1
Date 02.01.2008
Dal. Note Nr 1
Date 02.01.2008
Date 02.01.2008


18030 CASARZA LIGURE - Genova - Italy - Via Giancarlo Feltra 25 - Tel. 0105.487861 - Fax 0105.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 8 - 18

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DMK. ACC. TO | VISUAL & DIMENS. |
|-----------|-------|------|-------------|------------------------|------|--|--------------|------------------|
| 7AK | 78352 | 022 | CI-07 - 444 | 2007-2E201-0000665-022 | | FITTING HALF COUPL THRD NPT 3M 1.1/2" A105N | SEE NOTE | SATISFACTORY |
| | 74193 | 075 | CI-07 - 598 | 2007-2E201-0000983-075 | | FITTING CAP THRD NPT 3/4" A105N | SEE NOTE | SATISFACTORY |
| HBO | 77763 | 127 | CI-07 - 598 | 2007-2E201-0000983-127 | | FITTING 90 ELB. SW 3M 1.1/2" A350/LF2 | SEE NOTE | SATISFACTORY |
| | 79141 | 003 | CI-07-241 | 2007-2E201-0000283-003 | | CONC SWAGE TBE NPT S-80 1"x3/4" MSS SP 95 WPB | SEE NOTE | SATISFACTORY |
| | 86591 | 025 | CI-07 - 294 | 2007-2E201-0000340-025 | | P. NIPPLE TBE NPT S-160 3/4" L38mm(1.1/2") A108B/API 5LB | SEE NOTE | SATISFACTORY |
| | 72475 | 020 | CI-07 - 380 | 2007-2E201-0000541-020 | | FITTING COUPLING THRD NPT 3M 1/4" A105N | SEE NOTE | SATISFACTORY |
| | 75791 | 056 | CI-07 - 380 | 2007-2E201-0000541-056 | | FITTING ROUND H.PLUG THRD NPT 3/4" A105N | SEE NOTE | SATISFACTORY |
| 6CK | 78350 | 064 | CI-07 - 380 | 2007-2E201-0000541-064 | | FITTING HEX.BUSHING M/F THRD NPT 3"x2" A105N | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | SECT. AREA | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HB | BOND TEST | PLATE TENSILE TEST | TYPE TEST | IMPACT TEST | SHAPE | YIELD POINT | OUR Ref. |
|-----------|-------|------|--------------------|------------|-------------|------------------|------------|-------------------|-------------|-----------|--------------------|-----------|-------------|-------|-------------|----------|
| 7AK | 78352 | 022 | ASTM A105 | 122.65 | 50.00 | 519.0 | 33.6 | 55.0 | 161 - 166 | 0.0 | 0.190 | KV | 20 | 105 | 101 | 98 |
| | 74193 | 075 | ASTM A105 | 122.65 | 50.00 | 563.0 | 32.0 | 54.0 | 160 - 166 | 0.0 | 0.190 | KV | 20 | 110 | 105 | 106 |
| HBO | 77763 | 127 | ASTM A350 LF2 cl.1 | 122.65 | 50.00 | 560.0 | 32.0 | 58.0 | 166 - 170 | 0.0 | 0.160 | KV | 46 | 49 | 55 | 58 |
| | 79141 | 003 | ASTM A234 WPB | 0.00 | 0.00 | 539.0 | 36.0 | 0.0 | 166 - 171 | 0.0 | 0.220 | | 0 | 0 | 0 | 0 |
| | 86591 | 025 | ASTM A106B API 5LB | 0.00 | 0.00 | 426.0 | 42.0 | 0.0 | 162 - 166 | 0.0 | 0.000 | | 0 | 0 | 0 | 0 |
| | 72475 | 020 | ASTM A105 | 122.65 | 50.00 | 532.0 | 36.0 | 49.0 | 158 - 166 | 0.0 | 0.170 | KV | 20 | 99 | 104 | 103 |
| | 75791 | 056 | ASTM A105 | 122.65 | 50.00 | 538.0 | 32.0 | 52.0 | 162 - 164 | 0.0 | 0.200 | KV | 20 | 99 | 100 | 101 |
| 6CK | 78350 | 064 | ASTM A105 | 122.65 | 50.00 | 528.0 | 34.2 | 55.0 | 159 - 164 | 0.0 | 0.200 | KV | 20 | 104 | 111 | 107 |

HEAT TREATMENT
FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE

HEAT TREATMENT
Normalized at 880°-920°C / Air Cool
Normalized at 880°-920°C / Air Cool
Normalized at 900°C / Air Cool
Normalized at 880°C / Air Cool
Normalized at 880°-920°C / Air Cool
Normalized at 880°-920°C / Air Cool
Normalized at 880°-920°C / Air Cool
Normalized at 880°-920°C / Air Cool

QUALITY CONTROL DEPARTMENT
INSPECTION AUTHORITY
PC COMPRESSION
DATE RECEIVED JUN 24 2008
PO # 510428 E832806
SIGNATURE: 
APPROVED BY Q.C. INSPECTOR

MANUFACTURER'S SYMBOL
FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE
ELECTRIC FURNACE

MANUFACTURER'S SYMBOL
FITTINGS
IML
STUD BOLTS



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

10030 CASARZA LIGURE - Genova - Italy - Via Gianuario Parina 25 - Tel.010.55.487061 - Fax 010.55.487061

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
9335 Encanto Drive S.E.
Calgary, Alberta T2S 0A1
CA

Certificate No 18270
Invoice No 1
Date 02.01.2008
Def. Note No 1
Date 02.01.2008

10030 CASARZA LIGURE - Genova - Italy - Via Gianuario Parina 25 - Tel.010.55.487061 - Fax 010.55.487061 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 15 - 19

Table with columns: HEAT CODE, HEAT, ITEM, YOUR P.O., OUR REFERENCE, Q.TY, DESCRIPTION, DIM. ACC. TO, VISUAL & DIMENS., SEE NOTE, SATISFACTORY, OTHER ELEMENTS, etc.

Table with columns: HEAT CODE, HEAT, ITEM, TEST SPECIMEN, YIELD POINT, TENSILE STRENGTH, ELONGATION, REDUCTION OF AREA, HARDNESS, BEND TEST, FLATTENING TEST, TYPE TENSILE, TYPICAL TEST, FURNACE, Our Ref., etc.

NOTES: ASME B16.11/08 - ANSI B31.1/B31.3 - IML STD - ANS B1.1-B18.2.2 - PC COMPLIANT DESIGN
NACE MR0175 ISO 15156/1 - NACE MR103 - MSS SP 3 - SUPPLIED
MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

RECEIVED JUN 24 2008
P.O. # 510428 E832806
SIGNATURE: [Signature]
APPROVED BY Q.C. INSPECTOR

BORIS FIZOTTI
FITTINGS IML
STUDBOLTS

MANUFACTURER'S SYMBOL
QUALITY CONTROL DEPARTMENT
MANUFACTURER'S SYMBOL
MANUFACTURER'S SYMBOL

HEAT NUMBER : 79141
TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
1X1/4 XH CONC SWAGE NIPPLE A234-WPB TBE
Shipment/seg #: 8 - 1013 127



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 Certificate No 101138
 Invoice No 95
 Date 17.03.2006
 7025 - 44th Street S.E.
 Calgary, Alberta T2C 4E8
 CA
 Date 17.03.2006

16038 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappellani, 4 - Tel.010.95.487681 - Fax 010.95.487681 - This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIML ACC. TO | VISUAL & DIMENS. | CHEMICAL ANALYSIS | | | | | | | | | | C.E.% | OTHER ELEMENTS | | | | | |
|-----------|--------|------|-----------|------------------------|------|---|--------------|------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|--|
| | | | | | | | | | Min% | S% | P% | C% | Mn% | Ni% | Mo% | Ti% | Cu% | V% | | | Nb% | N% | As% | | |
| C22 | AR5064 | 025 | CI-05-117 | 2006-1E201-0000015-025 | | FITTING HEX H.P.LUG THRD NPT 3/4" A105N | SEE NOTE | SATISFACTORY | 0.150 | 0.260 | 0.020 | 0.100 | 0.110 | 0.030 | 0.000 | 0.002 | 0.000 | 0.025 | 0.000 | 0.000 | 0.025 | 0.393 | | | |
| | | 044 | CI-06-117 | 2006-1E201-0000015-044 | | FITTING CAP THRD NPT 6M 1" A350/LF2 | SEE NOTE | SATISFACTORY | 0.180 | 0.220 | 0.010 | 0.090 | 0.060 | 0.010 | 0.000 | 0.022 | 0.000 | 0.000 | 0.027 | 0.000 | 0.000 | 0.027 | 0.395 | | |
| | | 031 | CI-05-622 | 2005-1E201-0000438-031 | | FITTING MF ELB THRD NPT 6M 3/4" A105N | SEE NOTE | SATISFACTORY | 0.195 | 0.190 | 0.022 | 0.080 | 0.060 | 0.010 | 0.005 | 0.003 | 0.002 | 0.000 | 0.010 | 0.000 | 0.010 | 0.398 | | | |
| | | 008 | CI-05-783 | 2005-1E201-0000615-008 | | CONC SWAGE TBE NPT S-80 1"x1/4" MSS SP 95 WPB | SEE NOTE | SATISFACTORY | 0.180 | 0.190 | 0.020 | 0.130 | 0.060 | 0.010 | 0.000 | 0.001 | 0.000 | 0.000 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| | | 009 | CI-05-783 | 2005-1E201-0000615-009 | | CONC SWAGE TBE NPT S-80 1"x3/8" MSS SP 95 WPB | SEE NOTE | SATISFACTORY | 0.180 | 0.190 | 0.020 | 0.130 | 0.060 | 0.010 | 0.000 | 0.001 | 0.000 | 0.000 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| C19 | AR2237 | 046 | CI-05-819 | 2005-1E201-0000639-046 | | FITTING RED.INSERT SW 3M 1 1/2" X1" A105N | SEE NOTE | SATISFACTORY | 0.205 | 0.240 | 0.021 | 0.150 | 0.060 | 0.010 | 0.009 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.421 | | | |
| | | 031 | CI-05-947 | 2005-1E201-0000639-031 | | FITTING HEX H.P.LUG THRD NPT 3/4" A105N | SEE NOTE | SATISFACTORY | 0.195 | 0.260 | 0.023 | 0.066 | 0.070 | 0.090 | 0.030 | 0.000 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.393 | | | |
| | | 042 | CI-06-117 | 2006-1E201-0000015-042 | | FITTING COUPLING THRD NPT 6M 1 1/2" A350/LF2 | SEE NOTE | SATISFACTORY | 0.190 | 0.230 | 0.021 | 0.114 | 0.080 | 0.010 | 0.000 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.399 | | | |

| HEAT CODE | HEAT | ITEM | TEST SPECIFICATION | SECT mm | LENGTH mm | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | FLAT TENSILE TEST | BEND TEST | IMPACT TEST | SHAPE | VIELD POINT | MANUFACTURER'S SYMBOL | | |
|-----------|--------|------|-------------------------------------|---------|-----------|-------------|------------------|------------|-------------------|-------------------|-----------|-------------|-------|-------------|-----------------------|-----|-----|
| | | | | | | | | | | | | | | | MIN | MAX | |
| C22 | AR5064 | 025 | ASME SA ASTM A105-05 | 122.65 | 50.00 | 306.0 | 564.0 | 31.0 | 56.0 | 0.0 | 170 - 172 | 0.0 | 0.0 | 105 | 100 | 105 | |
| | | 044 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | 122.65 | 50.00 | 325.0 | 525.0 | 35.0 | 58.0 | 0.0 | 160 - 164 | 0.0 | 0.0 | 56 | 54 | 56 | |
| | | 031 | ASME SA ASTM A105-05 | 122.65 | 50.00 | 306.0 | 560.0 | 31.0 | 56.0 | 0.0 | 160 - 164 | 0.0 | 0.0 | 114 | 115 | 114 | |
| | | 008 | ASME SA ASTM A234/A234M-05a Gr. WPB | 0.00 | 0.00 | 306.0 | 488.0 | 56.0 | 0.0 | 180 - 186 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | 009 | ASME SA ASTM A234/A234M-05a Gr. WPB | 0.00 | 0.00 | 306.0 | 488.0 | 56.0 | 0.0 | 180 - 186 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| C19 | AR2237 | 046 | ASME SA ASTM A105-05 | 122.65 | 50.00 | 306.0 | 564.0 | 31.0 | 56.0 | 0.0 | 160 - 166 | 0.0 | 0.0 | 109 | 100 | 109 | |
| | | 031 | ASME SA ASTM A105-05 | 122.65 | 50.00 | 311.0 | 639.0 | 37.0 | 42.0 | 0.0 | 160 - 186 | 0.0 | 0.0 | 88 | 89 | 88 | |
| | | 042 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | 122.65 | 50.00 | 320.0 | 488.0 | 31.0 | 58.5 | 0.0 | 164 - 188 | 0.0 | 0.0 | 52 | 57 | 52 | |

HEAT NUMBER : 78092
 TRANS AM PIPING PRODUCTS - REV.D BY: 5 6 1184 52
 Shipment/Seq # : 5 6 1184 52

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: *AL*
 APPROVED BY Q.C. INSPECTOR

NOTES
 ASME B16.11/01 - BS.3799 - ANSI B31.1/B31.3 - IML STD - ANSI
 B1.1/518.2.2 - NACE MR0175 ISO 15156/1 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

INSPECTION AUTHORITY
 BORIS FIZZOTTI
 FITTINGS IML
 STUDBOLTS



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

TRANS AM PIPING PRODUCTS LTD.

Certificate No. 101428
Invoice No. 381
Date 24.11.2006
Del. Note No. 745
Dated 24.11.2006

COMPANY WITH QUALITY SYSTEM ISO 9001:2009
CERTIFIED BY RINA

7025 - 4th Street S.E.
Cagney, Alberta T2C 0E6

CA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappella, 4 - Tel. 010 956.467961 - Fax 010 956.467962 - Material test department This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 5 - 7

| HEAT CODE | HEAT | ITEM | OUR REFERENCE | YOUNG P.O. | MATERIAL | CHEMICAL ANALYSIS | | | | | | | | | | DIM. ACC. TO | VISUAL & DIMENS. | |
|-----------|--------|------|------------------------------------|------------|----------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|------------------|--------------|
| | | | | | | Si% | Mn% | S% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | | | Nb% |
| D5 | AQ2073 | 032 | CI-06 - 719 2006-1E201-0000508-032 | ASTM A105 | 0.190 | 0.270 | 0.024 | 0.012 | 0.050 | 0.090 | 0.020 | 0.000 | 0.140 | 0.002 | 0.000 | 0.024 | 0.373 | SATISFACTORY |
| C15 | AR5064 | 034 | CI-06 - 719 2006-1E201-0000508-034 | ASTM A105 | 0.190 | 0.260 | 0.020 | 0.007 | 0.100 | 0.110 | 0.030 | 0.000 | 0.140 | 0.002 | 0.000 | 0.025 | 0.393 | SATISFACTORY |
| C15 | AR5064 | 035 | CI-06 - 719 2006-1E201-0000508-035 | ASTM A105 | 0.190 | 0.260 | 0.020 | 0.007 | 0.100 | 0.110 | 0.030 | 0.000 | 0.140 | 0.002 | 0.000 | 0.025 | 0.393 | SATISFACTORY |
| C15 | AR5064 | 037 | CI-06 - 719 2006-1E201-0000508-037 | ASTM A105 | 0.190 | 0.260 | 0.020 | 0.007 | 0.100 | 0.110 | 0.030 | 0.000 | 0.140 | 0.002 | 0.000 | 0.025 | 0.393 | SATISFACTORY |
| DEV | 75754 | 039 | CI-06 - 719 2006-1E201-0000508-039 | ASTM A105 | 0.180 | 0.220 | 0.018 | 0.015 | 0.110 | 0.060 | 0.020 | 0.005 | 0.170 | 0.002 | 0.000 | 0.011 | 0.382 | SATISFACTORY |
| DEV | 75754 | 040 | CI-06 - 719 2006-1E201-0000508-040 | ASTM A105 | 0.180 | 0.220 | 0.018 | 0.015 | 0.110 | 0.060 | 0.020 | 0.005 | 0.170 | 0.002 | 0.000 | 0.011 | 0.382 | SATISFACTORY |
| DEV | 75754 | 021 | CI-06 - 511 2008-1E201-0000375-021 | ASTM A105 | 0.190 | 0.160 | 0.023 | 0.009 | 0.070 | 0.050 | 0.010 | 0.010 | 0.170 | 0.002 | 0.001 | 0.006 | 0.373 | SATISFACTORY |
| N59 | 77912 | 011 | CI-06 - 562 2006-1E201-0000403-011 | ASTM A105 | 0.190 | 0.160 | 0.023 | 0.009 | 0.070 | 0.050 | 0.010 | 0.010 | 0.170 | 0.002 | 0.001 | 0.005 | 0.373 | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | BEND TEST | FLATTENING TEST | IMPACT TEST - JOULES | | | SHAPE | HEAT TREATMENT | Our Ref. |
|-----------|--------|------|---------------|-------------|------------------|------------|-------------------|-----------|-----------------|--------------------------|--------------------------|-------------------------|-------|----------------|----------|
| | | | | | | | | | | 10mm ² 2-2.5% | 10mm ² 5-5.5% | 10mm ² >=10% | | | |
| D5 | AQ2073 | 032 | 122.65 50.00 | 371.0 | 595.0 | 30.0 | 57.0 | 154 - 156 | 0.0 | 0.0 | 95 | 100 | 100 | 1 | 0.0 |
| C15 | AR5064 | 034 | 122.65 50.00 | 396.0 | 621.0 | 32.0 | 58.0 | 162 - 170 | 0.0 | 0.0 | 100 | 94 | 100 | 1 | 0.0 |
| C15 | AR5064 | 035 | 122.65 50.00 | 396.0 | 621.0 | 32.0 | 58.0 | 162 - 170 | 0.0 | 0.0 | 100 | 94 | 100 | 1 | 0.0 |
| C15 | AR5064 | 037 | 122.65 50.00 | 396.0 | 621.0 | 32.0 | 58.0 | 162 - 170 | 0.0 | 0.0 | 100 | 94 | 100 | 1 | 0.0 |
| DEV | 75754 | 039 | 122.65 50.00 | 308.0 | 536.0 | 31.0 | 56.0 | 160 - 164 | 0.0 | 0.0 | 90 | 97 | 100 | 1 | 0.0 |
| DEV | 75754 | 040 | 122.65 50.00 | 308.0 | 536.0 | 31.0 | 56.0 | 160 - 164 | 0.0 | 0.0 | 90 | 97 | 100 | 1 | 0.0 |
| N59 | 77912 | 021 | 122.65 50.00 | 361.0 | 552.0 | 32.0 | 56.0 | 160 - 168 | 0.0 | 0.0 | 100 | 109 | 100 | 1 | 0.0 |
| N59 | 77912 | 011 | 122.65 50.00 | 361.0 | 552.0 | 32.0 | 56.0 | 160 - 168 | 0.0 | 0.0 | 100 | 109 | 100 | 1 | 0.0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | FURNACE | STEEL MILL |
|-----------|--------|------|---------------------------|----------------------|------------------|-------------|
| | | | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | | |
| D5 | AQ2073 | 032 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RODACCIAI |
| C15 | AR5064 | 034 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RODACCIAI |
| C15 | AR5064 | 035 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RODACCIAI |
| C15 | AR5064 | 037 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RODACCIAI |
| DEV | 75754 | 039 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RODACCIAI |
| DEV | 75754 | 040 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RODACCIAI |
| N59 | 77912 | 021 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI |
| N59 | 77912 | 011 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI |

NOTES ASME B16.1105 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B18.2.2
NACE MR0175 ISO 151561 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

INSPECTION AUTHORITY

QUALITY CONTROL DEPARTMENT

MANUFACTURER'S SYMBOL

STUDBOLTS

FITTINGS

IML

BORIS FIZZOTTI

PC COMPRESSION
 DATE RECEIVED JUN 2 4 2008
 P.O. # 510428 E832806
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : N59
TRANS AM PIPING PRODUCTS - REV'D BY: *[Signature]*
Shipment/Seg #: 3 6 - 1690 10



INDUSTRIA MECCANICA LICURE SPA

16030 CASARZA LICURE - Genova - Italy - P.zza Marco Cappelli, 4 - Tel. 0186-467661 - Fax 0186-467661 - Material Test Department This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 3 - 5

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
23061 Endavour Drive S.E.
Calgary, Alberta T2Z 2G6
CA

Certificate Nr. 17081
Invoice Nr. 13
Date: 03.01.2007
Del. Note Nr. 10
Date: 03.01.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | QTY | DESCRIPTION | DM. ACC. TO | VISUAL & DIMENS. |
|-----------|------|------|-------------|------------------------|-----|--|-------------|------------------|
| 81848 | 066 | 066 | CI-06 - 635 | 2006-2E201-0000797-066 | | P. NIPPLE TBE NPT S-XXS 2" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 81848 | 063 | 063 | CI-06 - 741 | 2006-2E201-0000954-063 | | P. NIPPLE TBE NPT S-XXS 2" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 347932 | 050 | 050 | CI-06 - 463 | 2006-2E201-0000574-050 | | P. NIPPLE TBE NPT S-160 3/4" L51mm(2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| E62 | 001 | 001 | CI-06 - 799 | 2006-2E201-0001041-001 | | FITTING 90 ELB. THRD NPT 2/3M 1/8" A105N | SEE NOTE | SATISFACTORY |
| A89 | 002 | 002 | CI-06 - 799 | 2006-2E201-0001041-002 | | FITTING 90 ELB. THRD NPT 2/3M 1/4" A105N | SEE NOTE | SATISFACTORY |
| GZ1 | 003 | 003 | CI-06 - 799 | 2006-2E201-0001041-003 | | FITTING 90 ELB. THRD NPT 2M 3/8" A105N | SEE NOTE | SATISFACTORY |
| A87 | 004 | 004 | CI-06 - 799 | 2006-2E201-0001041-004 | | FITTING 90 ELB. THRD NPT 2M 1/2" A105N | SEE NOTE | SATISFACTORY |
| A64 | 005 | 005 | CI-06 - 799 | 2006-2E201-0001041-005 | | FITTING 90 ELB. THRD NPT 2M 3/4" A105N | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | SI% | Mn% | P% | S% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | As% | C.E.% | OTHER ELEMENTS |
|-----------|------|------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| 81848 | 066 | 066 | ASTM A106/B API 5LB | 0,160 | 0,230 | 0,760 | 0,005 | 0,013 | 0,140 | 0,080 | 0,050 | 0,000 | 0,230 | 0,080 | 0,000 | 0,000 | 0,004 | 0,361 | |
| 81848 | 063 | 063 | ASTM A106/B API 5LB | 0,160 | 0,230 | 0,760 | 0,005 | 0,013 | 0,140 | 0,080 | 0,050 | 0,000 | 0,230 | 0,080 | 0,000 | 0,000 | 0,004 | 0,361 | |
| 347932 | 050 | 050 | ASTM A106/B API 5LB | 0,130 | 0,180 | 0,980 | 0,004 | 0,014 | 0,090 | 0,050 | 0,010 | 0,000 | 0,060 | 0,000 | 0,000 | 0,000 | 0,000 | 0,321 | |
| E62 | 001 | 001 | ASTM A105 | 0,200 | 0,210 | 0,930 | 0,009 | 0,013 | 0,070 | 0,040 | 0,010 | 0,018 | 0,140 | 0,017 | 0,000 | 0,000 | 0,021 | 0,386 | |
| A89 | 002 | 002 | ASTM A105 | 0,185 | 0,210 | 0,860 | 0,017 | 0,014 | 0,110 | 0,060 | 0,010 | 0,005 | 0,180 | 0,001 | 0,000 | 0,012 | 0,369 | | |
| GZ1 | 003 | 003 | ASTM A105 | 0,190 | 0,220 | 1,000 | 0,008 | 0,015 | 0,120 | 0,050 | 0,010 | 0,019 | 0,160 | 0,020 | 0,000 | 0,023 | 0,400 | | |
| A87 | 004 | 004 | ASTM A105 | 0,180 | 0,290 | 0,850 | 0,017 | 0,010 | 0,090 | 0,060 | 0,010 | 0,007 | 0,170 | 0,001 | 0,002 | 0,032 | 0,359 | | |
| A64 | 005 | 005 | ASTM A105 | 0,165 | 0,200 | 0,900 | 0,021 | 0,013 | 0,100 | 0,060 | 0,010 | 0,005 | 0,190 | 0,002 | 0,001 | 0,004 | 0,374 | | |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | LENGTH mm | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HR | BEND TEST | FLATTENING TEST | IMPACT TEST | TYPE | SHAKE | YIELD POINT | | |
|-----------|------|------|---------------|-----------|-------------|------------------|------------|-------------------|-------------|-----------|-----------------|-------------|------|-------|-------------|-----|-----|
| 81848 | 066 | 066 | 0,00 | 0,00 | 336,0 | 481,0 | 42,0 | 0,0 | 165 - 170 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | |
| 81848 | 063 | 063 | 0,00 | 0,00 | 336,0 | 491,0 | 42,0 | 0,0 | 165 - 170 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | |
| 347932 | 050 | 050 | 0,00 | 0,00 | 335,0 | 453,0 | 48,0 | 0,0 | 146 - 160 | 0,0 | 0,0 | 0,0 | 0 | 0 | 0,0 | | |
| E62 | 001 | 001 | 122,65 | 50,00 | 318,0 | 524,0 | 32,0 | 57,0 | 162 - 166 | 0,0 | 0,0 | 20 | KV | 96 | 111 | 0,0 | |
| A89 | 002 | 002 | 122,65 | 50,00 | 309,0 | 563,0 | 31,0 | 54,0 | 160 - 164 | 0,0 | 0,0 | 20 | KV | 104 | 100 | 96 | 0,0 |
| GZ1 | 003 | 003 | 122,65 | 50,00 | 350,0 | 525,0 | 30,0 | 53,0 | 160 - 166 | 0,0 | 0,0 | 20 | KV | 106 | 100 | 101 | 0,0 |
| A87 | 004 | 004 | 122,65 | 50,00 | 319,0 | 578,0 | 31,0 | 54,0 | 162 - 168 | 0,0 | 0,0 | 20 | KV | 98 | 102 | 101 | 0,0 |
| A64 | 005 | 005 | 122,65 | 50,00 | 336,0 | 548,0 | 31,0 | 54,0 | 160 - 166 | 0,0 | 0,0 | 20 | KV | 94 | 92 | 90 | 0,0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | FURNACE | STEEL MILL | Clear Rel. |
|-----------|------|------|-----------------------------------|------------------|-------------|------------|
| 81848 | 066 | 066 | ASME SA ASTM A106/A160M-04b Gr. B | ELECTRIC FURNACE | T.REUNIDOS | 063054 |
| 81848 | 063 | 063 | ASME SA ASTM A106/A160M-04b Gr. B | ELECTRIC FURNACE | T.REUNIDOS | 063054 |
| 347932 | 050 | 050 | ASME SA ASTM A106/A160M-04b Gr. B | ELECTRIC FURNACE | MANNESMANN | 063016 |
| E62 | 001 | 001 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | |
| A89 | 002 | 002 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | |
| GZ1 | 003 | 003 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | |
| A87 | 004 | 004 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | |
| A64 | 005 | 005 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | |

NOTES: ASME B16.11/05 - ANSI B31.1/B31.3 - IME STD. - ANSI B1.1/B18.2.2 - INSPECTION AUTHORITY
 NACE MR0175 ISO 15166/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 50428 E83286
 SIGNATURE: M
 APPROVED BY Q.C. INSPECTOR

BORIS FIZZOTTI
 FITTINGS
 IML
 STUDBOLTS

HEAT NUMBER : A64
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
 Shipment/Seq #: S 7 - 1012
 3/4" CL 2000 FS SCRD 90 ELL A105N

HEAT NUMBER : 162829 TRANS AM PIPING PRODUCTS - REV'D BY: *[Signature]* 3/4 X 4 XH SMLS STEEL NIPPLES A106 THE

SHIPMENT/SEQ #: 5 7 - 1271 83



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY IRINA

TRANS AM PIPING PRODUCTS LTD.
233081 Endeavor Drive S.E.
Calgary, Alberta T2P 2G6
CA
Certificate Nr 17486
Invoice Nr 400
Del. Note Nr 765
Dated 25.05.2007
Dated 27.04.2007
Dated 27.04.2007

1628 GASARZA LIGURE - Genova - Italy - P.zza Marco Cappella, 4 - Tel. 0185.467661 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 9 - 14

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | | | | | | | | | | | | | OTHER ELEMENTS | |
|-------------------------------|------|------|------------------------------------|------------------------|------------------|---|----------------------------|-------------|-----------|----------|----------|-----------------|----------|----------|--------------|--------------|--------------|--------------|-------------|-----------------------|----------|
| | | | | | | | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | SEE NOTE | | SEE NOTE |
| EFW | G29 | 017 | CI-07 - 297 | 2007-2E201-4000339-017 | | FITTING COUPLING THRD NPT 3M 1" A105N | 0.015 | 0.050 | 0.010 | 0.000 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.391 | SATISFACTORY | | | |
| EFW | G29 | 042 | CI-07 - 297 | 2007-2E201-4000339-042 | | FITTING ROUND H.PLUG THRD NPT 1" A105N | 0.034 | 0.150 | 0.070 | 0.000 | 0.250 | 0.002 | 0.000 | 0.000 | 0.000 | 0.382 | SATISFACTORY | | | | |
| EFW | G29 | 039 | CI-07 - 297 | 2007-2E201-4000339-039 | | FITTING HEX.H.PLUG THRD NPT 1.1/2" A105N | 0.010 | 0.090 | 0.050 | 0.018 | 0.130 | 0.016 | 0.000 | 0.000 | 0.024 | 0.375 | SATISFACTORY | | | | |
| EGM | G29 | 064 | CI-07 - 297 | 2007-2E201-4000339-064 | | FITTING 90 ELB. SW 3M 2" A350LF2 | 0.010 | 0.090 | 0.060 | 0.005 | 0.220 | 0.001 | 0.000 | 0.010 | 0.381 | SATISFACTORY | | | | | |
| EGM | G29 | 070 | CI-07 - 297 | 2007-2E201-4000339-070 | | FITTING COUPLING SW 3M 1.1/2" A350LF2 | 0.020 | 0.130 | 0.060 | 0.005 | 0.250 | 0.001 | 0.000 | 0.005 | 0.371 | SATISFACTORY | | | | | |
| EGM | G29 | 231 | CI-06 - 798 | 2006-2E201-4001041-231 | | FITTING HEX.H.PLUG THRD NPT 2" A105N | 0.008 | 0.080 | 0.050 | 0.021 | 0.190 | 0.022 | 0.001 | 0.000 | 0.025 | 0.392 | SATISFACTORY | | | | |
| EGM | G29 | 027 | CI-06 - 483 | 2006-2E201-4000574-027 | | P NIPPLE TBE NPT S-80 1" L150mm(6") A106B/API 5LB | 0.009 | 0.080 | 0.070 | 0.000 | 0.240 | 0.005 | 0.000 | 0.000 | 0.266 | SATISFACTORY | | | | | |
| EGM | G29 | 020 | CI-06 - 635 | 2006-2E201-4000797-020 | | P NIPPLE TBE NPT S-80 3/4" L100mm(4") A106B/API 5LB | 0.007 | 0.100 | 0.100 | 0.000 | 0.140 | 0.002 | 0.000 | 0.000 | 0.311 | SATISFACTORY | | | | | |
| MATERIAL IN ACCORDANCE TO | | | | | | | IMPACT TEST - JOULE ENDS | | | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HV | BEND TEST | | | FLATTENING TEST | | | TYPE 1a (mm) | | | SHAPE | YIELD POINT | | |
| | | | | | | | | | Min2 | Max2 | %25 | Min2 | Max2 | %25 | 1 | 2 | 3 | | | 1 | 2 |
| EFW | G29 | 017 | 122,65 | 50,00 | 327,0 | 31,0 | 56,0 | 158 - 160 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 94 | 0,0 | | |
| EFW | G29 | 042 | 122,65 | 50,00 | 316,0 | 31,0 | 54,0 | 153 - 156 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 96 | 0,0 | | |
| EFW | G29 | 039 | 122,65 | 50,00 | 316,0 | 32,8 | 57,1 | 151 - 153 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 97 | 0,0 | | |
| EGM | G29 | 064 | 122,65 | 50,00 | 378,0 | 34,0 | 55,0 | 160 - 164 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 97 | 0,0 | | |
| EGM | G29 | 070 | 122,65 | 50,00 | 309,0 | 31,0 | 56,0 | 160 - 166 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 61 | 0,0 | | |
| EGM | G29 | 231 | 122,65 | 50,00 | 323,0 | 32,1 | 56,3 | 152 - 156 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 57 | 0,0 | | |
| EGM | G29 | 027 | 0,00 | 0,00 | 309,0 | 52,0 | 0,0 | 154 - 162 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 101 | 0,0 | | |
| EGM | G29 | 020 | 0,00 | 0,00 | 306,0 | 54,0 | 0,0 | 162 - 168 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | | |
| MATERIAL IN ACCORDANCE TO | | | | | | | HEAT TREATMENT | | | | | | | | | | | | | | |
| EFW | G29 | 017 | ASME SA ASTM A105-05 | | | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | | | | | | | | | | | | | 011133 | |
| EFW | G29 | 042 | ASME SA ASTM A105-05 | | | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | | | | | | | | | | | | | 970000 | |
| EFW | G29 | 039 | ASME SA ASTM A105-05 | | | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | | | | | | | | | | | | | 072036 | |
| EGM | G29 | 064 | ASME SA ASTM A350-048 Gr. LF2-cl.1 | | | Normalized at 900°C / Air Cool | ELECTRIC FURNACE | | | | | | | | | | | | | 091275 | |
| EGM | G29 | 070 | ASME SA ASTM A350-048 Gr. LF2 cl.1 | | | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | | | | | | | | | | | | | 051 423 | |
| EGM | G29 | 231 | ASME SA ASTM A106A106M-06 Gr. B | | | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | | | | | | | | | | | | | 072035 | |
| EGM | G29 | 027 | ASME SA ASTM A106A106M-06 Gr. B | | | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | | | | | | | | | | | | | 063148 | |
| EGM | G29 | 020 | ASME SA ASTM A106A106M-06 Gr. B | | | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | | | | | | | | | | | | | 063148 | |
| INSPECTION AUTHORITY | | | | | | | QUALITY CONTROL DEPARTMENT | | | | | | | | | | | | | MANUFACTURER'S SYMBOL | |
| BORIS FIZZOTTI | | | | | | | FITTINGS | | | | | | | | | | | | | STUBBOLTS | |
| PC COMPRESSION | | | | | | | DATE RECEIVED JUN 24 2008 | | | | | | | | | | | | | P.O. # 510428 E832806 | |
| SIGNATURE: <i>[Signature]</i> | | | | | | | APPROVED BY Q.C. INSPECTOR | | | | | | | | | | | | | | |

NOTES ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B18.2.2 - NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

ITEM NUMBER : 162829

TRANS AM PIPING PRODUCTS - REV'D BY: 3/4 X 2 KH SMLS STEEL NIPPLES A106

SHIPMENT/SEQ #: 9 7 - 1520 95

TRANS AM PIPING PRODUCTS - REV'D BY: 3/4 X 2 KH SMLS STEEL NIPPLES A106



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappelletti, 4 - Tel. 010.5.467961 - Fax 010.5.468610 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 5 - 21

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001:2000 CERTIFIED BY IRMA

TRANS AM PIPING PRODUCTS LTD.

233961 Endesvor Drive S E Calgary, Alberta T2P 2C6 CA

Certificate Nr 16087
Invoice Nr 1135
Del. Note Nr 1745
Dated 24.10.2007
Dated 24.10.2007
Dated 24.10.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|-------------|------------------------|------------------------|------|--|--------------|------------------|
| 162829 | 007 | C1-07 - 450 | 2007-2E201-0000672-007 | | | P. NIPPLE TBE NPT S-80 3/4" L51mm(2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 27090 | 017 | C1-07 - 450 | 2007-2E201-0000672-017 | | | P. NIPPLE TBE NPT S-XXS 1.1/2" L75mm(3") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 27090 | 018 | C1-07 - 450 | 2007-2E201-0000872-018 | | | P. NIPPLE TBE NPT S-XXS 1.1/2" L90mm(3.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| A46 | 78483 | 057 | C1-07 - 530 | 2007-2E201-0000920-057 | | FITTING 90 ELB. SW 3M 1" A105N | SEE NOTE | SATISFACTORY |
| 26A | 538697 | 026 | C1-06 - 635 | 2006-2E201-0000797-026 | | P. NIPPLE TBE NPT S-80 1" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 74794 | 056 | C1-07 - 530 | 2007-2E201-0000920-056 | | | FITTING 90 ELB. SW 3M 3/4" A105N | SEE NOTE | SATISFACTORY |
| FTE | 30449 | 033 | C1-07 - 380 | 2007-2E201-0000641-033 | | FITTING RED.TEE THRD NPT 3M 3"x1" A105N | SEE NOTE | SATISFACTORY |
| 32380 | 027 | C1-07 - 444 | 2007-2E201-0000665-027 | | | FITTING CAP THRD NPT 3M 3" A105N | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | | YIELD POINT N/mm ² >= 0.2% | TENSILE STRENGTH N/mm ² >= 0.2% | ELONGATION % >= 5% | REDUCTION OF AREA % >= 5% | BRINELL TEST | | PLATINUM TEST | | IMPACT TEST - JOULE ENERGY | | | SHAPE 1" O D | YIELD POINT N/mm ² >= 0.2% |
|-----------|--------|------|-----------------------|-----------|--|---|-----------------------|------------------------------|--------------|-----------|---------------|-----|----------------------------|-----|-----|-----------------|--|
| | | | RECT. mm ² | LEIGHT mm | | | | | MPa | MPa | MPa | MPa | MPa | MPa | MPa | | |
| | 162829 | 007 | ASTM A106/B API 5LB | 0.135 | 306.0 | 488.0 | 54.0 | 0.0 | 0.0 | 162 - 165 | 0.0 | 0.0 | 0 | 0 | 0 | 0.0 | |
| | 27090 | 017 | ASTM A106/B API 5LB | 0.160 | 0.00 | 495.0 | 34.0 | 0.0 | 0.0 | 147 - 156 | 0.0 | 0.0 | 0 | 0 | 0 | 0.0 | |
| | 27090 | 018 | ASTM A106/B API 5LB | 0.160 | 0.00 | 495.0 | 34.0 | 0.0 | 0.0 | 147 - 156 | 0.0 | 0.0 | 0 | 0 | 0 | 0.0 | |
| A46 | 78483 | 057 | ASTM A105 | 0.190 | 50.00 | 564.0 | 31.0 | 54.0 | 54.0 | 162 - 188 | 0.0 | 0.0 | 20 | 104 | 105 | 0.0 | |
| 26A | 538697 | 026 | ASTM A106/B API 5LB | 0.120 | 0.00 | 450.0 | 52.5 | 0.0 | 0.0 | 165 - 187 | 0.0 | 0.0 | 0 | 0 | 0 | 0.0 | |
| 74794 | 056 | 056 | ASTM A105 | 0.200 | 50.00 | 561.0 | 33.0 | 56.0 | 56.0 | 160 - 186 | 0.0 | 0.0 | 20 | 108 | 105 | 0.0 | |
| FTE | 30449 | 033 | ASTM A105 | 0.180 | 122.65 | 535.0 | 30.0 | 61.0 | 61.0 | 163 - 185 | 0.0 | 0.0 | 20 | 100 | 96 | 0.0 | |
| 32380 | 027 | 027 | ASTM A105 | 0.190 | 122.65 | 505.0 | 30.5 | 58.0 | 58.0 | 163 - 165 | 0.0 | 0.0 | 20 | 102 | 100 | 0.0 | |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | HEAT TREATMENT | | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL |
|-----------|--------|------|----------------------------------|----------------------------------|--------------------------------------|--------------------------------------|-----------------------|-----------------------|
| | | | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | |
| | 162829 | 007 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | 073039 |
| | 27090 | 017 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | 073077 |
| | 27090 | 018 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | 073077 |
| A46 | 78483 | 057 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | 081095 |
| 26A | 538697 | 026 | ASME SA ASTM A106/A106M-06 Gr. B | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | 073039 |
| 74794 | 056 | 056 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | 071086 |
| FTE | 30449 | 033 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | 072061 |
| 32380 | 027 | 027 | ASME SA ASTM A105-05 | ASME SA ASTM A105-05 | Normalized at 880°C-920°C / Air Cool | Normalized at 880°C-920°C / Air Cool | | N10327 |

NOTES ASME B16.11/05 - ANSI B31.1/BS1.3 - IML STD - ANSI B1.1-18.2.2 - INSPECTION AUTHORITY

NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS COMPRESSION

SPECIFICATIONS AND P.O. REQUIREMENTS

DATE RECEIVED JUN 24 2008

P.O.# 510428 E832806

SIGNATURE: *[Signature]*

APPROVED BY Q.C. INSPECTOR

BORIS FIZZOTTI

FITTINGS IML STUDBOLTS

HEAT NUMBER : 2717
 TRANS AM PIPING PRODUCTS - REV'D BY: *AB*
 Shipment/Seq #: S 8 - 1625 41

3/4" FS HEX HEAD PLUGS A105N



柏緯鐵工股份有限公司

高雄縣仁武鄉高林村仁心路 303 號

BOTH-WELL STEEL FITTINGS CO., LTD.

NO.303, JEN-HSIN ROAD JEN-WU HSIANG
 KAOHSIUNG HSIEN, TAIWAN R.O.C.(81460)

TEL: (07) 371-0497, 371-1536, 372-0260 FAX: (886-7) 371-3864, 371-3882

WEB SITE: <http://www.bothwell.com.tw> E-MAIL: bothwell@www.bothwell.com.tw or box@mail.bothwell.com.tw

An ISO-9001 Registered Manufacturer



MILL TEST & INSPECTION CERTIFICATE

ACCORDING TO EN10204/DIN50049/3.1.B

CUSTOMER: SEYBOLD INTERNATIONAL CORP.

INVOICE NO: BW079609107

ORIGIN: TAIWAN

CERT NO: 73119

ORDER NO: 7196(CI-07-531)

L/C NO:

DATE: 12/19/07

PAGE: 7

| ITEM | RAW MATERIAL HEAT NO. | BOTH WELL HT. CD. | DESCRIPTION | QUANTITY | SPECIFICATION: ASTM A105N - 03 ASME SA105N - A06 |
|------|-----------------------|-------------------|-------------------------------|----------|--|
| 034 | 395420 | 2760 | FULL CPLG 2" 6000# NPT | | DIMENSION: ASME B16.11 - 2005 SURFACE: BY VISUAL...GOOD |
| 035 | 609844 | 2624 | FULL CPLG 3" 6000# NPT | | |
| 036 | 392100 | 2669 | HALF CPLG 3/4" 6000# NPT | | |
| 037 | 390688 | 2631 | 90D STREET ELBOW 1" 6000# NPT | | |
| 038 | 394130 | 2717 | HEX PLUG 3/4" NPT | | |
| 038 | 395811 | 2771 | HEX PLUG 3/4" NPT | | |
| 039 | 392982 | 2702 | ROUND PLUG 1" NPT | | |

| ITEM | CHEMICAL COMPOSITION (%) | | | | | | | | | | | |
|------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| | C | Si | Mn | P | S | Cu | Cr | Ni | Mo | V | Cb(Nb) | CE |
| Min | - | 0.100 | 0.600 | - | - | - | - | - | - | - | - | - |
| Max | 0.350 | 0.350 | 1.050 | 0.035 | 0.040 | 0.400 | 0.300 | 0.400 | 0.120 | 0.080 | - | 0.430 |
| 034 | 0.210 | 0.200 | 0.840 | 0.015 | 0.015 | 0.170 | 0.070 | 0.050 | 0.010 | 0.002 | 0.001 | 0.381 |
| 035 | 0.190 | 0.250 | 1.030 | 0.015 | 0.007 | 0.040 | 0.050 | 0.020 | 0.000 | 0.000 | 0.000 | 0.376 |
| 036 | 0.210 | 0.200 | 0.860 | 0.015 | 0.016 | 0.150 | 0.050 | 0.040 | 0.010 | 0.003 | 0.002 | 0.379 |
| 037 | 0.230 | 0.200 | 0.850 | 0.017 | 0.015 | 0.160 | 0.080 | 0.060 | 0.020 | 0.003 | 0.002 | 0.407 |
| 038 | 0.210 | 0.210 | 0.860 | 0.017 | 0.013 | 0.160 | 0.060 | 0.050 | 0.010 | 0.002 | 0.001 | 0.382 |
| 038 | 0.200 | 0.180 | 0.830 | 0.017 | 0.011 | 0.150 | 0.080 | 0.050 | 0.010 | 0.002 | 0.001 | 0.370 |
| 039 | 0.200 | 0.190 | 0.830 | 0.021 | 0.012 | 0.130 | 0.100 | 0.050 | 0.010 | 0.002 | 0.001 | 0.373 |

| ITEM | MECHANICAL TEST | | | | | Remark: NORMALIZED : 350°C CONFORMS TO NACE MR0175 & 0103 STEEL MAKING PROCESS : ELECTRIC FURNACE |
|------|------------------------|----------------------|-----------------|------------|---------------|--|
| | Tensile Strength (KSI) | Yield Strength (KSI) | Elen-Gation (%) | R of A (%) | Hardness (HB) | |
| Min | 70.0 | 36.0 | 22.0 | 30.0 | - | |
| Max | - | - | - | - | 187 | |
| 034 | 77.0 | 50.5 | 32.8 | 65.4 | 154 | |
| 035 | 76.5 | 43.7 | 32.0 | 63.2 | 140 | |
| 036 | 75.9 | 48.9 | 32.8 | 64.9 | 141 | |
| 037 | 78.1 | 57.2 | 31.6 | 62.3 | 142 | |
| 038 | 77.2 | 58.3 | 31.4 | 64.1 | 142 | |
| 038 | 79.8 | 55.9 | 31.4 | 63.3 | 145 | |
| 039 | 75.7 | 56.5 | 31.4 | 65.1 | 142 | |

WE CERTIFY THE ABOVE MENTIONED FITTINGS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS SHOWN

S. Chen
 Q.C. MANAGER
 SHENG CHANG LEE
 PC COMPRESSION RECEIVED
 INSPECTOR
 CHUN CHEN HUANG

P.O. # 510478 F83206
 SIGNATURE: *ll*
 APPROVED BY Q.C. INSPECTOR

BW-D0839 REV:0



INDUSTRIA MECCANICA LICURE SPA

16930 CASARZA LICURE - Genova - Italy - P.zza Marco Capponi, 4 - Tel. 010.55.467661 - Fax 010.55.467661 - For 0105.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity, according to DIN EN 10204 Page 7 - 10

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
233061 Enclave Drive S.E.
Calgary, Alberta T2P 2S6
CA

Certificate Nr 17092
Invoice Nr 7
Dated 03.01.2007
Def. Note Nr 7
Dated 03.01.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|-------|------|------------------------------------|---------------|------|---|--------------|------------------|
| HG7 | 79023 | 121 | CI-06 - 718 2006-2E201-0000916-121 | | | FITTING 45 ELB. SW 6M 1" A105N | SEE NOTE | SATISFACTORY |
| ELO | 71415 | 124 | CI-06 - 718 2006-2E201-0000916-124 | | | FITTING RED.TEE SW 6M 1 1/2" X SOLID BRANCH A105N | SEE NOTE | SATISFACTORY |
| | 31709 | 049 | CI-06 - 718 2006-2E201-0000916-128 | | | FITTING CROSS THRD NPT 3M 1 1/4" A105N | SEE NOTE | SATISFACTORY |
| | 62885 | 022 | CI-06 - 463 2006-2E201-0000574-022 | | | P. NIPPLE TBE NPT S-80 T 1.75mm(3") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| A89 | 71147 | 018 | CI-06 - 510 2006-2E201-0000653-018 | | | FITTING 90 ELB. THRD NPT 2 3/4" A105N | SEE NOTE | SATISFACTORY |
| A87 | 22469 | 004 | CI-06 - 718 2006-2E201-0000916-004 | | | FITTING 90 ELB. THRD NPT 2M 1 1/2" A105N | SEE NOTE | SATISFACTORY |
| A89 | 71147 | 025 | CI-06 - 718 2006-2E201-0000916-025 | | | FITTING 90 ELB. THRD NPT 2 3/4" A105N | SEE NOTE | SATISFACTORY |
| EDF | 76150 | 097 | CI-06 - 718 2006-2E201-0000916-097 | | | FITTING HEX BUSHING MF THRD NPT 2" X 1 1/2" A105N | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | MECHANICAL TESTS | | | | | | | | | | SHAPE | YIELD POINT |
|-----------|-------|------|-----------|------------------|------------------|------------|-------------------|-----------|---------|------------|-------------|----------|-----|-------|-------------|
| | | | | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS | BRINELL | FLATTENING | IMPACT TEST | SOLELEMS | 1 | | |
| HG7 | 79023 | 121 | ASTM A105 | 331.0 | 563.0 | 34.0 | 57.0 | 162 - 170 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| ELO | 71415 | 124 | ASTM A105 | 324.0 | 522.0 | 32.0 | 60.0 | 158 - 183 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| | 31709 | 049 | ASTM A105 | 350.0 | 535.0 | 32.0 | 59.0 | 163 - 185 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| | 62885 | 022 | 0.00 | 498.0 | 44.0 | 0.0 | 156 - 162 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| A89 | 71147 | 018 | ASTM A105 | 309.0 | 563.0 | 31.0 | 54.0 | 160 - 164 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |
| A87 | 22469 | 004 | ASTM A105 | 318.0 | 578.0 | 31.0 | 54.0 | 162 - 168 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |
| A89 | 71147 | 025 | ASTM A105 | 309.0 | 563.0 | 31.0 | 54.0 | 160 - 164 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |
| EDF | 76150 | 097 | ASTM A105 | 306.0 | 564.0 | 34.0 | 56.0 | 160 - 162 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | | | | | | | | | |
|-----------|-------|------|---------------------------|------|----------------------|---------|------|---------|---------|------|---------|---------|------|---------|
| | | | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |
| HG7 | 79023 | 121 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |
| ELO | 71415 | 124 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |
| | 31709 | 049 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |
| | 62885 | 022 | ASME SA | ASTM | A106/A160M-04b Gr. B | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |
| A89 | 71147 | 018 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |
| A87 | 22469 | 004 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |
| A89 | 71147 | 025 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |
| EDF | 76150 | 097 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 | ASME SA | ASTM | A105-05 |

| HEAT CODE | HEAT | ITEM | HEAT TREATMENT | | | | | | | | | |
|-----------|-------|------|-------------------------------------|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL |
| HG7 | 79023 | 121 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 061073 | ELECTRIC FURNACE | RIVA ACCIAI | 062089 | ELECTRIC FURNACE | RIVA ACCIAI | 062091 |
| ELO | 71415 | 124 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 062089 | ELECTRIC FURNACE | RIVA ACCIAI | 062091 | ELECTRIC FURNACE | POBREZOVA | 063141 |
| | 31709 | 049 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 062089 | ELECTRIC FURNACE | RIVA ACCIAI | 062091 | ELECTRIC FURNACE | POBREZOVA | 063141 |
| | 62885 | 022 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 062089 | ELECTRIC FURNACE | RIVA ACCIAI | 062091 | ELECTRIC FURNACE | POBREZOVA | 063141 |
| A89 | 71147 | 018 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 062089 | ELECTRIC FURNACE | RIVA ACCIAI | 062091 | ELECTRIC FURNACE | POBREZOVA | 063141 |
| A87 | 22469 | 004 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 062089 | ELECTRIC FURNACE | RIVA ACCIAI | 062091 | ELECTRIC FURNACE | POBREZOVA | 063141 |
| A89 | 71147 | 025 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 062089 | ELECTRIC FURNACE | RIVA ACCIAI | 062091 | ELECTRIC FURNACE | POBREZOVA | 063141 |
| EDF | 76150 | 097 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 062089 | ELECTRIC FURNACE | RIVA ACCIAI | 062091 | ELECTRIC FURNACE | POBREZOVA | 063141 |

NOTES ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B16.2.2 -
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR



BORIS FIZZOTTI
 FITTINGS IML STUBBOLTS

HEAT NUMBER : A87
 TRANS AM PIPING PRODUCTS - REV'D BY : *[Signature]*
 1/2" CL 2000 FS SCRD 90 ELL A105N
 Shipment/Seq # : 5 7 - 1011 2

HEAT NUMBER : 252716
 TRANS AM PIPING PRODUCTS - REV'D BY:
 P.O. # /Seq #: L-08 - 10164 3

1/2X8 XH SMLS STEEL NIPPLES A106
 TBE



| | | |
|--|---|--|
| V&M DEUTSCHLAND GmbH (A01) Werk Zettlitz Glaußitzerstrasse 1 D-01619 Zettlitz  |  VALLOUREC & MANNESMANN TUBES Vallourec Group | MATERIAL TEST REPORT (A02) (3.1 NACH EN 10204:2004) PARAGRAPH 16.50 No.: 50072207 (A03) Page: 1 5 Date: 06.05.2007 |
|--|---|--|

| | |
|---|---|
| (A01) V&M DEUTSCHLAND GmbH | (A01) V&M-Order-No. 93848192 |
| (A01.1) Customer CCTF DIVISION OF EMCO LTD. 5407-53RD AVENUE | (A01.2) Suborder TN3016 |
| (A01.2) Orderer VALLOUREC TUBES CANADA INC. / 5200 MAINWAY UNIT 1 | (A01.2) Order-No. VM1889 Date 15.04.2007 |
| (A01.3) Client's Client CCTF DIVISION OF EMCO | (A01.3) Order-No. 4890103-00 |
| (B01, B02, B04) Description of the product | HOT FINISHED SEAMLESS LINE PIPE (SOUR SERVICE # API SPEC. 5 L, PSL 1, 03.2004 # ASTM A 106 M - 08 A / ASTM A 530 M - 04 A / ASME SA 106, EDITION 2004 / ASME SA 530 M, EDITION 2004 / ASME BOILER AND PRESSURE VESSEL CODE, SECTION II, PART A, EDITION 2004, ADDENDA 2006 / CSA Z 245.1:2002 / ASME BOILER AND PRESSURE VESSEL CODE, SECTION II, PART A, EDITION 2004, ADDENDA 2006 / NACE MR 0175/ISO 15156-2:2003/COR.1:2005 / EN ISO 15156-2:2003, ANNEX A.2.1.2 / NACE STANDARD MR 0103-2005, PARAGRAPH 2.1 # CCTF SPEC. CECN-3, REV. F, 03.2007 # X 42 / GRADE B (ASTM A 106 M / ASME SA 106) / GRADE B (API 5L) / GRADE 290 (CSA Z245.1, CAT. 1) # FIXED LENGTH 20 FT # SINGLE LENGTH TOLERANCE IN IN + 4,00 / - 0,00 # RESIDUAL MAGNETISM DOES NOT EXCEED 30 GAUSS # ENDS FLARE, SQUARED TO TUBE AXIS # INSIDE WITHOUT RUST PROTECTION # OUTSIDE DRY VARNISH |

| (A13) V&M Item | (A09) Cust. Item | (B14) Item text | (B03) Dimensions | (B10) Single length |
|-------------------|---------------------|--------------------------|-------------------------------|------------------------|
| 2 | | V&M-Order-No.: 7524619 4 | NPE 1/2 IN X SCHED. 80,000 IN | |

| | |
|----------------------------|-----------------------------|
| PC COMPRESSION | |
| DATE | RECEIVED JUN 24 2008 |
| P.O. # | 510428 E832806 |
| APPROVED BY Q.C. INSPECTOR | |

| | | |
|--|---|--|
| V&M DEUTSCHLAND GmbH (A01) Werk Zeltlich Glaubitzstrasse 1 D-01619 Zeltlich  |  VALLOUREC & MANNESMANN TUBES Vallourec Group | MATERIAL TEST REPORT (A02) (3.1 NACH EN 10204:2004) PARAGRAPH 16 SO No.: 50077Z07 (A03) Page: 2 / 5 Date: 06.08.2007 |
|--|---|--|

| (A13) V&M Item | (A08) Cust. Item | (B06) Quantity | (B11) Total length ft | (B12) Weight lbs |
|-------------------|---------------------|-------------------|-----------------------------|------------------------|
| 2 | | 329 | 6.580,02 | 7.147 |

(C71)
HEAT CHEMICAL ANALYSIS

| (B07.1) Heat | (B15) Process | C % | Si % | Mn % | P % | S % | Al % | Cu % | Cr % | Ni % | Mo % |
|-----------------|------------------|--------|---------|---------|--------|--------|---------|---------|---------|---------|---------|
| min | - | - | 0.100 | 0.20 | - | - | - | - | - | - | - |
| max | - | 0.280 | 0.500 | 1.06 | 0.030 | 0.0350 | - | 0.400 | 0.400 | 0.400 | 0.150 |
| ✓ 252716 | Oxygen (BOF) | 0.180 | 0.170 | 0.74 | 0.010 | 0.0020 | 0.250 | 0.060 | 0.100 | 0.030 | 0.010 |

| (B07.1) Heat | V % | Ti % | Nb/Cb % | Co % | B % | CQ 24 % | EF 14 % | EF 02 % | | | | |
|-----------------|--------|---------|------------|---------|--------|------------|------------|------------|--|--|--|--|
| min | - | - | - | - | - | - | - | - | | | | |
| max | 0.060 | 0.0400 | 0.110 | - | 0.0010 | .40 | 1.00 | 0.15 | | | | |
| 252716 | <0.004 | 0.0030 | 0.001 | 0.0040 | 0.0001 | .35 | 0.22 | 0.01 | | | | |

| | |
|-------|---|
| CQ 24 | $CAE = C + F \times (Mn/8 + Si/24 + Cu/15 + Ni/20 + (Cr + Mo + V + Co)/8 + 58)$ |
| EF 14 | $EF = Cr + Mo + Ni + Cu + V$ |
| EF 02 | $EF = V + Ti + Nb$ |

Heats fully killed

EF=Nb+V= MAX 0.03%
EF=0.005% (HEAT 252716)

(C72)
PRODUCT CHEMICAL ANALYSIS

| | | |
|---|---|--|
| V&M DEUTSCHLAND GmbH (401) Werk Zetthin Glasbiterstrasse 1 D-01819 Zetthin  |  VALLOUREC & MANNESMANN TUBES Vallourec Group | MATERIAL TEST REPORT (402) (3.1 NACH EN 10204:2004) PARAGRAPH 16 90 No. : 50077Zn07 (403) Page: 3 / 5 Date: 08.08.2007 |
|---|---|--|

(404)
PRODUCT CHEMICAL ANALYSIS

| (407.1) Heat | (408.1) Test Piece | C % | Si % | Mn % | P % | S % | Ni % | Cu % | Cr % | Ni % | Mo % |
|-----------------|-----------------------|--------|---------|---------|--------|--------|---------|---------|---------|---------|---------|
| min | | - | 0.100 | 0.20 | - | - | - | - | - | - | - |
| max | | 0.200 | 0.500 | 1.00 | 0.030 | 0.0060 | - | 0.400 | 0.400 | 0.400 | 0.150 |
| 252716 | | 0.212 | 0.194 | 0.72 | 0.012 | 0.0020 | 0.021 | 0.006 | 0.100 | 0.068 | 0.018 |
| 252716 | | 0.201 | 0.196 | 0.72 | 0.011 | 0.0026 | 0.021 | 0.006 | 0.100 | 0.064 | 0.018 |

| (407.1) Heat | (408.1) Test Piece | V % | Ti % | NbCb % | Co % | B % | | | | | |
|-----------------|-----------------------|--------|---------|-----------|---------|--------|--|--|--|--|--|
| min | | - | - | - | - | - | | | | | |
| max | | 0.080 | 0.0400 | 0.110 | - | 0.0010 | | | | | |
| 252716 | | 0.002 | 0.0020 | 0.002 | 0.0030 | 0.0001 | | | | | |
| 252716 | | 0.002 | 0.0020 | 0.002 | 0.0030 | 0.0001 | | | | | |

CHECK ANALYSIS ON 2 TUBES PER HEAT

TENSILE TEST RESULTS

| | |
|------------------------|----------------------------|
| Type (C11.1) | FULL SECTION TEST SPECIMEN |
| Test temperature (C12) | ROOM TEMPERATURE |
| Direction (C13) | longitudinal |

| (407.1) Heat | (408.1) Test Piece | (C10) Dimension | (C11) YS | (C12) TS | (C13) Elong. | (C14.1) Ratio | | | | |
|-----------------|-----------------------|--------------------|------------------------|-----------------------|-----------------|-----------------------|--|--|--|--|
| | | mm | R _{eH} psi | R _m psi | Z' % | R/R _m - | | | | |
| min | | - | 42000 | 60000 | 21.0 | - | | | | |
| max | | - | - | 110000 | - | - | | | | |
| 252716 | 54901 | 21.40X00.80 | 49468 | 71366 | 41.1 | 0.69 | | | | |

HARDNESS HRG MAX. 22
 (WITHOUT TESTING, ONLY CERTIFICATE)

HARDNESS TEST RESULTS

| | | |
|---|---|--|
| V&M DEUTSCHLAND GmbH (461) Werk Zeithain Gleubitzstraße 1 D-01619 Zeithain  |  VALLOUREC & MANNESMANN TUBES Valloirec Group | MATERIAL TEST REPORT (402) (3.1 NACH EN 10204:2004) PARAGRAPH 16.30 No.: 60077207 (449) Page: 4 / 5 Date: 06.05.2007 |
|---|---|--|

HARDNESS TEST RESULTS

| (007.1) Heat | (008.1) Test Place | (031) Value | | | | | | | |
|-----------------|-----------------------|----------------|--|--|--|--|--|--|--|
| | | HV | | | | | | | |
| mm | | - | | | | | | | |
| mm | | 220.0 | | | | | | | |
| 252716 | S4581 | 160.0 | | | | | | | |

(004)

OTHER TESTS ON PIPE

| Test | Conditions | Test rate | Result |
|---------------------------------|--|----------------|--------------|
| HEAT TREATMENT | NOT FINISHED IN THE RANGE OF NORMALIZING TEMPERATURE | | |
| HYDROSTATIC TEST | 3000 PSI, HOLDING TIME 5 SEC. | EACH PIPE/TUBE | NO LEAKAGE |
| FLATTENING TEST | | | SATISFACTORY |
| BENDING TEST | | | SATISFACTORY |
| APPEARANCE AND DIMENSIONS (D01) | | EACH PIPE/TUBE | SATISFACTORY |
| VERIFICATION TEST | | EACH PIPE/TUBE | SATISFACTORY |
| HARDNESS TEST | | HB MAX. 200,0 | |
| HARDNESS TEST | | HRC MAX. 22 | |
| PIPE PRODUCTION METHOD | SEAMLESS, HOT-ROLLED | | |

- EDDY CURRENT TEST ACC. TO CSA Z 248.1:2002: SATISFACTORY
 - KILLED STEEL
 - HYDROSTATIC TEST: 20,7 MPA, HOLDING TIME 5 SEC. EACH PIPE/TUBE: NO LEAKAGE

(004, 005)

MARKING, IDENTIFICATION

| | |
|---|--|
|  | PAINT STENCILED ON ONE SIDE V&M VALLOUREC & MANNESMANN API-MONOGRAM 5LD (50.5 YEAR/(YYY) MONTH 21,3 X 3.75 NW 1/2 X SCHED. 80 TERMS OF DELIVERY PSL 1/A 106/SA 106/Z 45.1 X42 / B / S / 290 CAT I PROCESS OF MANUFACTURE SMLS SS HEAT-NO. TEST PRESSURE BAR TEST PRESSURE PSI 3000 NDE TUBE/PIPE LENGTH MM TUBE/PIPE LENGTH FT WA GERMANY CUSTOMER ORDER-NO. VM1866 ORDER-NO. U65R 4680103-00 |
|---|--|

DATE: 2007/07

(011)

The supplied products are in compliance with the requirements of the order

| | | |
|--|---|--|
| V&M DEUTSCHLAND GmbH (M1) Werk Zeltweg Gläubitzerstraße 1 D-01618 Zeltweg  |  VALLOUREC & MANNESMANN TUBES Vallourec Group | MATERIAL TEST REPORT (A02) (3.1 NACH EN 10204:2004) PARAGRAPH 16 SO No. : 60077Zn07 (A01) Page: 5 / 5 Date: 06.08.2007 |
|--|---|--|

(A01, Z02, Z03)

| | |
|--------------|---------------------------|
| Date | 06.08.2007 |
| Validated by | Inspection Representative |
| | RACZ <i>Racz</i> |
| ☎ | (03525) 782318 |
| ☎ | (03525) 781145 |
| ✉ | ULRIKE.RACZ@VMTUBES.DE |
| Stamp | |

This technical and certification respectively may neither be modified nor used for other products. Differences are regarded as falsification of documents and will be stopped in criminal prosecution.

HEAT NUMBER : 163226
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
 Shipment/Seq #: 57 - 1520 94



I.M.L.

INDUSTRIA MECCANICA FIGURE SPA

INSPECTION CERTIFICATE EM 10204/2004/3.1

TRANS AM PIPING PRODUCTS LTD.

Certificate No 60087
 Invoice No 1135
 Dated 24.10.2007
 Del. Note No 1745
 Dated 24.10.2007

COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

233061 Endeavor Drive S.C
 Calgary, Alberta T2P 2G6 CA

16030 CASARZA FIGURE - Genova - Italy - P.250 Marco Cappelli, 4 - Tel.0185.467661 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 11 - 21

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|------|-------------|------------------------|------|--|--------------|------------------|
| | 56074 | 013 | CI-07 - 294 | 2007-2E201-0000340-013 | | P.NIPPLE TBE NPT S-80 1" L75mm(3") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 74193 | 103 | CI-07 - 380 | 2007-2E204-0000541-103 | | FITTING COUPLING SW 6M 3/4" A106B | SEE NOTE | SATISFACTORY |
| | 163226 | 005 | CI-07 - 450 | 2007-2E201-0000672-005 | | P.NIPPLE TBE NPT S-80 1/2" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 538697 | 025 | CI-06 - 635 | 2006-2E201-0000797-025 | | P.NIPPLE TBE NPT S-80 1" L80mm(3.1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| | 75943 | 099 | CI-07 - 530 | 2007-2E201-0000820-099 | | FITTING COUPLING THRD NPT 3M 3/4" A350/LF2 | SEE NOTE | SATISFACTORY |
| | 72435 | 100 | CI-07 - 530 | 2007-2E201-0000820-100 | | FITTING CAP THRD NPT 3M 1" A350/LF2 | SEE NOTE | SATISFACTORY |
| | 75347 | 101 | CI-07 - 530 | 2007-2E201-0000820-101 | | FITTING CAP THRD NPT 3M 1 1/2" A350/LF2 | SEE NOTE | SATISFACTORY |
| GP7 | 76077 | 103 | CI-07 - 530 | 2007-2E201-0000820-103 | | FITTING 90 ELB. SW 3M 1/2" A350/LF2 | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | SPK | MIN% | MAX% | S% | P% | CR% | Ni% | Mo% | Cu% | Ti% | Nb% | Zr% | V% | Nb% | N% | As% | C.E.% | OTHER ELEMENTS | |
|-----------|--------|------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-------------|
| | | | | | | | | | | | | | | | | | | | | | | | SECT. ANAL. |
| | 56074 | 013 | ASTM A106/B API 5LB | 0.160 | 0.230 | 0.680 | 0.007 | 0.008 | 0.210 | 0.020 | 0.070 | 0.008 | 0.008 | 0.210 | 0.000 | 0.000 | 0.000 | 0.008 | 0.000 | 0.000 | 0.000 | 0.340 | |
| | 74193 | 103 | ASTM A105 | 0.180 | 0.210 | 1.040 | 0.015 | 0.008 | 0.080 | 0.050 | 0.190 | 0.022 | 0.190 | 0.021 | 0.000 | 0.000 | 0.000 | 0.022 | 0.001 | 0.000 | 0.025 | 0.392 | |
| | 163226 | 005 | ASTM A106/B API 5LB | 0.135 | 0.240 | 0.810 | 0.004 | 0.010 | 0.170 | 0.130 | 0.050 | 0.002 | 0.160 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.000 | 0.334 | |
| | 538697 | 025 | ASTM A106/B API 5LB | 0.120 | 0.220 | 0.820 | 0.006 | 0.005 | 0.100 | 0.100 | 0.030 | 0.001 | 0.130 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 | 0.000 | 0.000 | 0.298 | |
| | 75943 | 099 | ASTM A350 LF2 cl.1 | 0.190 | 0.170 | 0.900 | 0.019 | 0.015 | 0.100 | 0.060 | 0.010 | 0.000 | 0.010 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.012 | 0.367 | |
| | 72435 | 100 | ASTM A350 LF2 cl.1 | 0.205 | 0.230 | 0.940 | 0.021 | 0.013 | 0.090 | 0.050 | 0.010 | 0.000 | 0.010 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.012 | 0.396 | |
| | 75347 | 101 | ASTM A350 LF2 cl.1 | 0.185 | 0.180 | 1.000 | 0.018 | 0.016 | 0.110 | 0.060 | 0.010 | 0.000 | 0.010 | 0.005 | 0.000 | 0.000 | 0.000 | 0.002 | 0.001 | 0.000 | 0.013 | 0.394 | |
| GP7 | 76077 | 103 | ASTM A350 LF2 cl.1 | 0.185 | 0.200 | 1.110 | 0.015 | 0.009 | 0.050 | 0.050 | 0.010 | 0.022 | 0.160 | 0.022 | 0.000 | 0.000 | 0.000 | 0.027 | 0.000 | 0.000 | 0.025 | 0.401 | |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | SECT. ANAL. | LENGTH mm | WEIGHT mm ² x 200% | YIELD POINT mm ² x 200% | FLATNESS TEST | | | IMPACT TEST - JOULES | | | SHAPE | YIELD POINT mm ² x 200% |
|-----------|--------|------|------------------------------------|-------------|-----------|-------------------------------|------------------------------------|---------------|-----------|------|----------------------|----------------|---|-------|------------------------------------|
| | | | | | | | | mm/m | mm/m | mm/m | TYPE SYSTEM | TEMPERATURE °C | 1 | | |
| | 56074 | 013 | ASME SA ASTM A106/A106M-06 Gr. B | 481.0 | 0.00 | 359.0 | 38.0 | 0.0 | 160 - 182 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| | 74193 | 103 | ASME SA ASTM A105-05 | 563.0 | 0.00 | 306.0 | 32.0 | 54.0 | 160 - 186 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |
| | 163226 | 005 | ASME SA ASTM A106/A106M-06 Gr. B | 495.0 | 0.00 | 351.0 | 43.0 | 0.0 | 160 - 170 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| | 538697 | 025 | ASME SA ASTM A106/A106M-06 Gr. B | 480.0 | 0.00 | 362.0 | 52.5 | 0.0 | 165 - 167 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| | 75943 | 099 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | 533.0 | 50.00 | 308.0 | 31.0 | 50.0 | 160 - 166 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |
| | 72435 | 100 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | 528.0 | 50.00 | 316.0 | 32.0 | 54.0 | 166 - 170 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |
| | 75347 | 101 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | 525.0 | 50.00 | 330.0 | 35.0 | 59.0 | 152 - 160 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |
| GP7 | 76077 | 103 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | 542.0 | 50.00 | 338.0 | 33.0 | 57.0 | 160 - 166 | 0.0 | 0.0 | 0.0 | 1 | 0.0 | |

HEAT TREATMENT: Normalized at 860°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 890°C / Air Cool
 Normalized at 900°C / Air Cool
 Normalized at 900°C / Air Cool
 Normalized at 900°C / Air Cool

INSPECTION AUTHORITY: MORIS FIZZOTTI
 DATE RECEIVED: JUN 24 2008
 P.O.#: 510428 E8-32806
 SIGNATURE: [Signature]
 APPROVED BY: Q.C. INSPECTOR

QUALITY CONTROL DEPARTMENT: MORIS FIZZOTTI
 MANUFACTURER'S SYMBOL: IML
 FITTINGS: IML
 STUDBOLTS: IML

HEAT NUMBER : 55175

TRANS AM PIPING PRODUCTS - REV'D BY: *[Signature]*

1/2X41/2 XH SMLS STEEL NIPPLES A106

Shipment/Seq #: 6 - 1257 86



INDUSTRIA MECCANICA LIGURE SPA

16200 CASARZA LIGURE - Genova - Italy - P.zza Marco Capello, 4 - Tel. 010.65.467661 - Fax 010.65.467661 - Material Test Department This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 16 - 17

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

COMPANY WITH QUALITY SYSTEM ISO 9001:2000 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.

7025 - 4th Street S.E. Calgary, Alberta T2C 4E8 CA

Certificate Nr 16477

Invoice Nr 519

Del. Note Nr 784

Dated 29.04.2005

Page 16 - 17

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | MATERIAL | | | | | | | | | | DIM. ACC. TO | VISUAL & DIMENS. | | | | | | |
|-----------|--------|------|-------------|------------------------|------|---|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|------------------|-------|-------|-------|-------|----------|--------------|
| | | | | | | | MATERIAL | C% | S% | MPa | MPa | % | P% | CR% | Ni% | Mo% | | | Ti% | Cr% | V% | MB% | N% | AP% |
| H52 | 74285 | 116 | CI-06 - 314 | 2006-2E201-0000328-116 | | FITTING 90 ELB. THRD NPT 3M 1" A350/LF2 | ASTM A350 LF2 cl 1 | 0.190 | 0.220 | 0.940 | 0.024 | 0.016 | 0.110 | 0.060 | 0.010 | 0.013 | 0.240 | 0.002 | 0.001 | 0.000 | 0.006 | 0.391 | SEE NOTE | SATISFACTORY |
| U90 | 700790 | 140 | CI-06 - 314 | 2006-2E201-0000328-140 | | FITTING UNION FIF SW 6M 3/4" A350/LF2 | ASTM A350 LF2 cl 1 | 0.190 | 0.290 | 0.890 | 0.004 | 0.012 | 0.200 | 0.170 | 0.030 | 0.000 | 0.170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.405 | SEE NOTE | SATISFACTORY |
| TH0 | 39699 | 023 | CI-06 - 116 | 2006-2E201-0000044-023 | | FITTING TEE THRD NPT 3M 3/8" A105N | ASTM A105 | 0.190 | 0.230 | 1.100 | 0.015 | 0.016 | 0.150 | 0.090 | 0.020 | 0.015 | 0.190 | 0.038 | 0.002 | 0.000 | 0.025 | 0.373 | SEE NOTE | SATISFACTORY |
| GR2 | 39700 | 90 | CI-06 - 116 | 2006-2E201-0000044-094 | | FITTING 45 ELB. THRD NPT 3M 1 1/2" A350/LF2 | ASTM A350 LF2 cl 1 | 0.190 | 0.230 | 1.090 | 0.015 | 0.014 | 0.110 | 0.090 | 0.020 | 0.018 | 0.180 | 0.030 | 0.001 | 0.000 | 0.025 | 0.422 | SEE NOTE | SATISFACTORY |
| | 55175 | 009 | CI-05 - 754 | 2005-2E201-0001193-009 | | P.NIPPLE TBE NPT S-80 1/2" L115mm(4 5/8") A108B/API 5LB | ASTM A106/B API 5LB | 0.190 | 0.230 | 0.840 | 0.007 | 0.003 | 0.040 | 0.050 | 0.010 | 0.000 | 0.140 | 0.006 | 0.000 | 0.000 | 0.002 | 0.000 | SEE NOTE | SATISFACTORY |
| | 212302 | 050 | CI-05 - 865 | 2005-2E201-0001376-050 | | P.NIPPLE TBE NPT S-160 1" L140mm(5 1/2") A106B/API 5LB | ASTM A106/B API 5LB | 0.130 | 0.160 | 0.970 | 0.002 | 0.014 | 0.070 | 0.030 | 0.010 | 0.000 | 0.020 | 0.080 | 0.000 | 0.000 | 0.000 | 0.000 | SEE NOTE | SATISFACTORY |
| | 59111 | 038 | CI-06 - 168 | 2006-2E201-0000143-038 | | P.NIPPLE TBE NPT S-80 1" CLOSED L.38mm A108B/API 5LB | ASTM A106/B API 5LB | 0.150 | 0.210 | 0.630 | 0.010 | 0.010 | 0.040 | 0.050 | 0.010 | 0.000 | 0.170 | 0.001 | 0.000 | 0.000 | 0.030 | 0.000 | SEE NOTE | SATISFACTORY |
| BLO | 77914 | 061 | CI-06 - 252 | 2006-2E201-0000268-061 | | FITTING CROSS THRD NPT 6M 1 1/2" A105N | ASTM A105 | 0.190 | 0.200 | 1.050 | 0.021 | 0.010 | 0.070 | 0.060 | 0.010 | 0.013 | 0.220 | 0.002 | 0.001 | 0.000 | 0.006 | 0.400 | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | | | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL |
|-----------|--------|------|------------------------------------|--------------------------------------|-------------------|------------|----------------------|----------------------------|-----------------------|-----------------------|
| | | | | HEAT TREATMENT | REDUCTION OF AREA | ELONGATION | | | | |
| H52 | 74285 | 116 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | 54.0 | 31.0 | | | | |
| U90 | 700790 | 140 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | 54.0 | 32.0 | | | | |
| TH0 | 39699 | 023 | ASME SA ASTM A105-05 | Normalized at 880°C-920°C / Air Cool | 56.0 | 36.0 | | | | |
| GR2 | 39700 | 90 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 880°C-920°C / Air Cool | 54.0 | 31.0 | | | | |
| | 55175 | 009 | ASME SA ASTM A106/A160M-04b Gr. B | Normalized at 880°C-920°C / Air Cool | 0.0 | 44.0 | | | | |
| | 212302 | 050 | ASME SA ASTM A106/A160M-04b Gr. B | Normalized at 880°C-920°C / Air Cool | 0.0 | 45.0 | | | | |
| | 59111 | 038 | ASME SA ASTM A106/A160M-04b Gr. B | Normalized at 880°C-920°C / Air Cool | 0.0 | 40.0 | | | | |
| BLO | 77914 | 061 | ASME SA ASTM A105-05 | Normalized at 880°C-920°C / Air Cool | 58.5 | 34.5 | | | | |

NOTES ASME B16.11/01 - ANSI B31.1/B31.3 - IML STD. - ANSI B1.1-B18.2.2. NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E8-32806
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR



BORIS FIZZOTTI

FITTINGS IML

STUD BOLTS

HEAT NUMBER : 71678
 TRANS AM PIPING PRODUCTS - REV'D BY: 1/2 X 4 XH SMLS STEEL NIPPLES A106
 Shipment/Seq #: 5 8 - 1035 38

I.M.L.
INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 9535 Endeavor Drive S.E.
 Calgary, Alberta T2S 0A1
 CA

Certificate No. 18319
 Invoice No. 58
 Date: 24.01.2008

24.01.2008
 22.01.2008
 22.01.2008

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|------|-------------|------------------------|------|--|--------------|------------------|
| 55287 | ✓ 1678 | 6 | CI-07 - 691 | 2007-2E201-0001160-008 | | P. NIPPLE TBE NPT S-80 3/8" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 162829 | 162829 | 12 | CI-07 - 691 | 2007-2E201-0001160-012 | | P. NIPPLE TBE NPT S-80 1/2" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 55178 | 55178 | 20 | CI-07 - 691 | 2007-2E201-0001160-020 | | P. NIPPLE TBE NPT S-80 3/4" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 99123 | 99123 | 21 | CI-07 - 691 | 2007-2E201-0001160-021 | | P. NIPPLE TBE NPT S-80 3/4" L100mm(4") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 72966 | 72966 | 010 | CI-08 - 114 | 2008-2E201-0000032-010 | | FITTING TEE THRD NPT 2M 1" A105N | SEE NOTE | SATISFACTORY |
| 73413 | 73413 | 026 | CI-08 - 114 | 2008-2E201-0000032-026 | | FITTING 90 ELB. THRD NPT 3M 1" A105N | SEE NOTE | SATISFACTORY |
| 876464 | 876464 | 032 | CI-08 - 114 | 2008-2E201-0000032-032 | | FITTING TEE THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | TEST SPECIFICATION | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS | IMPACT TEST | FLATTENING TEST | TYPE FACTOR | TEMPERATURE | IMPACT TEST | JOHN BOND | SHAPE | YIELD POINT |
|-----------|--------|------|--------------------|-------------|------------------|------------|-------------------|-----------|-------------|-----------------|-------------|-------------|-------------|-----------|-------|-------------|
| 55287 | 71678 | 6 | 0,00 | 0,00 | 454,0 | 40,0 | 0,0 | 162 - 168 | | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 |
| 162829 | 162829 | 12 | 0,00 | 0,00 | 371,0 | 30,2 | 0,0 | 166 - 171 | | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 |
| 55178 | 55178 | 20 | 0,00 | 0,00 | 306,0 | 486,0 | 0,0 | 162 - 168 | | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 |
| 99123 | 99123 | 21 | 0,00 | 0,00 | 407,0 | 36,0 | 0,0 | 160 - 162 | | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 |
| 72966 | 72966 | 010 | 122,65 | 50,00 | 305,0 | 41,0 | 0,0 | 150 - 156 | | 0,0 | 0,0 | 0,0 | 0 | 0 | 0 | 0,0 |
| 73413 | 73413 | 026 | 122,65 | 50,00 | 308,0 | 32,0 | 57,0 | 158 - 166 | | 0,0 | 0,0 | 0,0 | 98 | 98 | 104 | 0,0 |
| 876464 | 876464 | 032 | 122,65 | 50,00 | 329,0 | 32,5 | 59,0 | 163 - 165 | | 0,0 | 0,0 | 0,0 | 101 | 105 | 100 | 0,0 |
| | | | | | 536,0 | 31,0 | 59,0 | 163 - 165 | | 0,0 | 0,0 | 0,0 | 89 | 110 | 105 | 0,0 |

HEAT TREATMENT: Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool
 Normalized at 880°C-920°C / Air Cool

INSPECTION AUTHORITY: IPC COMPRESSION
 DATE RECEIVED: JUN 24 2008
 P.O. #: 510428
 SIGNATURE: E83Z806
 APPROVED BY: Q.C. INSPECTOR

QUALITY CONTROL DEPARTMENT: BONIS FIZZOTTI
 MANUFACTURER'S SYMBOL: IML
 FITTINGS: IML
 MANUFACTURER'S SYMBOL: STUBBOLTS

NOTES: ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B18.2.2 - NACE MR0175 ISO 15156/1 - NACE MR103 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

HEAT NUMBER : 163226
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
 1/2X31/2 XH SMLS STEEL NIPPLES A106

SHIPMENT/SEQ #: 97 - 1520 93



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN-10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 233081 Endeavor Drive SE
 Calgary Alberta T2P 2S6

Certificate No. 19087
 Invoice No. 1135
 Del. Note No. 1745

16330 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappella,4 - Tel.010.85.487681 - Fax 010.85.666510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 18 - 21

| HEAT CODE | HEAT | ITEM | MATERIAL | OUR REFERENCE | QTY | DESCRIPTION | DIM. ACC. TO VISUAL & DIMENS. | | | | | | | | | | | | |
|--|-------|--------------------|------------------------------------|-----------------|------------|-------------------|-------------------------------|------------|--------------|-----------|-------|------------|-----------------------|------------|-------|-------|-------|--------------|--------------|
| | | | | | | | SP% | Si% | P% | Cr% | Mn% | Ni% | V% | Cu% | Ti% | Mo% | Nb% | N% | AP% |
| 8CU | 74795 | 072 | ASTM A105 | 0,205 | 0,210 | 0,930 | 0,023 | 0,015 | 0,110 | 0,060 | 0,010 | 0,005 | 0,200 | 0,001 | 0,001 | 0,000 | 0,023 | 0,402 | SATISFACTORY |
| | 35281 | 096 | ASTM A350 LF2 cl.1 | 0,180 | 0,280 | 0,980 | 0,025 | 0,016 | 0,250 | 0,140 | 0,032 | 0,001 | 0,270 | 0,004 | 0,001 | 0,000 | 0,021 | 0,428 | SATISFACTORY |
| | 72475 | 098 | ASTM A350 LF2 cl.1 | 0,210 | 0,230 | 0,890 | 0,026 | 0,015 | 0,100 | 0,050 | 0,010 | 0,000 | 0,170 | 0,001 | 0,001 | 0,000 | 0,012 | 0,395 | SATISFACTORY |
| | 73624 | 122 | ASTM A350 LF2 cl.1 | 0,185 | 0,280 | 1,200 | 0,014 | 0,017 | 0,060 | 0,070 | 0,010 | 0,000 | 0,190 | 0,001 | 0,000 | 0,000 | 0,000 | 0,421 | SATISFACTORY |
| | 53878 | 012 | ASTM A106B API 5LB | 0,150 | 0,230 | 0,480 | 0,010 | 0,009 | 0,060 | 0,070 | 0,010 | 0,000 | 0,240 | 0,005 | 0,000 | 0,000 | 0,000 | 0,266 | SATISFACTORY |
| | 63918 | 034 | ASTM A106B API 5LB | 0,140 | 0,240 | 0,650 | 0,007 | 0,006 | 0,050 | 0,060 | 0,010 | 0,000 | 0,170 | 0,005 | 0,000 | 0,000 | 0,000 | 0,277 | SATISFACTORY |
| | 53878 | 016 | ASTM A106B API 5LB | 0,150 | 0,230 | 0,486 | 0,010 | 0,009 | 0,060 | 0,070 | 0,010 | 0,000 | 0,240 | 0,005 | 0,000 | 0,000 | 0,000 | 0,266 | SATISFACTORY |
| 163226 | 004 | ASTM A106B API 5LB | 0,135 | 0,240 | 0,610 | 0,004 | 0,010 | 0,170 | 0,130 | 0,050 | 0,000 | 0,160 | 0,002 | 0,000 | 0,000 | 0,000 | 0,334 | SATISFACTORY | |
| HEAT CODE | HEAT | ITEM | TEST RESULT | SECT. THICKNESS | ELONGATION | REDUCTION OF AREA | HARDNESS | FLATTENING | TYP. TENSILE | IMPACT | TEMP. | WELD POINT | WELD POINT | WELD POINT | | | | | |
| 8CU | 74795 | 072 | 122,65 | 50,00 | 306,0 | 563,0 | 54,0 | 0,0 | 0,0 | 160 - 162 | 0,0 | 96 | 90 | 0,0 | | | | | |
| | 35281 | 096 | 122,65 | 50,00 | 354,0 | 577,0 | 58,0 | 0,0 | 0,0 | 162 - 165 | 0,0 | 46 | 58 | 0,0 | | | | | |
| | 72475 | 098 | 122,65 | 50,00 | 316,0 | 538,0 | 52,0 | 0,0 | 0,0 | 162 - 166 | 0,0 | 54 | 50 | 0,0 | | | | | |
| | 73624 | 122 | 122,65 | 50,00 | 345,0 | 533,0 | 61,0 | 0,0 | 0,0 | 158 - 164 | 0,0 | 46 | 60 | 0,0 | | | | | |
| | 53878 | 012 | 0,00 | 0,00 | 309,0 | 477,0 | 0,0 | 0,0 | 0,0 | 154 - 162 | 0,0 | 0 | 0 | 0,0 | | | | | |
| | 63918 | 034 | 0,00 | 0,00 | 324,0 | 461,0 | 0,0 | 0,0 | 0,0 | 164 - 168 | 0,0 | 0 | 0 | 0,0 | | | | | |
| | 53878 | 016 | 0,00 | 0,00 | 309,0 | 477,0 | 0,0 | 0,0 | 0,0 | 154 - 162 | 0,0 | 0 | 0 | 0,0 | | | | | |
| 163226 | 004 | 0,00 | 0,00 | 351,0 | 495,0 | 0,0 | 0,0 | 0,0 | 169 - 170 | 0,0 | 0 | 0 | 0,0 | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | | | | | | | | | | | OUR REF. | | | | | |
| 8CU | 74795 | 072 | ASME SA ASTM A105-05 | | | | | | | | | | | 071087 | | | | | |
| | 35281 | 096 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | | | | | | | | | | | 072078 | | | | | |
| | 72475 | 098 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | | | | | | | | | | | N10311 | | | | | |
| | 73624 | 122 | ASME SA ASTM A106/A106M-06 Gr. B | | | | | | | | | | | 073034 | | | | | |
| | 53878 | 012 | ASME SA ASTM A106/A106M-06 Gr. B | | | | | | | | | | | 073063 | | | | | |
| | 63918 | 034 | ASME SA ASTM A106/A106M-06 Gr. B | | | | | | | | | | | 073034 | | | | | |
| | 53878 | 016 | ASME SA ASTM A106/A106M-06 Gr. B | | | | | | | | | | | 073042 | | | | | |
| NOTES ASME B16.11/05 - ANSI B31.3 - IML STD. - ANSI B1.1-18.2.2 - NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS | | | | | | | | | | | | | MANUFACTURER'S SYMBOL | | | | | | |

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 570428 £832806
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

QUALITY CONTROL DEPARTMENT
 FITTINGS IML
 STUDBOLTS

HEAT NUMBER : AH80
TRANS AM PIPING PRODUCTS - REV'D BY:
P.O. # /Seq #: L-06 - 16365 3



1/2 X 3 XH SMLS STEEL NIPPLERS A106
TBE

CANVIL
CERTIFICATE OF TEST

Reference No.:

Date: 11/13/2006

Order Number:

Shipped To:

TRANS AM PIPING PRODUCTS LTD.
7025-44TH STREET SE

CALGARY
AB T2C 4E8

Part Number: Y3053
Description: 1/2x3 B XS SML NIP 106B ✓
Specification: ASTM A106 GRADE B/ ASME SA106 GRADE B

CHEMICAL ANALYSIS %

| Heat No. | Heat Code | C | Mn | P | S | Si | Cu | Ni | Cr |
|----------|-----------|-----|-------|-------|------|-----|-----|-----|-----|
| P514208 | AH80 ✓ | .21 | .53 | .016 | .023 | .21 | .02 | .02 | .02 |
| | | Mo | V | Cb/Nb | | | | | |
| | | .01 | < .01 | | | | | | |

CE (LONG FORMULA) = .31

MECHANICAL PROPERTIES

| | |
|-----------------------------------|------------------------------|
| Yield Strength psi: 47,600 | Tensile Strength psi: 67,000 |
| Mpa: | Mpa: |
| Elongation %2": 37.00 | Red.Area%: Hardness BHN: |
| Heat Treatment: | |
| MEETS NACE MR0175 | |
| HARDNESS LESS THAN OR EQUAL 22HRC | |
| Hydrotest/NDE: NDE | Bend: GOOD |

We certify that this is a true and correct copy of the mill certificate, issued by the manufacturer of the steel employed or the laboratory which has determined it, as retained in the records of the company. CANVIL makes no representation beyond those of the manufacturer or its agent.

HEAT NUMBER : 163226

TRANS AM PIPING PRODUCTS - REV'D BY :

SHIPMENT/SEQ # : S 7 - 1366 150

1/2 X 3 XH SMLS STEEL NIPPLES A106

TBE



INDUSTRIA MECCANICA LIGURE SPA

I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204

TRANS AM PIPING PRODUCTS LTD.

Certificate Nr 17726
Invoice Nr 723
Dated 25-08-2007

Dal. Note Nr 1141
Dated 25-08-2007

PC COMPRESSION
DATE RECEIVED JUN 24 2008
P.O. # 510428 E832806
SIGNATURE: [Signature]
COMPTON ENGINEERING S.p.A. SPECTOR [Signature]
Via S. Eustachio, 10 - 10122 TORINO, ITALIA
Tel. 011-510428 Fax 011-510429

18039 CASARZA LIGURE - Genova - Italy - P.zza Marco Caporali, 4 - Tel. 0185-487691 - Fax 0185-466570 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 20 - 22

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | | | | | | | | | |
|--|--------|------|-----------------------------|--|---|--|---|------------------|---------------------------------|--|--------------------|--|-------|-------|-------|-------|----------------|
| TU8 | 028107 | 070 | CI-07 - 380 | 2007-2E201-0000541-070 | | FITTING TEE SW 3M 1.1/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | |
| FOT | 37969 | 071 | CI-07 - 380 | 2007-2E201-0000541-071 | | FITTING TEE SW 3M 2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | |
| 56A | 73413 | 093 | CI-07 - 380 | 2007-2E201-0000541-093 | | FITTING 90 ELB. SW 6M 1" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | |
| L318 | 163226 | 016 | CI-06 - 635 | 2006-2E201-0000797-016 | | P NIPPLE TBE NPT S-80 1/2" L75mm(3") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | |
| L812 | X19969 | 064 | CI-07 - 213 | 2007-2E201-0000222-064 | | FITTING UNION FF SW 6M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | |
| L507 | 76901 | 232 | CI-05 - 799 | 2006-2E201-0001041-232 | | FITTING UNION FF SW 6M 1.1/2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | |
| | 81463 | 039 | CI-06 - 827 | 2007-2E201-0000011-039 | | P NIPPLE TBE NPT S-160 1" L51mm(2") A106B/API 5LB | SEE NOTE | SATISFACTORY | | | | | | | | | |
| | X19309 | 070 | CI-07 - 184 | 2007-2E201-0000139-070 | | FITTING UNION FF THRD NPT 6M 1/2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | S1% | MIN% | S% | P% | C% | NI% | TI% | CU% | V% | NI% | NO% | AS% | OTHER ELEMENTS |
| TU8 | 028107 | 070 | ASTM A105 | 0.196 | 0.303 | 0.919 | 0.030 | 0.021 | 0.115 | 0.044 | 0.010 | 0.000 | 0.011 | 0.002 | 0.000 | 0.000 | 0.378 |
| FOT | 37969 | 071 | ASTM A105 | 0.180 | 0.270 | 0.960 | 0.018 | 0.010 | 0.110 | 0.080 | 0.010 | 0.009 | 0.180 | 0.003 | 0.000 | 0.005 | 0.381 |
| 56A | 73413 | 093 | ASTM A105 | 0.195 | 0.170 | 1.010 | 0.018 | 0.014 | 0.080 | 0.040 | 0.010 | 0.005 | 0.150 | 0.001 | 0.000 | 0.022 | 0.394 |
| L318 | 163226 | 016 | ASTM A106B API 5LB | 0.135 | 0.240 | 0.810 | 0.004 | 0.010 | 0.170 | 0.130 | 0.050 | 0.000 | 0.160 | 0.002 | 0.000 | 0.000 | 0.334 |
| L812 | X19969 | 064 | ASTM A105 | 0.190 | 0.270 | 0.970 | 0.029 | 0.009 | 0.110 | 0.100 | 0.030 | 0.003 | 0.150 | 0.003 | 0.001 | 0.029 | 0.397 |
| L507 | 76901 | 232 | ASTM A105 | 0.186 | 0.190 | 0.870 | 0.009 | 0.013 | 0.070 | 0.040 | 0.010 | 0.015 | 0.140 | 0.006 | 0.000 | 0.023 | 0.361 |
| | 81463 | 039 | ASTM A106B API 5LB | 0.141 | 0.214 | 0.844 | 0.006 | 0.012 | 0.070 | 0.108 | 0.028 | 0.010 | 0.121 | 0.000 | 0.000 | 0.031 | 0.283 |
| | X19309 | 070 | ASTM A105 | 0.185 | 0.300 | 1.010 | 0.028 | 0.007 | 0.120 | 0.110 | 0.040 | 0.003 | 0.140 | 0.004 | 0.002 | 0.025 | 0.403 |
| HEAT CODE | HEAT | ITEM | TEST SPECIFICATION | YIELD POINT N/mm ² → kgf/cm ² | TENSILE STRENGTH N/mm ² → kgf/cm ² | ELONGATION S ₁ → % | REDUCTION OF AREA R ₄ → % | HARDNESS HV | FLATTENING TEST TYPE 10/10mm | IMPACT TEST KJ/m ² → FT-LB/IN ² | SHAPE NO. 20-10 | YIELD POINT N/mm ² → kgf/cm ² | | | | | |
| TU8 | 028107 | 070 | ASME SA ASTM A105-05 | 340,0 | 515,0 | 34,0 | 54,0 | 153 - 157 | KV | 0,0 | 85 | 0,0 | | | | | |
| FOT | 37969 | 071 | ASME SA ASTM A105-05 | 330,0 | 509,0 | 32,0 | 59,0 | 156 - 159 | KV | 0,0 | 100 | 0,0 | | | | | |
| 56A | 73413 | 093 | ASME SA ASTM A105-05 | 308,0 | 551,0 | 32,5 | 56,0 | 163 - 165 | KV | 0,0 | 105 | 0,0 | | | | | |
| L318 | 163226 | 016 | ASME SA ASTM A106M-06 Gr. B | 351,0 | 495,0 | 43,0 | 0,0 | 169 - 170 | KV | 0,0 | 0 | 0,0 | | | | | |
| L812 | X19969 | 064 | ASME SA ASTM A105-05 | 410,0 | 505,0 | 31,0 | 57,8 | 152 - 156 | KV | 0,0 | 85 | 0,0 | | | | | |
| | 76901 | 232 | ASME SA ASTM A105-05 | 311,0 | 501,0 | 33,3 | 58,2 | 150 - 153 | KV | 0,0 | 100 | 0,0 | | | | | |
| | 81463 | 039 | ASME SA ASTM A106M-06 Gr. B | 306,0 | 529,0 | 50,0 | 0,0 | 162 - 166 | KV | 0,0 | 0 | 0,0 | | | | | |
| | X19309 | 070 | ASME SA ASTM A105-05 | 400,0 | 555,0 | 31,5 | 51,0 | 157 - 160 | KV | 0,0 | 105 | 0,0 | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | | | | FURNACE | | | STEEL MILL | Our Ref. | | | | | |
| TU8 | 028107 | 070 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | ELECTRIC FURNACE | | | RIVA ACCIAI | 900259 | | | | | |
| FOT | 37969 | 071 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | ELECTRIC FURNACE | | | BENTELER | 072026 | | | | | |
| 56A | 73413 | 093 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | ELECTRIC FURNACE | | | GSB | 061500 | | | | | |
| L318 | 163226 | 016 | ASME SA ASTM A106M-06 Gr. B | Normalized at 880°-920°C / Air Cool | | | | ELECTRIC FURNACE | | | RIVA ACCIAI | 073042 | | | | | |
| L812 | X19969 | 064 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | ELECTRIC FURNACE | | | PIETRA | 072047 | | | | | |
| | 76901 | 232 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | ELECTRIC FURNACE | | | GSB | 062118 | | | | | |
| | 81463 | 039 | ASME SA ASTM A106M-06 Gr. B | Normalized at 880°-920°C / Air Cool | | | | ELECTRIC FURNACE | | | PIETRA | 063152 | | | | | |
| | X19309 | 070 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | ELECTRIC FURNACE | | | GSB | 072046 | | | | | |
| NOTES | | | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL | FITTINGS | IML | STUDBOLTS | | | | | | | | |
| ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B16.2.2 - NACE MR0175 ISO 15168/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS | | | BORIS FIZZOTTI | | | | | | | | | | | | | | |

HEAT NUMBER : A16
TRANS AM PIPING PRODUCTS - REV'D BY:
P.O. # /Seq #: L-07 - 5983 2.

1/2 X 2 XH SMLS STEEL NIPPLES A106
TBE



P.O. Box 40, Simcoe, Ontario N3Y 4K9
Tel. (519) 426-4551 Fax (519) 426-5509

Certificate of Test

Part Number: Y3052 Description: 1/2x2 B XS SML NIP 106B ✓
Heat Code: A16 ✓
Reference No.:
Specification: ASTM A106-02 GRADE B/ ASME SA106 GRADE B
Fitting Trademark: NIKOPOL STEEL PIPE

Chemical Analysis %

| Heat No. | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | V | Cb/Nb |
|----------|------|------|-------|-------|------|------|------|------|------|-------|-------|
| 32358 | 0.21 | 0.50 | 0.012 | 0.016 | 0.25 | 0.19 | 0.06 | 0.05 | 0.01 | <0.01 | |

CE (LONG FORMULA) = 0.33

Mechanical Properties

| | |
|------------------------------------|-------------------------------|
| Yield Strength PSI : 41,600 | Tensile Strength PSI : 64,000 |
| MPa : 000 | MPa: 000 |
| Elongation % 2" : 43.00 | Reduction in Area % : 0.00 |
| Heat Treatment: | Hardness BHIN : N/R |
| MEETS NACE MR0175-2002 | |
| HARDNESS LESS THAN OR EQUAL 22 HRC | |
| Hydrotest/NDE: NDE | Bend: GOOD |

We certify that this is a true and correct copy of the mill certificate, issued by the manufacturer of the steel employed or the laboratory which has determined it, as retained in the records of the company. CANVIL makes no representation beyond those of the manufacturer or it's agent.



Simcoe, Ontario
Edmonton, Alberta
Montreal, Quebec

A Division of Mueller Canada, LTD.

PC COMPRESSION
RECEIVED FEB 23 2007

DATE: _____
P.O. # 507634
SIGNATURE: HC
APPROVED BY O.C. INSPECTOR

HEAT NUMBER : 54094
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
 Shipment/Seq #: 57 - 1310 118

1/2X1 1/2 KH SMLS STEEL NIPPLES A106
 T8B



INDUSTRIA MECCANICA LICURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY BINA

TRANS AM PIPING PRODUCTS LTD.
 233061 Endeavour Drive SE
 Calgary, Alberta T2P 2G6
 CA

10030 CASARZA LICURE - Genova - Italy - P.zza Marco Cappella, 4 - Tel.0105.467651 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DMW ACC. TO | VISUAL & DIMENS. |
|-----------|-------|------|------------------------------------|------------------------------------|------|---|-------------|------------------|
| 30A | 74524 | 009 | CI-07 - 213 2007-2E201-0000222-009 | CI-07 - 213 2007-2E201-0000222-009 | | FITTING 45 ELB. THRD NPT 2M 1" A105N | SEE NOTE | SATISFACTORY |
| A93 | 72430 | 009 | CI-07 - 213 2007-2E201-0000222-009 | CI-07 - 213 2007-2E201-0000222-009 | | FITTING 45 ELB. THRD NPT 2M 1" A105N | SEE NOTE | SATISFACTORY |
| ZT3 | 45258 | 011 | CI-07 - 213 2007-2E201-0000222-011 | CI-07 - 213 2007-2E201-0000222-011 | | FITTING CROSS THRD NPT 2M 1 1/4" A105N | SEE NOTE | SATISFACTORY |
| N59 | 77912 | 045 | CI-07 - 213 2007-2E201-0000222-045 | CI-07 - 213 2007-2E201-0000222-045 | | FITTING HEX H PLUG THRD NPT 1" A105N | SEE NOTE | SATISFACTORY |
| | 71548 | 071 | CI-07 - 213 2007-2E201-0000222-071 | CI-07 - 213 2007-2E201-0000222-071 | | FITTING COUPLING THRD NPT 3M 1" A105N EL GALV. | SEE NOTE | SATISFACTORY |
| TN2 | 77065 | 071 | CI-07 - 213 2007-2E201-0000222-071 | CI-07 - 213 2007-2E201-0000222-071 | | FITTING COUPLING THRD NPT 3M 1" A105N EL GALV. | SEE NOTE | SATISFACTORY |
| | 78485 | 009 | CI-07 - 297 2007-2E201-0000339-009 | CI-07 - 297 2007-2E201-0000339-009 | | FITTING CROSS THRD NPT 2M 3/4" A105N | SEE NOTE | SATISFACTORY |
| | 54094 | 018 | CI-06 - 168 2006-2E201-0000143-018 | CI-06 - 168 2006-2E201-0000143-018 | | P. NIPPLE TBE NPT S-80 1/2" L38mm(1 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |

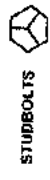
| HEAT CODE | HEAT | ITEM | TEST SPECIFICATION | YIELD POINT NOMINAL | TENSILE STRENGTH NOMINAL | ELONGATION % | REDUCTION OF AREA % | HARDNESS IN HV | FLATNESS TEST | | | | | SHAPE IN O.D. | YIELD POINT NOMINAL |
|-----------|-------|------|----------------------------------|------------------------|-----------------------------|-----------------|------------------------|-------------------|---------------|------------|-------|-----|-----|------------------|------------------------|
| | | | | | | | | | TYPE | INSTRUMENT | SCALE | MAX | MIN | | |
| 30A | 74524 | 009 | ASME SA ASTM A105-05 | 316.0 | 526.0 | 31.0 | 54.0 | 162 - 168 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| A93 | 72430 | 009 | ASME SA ASTM A105-05 | 316.0 | 549.0 | 32.0 | 56.0 | 162 - 168 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| ZT3 | 45258 | 011 | ASME SA ASTM A105-05 | 330.0 | 590.0 | 32.5 | 50.0 | 160 - 168 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| N59 | 77912 | 045 | ASME SA ASTM A105-05 | 381.0 | 552.0 | 32.0 | 56.0 | 160 - 168 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| | 71548 | 071 | ASME SA ASTM A105-05 | 309.0 | 564.0 | 31.0 | 54.0 | 160 - 162 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| | 77065 | 071 | ASME SA ASTM A105-05 | 318.0 | 513.0 | 32.6 | 56.9 | 155 - 160 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| | 78485 | 009 | ASME SA ASTM A105-05 | 306.0 | 563.0 | 34.0 | 56.0 | 160 - 168 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.0 |
| | 54094 | 018 | ASME SA ASTM A106/A106M-06 Gr. B | 309.0 | 547.0 | 49.0 | 0.0 | 160 - 164 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | FURNACE | | OUR REF. |
|-----------|-------|------|----------------------------------|------------------|-------------|----------|
| | | | | FURNACE | OUR REF. | |
| 30A | 74524 | 009 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | 061602 |
| A93 | 72430 | 009 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | 061953 |
| ZT3 | 45258 | 011 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | FERROSIDER | 031368 |
| N59 | 77912 | 045 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | 041204 |
| | 71548 | 071 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | 061492 |
| | 77065 | 071 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | 041113 |
| | 78485 | 009 | ASME SA ASTM A105-05 | ELECTRIC FURNACE | RIVA ACCIAI | 061030 |
| | 54094 | 018 | ASME SA ASTM A106/A106M-06 Gr. B | ELECTRIC FURNACE | PODBREZOVA | 063147 |

NOTES ASME B16.11/05 - ANSI B31.1/B31.3 - IMPL STD - ANSI B7.1/B7.2 -
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

INSPECTOR MOTORITY: QUALITY CONTROL DEPARTMENT MANUFACTURER'S SYMBOL
 INSPECTOR MOTORITY: QUALITY CONTROL DEPARTMENT MANUFACTURER'S SYMBOL

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O.# 510428 E832806
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR



BORIS FIZZOTTI
 FITTINGS
 I.M.L.
 STUB BOLTS



INDUSTRIA MECCANICA LIGURE SPA

16030 CASARZA LIGURE - Genova - Italy - P.zza Marco Capponi,4 - Tel.010.5.467661 - Fax 010.5.467661 - This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page

INSPECTION CERTIFICATE EN 10204:2004 / 3.1

TRANS AM PIPING PRODUCTS LTD.

COMPANY WITH QUALITY SYSTEM ISO 9001:2000 CERTIFIED BY RINA

Certificate N° 17602

Invoice N° 569
Del. Note N° 910

Dated 06.06.2007
Dated 25.05.2007
Dated 25.05.2007

1/2X3/8 KH CONC SWAGE NIPPLE
A234-WPB TBE

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|------|-------|-----------|------------------------|------|--|--------------|------------------|
| 53878 | 029 | CI-06 | 635 | 2006-2E201-0000797-029 | | P. NIPPLE TBE NPT S-90 1/2" L150mm(6") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 54094 | 013 | CI-06 | 741 | 2006-2E201-0000954-013 | | P. NIPPLE TBE NPT S-90 1/2" L125mm(5") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 72475 | 003 | CI-06 | 805 | 2006-2E201-0001072-003 | | CONC SWAGE TBE NPT S-90 1/2"X3/8" MSS SP 95 WPB | SEE NOTE | SATISFACTORY |
| 72475 | 016 | CI-06 | 805 | 2006-2E201-0001072-016 | | CONC SWAGE TBE NPT S-160 1/2"X3/8" MSS SP 95 WPB | SEE NOTE | SATISFACTORY |
| AR2240 | 095 | CI-07 | 164 | 2007-2E201-0000139-095 | | FITTING HEX BUSHING MF THRD NPT 3/8"x1/4" A105N | SEE NOTE | SATISFACTORY |
| 78482 | 006 | CI-07 | 213 | 2007-2E201-0000222-006 | | FITTING 45 ELB. THRD NPT 23M 1/4" A105N | SEE NOTE | SATISFACTORY |
| 72474 | 003 | CI-07 | 297 | 2007-2E201-0000339-003 | | FITTING 90 ELB. THRD NPT 2M 1.1/2" A105N | SEE NOTE | SATISFACTORY |
| 78877 | 063 | CI-07 | 297 | 2007-2E201-0000339-063 | | FITTING 90 ELB. SW 3M 1" A350/LF2 | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | SI% | Mn% | S% | P% | Cr% | Mo% | Ti% | Cu% | V% | Nb% | Ni% | AP% | G.E.% | OTHER ELEMENTS |
|-----------|------|---------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| 53878 | 029 | ASTM A106/B API 5LB | 0.150 | 0.230 | 0.480 | 0.012 | 0.009 | 0.060 | 0.070 | 0.010 | 0.000 | 0.240 | 0.005 | 0.000 | 0.000 | 0.000 | 0.266 | |
| 54094 | 013 | ASTM A106/B API 5LB | 0.150 | 0.250 | 0.500 | 0.012 | 0.006 | 0.070 | 0.060 | 0.010 | 0.000 | 0.160 | 0.003 | 0.000 | 0.000 | 0.000 | 0.266 | |
| 72475 | 003 | ASTM A234 WPB | 0.210 | 0.220 | 0.890 | 0.026 | 0.015 | 0.100 | 0.050 | 0.010 | 0.000 | 0.170 | 0.001 | 0.001 | 0.000 | 0.012 | 0.395 | |
| 72475 | 016 | ASTM A234 WPB | 0.210 | 0.220 | 0.890 | 0.026 | 0.015 | 0.100 | 0.050 | 0.010 | 0.000 | 0.170 | 0.001 | 0.001 | 0.000 | 0.012 | 0.395 | |
| AR2240 | 095 | ASTM A105 | 0.185 | 0.250 | 0.950 | 0.024 | 0.008 | 0.160 | 0.140 | 0.040 | 0.000 | 0.190 | 0.001 | 0.001 | 0.000 | 0.000 | 0.406 | |
| 78482 | 006 | ASTM A105 | 0.185 | 0.190 | 1.020 | 0.022 | 0.016 | 0.080 | 0.050 | 0.010 | 0.005 | 0.160 | 0.002 | 0.001 | 0.000 | 0.012 | 0.389 | |
| 72474 | 003 | ASTM A105 | 0.210 | 0.220 | 0.870 | 0.023 | 0.015 | 0.100 | 0.050 | 0.020 | 0.005 | 0.250 | 0.016 | 0.000 | 0.000 | 0.012 | 0.389 | |
| 78877 | 063 | ASTM A350 LF2 cl 1 | 0.195 | 0.220 | 0.960 | 0.018 | 0.018 | 0.120 | 0.060 | 0.010 | 0.005 | 0.200 | 0.002 | 0.000 | 0.000 | 0.016 | 0.493 | |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | SECT. mm | LENGHT mm | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS BRIN | BEAM TEST | FLAT TENSILE TEST | IMPACT TEST | SHAKE | YIELD POINT |
|-----------|------|--------|---------------|----------|-----------|-------------|------------------|------------|-------------------|---------------|-----------|-------------------|-------------|-------|-------------|
| 53878 | 029 | 0.00 | 0.00 | 309.0 | 477.0 | 52.0 | 49.0 | 49.0 | 0.0 | 154 - 162 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 54094 | 013 | 0.00 | 0.00 | 309.0 | 547.0 | 45.0 | 45.0 | 45.0 | 0.0 | 160 - 164 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72475 | 003 | 0.00 | 0.00 | 306.0 | 542.0 | 45.0 | 45.0 | 45.0 | 0.0 | 160 - 164 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72475 | 016 | 0.00 | 0.00 | 306.0 | 542.0 | 38.0 | 38.0 | 38.0 | 47.0 | 162 - 169 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| AR2240 | 095 | 122.65 | 50.00 | 285.0 | 652.0 | 31.0 | 31.0 | 31.0 | 58.0 | 160 - 164 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 78482 | 006 | 122.65 | 50.00 | 309.0 | 522.0 | 31.0 | 31.0 | 31.0 | 54.0 | 160 - 168 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72474 | 003 | 122.65 | 50.00 | 308.0 | 526.0 | 32.0 | 32.0 | 32.0 | 57.0 | 156 - 164 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 78877 | 063 | 122.65 | 50.00 | 316.0 | 548.0 | | | | | | | | | | |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | STEEL MILL | Our Ref. |
|-----------|------|-------------------------------------|--------------------------------------|------------------|-------------|----------|
| 53878 | 029 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PODBREZOVA | 063148 |
| 54094 | 013 | ASME SA ASTM A106/A106M-06 Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PODBREZOVA | 063147 |
| 72475 | 003 | ASME SA ASTM A234/A234M-06a Gr. WPB | Normalized at 880°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | |
| 72475 | 016 | ASME SA ASTM A234/A234M-06a Gr. WPB | Normalized at 880°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | |
| AR2240 | 095 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RODACCIAI | N10228 |
| 78482 | 006 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 061090 |
| 72474 | 003 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 061475 |
| 78877 | 063 | ASME SA ASTM A350-04a Gr. LF2 cl.1 | Normalized at 900°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | 061083 |

NOTES: ASME B16.11/05 - ANSI B31.3 - IML STD - ANSI B1.1-B16.2.2
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2009
 P.O. # 510478 E832806
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

BORIS FIZZOTTI
 FITTINGS IML
 STUDBOLTS

HEAT NUMBER : 72475
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
 Shipment/Seq #: 9 7 - 1310 156



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY NVA

TRANS AM PIPING PRODUCTS LTD.
 23051 Evidanor Drive S.E.
 Category: Abrasive TSP 206 CA

Certificate No. 101469
 Invoice No. 20
 Date 15.01.2007

16030 CASARZA LIGURE - Genova - Italy - P.222 Marco Cappelli,4 - Tel.0105-467661 - Fax 0105-466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 4 - 4

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|------|-------------|------------------------|--|------|-------------|--------------|------------------|
| 72475 | 002 | CI-06 - 534 | 2006-1E201-0000387-002 | CONC.SWAGE TBE NPT S-80 1/2"x1/4" MSS SP 95 WPB | | | SEE NOTE | SATISFACTORY |
| 72475 | 013 | CI-06 - 534 | 2006-1E201-0000387-013 | CONC.SWAGE TBE NPT S-160 1/2"x1/4" MSS SP 95 WPB | | | SEE NOTE | SATISFACTORY |
| 72475 | 002 | CI-06 - 650 | 2006-1E201-0000462-002 | CONC.SWAGE TBE NPT S-80 1/2"x1/4" MSS SP 95 WPB | | | SEE NOTE | SATISFACTORY |
| 72475 | 015 | CI-06 - 650 | 2006-1E201-0000462-015 | CONC.SWAGE TBE NPT S-160 1/2"x1/4" MSS SP 95 WPB | | | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | Si% | Mn% | S% | P% | Cr% | Mo% | Ti% | Cu% | V% | Nb% | N% | As% | C.E.% | OTHER ELEMENTS |
|-----------|------|---------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| 72475 | 002 | ASTM A234 WPB | | 0.210 | 0.220 | 0.890 | 0.026 | 0.015 | 0.100 | 0.050 | 0.000 | 0.170 | 0.001 | 0.001 | 0.000 | 0.012 | 0.395 | |
| 72475 | 013 | ASTM A234 WPB | | 0.210 | 0.220 | 0.890 | 0.026 | 0.015 | 0.100 | 0.050 | 0.000 | 0.170 | 0.001 | 0.001 | 0.000 | 0.012 | 0.395 | |
| 72475 | 002 | ASTM A234 WPB | | 0.210 | 0.220 | 0.890 | 0.026 | 0.015 | 0.100 | 0.050 | 0.000 | 0.170 | 0.001 | 0.001 | 0.000 | 0.012 | 0.395 | |
| 72475 | 015 | ASTM A234 WPB | | 0.210 | 0.220 | 0.890 | 0.026 | 0.015 | 0.100 | 0.050 | 0.000 | 0.170 | 0.001 | 0.001 | 0.000 | 0.012 | 0.395 | |

| HEAT CODE | HEAT | ITEM | TEST LENGTHEN SECT. mm2 | YIELD POINT LENGHT mm | YIELD POINT MINI-MAX | TENSILE STRENGTH MINI-MAX | ELONGATION % | REDUCTION OF AREA % | HARDNESS HRC | FLATTENING TEST | IMPACT TEST - JOULIENES | | | SHAPE 1-x 1-x 1-x | YIELD POINT MINI-MAX |
|-----------|------|------|----------------------------|--------------------------|-------------------------|------------------------------|-----------------|------------------------|-----------------|-----------------|-------------------------|---|---|----------------------|-------------------------|
| | | | | | | | | | | | 1 | 2 | 3 | | |
| 72475 | 002 | | 0.00 | 0.00 | 306.0 | 542.0 | 45.0 | 0.0 | 150 - 164 | 0.0 | 0 | 0 | 0 | 0.0 | |
| 72475 | 013 | | 0.00 | 0.00 | 306.0 | 542.0 | 45.0 | 0.0 | 160 - 184 | 0.0 | 0 | 0 | 0 | 0.0 | |
| 72475 | 002 | | 0.00 | 0.00 | 306.0 | 542.0 | 45.0 | 0.0 | 160 - 184 | 0.0 | 0 | 0 | 0 | 0.0 | |
| 72475 | 015 | | 0.00 | 0.00 | 306.0 | 542.0 | 45.0 | 0.0 | 160 - 164 | 0.0 | 0 | 0 | 0 | 0.0 | |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | FURNACE | STEEL MILL | Our Ref. |
|-----------|------|--|---------------------------|--------------------------------|------------------|-------------|----------|
| 72475 | 002 | ASME SA ASTM A234/A234M-05b Gr. WPB -# | | Normalized at 860°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | |
| 72475 | 013 | ASME SA ASTM A234/A234M-05b Gr. WPB | | Normalized at 860°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | |
| 72475 | 002 | ASME SA ASTM A234/A234M-05b Gr. WPB | | Normalized at 860°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | |
| 72475 | 015 | ASME SA ASTM A234/A234M-05b Gr. WPB | | Normalized at 860°C / Air Cool | ELECTRIC FURNACE | RIVA ACCIAI | |

NOTES ASME B16.11/05 - ANSI B31.1/BS1.3 - IML STD - ANSI B1.1-B18.2.2 -
 NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS
 SPECIFICATIONS AND P.O. REQUIREMENTS

INSPECTION AUTHORITY: QUALITY CONTROL DEPARTMENT
 MANUFACTURER'S SYMBOL: MANUFACTURER'S SYMBOL

BORIS FIZZOTTI
 FITTINGS IML
 STUDBOLTS

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 510428 E832806
 SIGNATURE: *AP*
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 72475
 TRANS AM PIPING PRODUCTS - REV'D BY: *AP*
 1/2X1/4 XH CONC SWAGE NIPPLE A234-WPB TBE
 Shipment/Seg #: 5 7 - 1039 20

HEAT NUMBER : 2810
 TRANS AM PIPING PRODUCTS - REV'D BY: *AB*
 Shipment/Seq #: S 8 - 1076 45

1/2" FS HEX HEAD PLUGS A105N



柏緯鐵工股份有限公司
 高雄縣仁武鄉烏林村仁心路 303 號
BOTH-WELL STEEL FITTINGS CO., LTD.
 NO.303, JEN-HSIN ROAD JEN-WU HSIANG
 KAOHSIUNG HSIEN, TAIWAN R.O.C.(814 60)
 TEL: (07) 371-0497, 371-1536, 372-0260 FAX: (886-7) 371-3864, 371-3882
 WEB SITE: <http://www.bothwell.com.tw> E-MAIL: bothwell@www.bothwell.com.tw or box@mail.bothwell.com.tw

An ISO-9001 Registered Manufacturer



MILL TEST & INSPECTION CERTIFICATE

ACCORDING TO EN10204/DIN50049/3.1.B

ORIGIN: TAIWAN

CUSTOMER: TRANS AM
 CERT NO: 80468

ORDER NO: 7283(CY-07-599)

INVOICE NO: BW079610133
 L/C NO:

DATE: 03/05/08
 PAGE: 14

| ITEM | BOTH WELL HT. CD. | RAW MATERIAL HEAT NO. | DESCRIPTION | QUANTITY | SPECIFICATION: ASTM A105N - 03 ASME SA105N - 106 |
|------|-------------------|-----------------------|-----------------------------------|----------|--|
| 060 | 2741 | 394572 | CAP 1" 6000# NPT | | DIMENSION: ASME B16.11 - 2005 SURFACE: BY VISUAL...GOOD |
| 061 | 2698 | 392983 | TEE SOLID BRANCH 1-1/2" 6000# NPT | | |
| 062 | 2810 | 395456 | HEX PLUG 1/2" NPT | | |
| 063 | 2771 | 395811 | HEX PLUG 3/4" NPT | | |
| 064 | 2722 | 394174 | HEX PLUG 1" NPT | | |
| 064 | 2776 | 395813 | HEX PLUG 1" NPT | | |
| 065 | 2738 | 394576 | HEX PLUG 2" NPT | | |

| ITEM | BOTH WELL HT. CD. | CHEMICAL COMPOSITION (%) | | | | | | | | | | | |
|------|-------------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| | | C | Si | Mn | P | S | Ca | Cr | Ni | Mo | V | Cb(Nb) | CE |
| | | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| 060 | 2741 | 0.210 | 0.180 | 0.870 | 0.018 | 0.011 | 0.150 | 0.080 | 0.070 | 0.020 | 0.002 | 0.001 | 0.390 |
| 061 | 2698 | 0.200 | 0.200 | 0.830 | 0.023 | 0.020 | 0.170 | 0.110 | 0.050 | 0.010 | 0.002 | 0.001 | 0.377 |
| 062 | 2810 | 0.200 | 0.200 | 0.870 | 0.016 | 0.016 | 0.130 | 0.070 | 0.070 | 0.010 | 0.002 | 0.001 | 0.375 |
| 063 | 2771 | 0.200 | 0.190 | 0.830 | 0.017 | 0.011 | 0.150 | 0.080 | 0.050 | 0.010 | 0.002 | 0.001 | 0.370 |
| 064 | 2722 | 0.200 | 0.180 | 0.820 | 0.016 | 0.015 | 0.170 | 0.080 | 0.050 | 0.010 | 0.002 | 0.001 | 0.366 |
| 064 | 2776 | 0.200 | 0.210 | 0.830 | 0.019 | 0.020 | 0.210 | 0.120 | 0.060 | 0.020 | 0.002 | 0.001 | 0.385 |
| 065 | 2738 | 0.200 | 0.200 | 0.840 | 0.023 | 0.011 | 0.190 | 0.080 | 0.060 | 0.010 | 0.002 | 0.001 | 0.375 |

| ITEM | BOTH WELL HT. CD. | MECHANICAL TEST | | | | | Remark: NORMALIZED : 850°C |
|------|-------------------|------------------------|----------------------|----------------|------------|----------------------|---|
| | | Tensile Strength (KSI) | Yield Strength (KSI) | Elongation (%) | R of A (%) | Hardness (AVG.) (HR) | |
| | | Min | Max | Min | Max | Min | |
| 060 | 2741 | 77.6 | 59.9 | 31.0 | 63.8 | 143 | WE CERTIFY THE ABOVE MENTIONED FITTINGS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS SHOWN <i>C.C. Chen</i> Q.C. MANAGER PC-COMPRESSION INSPECTOR CHIN CHEN HSIEN RECEIVED CHEN CHEN HUANG 2 4 2008 |
| 061 | 2698 | 79.2 | 57.6 | 31.0 | 63.2 | 141 | |
| 062 | 2810 | 80.0 | 60.0 | 30.4 | 61.8 | 144 | |
| 063 | 2771 | 79.8 | 55.9 | 31.4 | 63.3 | 145 | |
| 064 | 2722 | 77.6 | 59.5 | 30.2 | 64.1 | 143 | |
| 064 | 2776 | 77.5 | 58.8 | 33.8 | 65.2 | 142 | |
| 065 | 2738 | 77.7 | 60.5 | 31.0 | 65.4 | 142 | |

P.O. #50428 E832806
 SIGNATURE: *M*
 APPROVED BY Q.C. INSPECTOR



I.M.L.

INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
7025 - 44th Street S.E.
Calgary, Alberta T2C 4E9
CA

Certificate No: 15100
Invoice No: 425
Del. Note No: 659
Date: 19.04.2006
Date: 11.04.2006
Date: 11.04.2006

16200 CASARZA LIGURE - Genova - Italy - P.zza Marco Capponi, 4 - Tel. 0185.467861 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | | | | | | | | | | | |
|-----------|-------|------|---------------------------|-------------------------------------|------------------|--|-------------------|------------------|-----------------|--------------|-----------------------|--------------|--------------|-------------|--------------|--------------|--------------|----------------|----------------|
| DVL | 37609 | 029 | CI-06 - 314 | 2006-2E201-0000328-029 | | FITTING 90 ELB. THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| DVL | 37609 | 029 | CI-06 - 314 | 2006-2E201-0000328-029 | | FITTING 90 ELB. THRD NPT 3M 2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| GU1 | 75499 | 002 | CI-06 - 314 | 2006-2E201-0000328-002 | | FITTING 90 ELB. THRD NPT 2M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| H15 | 79944 | 004 | CI-06 - 314 | 2006-2E201-0000328-004 | | FITTING 90 ELB. THRD NPT 2M 1/2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| TH5 | 73215 | 007 | CI-06 - 314 | 2006-2E201-0000328-007 | | FITTING TEE THRD NPT 2M 3/8" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| TM1 | 74884 | 007 | CI-06 - 314 | 2006-2E201-0000328-007 | | FITTING TEE THRD NPT 2M 3/8" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| TM6 | 77612 | 009 | CI-06 - 314 | 2006-2E201-0000328-009 | | FITTING TEE THRD NPT 2M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| A42 | 77514 | 015 | CI-06 - 314 | 2006-2E201-0000328-015 | | FITTING 45 ELB. THRD NPT 2M 1/2" A105N | SEE NOTE | SATISFACTORY | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% 0.185 | Si% 0.200 | Mn% 1.050 | P% 0.024 | S% 0.018 | Cr% 0.130 | Ni% 0.080 | Mo% 0.020 | TP% 0.010 | CU% 0.190 | V% 0.001 | Nb% 0.000 | Ni% 0.000 | Al% 0.007 | C.E.% 0.408 | OTHER ELEMENTS |
| DVL | 37609 | 029 | ASTM A105 | 0.185 | 0.200 | 1.050 | 0.024 | 0.018 | 0.130 | 0.080 | 0.020 | 0.010 | 0.190 | 0.001 | 0.000 | 0.000 | 0.007 | 0.408 | |
| DVL | 37609 | 029 | ASTM A105 | 0.196 | 0.180 | 1.030 | 0.022 | 0.014 | 0.100 | 0.060 | 0.010 | 0.005 | 0.220 | 0.002 | 0.001 | 0.000 | 0.015 | 0.408 | |
| GU1 | 75499 | 002 | ASTM A105 | 0.196 | 0.190 | 0.880 | 0.025 | 0.020 | 0.130 | 0.070 | 0.010 | 0.008 | 0.240 | 0.002 | 0.001 | 0.000 | 0.006 | 0.391 | |
| H15 | 79944 | 004 | ASTM A105 | 0.190 | 0.180 | 0.960 | 0.010 | 0.012 | 0.110 | 0.050 | 0.010 | 0.018 | 0.170 | 0.016 | 0.001 | 0.000 | 0.020 | 0.392 | |
| TH5 | 73215 | 007 | ASTM A105 | 0.185 | 0.180 | 0.910 | 0.006 | 0.012 | 0.080 | 0.070 | 0.010 | 0.015 | 0.180 | 0.021 | 0.000 | 0.000 | 0.020 | 0.378 | |
| TM1 | 74884 | 007 | ASTM A105 | 0.185 | 0.200 | 0.900 | 0.021 | 0.013 | 0.100 | 0.060 | 0.010 | 0.005 | 0.190 | 0.002 | 0.001 | 0.000 | 0.014 | 0.374 | |
| TM6 | 77612 | 009 | ASTM A105 | 0.185 | 0.170 | 0.850 | 0.024 | 0.013 | 0.011 | 0.080 | 0.010 | 0.005 | 0.190 | 0.001 | 0.000 | 0.000 | 0.015 | 0.354 | |
| A42 | 77514 | 015 | ASTM A105 | 0.190 | 0.170 | 0.850 | 0.024 | 0.013 | 0.011 | 0.080 | 0.010 | 0.005 | 0.190 | 0.001 | 0.000 | 0.000 | 0.015 | 0.354 | |
| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS IR | FLATTENING TEST | BEND TEST | IMPACT TEST - JOULINE | TYPE | SHUPE | YIELD POINT | | | | | |
| DVL | 37609 | 029 | 122.65 | 50.00 | 350.0 | 33.0 | 61.0 | 163 - 165 | 0.0 | 0.0 | KV | 1 | 107 | 0.0 | | | | | |
| DVL | 37609 | 029 | 122.65 | 50.00 | 350.0 | 33.0 | 61.0 | 163 - 165 | 0.0 | 0.0 | KV | 1 | 107 | 0.0 | | | | | |
| GU1 | 75499 | 002 | 122.65 | 50.00 | 364.0 | 31.0 | 54.0 | 160 - 166 | 0.0 | 0.0 | KV | 1 | 107 | 0.0 | | | | | |
| H15 | 79944 | 004 | 122.65 | 50.00 | 364.0 | 31.0 | 58.0 | 164 - 166 | 0.0 | 0.0 | KV | 1 | 104 | 0.0 | | | | | |
| TH5 | 73215 | 007 | 122.65 | 50.00 | 330.0 | 33.0 | 56.0 | 152 - 158 | 0.0 | 0.0 | KV | 1 | 105 | 0.0 | | | | | |
| TM1 | 74884 | 007 | 122.65 | 50.00 | 320.0 | 34.0 | 55.0 | 152 - 158 | 0.0 | 0.0 | KV | 1 | 100 | 0.0 | | | | | |
| TM6 | 77612 | 009 | 122.65 | 50.00 | 334.0 | 35.0 | 55.0 | 158 - 166 | 0.0 | 0.0 | KV | 1 | 105 | 0.0 | | | | | |
| A42 | 77514 | 015 | 122.65 | 50.00 | 308.0 | 34.0 | 56.0 | 160 - 166 | 0.0 | 0.0 | KV | 1 | 104 | 0.0 | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | | | | | | | | | | | | | | | |
| DVL | 37609 | 029 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | |
| DVL | 37609 | 029 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | |
| GU1 | 75499 | 002 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | |
| H15 | 79944 | 004 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | |
| TH5 | 73215 | 007 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | |
| TM1 | 74884 | 007 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | |
| TM6 | 77612 | 009 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | |
| A42 | 77514 | 015 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | | | | |

| HEAT CODE | HEAT | ITEM | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL |
|-----------|-------|------|---|----------------------------|-----------------------|-----------------------|
| DVL | 37609 | 029 | ASME B16.11/01 - BS 3799 - ANSI B31.1/R31.3 - IML STD. - ANSI | PC COMPRESSION | BORIS PIZZOTTI | STUDBOLTS |
| DVL | 37609 | 029 | B1.1-818.2.2 - NACE MR0175 ISO 15156/1 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS | DATE RECEIVED JUN 24 2008 | IML | |
| GU1 | 75499 | 002 | | P.O. # 510428 E8-32806 | FITTINGS | |
| H15 | 79944 | 004 | | SIGNATURE: <i>ML</i> | IML | |
| TH5 | 73215 | 007 | | APPROVED BY Q.C. INSPECTOR | | |
| TM1 | 74884 | 007 | | | | |
| TM6 | 77612 | 009 | | | | |
| A42 | 77514 | 015 | | | | |

HEAT NUMBER : TM1
TRANS AM PIPING PRODUCTS - REV'D BY: *ML*
3/8" CL 2000 FS SCRD TEE A105N
SHIPMENT/SEQ # : 5 6 - 1229

HEAT NUMBER : Y03
 TRANS AM PIPING PRODUCTS - REV'D BY:
 Shipment/Seq #: S 8 - 1222 4

3/8 X 4 XH SMLS STEEL NIPPLES A106
 TBE



**Phoenix * Capitol * Camco
 Cap Products**

Certified Mill Test Report

Commanding a Higher Standard

5/21/2008

Customer
 TRANS AM PIPING PRODUCTS LTD. AB

P.O. EI-08-312

Heat No 710812
Heat Code Y03 ✓
Phoenix Order # 549707

9335 ENDEAVOR DRIVE S.E.
 CALGARY, AB T3S 0A1

Material ASTM A106-1999e B / ASME SA106-2001 Edition, No Adden

Part Number
 15110408

Description
 3/8 X 4" XH SMLS BK STL NIPL

Chemical Properties

| C | Mn | P | S | Si | Cu | Cr | Ni | C Eq. Long | |
|-------|-------|-------|-------|-------|-------|-------|-------|------------|----|
| 0.180 | 0.490 | 0.016 | 0.025 | 0.220 | 0.040 | 0.030 | 0.030 | 0.275 | |
| Mo | V | Co | Al | Cb | N | Pb | Sn | Ta | Ti |
| 0.010 | 0.001 | | | | | | | | |

Additional Chemical Properties

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |

| |
|---------------------|
| Cr + Cu + Ni |
| 0.100 |

Mechanical Properties

Charpy Minimum Impact -

| Tensile (PSI) | Yield (PSI) | Elong. % in 2 in. | R of A | BHN | Test 1 | Test 2 | Test 3 | Average |
|---------------|-------------|-------------------|--------|-----|--------|--------|--------|---------|
| 73,000 | 49,300 | 36.0% | | | N/A | N/A | N/A | N/A |

* Hydro test passed. at 2500 psi.

* Bend test passed.

This material meets the requirements of the governing specifications We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and test conform with applicable requirements.

We further certify this material was inspected with independent inspectors conforming to the requirements of EN10204 Section 3.1B.

Comments:

MEETS HARDNESS REQUIREMENTS OF NACE MRO175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

CapProducts. Ltd.

25 Winnipeg St

Vanast...

| | | | |
|----------------------------|--|--|--|
| DATE | | BC COMPRESSION RECEIVED JUN 24 2008 | |
| P.O. # | | S10428 ER32806 | |
| SIGNATURE: | | N | |
| APPROVED BY Q.C. INSPECTOR | | | |



I.M.L.

INDUSTRIA MECCANICA LIQUORE SPA

16030 CASARZA LIQUORE - Carovino - Italy - P.zza Marco Capovilla, 4 - Tel. 0165.457441 - Fax 0165.457441

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
COMPANY WITH QUALITY SYSTEM ISO 9001:2000
CERTIFIED BY IRMA

TRANS AM PIPING PRODUCTS L.T.O.
7025 - 44p Steel S.E.
Cagley, Abruzzo TSC 4EB CA

Dated 04.01.2005
Date 28.07.2005
Date 29.07.2005

Certificate Nr 15549
Invoice Nr 927
Del. Note Nr 1404

This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 - Page

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | QTY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|------|------|------------------------------------|---------------|-----|---|--------------|------------------|
| 95492 | 108 | 108 | CI-05 - 203 2005-2E201-0000225-108 | | | P. NIPPLE TBE NPT S-80 3/8" L26mm (1 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 95479 | 39 | 39 | CI-05 - 203 2005-2E201-0000225-039 | | | P. NIPPLE TBE NPT S-80 1/2" L125mm (5") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 95479 | 41 | 41 | CI-05 - 203 2005-2E201-0000225-041 | | | P. NIPPLE TBE NPT S-80 1/2" L125mm (5") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 95479 | 42 | 42 | CI-05 - 203 2005-2E201-0000225-042 | | | P. NIPPLE TBE NPT S-80 1/2" L140mm (5 1/2") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 95479 | 43 | 43 | CI-05 - 203 2005-2E201-0000225-043 | | | P. NIPPLE TBE NPT S-80 1/2" L150mm (6") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 78854 | 74 | 74 | CI-05 - 203 2005-2E201-0000225-074 | | | P. NIPPLE TBE NPT S-160 1/2" L150mm (6") A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 4886417 | 081 | 081 | CI-05 - 203 2005-2E201-0000225-081 | | | P. NIPPLE TBE NPT S-80 1/4" CLOSED L.22mm A106B/API 5LB | SEE NOTE | SATISFACTORY |
| 95532 | 1 | 1 | CI-05 - 203 2005-2E201-0000225-001 | | | P. NIPPLE TBE NPT S-80 1/4" CLOSED L.22mm A106B/API 5LB | SEE NOTE | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | MATERIAL | C% | S% | Mn% | P% | S% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Nb% | N% | As% | G.E.% | OTHER ELEMENTS |
|-----------|------|------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| 95492 | 108 | 108 | ASTM A106B API 5LB | 0.130 | 0.230 | 0.610 | 0.009 | 0.007 | 0.040 | 0.070 | 0.010 | 0.000 | 0.200 | 0.000 | 0.000 | 0.000 | 0.030 | 0.000 | |
| 95479 | 39 | 39 | ASTM A106B API 5LB | 0.140 | 0.240 | 0.610 | 0.007 | 0.014 | 0.070 | 0.070 | 0.010 | 0.000 | 0.140 | 0.000 | 0.000 | 0.030 | 0.000 | | |
| 95479 | 41 | 41 | ASTM A106B API 5LB | 0.140 | 0.240 | 0.610 | 0.007 | 0.014 | 0.070 | 0.070 | 0.010 | 0.000 | 0.140 | 0.000 | 0.000 | 0.030 | 0.000 | | |
| 95479 | 42 | 42 | ASTM A106B API 5LB | 0.140 | 0.240 | 0.610 | 0.007 | 0.014 | 0.070 | 0.070 | 0.010 | 0.000 | 0.140 | 0.000 | 0.000 | 0.030 | 0.000 | | |
| 95479 | 43 | 43 | ASTM A106B API 5LB | 0.150 | 0.230 | 0.630 | 0.005 | 0.014 | 0.100 | 0.120 | 0.040 | 0.000 | 0.210 | 0.003 | 0.000 | 0.022 | 0.000 | | |
| 78854 | 74 | 74 | ASTM A106B API 5LB | 0.169 | 0.300 | 0.880 | 0.007 | 0.020 | 0.180 | 0.160 | 0.046 | 0.000 | 0.125 | 0.004 | 0.000 | 0.036 | 0.000 | | |
| 4886417 | 081 | 081 | ASTM A106B API 5LB | 0.160 | 0.240 | 0.630 | 0.006 | 0.018 | 0.060 | 0.010 | 0.000 | 0.000 | 0.110 | 0.000 | 0.000 | 0.030 | 0.000 | | |
| 95532 | 1 | 1 | ASTM A106B API 5LB | 0.160 | 0.240 | 0.630 | 0.006 | 0.018 | 0.060 | 0.010 | 0.000 | 0.000 | 0.110 | 0.000 | 0.000 | 0.030 | 0.000 | | |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | SECT. AREA | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | SPIND TEST | FLATTENING TEST | TYPE TEST TIME | IMPACT TEST | SHAPE | YIELD POINT |
|-----------|------|------|---------------|------------|-------------|------------------|------------|-------------------|------------|-----------------|----------------|-------------|-------|-------------|
| 95492 | 108 | 108 | 0.00 | 0.00 | 378.0 | 512.0 | 41.0 | 0.0 | 153 - 160 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| 95479 | 39 | 39 | 0.00 | 0.00 | 384.0 | 500.0 | 32.3 | 0.0 | 150 - 156 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| 95479 | 41 | 41 | 0.00 | 0.00 | 384.0 | 500.0 | 32.3 | 0.0 | 150 - 156 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| 95479 | 42 | 42 | 0.00 | 0.00 | 384.0 | 500.0 | 32.3 | 0.0 | 150 - 156 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| 95479 | 43 | 43 | 0.00 | 0.00 | 384.0 | 500.0 | 32.3 | 0.0 | 150 - 156 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| 78854 | 74 | 74 | 0.00 | 0.00 | 328.0 | 457.0 | 36.0 | 0.0 | 149 - 154 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| 4886417 | 081 | 081 | 0.00 | 0.00 | 433.0 | 524.0 | 33.0 | 0.0 | 180 - 185 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| 95532 | 1 | 1 | 0.00 | 0.00 | 367.0 | 501.0 | 40.0 | 0.0 | 148 - 156 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | FURNACE | STEEL MILL | Our Ref. |
|-----------|------|------|-----------------------------------|--------------------------------------|------------------|------------|----------|
| 95492 | 108 | 108 | ASME SA ASTM A106/A160M-04B Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 053029 |
| 95479 | 39 | 39 | ASME SA ASTM A106/A160M-04B Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 053031 |
| 95479 | 41 | 41 | ASME SA ASTM A106/A160M-04B Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 053031 |
| 95479 | 42 | 42 | ASME SA ASTM A106/A160M-04B Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 053031 |
| 95479 | 43 | 43 | ASME SA ASTM A106/A160M-04B Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 053031 |
| 78854 | 74 | 74 | ASME SA ASTM A106/A160M-04B Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | T.REUNIDOS | 053032 |
| 4886417 | 081 | 081 | ASME SA ASTM A106/A160M-04B Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 053009 |
| 95532 | 1 | 1 | ASME SA ASTM A106/A160M-04B Gr. B | Normalized at 880°C-920°C / Air Cool | ELECTRIC FURNACE | PIETRA | 043059 |

NOTES: ASME B16.11/01 - BS.3799 - ANSI B31.1/B31.3 - (MIL STD - ANSI B1.1-B18.2.2 - NACE MR0175 ISO 15156/1 - SUPPLEMENTARY REQUIREMENTS SPECIFICATIONS AND P.O. REQUIREMENTS

INSPECTION AUTHORITY: QUALITY CONTROL DEPARTMENT

MANUFACTURER'S SYMBOL: MANUFACTURER'S SYMBOL

FITTINGS: IMIL

STUDBOLTS: STUDBOLTS

BORIS FIZZOTTI

PC COMPRESSION

DATE RECEIVED MAY 28 2007

P.O. # 508524


SIGNATURE: HC

AT NUMBER : 95492

TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]

Item/Seq #: 5 - 1513

3/8x11/2 KH SMLS STEEL NIPPLES A106 TBE

HEAT NUMBER : 2396
 TRANS AM PIPING PRODUCTS - REV'D BY: 
 Shipment/Seq #: S 6 - 1290 30

3/8" FS HEX HEAD PLUGS A105N



柏維鐵工股份有限公司

高雄縣仁武鄉烏林村仁心路 303 號

BOTH-WELL STEEL FITTINGS CO., LTD.

NO.303, JEN-HSIN ROAD JEN-WU HSIANG

KAHSIUNG HSIEN, TAIWAN R.O.C.(81405)

TEL: (07) 371-0497, 371-1586, 372-0260 FAX: (886-7) 371-3864, 371-3882

WEB SITE: <http://www.bothwell.com.tw> E-MAIL: bothwell@www.bothwell.com.tw or box@mail.bothwell.com.tw

An ISO-9001 Registered Manufacturer



MILL TEST & INSPECTION CERTIFICATE

ACCORDING TO EN10204/DIN50049/3.1.B

ORIGIN: TAIWAN

CUSTOMER: TRANS AM
 CERT NO: 60873

ORDER NO: 5461(CI-06-185)


INVOICE NO: NW069582025

DATE: 05/06/06

PAGE: 12

| ITEM | RAW MATERIAL HEAT NO. | BOTH WELL HT. CH. | DESCRIPTION | PC COMPRESSION | | SPECIFICATION: ASTM / ASME A/SA 105N -03 DIMENSION: ASME B16.11 - 2001 SURFACE: BY VISUAL...GOOD |
|------|-----------------------|-------------------|---------------------|----------------|----------|--|
| | | | | DATE RECEIVED | QUANTITY | |
| 053 | 382402 | 2386 | HEX PLUG 3/8" NPT | MAY 2 2006 | | |
| 054 | 383047 | 2417 | HEX PLUG 1/2" NPT | | | |
| 055 | 383047 | 2417 | HEX PLUG 3/4" NPT | | | |
| 056 | 382406 | 2403 | HEX PLUG 1" NPT | | | |
| 056 | 384289 | 2435 | HEX PLUG 1" NPT | | | |
| 057 | 380817 | 2363 | HEX PLUG 1-1/2" NPT | | | |
| 058 | 381664 | 2386 | HEX PLUG 3" NPT | | | |

| ITEM | CHEMICAL COMPOSITION (%) | | | | | | | | | | | |
|------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | C | Si | Mn | P | S | Cu | Cr | Ni | Mo | V | Nb | CE |
| Min | - | 0.100 | 0.600 | - | - | - | - | - | - | - | - | - |
| Max | 0.350 | 0.350 | 1.050 | 0.035 | 0.040 | 0.400 | 0.300 | 0.400 | 0.120 | 0.080 | - | 0.430 |
| 053 | 0.220 | 0.200 | 0.880 | 0.012 | 0.010 | 0.180 | 0.060 | 0.040 | 0.010 | 0.001 | 0.003 | 0.400 |
| 054 | 0.220 | 0.200 | 0.890 | 0.015 | 0.017 | 0.120 | 0.050 | 0.040 | 0.010 | 0.002 | 0.001 | 0.390 |
| 055 | 0.220 | 0.200 | 0.890 | 0.015 | 0.017 | 0.120 | 0.050 | 0.040 | 0.010 | 0.002 | 0.001 | 0.390 |
| 056 | 0.180 | 0.180 | 0.850 | 0.014 | 0.010 | 0.130 | 0.120 | 0.080 | 0.020 | 0.001 | 0.004 | 0.360 |
| 056 | 0.210 | 0.220 | 0.840 | 0.018 | 0.009 | 0.100 | 0.085 | 0.040 | 0.010 | 0.003 | 0.002 | 0.380 |
| 057 | 0.220 | 0.190 | 0.890 | 0.020 | 0.010 | 0.150 | 0.100 | 0.040 | 0.010 | 0.002 | 0.001 | 0.400 |
| 058 | 0.190 | 0.210 | 0.830 | 0.023 | 0.016 | 0.120 | 0.090 | 0.050 | 0.010 | 0.002 | 0.002 | 0.360 |

| ITEM | MECHANICAL TEST | | | | | Remark: NORMALIZED : 850°C CONFORMS TO NACE MR0175-2003 STEEL MAKING PROCESS: ELECTRIC FURNACE |
|------|------------------------|----------------------|------------------|------------|---------------|--|
| | Tensile Strength (KSI) | Yield Strength (KSI) | Elon- Gation (%) | R of A (%) | Hardness (HB) | |
| Min | 70.0 | 36.0 | 22.0 | 30.0 | - | |
| Max | - | - | - | - | 187 | |
| 053 | 78.6 | 57.6 | 30.0 | 64.0 | 140 | WE CERTIFY THE ABOVE MENTIONED FITTINGS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS SHOWN  Q.C. MANAGER SHENG CHENG LEE |
| 054 | 78.0 | 62.4 | 35.6 | 67.5 | 143 | |
| 055 | 78.0 | 62.4 | 35.6 | 67.5 | 143 | |
| 056 | 77.7 | 60.4 | 33.6 | 65.7 | 140 | |
| 056 | 78.1 | 58.8 | 32.0 | 65.7 | 140 | |
| 057 | 78.3 | 52.2 | 29.0 | 63.8 | 142 | |
| 058 | 77.0 | 60.3 | 34.0 | 64.1 | 141 | |
| | | | | | | |

BW-B0839 REV:0

1/4" CL 2000 FS SCRD TEB A105N

HEAT NUMBER : T07
 TRANS AM PIPING PRODUCTS - REV'D BY :
 Shipment/Seg #: 5 7 - 1366

PC COMPRESSION
 DATE RECEIVED MAY 29 2008
 P.O. # 510286 E829634
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR
 INSPECTION CERTIFICATE EN 10204:2004 / 3.1



INDUSTRIA MECCANICA LIGURE SPA

I.M.L.

COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

230051 Endeavour Drive SE
 Calgary, Alberta T2P 2G6

TRANS AM PIPING PRODUCTS LTD.

Certificate No 17729
 Invoice No 723
 Cell. No. No. 1141

Date 01.07.2007
 Dated 29.08.2007
 Dated 29.08.2007

16039 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappella, 4 - Tel.010.487851 - Fax 010.486510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 1 - 32

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | QTY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | MATERIAL IN ACCORDANCE TO | | | | | | | | | | SHAPE | YIELD POINT | | | | | |
|-----------|---------|------|--|------------------------|----------------------|-------------|----------------------------|------------------|---------------------------|-------------|-----------------------|------------|-----------------------|-------------|-----------------------|-----------------|-----------------------|---------|-----------------------|-------------|-----------------------|---------|-----------------------|-----|-----|
| | | | | | | | | | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HB | BOUND TEST | FLATTENING TEST | IMPACT TEST | FURNACE | | | STEEL MILL | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | CT% | SA% | 80% | 5% | P% | C% | N% | Mo% | Ti% | Cu% | V% | Nb% | N% | AT% | C.E.% | 1 | 2 | 3 | 100 MPa | Min | Max | |
| 14A | 74524 | 001 | CI-07 - 380 | 2007-2E201-0000541-001 | 0,210 | 0,240 | 0,910 | 0,019 | 0,018 | 0,090 | 0,040 | 0,010 | 0,005 | 0,150 | 0,001 | 0,000 | 0,020 | 0,395 | 99 | 101 | 105 | KV | 20 | 99 | 101 |
| EUV | 77985 | 002 | ASTM A105 | | 0,205 | 0,210 | 0,950 | 0,021 | 0,012 | 0,110 | 0,070 | 0,010 | 0,010 | 0,170 | 0,001 | 0,000 | 0,006 | 0,404 | 20 | 96 | 98 | KV | 20 | 96 | 98 |
| TU7 | 0674169 | 004 | ASTM A105 | | 0,180 | 0,160 | 0,960 | 0,009 | 0,014 | 0,100 | 0,040 | 0,010 | 0,018 | 0,150 | 0,001 | 0,000 | 0,023 | 0,362 | 20 | 99 | 100 | KV | 20 | 99 | 100 |
| A59 | 77003 | 005 | ASTM A105 | | 0,190 | 0,210 | 0,870 | 0,021 | 0,017 | 0,110 | 0,060 | 0,020 | 0,005 | 0,210 | 0,001 | 0,000 | 0,013 | 0,379 | 20 | 109 | 115 | KV | 20 | 109 | 115 |
| TU7 | 0674169 | 009 | ASTM A105 | | 0,180 | 0,160 | 0,960 | 0,009 | 0,014 | 0,100 | 0,040 | 0,010 | 0,018 | 0,150 | 0,001 | 0,000 | 0,023 | 0,382 | 20 | 99 | 100 | KV | 20 | 99 | 100 |
| TMO | 75498 | 010 | ASTM A105 | | 0,185 | 0,170 | 1,020 | 0,026 | 0,014 | 0,090 | 0,060 | 0,010 | 0,005 | 0,230 | 0,001 | 0,000 | 0,012 | 0,395 | 20 | 106 | 100 | KV | 20 | 106 | 100 |
| FDI | 74416 | 012 | ASTM A105 | | 0,185 | 0,210 | 0,970 | 0,023 | 0,017 | 0,110 | 0,050 | 0,010 | 0,005 | 0,150 | 0,001 | 0,000 | 0,018 | 0,384 | 20 | 105 | 100 | KV | 20 | 105 | 100 |
| TN1 | 78878 | 010 | ASTM A105 | | 0,220 | 0,230 | 0,970 | 0,023 | 0,016 | 0,110 | 0,050 | 0,010 | 0,006 | 0,180 | 0,001 | 0,000 | 0,017 | 0,385 | 20 | 108 | 105 | KV | 20 | 108 | 105 |
| HEAT CODE | HEAT | ITEM | MATERIAL | CT% | SA% | 80% | 5% | P% | C% | N% | Mo% | Ti% | Cu% | V% | Nb% | N% | AT% | C.E.% | FURNACE | | STEEL MILL | | Our Ref. | | |
| 14A | 74524 | 001 | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ELECTRIC FURNACE | RIVA ACCIAI | RIVA ACCIAI | 061602 | | | |
| EUV | 77985 | 002 | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ELECTRIC FURNACE | RIVA ACCIAI | RIVA ACCIAI | 072006 | | | |
| TU7 | 0674169 | 004 | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ELECTRIC FURNACE | RIVA ACCIAI | RIVA ACCIAI | 072038 | | | |
| A59 | 77003 | 005 | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ELECTRIC FURNACE | RIVA ACCIAI | RIVA ACCIAI | 051342 | | | |
| TU7 | 0674169 | 009 | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ELECTRIC FURNACE | RIVA ACCIAI | RIVA ACCIAI | 072038 | | | |
| TMO | 75498 | 010 | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ELECTRIC FURNACE | RIVA ACCIAI | RIVA ACCIAI | 051227 | | | |
| FDI | 74416 | 012 | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ELECTRIC FURNACE | RIVA ACCIAI | RIVA ACCIAI | 072006 | | | |
| TN1 | 78878 | 010 | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ASME SA ASTM A105-05 | | ELECTRIC FURNACE | RIVA ACCIAI | RIVA ACCIAI | 061085 | | | |
| NOTES | | | ASME B16.11/05 - ANSI B31.1/BS31.1 - IML STD - ANSI B1.1-B18.2.2 - | | INSPECTION AUTHORITY | | QUALITY CONTROL DEPARTMENT | | MANUFACTURER'S SYMBOL | | MANUFACTURER'S SYMBOL | | MANUFACTURER'S SYMBOL | | MANUFACTURER'S SYMBOL | | MANUFACTURER'S SYMBOL | | MANUFACTURER'S SYMBOL | | MANUFACTURER'S SYMBOL | | MANUFACTURER'S SYMBOL | | |
| | | | NACE MR0175 ISO 15156/1 - MSS SP 83 - SUPPLIED MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS | | BORIS FIZZOTTI | | FITTINGS | | IML | | STUDBOLTS | | | | | | | | | | | | | | |



STUDBOLTS

FITTINGS

IML

BORIS FIZZOTTI

Line 16

M.E.G.A.

CLIENTE Customer Client
CE FRANKLIN LTD.
 1900 - 300 - 5th AVENUE S.W.
 CALGARY, ALBERTA, CANADA T2P 3C4

CERTIFICATO N° 526364 FOLIO 6
 Certificate N° Sheet
 Certificat N° Feuille
 DATA / Date 09/06/05

CERTIFICATO DI COLLAUDO
TEST CERTIFICATE
CERTIFICAT DE CONTROLE

COMPANY
 WITH QUALITY SYSTEM
 CERTIFIED BY DNV
 ISO 9001

ORDINE Purchase order
 Commands 1313245-OR-2100

COMMESSA 76467
 Job N°
 Contrattazione de commanda

| PROVA Test Epreuve | MATERIALE Steel quality / Matière | CODICE Heat / Code | C% | Si% | Mn% | S% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | V% | Al% | CE% |
|--------------------|-----------------------------------|--------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CRBN | ASTM A105/01 | 129809 | 0.172 | 0.216 | 1.070 | 0.005 | 0.008 | 00.09 | 00.16 | 0.025 | 0.000 | 0.274 | 0.001 | 0.035 | 0.402 |
| | | | NbX= 0.001 | | | | | | | | | | | | |
| FFNT | ASTM A105/02 | 1T 12003 | 0.190 | 0.230 | 0.900 | 0.010 | 0.011 | 00.09 | 00.11 | 0.020 | 0.002 | 0.230 | 0.001 | 0.031 | 0.384 |
| | | | NbX= 0.002 | | | | | | | | | | | | |
| FLLT | ASTM A105/02 | 78614 | 0.180 | 0.190 | 0.880 | 0.007 | 0.010 | 00.09 | 00.06 | 0.010 | 0.000 | 0.200 | 0.018 | 0.023 | 0.367 |
| | | | NbX= 0.000 | | | | | | | | | | | | |
| CDDR | ASTM A105/01 | 73309 | 0.195 | 0.190 | 0.900 | 0.019 | 0.014 | 00.06 | 00.06 | 0.010 | 0.000 | 0.180 | 0.002 | 0.000 | 0.375 |
| | | | NbX= 0.001 | | | | | | | | | | | | |
| LALL | ASTM A105/02 | CAP*79948 | 0.180 | 0.210 | 0.910 | 0.020 | 0.019 | 00.13 | 00.08 | 0.010 | 0.009 | 0.230 | 0.002 | 0.005 | 0.380 |
| | | | NbX= 0.001 | | | | | | | | | | | | |
| 9YB | ASTM A105N/01 | 920905 | 0.180 | 0.250 | 0.800 | 0.017 | 0.029 | 00.04 | 00.12 | 0.030 | 0.000 | 0.210 | 0.003 | 0.030 | 0.349 |
| | | | NbX= 0.010 | | | | | | | | | | | | |

| PROVA Test Epreuve | PROVETTA Test specimen / Epreuve | | SNERGIAMENTO Yield point Limite d'elasticité | RITTOURA Strain % Tensile strength Rupture | ALLUNGAMENTO % Elongation Allongement | CONTRAZIONE % Reduction of area Striction | DUREZZA HB Hardness Durezza | PIEGA Bend test Pliage | SCHIACC. Flat test Appiattiss. | RESILIENZA Impact test / Résilience | | |
|--------------------|----------------------------------|-----------------------------|--|--|---------------------------------------|---|-----------------------------|------------------------|--------------------------------|-------------------------------------|-----------------|------------------------|
| | SEZIONE Section / Sect. | LUNGHEZZA Length / Longueur | | | | | | | | UNITÀ MIS. Unit system | T. °C Test temp | VALORE Value / Dangers |
| CRBN | 1 | 30.6 25.0 | 314.0 | 522.0 | 32.4 | 68.4 | 159-163 | | | | | |
| FFNT | 1 | 30.6 25.0 | 299.0 | 524.0 | 30.9 | 68.6 | 143-150 | | J | KV | 0 | 56-50-50 |
| FLLT | 1 | 60.1 35.0 | 299.0 | 510.0 | 31.2 | 69.5 | 143-150 | | J | KV | 0 | 198-196-190 |
| CDDR | 1 | 126.6 50.0 | 314.0 | 529.0 | 31.0 | 65.0 | 159-163 | | J | KV | 0 | 46-40-40 |
| LALL | 1 | 126.6 50.0 | 321.0 | 518.0 | 34.0 | 60.0 | 156-159 | | J | KV | 0 | 44-46-40 |
| 9YB | | | 363.0 | 512.0 | 30.0 | 58.0 | 156-160 | | J | KV | 0 | 60-48-52 |

NOTE / Remarks / Notes

EN10204/3.1

FORMA Shape / Forme : 1 = Ø 2 = □

| | |
|------|---|
| CRBN | ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.99.02 EVASI*209816 MEGA |
| FFNT | ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.60.04 EVASI*242020 MEGA |
| FLLT | ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.77.04 EVASI*247491 MEGA* |
| CDDR | ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.1055.02 METALFAR |
| LALL | ELECT.FURNACE-NORMALIZED AT 920 C COOLED IN STILL AIR. /CERT.725.05 METALFAR* |
| 9YB | ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.2442.89 PAPANI |

| PROVA Test Epreuve | POS. Item Pos. | QUANTITÀ Quantity Quota | CODICE CLIENTE Customer code Code client | DESCRIZIONE / Description / Description | VISUAL AND DIMENSIONAL |
|--------------------|----------------|-------------------------|--|---|------------------------|
| CRBN | 051 | 150 | 1095726 | CROSS S. 3000 NPT A/SA105N 1/4 | OK |
| FFNT | 052 | 100 | 1096059 | CROSS S. 3000 NPT A/SA105N 1/2 | OK |
| FLLT | 053 | 72 | 1095646 | CROSS S. 3000 NPT A/SA105N 1 | OK |
| CDDR | 054 | 12 | 1090685 | CROSS S. 3000 NPT A/SA105N 1.1/2 | OK |
| LALL | 055 | 100 | 1095232 | CROSS S. 3000 NPT A/SA105N 2 | OK |
| 9YB | 056 | 100 | 1095161 | COUPLING S. 3000 NPT A/SA105N 1/8 | OK |

PC COMPRESSION RECEIVED MAY 0 1 2006

DATE

P.O. # 506295-00 INV

SIGNATURE *JM*

APPROVED BY D.O. INSPECTOR

NOTE / Remarks / Notes

ENTE UFFICIALE DI COLLAUDO Inspection Authority Service Inspection Office

CAPO COLLAUDO Chief Inspection Officer Responsible assurance qualita

MATERIAL ACCORDING TO:
 NACE MR. 0175 Ed. 2003.

DOC. CERT. M.E.G.A.
 Luca Arcati

HEAT NUMBER : 47322
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
 Shipment/Seg #: B 3 - 1247 71



INDUSTRIA MECCANICA LIGURE SPA

16069 CARMONA LIGURE - Genova - P.zza Mario Capovilla, 1 - Tel. 010.53.42.6510 - Fax 010.53.42.6510

INSPECTION CERTIFICATE DIN 69043-1B - EN 10204-1B
 COMPANY WITH QUALITY SYSTEM ISO 9002
 CERTIFIED BY IMA

TRANS AM PIPING PRODUCTS
 7025 - 4th Street S.E.
 Calgary, Alberta T2C 4E9 CA


Created 03.06.2008
 Revised 26.05.2008
 Deleted 26.05.2008

This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 3 - 4

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | QTY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. | MECHANICAL PROPERTIES | | | | | | | | | | OTHER ELEMENTS | |
|-----------|-------|------|-----------|------------------------|----------|---|--------------|------------------|-----------------------|------------------|------------|-------------------|--------|--------|------------|-------------|------|--------|----------------|------------|
| | | | | | | | | | YIELD STRENGTH | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | IMPACT | HAZARD | RELATIVITY | TEMPERATURE | TYPE | IMPACT | | HAZARD |
| | | | HEAT | ITEM | MATERIAL | HEAT | ITEM | MATERIAL | YIELD STRENGTH | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | IMPACT | HAZARD | RELATIVITY | TEMPERATURE | TYPE | IMPACT | HAZARD | RELATIVITY |
| 47322 | 47322 | 0005 | C102296 | 2002-2E201-0001377-006 | 1 | P NIPPLE TBE NPT S-80 1/4" L125mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 47322 | 47322 | 0012 | C102296 | 2002-2E201-0001377-015 | 1 | P NIPPLE TBE NPT S-80 1/4" L125mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 47031 | 47031 | 0016 | C102296 | 2002-2E201-0001377-019 | 1 | P NIPPLE TBE NPT S-80 3/8" L150mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 47031 | 47031 | 0020 | C102296 | 2002-2E201-0001377-022 | 1 | P NIPPLE TBE NPT S-80 3/8" L150mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 47031 | 47031 | 0021 | C102296 | 2002-2E201-0001377-023 | 1 | P NIPPLE TBE NPT S-80 3/8" L150mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 47031 | 47031 | 0022 | C102296 | 2002-2E201-0001377-025 | 1 | P NIPPLE TBE NPT S-80 3/8" L150mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 29628 | 47031 | 0039 | C102296 | 2002-2E201-0001377-042 | 1 | P NIPPLE TBE NPT S-80 3/8" L150mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 47031 | 47031 | 0051 | C102296 | 2002-2E201-0001377-054 | 1 | P NIPPLE TBE NPT S-80 3/8" L150mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 70322 | 70322 | 0060 | C102296 | 2002-2E201-0001377-063 | 1 | P NIPPLE TBE NPT S-80 1/2" L125mm(1/2") A106B API SLB | 106B | SATISFACTORY | 440 | 650 | 22 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

PC COMPRESSION
 DATE RECEIVED JUN 24 2008
 P.O. # 50428 E832806
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

NOTES: ASME B 31.1.10 - 65.379 - ANSI B 31.1.5 - 64. STD. - NACE MR0175-99
 ANSI B 1.1-115.22 - NACE MR0175-99

HEAT NUMBER : RY5
 TRANS AM PIPING PRODUCTS - REV'D BY: 
 Shipment/Seq #: S 7 - 1292 1

1/4 X 3 XH SMLS STEEL NIPPLES A106
 TBE



**Phoenix * Capitol * Camco
 Cap Products**

Commanding a Higher Standard

Certified Mill Test Report

5/8/2007

Customer
 TRANS AM PIPING PRODUCTS LTD. AB

P.O. CI-07-324

Heat No 23944
Heat Code RY5
Phoenix Order # 470912

233061 ENDEAVOUR DRIVE S.E.
 CALGARY, AB T2P 2G6

Material ASTM A106-1999e B / ASME SA106-2001 Edition, No Adden

Part Number
 15110306

Description
 ✓ 1/4 X 3" XHSML BK STL NIPL ←

Chemical Properties

| C | Mn | P | S | Si | Cu | Cr | Ni | | |
|-------|-------|-------|-------|-------|-------|-------|-------|----|----|
| 0.200 | 0.440 | 0.012 | 0.013 | 0.280 | 0.070 | 0.060 | 0.060 | | |
| Mo | V | Co | Al | Cb | N | Pb | Sn | Ta | Ti |
| 0.010 | 0.001 | | | | | | | | |

| C Eq. Long |
|------------|
| 0.296 |

 ←

Additional Chemical Properties

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |

| Cr + Cu + Ni |
|--------------|
| 0.190 |

Mechanical Properties

Charpy Minimum Impact -

| Tensile (PSI) | Yield (PSI) | Elong. % in 2 in. | R of A | BHN | Test 1 | Test 2 | Test 3 | Average |
|---------------|-------------|-------------------|--------|-----|--------|--------|--------|---------|
| 70,000 | 46,300 | 30.0% | | | N/A | N/A | N/A | N/A |


 ←

* Bend test passed.

This material meets the requirements of the governing specifications. We certify that the above material has been inspected and tested in accordance with the methods prescribed in the governing specification and the results of such inspections and test conform with applicable requirements.

Comments:

MEETS HARDNESS REQUIREMENTS OF NACE MRO175 LATEST EDITION. CONFORMS TO ASME SA106 GRADE B REQUIREMENTS.

| | |
|--|---|
| PC COMPRESSION | CapProducts, Ltd. 25 Winnipeg St Windsor, ON N0M 1L0 |
| DATE RECEIVED MAY 28 2007 | |
| P.O. # 508524 | |
| SIGNATURE:  | |
| APPROVED BY Q.C. INSPECTOR | |

HEAT NUMBER : 80491
 TRANS AM PIPING PRODUCTS - REV'D BY: [Signature]
 Shipment/Seq #: S 8 - 1143 47

1/4 X 2 XH SMLS STEEL NIPPLES A106
 TRB



INDUSTRIA MECCANICA LIGURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 9335 Endeavor Drive S.E.
 Calgary, Alberta T2S 0A1 CA

Certificate Nr 18511
 Invoice Nr 357
 Del. Note Nr 803

Dated 11.04.2008
 Dated 10.04.2008
 Dated 10.04.2008

16030 CASARZA LIGURE - Genova - Italy - Via Giancarlo Farina 25 - Tel.0185.487981 - Fax 0185.488510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to EN EN 10204 Page 4 - 7

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | Q.TY | DESCRIPTION | DIM. ACC. TO | VISUAL & DIMENS. |
|-----------|--------|------|-------------|------------------------|------|---|--------------|------------------|
| UX5 | 17164 | 024 | CI-08 - 236 | 2008-2E201-0000354-024 | | FITTING UNION FF THRD NPT 3M 1" A105N (MALE+FEMALE) | | SATISFACTORY |
| | 80491 | 065 | CI-08 - 741 | 2008-2E201-0000354-065 | | P NIPPLE TRB NPT S-80 1/4" L51mm(2") A106B/API 5LB | | SATISFACTORY |
| 9CU | 35281 | 023 | CI-08 - 236 | 2008-2E201-0000354-023 | | FITTING UNION FF THRD NPT 3M 1/2" A105N | | SATISFACTORY |
| 73K | 747866 | 034 | CI-08 - 236 | 2008-2E201-0000354-034 | | FITTING COUPLING THRD NPT 3M 4" A105N | | SATISFACTORY |
| 2CK | 78154 | 033 | CI-08 - 236 | 2008-2E201-0000354-033 | | FITTING COUPLING THRD NPT 3M 3" A105N | | SATISFACTORY |
| 6EU | 72430 | 026 | CI-08 - 236 | 2008-2E201-0000354-026 | | FITTING UNION FF THRD NPT 3M 2" A105N (NUT+MALE+FEMALE) | | SATISFACTORY |
| U4 | 22469 | 026 | CI-08 - 236 | 2008-2E201-0000354-026 | | FITTING UNION FF THRD NPT 3M 2" A105N (NUT+FEMALE) | | SATISFACTORY |
| U4 | 22469 | 026 | CI-08 - 236 | 2008-2E201-0000354-026 | | FITTING UNION FF THRD NPT 3M 2" A105N (MALE) | | SATISFACTORY |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HV | BEHO TEST | FLATTENING TEST | TYPE TEST | V% TEST | V% | Nb% | N% | AP% | C.E.% | OTHER ELEMENTS |
|-----------|--------|------|---------------|-------------|------------------|------------|-------------------|-------------|-----------|-----------------|-----------|---------|-------|-------|-------|-------|-------|----------------|
| UX5 | 17164 | 024 | 122.65 | 50.00 | 308.0 | 31.0 | 58.0 | 160-166 | 0.0 | 0.0 | KV | 0.003 | 0.002 | 0.000 | 0.013 | 0.399 | | |
| | 80491 | 065 | 0.00 | 0.00 | 358.0 | 37.5 | 0.0 | 148-155 | 0.0 | 0.0 | KV | 0.005 | 0.000 | 0.000 | 0.000 | 0.275 | | |
| 9CU | 35281 | 023 | 122.65 | 50.00 | 392.0 | 32.6 | 54.0 | 164-168 | 0.0 | 0.0 | KV | 0.004 | 0.002 | 0.012 | 0.000 | 0.428 | | |
| 73K | 747866 | 034 | 122.65 | 50.00 | 309.0 | 31.0 | 56.0 | 160-184 | 0.0 | 0.0 | KV | 0.080 | 0.000 | 0.000 | 0.027 | 0.428 | | |
| 2CK | 78154 | 033 | 122.65 | 50.00 | 334.0 | 33.2 | 61.0 | 166-171 | 0.0 | 0.0 | KV | 0.001 | 0.001 | 0.000 | 0.023 | 0.361 | | |
| 6EU | 72430 | 026 | 122.65 | 50.00 | 310.0 | 33.5 | 55.0 | 163-171 | 0.0 | 0.0 | KV | 0.003 | 0.001 | 0.000 | 0.012 | 0.381 | | |
| U4 | 22469 | 026 | 122.65 | 50.00 | 310.0 | 33.5 | 55.0 | 163-171 | 0.0 | 0.0 | KV | 0.003 | 0.001 | 0.000 | 0.012 | 0.381 | | |
| U4 | 22469 | 026 | 122.65 | 50.00 | 309.0 | 31.0 | 56.0 | 158-164 | 0.0 | 0.0 | KV | 0.001 | 0.002 | 0.000 | 0.032 | 0.359 | | |

HEAT TREATMENT
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool
 Normalized at 880°-920°C / Air Cool

| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL |
|-----------|--------|------|-----------------------------------|----------------------|----------------------------|-----------------------|-----------------------|
| UX5 | 17164 | 024 | ASME SA ASTM A106-05 | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | MANUFACTURER'S SYMBOL |
| | 80491 | 065 | ASME SA ASTM A106/A106M-06B Gr. B | | | | |
| 9CU | 35281 | 023 | ASME SA ASTM A105-05 | | | | |
| 73K | 747866 | 034 | ASME SA ASTM A105-05 | | | | |
| 2CK | 78154 | 033 | ASME SA ASTM A105-05 | | | | |
| 6EU | 72430 | 026 | ASME SA ASTM A105-05 | | | | |
| U4 | 22469 | 026 | ASME SA ASTM A105-05 | | | | |

NOTES ASME B16.1705 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-518.2.2.
 NACE MR0175 ISO 15166/1 - NACE MR103 - MSS SP 83 - SUPPLIED
 MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

DATE RECEIVED JUN 24 2008
 PC COMPRESSION
 BORIS FIZZOTTI
 FITTINGS IML
 STUDBOLTS

PO.# 510428 5832806
 SIGNATURE: [Signature]
 APPROVED BY Q.C. INSPECTOR

HEAT NUMBER : 62841
 TRANS AM PIPING PRODUCTS - REV'D BY : TBE
 Shipment/Seq #: 97 - 1366 146



INDUSTRIA MECCANICA LIGURE SPA

16038 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappellini, 4 - Tel. 0185.467661 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to DIN EN 10204 Page 16 - 22

16038 CASARZA LIGURE - Genova - Italy - P.zza Marco Cappellini, 4 - Tel. 0185.467661 - Fax 0185.466510 / MATERIAL TEST DEPARTMENT

PC COMPRESSION RECEIVED JUN 24 2008
 P.O. # 510728 E83206
 SIGNATURE: *[Signature]*
 (TRANS AM PIPING PRODUCTS LTD)
 APPROVED BY Q.C. INSPECTOR
 COMPANY WITH QUALITY CERTIFICATION
 CERTIFICATE NUMBER: 12P-208

Certificate Nr 17729
 Invoice Nr 723
 Dated 03.07.2007
 Del. Nota Nr 1141
 Dated 29.06.2007
 Dated 29.06.2007

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | QTY | DESCRIPTION | ANALYSIS | | | | | | | | | | | DIM. ACC. TO | VISUAL & DIMENS. | | | | | | |
|-----------|------|------|-------------|------------------------|-----|---|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|------------------|-------|-------|-------|----------|----------------|--------------|
| | | | | | | | MATERIAL | C% | Si% | Mn% | S% | P% | Cr% | Ni% | Mo% | Ti% | Cu% | | | V% | Nb% | N% | Al% | C.E.% | |
| 72437 | HEAT | 146 | CI-06 - 799 | 2008-2E201-0001041-143 | | FITTING CAP SW 3M 1.1/2" A105N | ASTM A105 | 0.190 | 0.230 | 0.900 | 0.021 | 0.018 | 0.120 | 0.090 | 0.070 | 0.000 | 0.230 | 0.001 | 0.002 | 0.000 | 0.000 | 0.000 | 0.385 | SEE NOTE | SATISFACTORY |
| 74067 | HEAT | 165 | CI-06 - 799 | 2008-2E201-0001041-162 | | FITTING ROUND H PLUG SW 1/2" A105N | ASTM A105 | 0.190 | 0.260 | 0.910 | 0.027 | 0.012 | 0.080 | 0.060 | 0.020 | 0.008 | 0.260 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.385 | SEE NOTE | SATISFACTORY |
| 78196 | HEAT | 166 | CI-06 - 799 | 2008-2E201-0001041-163 | | FITTING ROUND H PLUG SW 1" A105N | ASTM A105 | 0.180 | 0.260 | 0.880 | 0.017 | 0.034 | 0.150 | 0.070 | 0.010 | 0.000 | 0.250 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.382 | SEE NOTE | SATISFACTORY |
| 72436 | HEAT | 214 | CI-06 - 799 | 2008-2E201-0001041-211 | | FITTING CAP SW 3M 1" A350LF2 | ASTM A350 LF2 cl.1 | 0.195 | 0.230 | 0.950 | 0.020 | 0.019 | 0.090 | 0.080 | 0.010 | 0.005 | 0.200 | 0.001 | 0.000 | 0.000 | 0.000 | 0.010 | 0.391 | SEE NOTE | SATISFACTORY |
| 62841 | HEAT | 001 | CI-06 - 827 | 2007-2E201-0000011-017 | | P. NIPPLE TBE NPT S-80 1.1/2" L100mm(4") A106B/API 5LB | ASTM A106/B API 5LB | 0.140 | 0.250 | 0.670 | 0.008 | 0.011 | 0.050 | 0.070 | 0.010 | 0.000 | 0.190 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.281 | SEE NOTE | SATISFACTORY |
| 81463 | HEAT | 058 | CI-06 - 332 | 2008-2E201-0000395-058 | | P. NIPPLE TBE NPT S-80 1/4" L38mm(1.1/2") A106B/API 5LB | ASTM A106/B API 5LB | 0.150 | 0.240 | 0.460 | 0.008 | 0.009 | 0.050 | 0.060 | 0.020 | 0.000 | 0.230 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.281 | SEE NOTE | SATISFACTORY |
| 78703 | HEAT | 176 | CI-06 - 799 | 2008-2E201-0001041-173 | | FITTING COUPLING THRD NPT 3M 1.1/2" A105N EL GALV. | ASTM A105 | 0.141 | 0.214 | 0.544 | 0.005 | 0.012 | 0.070 | 0.108 | 0.028 | 0.121 | 0.000 | 0.000 | 0.000 | 0.000 | 0.031 | 0.263 | SEE NOTE | SATISFACTORY | |
| | | | | | | | | 0.195 | 0.200 | 1.100 | 0.012 | 0.012 | 0.050 | 0.050 | 0.000 | 0.020 | 0.180 | 0.026 | 0.000 | 0.000 | 0.025 | 0.417 | SEE NOTE | SATISFACTORY | |
| | | | | | | | | | | | | | | | | | | | | | | | | OTHER ELEMENTS | |

| HEAT CODE | HEAT | ITEM | TEST SPECIMEN | LENGHT mm | YIELD POINT | TENSILE STRENGTH | ELONGATION | REDUCTION OF AREA | HARDNESS HB | FLATTENING TEST | | TYPE POSITION | IMPACT TEST - J-CUMULATIVE | | | SHAPE | YIELD POINT | | | | | | | |
|-----------|------|------|---------------|-----------|-------------|------------------|------------|-------------------|-------------|-----------------|-----|---------------|----------------------------|-----|-----|-------|-------------|-----|----|----|----|--|--|--|
| | | | | | | | | | | mm | mm | | mm | mm | mm | | | mm | mm | mm | mm | | | |
| 72437 | HEAT | 146 | 122,85 | 50,00 | 315,0 | 509,0 | 33,0 | 57,0 | 154 - 163 | 0,0 | 0,0 | KV | 20 | 99 | 96 | 98 | 1 | 0,0 | | | | | | |
| 74067 | HEAT | 165 | 122,85 | 50,00 | 378,0 | 559,0 | 35,0 | 60,0 | 162 - 166 | 0,0 | 0,0 | KV | 20 | 96 | 94 | 90 | 1 | 0,0 | | | | | | |
| 78196 | HEAT | 166 | 122,85 | 50,00 | 316,0 | 518,0 | 31,0 | 54,0 | 153 - 156 | 0,0 | 0,0 | KV | 20 | 96 | 97 | 97 | 1 | 0,0 | | | | | | |
| 72436 | HEAT | 214 | 122,85 | 50,00 | 316,0 | 528,0 | 32,0 | 55,0 | 160 - 164 | 0,0 | 0,0 | KV | -46 | 55 | 50 | 56 | 1 | 0,0 | | | | | | |
| 62841 | HEAT | 001 | 0,00 | 0,00 | 316,0 | 478,0 | 45,0 | 0,0 | 160 - 164 | 0,0 | 0,0 | KV | 0 | 0 | 0 | 0 | 0 | 0,0 | | | | | | |
| 81463 | HEAT | 058 | 0,00 | 0,00 | 304,0 | 519,0 | 56,0 | 0,0 | 160 - 164 | 0,0 | 0,0 | KV | 0 | 0 | 0 | 0 | 0 | 0,0 | | | | | | |
| 78703 | HEAT | 176 | 122,85 | 50,00 | 339,0 | 568,0 | 37,0 | 62,0 | 156 - 158 | 0,0 | 0,0 | KV | 20 | 100 | 101 | 101 | 1 | 0,0 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

HEAT NUMBER : 62841
 TRANS AM PIPING PRODUCTS - REV'D BY : TBE
 Shipment/Seq #: 97 - 1366 146

HEAT NUMBER : 62841
 TRANS AM PIPING PRODUCTS - REV'D BY : TBE
 Shipment/Seq #: 97 - 1366 146



STUBBOLTS

FITTINGS

BORIS FIZZOTTI

INSPECTION AUTHORITY

QUALITY CONTROL DEPARTMENT

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

MANUFACTURER'S SYMBOL

HEAT NUMBER : C19
 TRANS AM PIPING PRODUCTS - REV'D BY :
 Shipment/Seq # : 5 8 - 1087 43



INDUSTRIA MECCANICA LOURE SPA

INSPECTION CERTIFICATE EN 10204:2004 / 3.1
 COMPANY WITH QUALITY SYSTEM ISO 9001:2000
 CERTIFIED BY RINA

TRANS AM PIPING PRODUCTS LTD.
 9235 Endeavour Drive S.E.
 Calgary, Alberta T2S 0A1
 CA

Certificate Nr 18467
 Invoice Nr 234
 Date, Note Nr 401
 Dated 11.03.2008
 Dated 07.03.2008
 Dated 07.03.2008

16030 CARABAZZA LOURE - Genova - Italy - Via Giancarlo Farina 26 - Tel.0185.467661 - Fax 0185.468510 / MATERIAL TEST DEPARTMENT This certificate has been generated by computer and need not to be signed for validity according to EN 10204 Page 4 - 19

| HEAT CODE | HEAT | ITEM | YOUR P.O. | OUR REFERENCE | QTY | DESCRIPTION | DIAM. ACC. TO | VISUAL & DIMENS. | | | | | | | | |
|-----------|--------|------|---|-------------------------------------|-----------------------|---|---------------------------|----------------------------------|----------------------|-----------|-----------------|----------------|-----------------------|----------------------|-----------------------------------|----------------|
| C19 | AR2237 | 048 | CI-08 - 190 | 2008-2E201-0000213-048 | | FITTING HEX.H.PLUG THRD NPT 1/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | |
| 06A | 73413 | 003 | CI-08 - 190 | 2008-2E201-0000213-003 | | FITTING 90 ELB. THRD NPT 2M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | |
| TX2 | 72469 | 006 | CI-08 - 190 | 2008-2E201-0000213-006 | | FITTING TEE THRD NPT 3M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | |
| 28A | 74795 | 008 | CI-08 - 190 | 2008-2E201-0000213-008 | | FITTING 45 ELB. THRD NPT 2M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | |
| 80A | 74525 | 018 | CI-08 - 190 | 2008-2E201-0000213-018 | | FITTING 45 ELB. THRD NPT 3M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | |
| 15A | 79141 | 030 | CI-08 - 190 | 2008-2E201-0000213-030 | | FITTING HALF COUPL. THRD NPT 3M 3/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | |
| FTE | 78482 | 031 | CI-08 - 190 | 2008-2E201-0000213-031 | | FITTING M/F ELB. THRD NPT 1/4" A105N | SEE NOTE | SATISFACTORY | | | | | | | | |
| | 30449 | 035 | CI-08 - 190 | 2008-2E201-0000213-035 | | FITTING RED.TEE THRD NPT 3M 3"x1" A105N | SEE NOTE | SATISFACTORY | | | | | | | | |
| HEAT CODE | HEAT | ITEM | MATERIAL | C% | 81% | YIELD POINT tensile strength tensile tensile | ELONGATION % % % | REDUCTION OF AREA % % % | HARDNESS HV HV | BEND TEST | FLATTENING TEST | TYPE TOLERANCE | IMPACT TEST J J | SHAPE 1 2 3 | YIELD POINT tensile tensile | OTHER ELEMENTS |
| C19 | AR2237 | 048 | ASTM A105 | 0,195 | 0,260 | 311,0 | 37,0 | 42,0 | 180 - 185 | 0,0 | 0,0 | KV | 20 | 89 | 80 | 0,0 |
| 06A | 73413 | 003 | ASTM A105 | 0,196 | 0,170 | 316,0 | 32,0 | 56,0 | 160 - 164 | 0,0 | 0,0 | KV | 20 | 100 | 105 | 0,0 |
| TX2 | 72469 | 006 | ASTM A105 | 0,180 | 0,230 | 305,0 | 32,0 | 53,0 | 182 - 166 | 0,0 | 0,0 | KV | 20 | 110 | 105 | 0,0 |
| 28A | 74795 | 008 | ASTM A105 | 0,205 | 0,210 | 306,0 | 34,0 | 56,0 | 162 - 168 | 0,0 | 0,0 | KV | 20 | 104 | 100 | 0,0 |
| 80A | 74525 | 018 | ASTM A105 | 0,185 | 0,200 | 306,0 | 35,5 | 68,0 | 160 - 164 | 0,0 | 0,0 | KV | 20 | 81 | 88 | 0,0 |
| 15A | 79141 | 030 | ASTM A105 | 0,195 | 0,220 | 322,0 | 33,0 | 57,6 | 169 - 174 | 0,0 | 0,0 | KV | 20 | 100 | 104 | 0,0 |
| FTE | 78482 | 031 | ASTM A105 | 0,185 | 0,190 | 309,0 | 31,0 | 55,0 | 160 - 164 | 0,0 | 0,0 | KV | 20 | 98 | 105 | 0,0 |
| | 30449 | 035 | ASTM A105 | 0,180 | 0,200 | 320,0 | 30,0 | 61,0 | 163 - 165 | 0,0 | 0,0 | KV | 20 | 100 | 98 | 0,0 |
| HEAT CODE | HEAT | ITEM | MATERIAL IN ACCORDANCE TO | HEAT TREATMENT | | | | | | | | | | | | |
| C19 | AR2237 | 048 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | |
| 06A | 73413 | 003 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | |
| TX2 | 72469 | 006 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | |
| 28A | 74795 | 008 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | |
| 80A | 74525 | 018 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | |
| 15A | 79141 | 030 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | |
| FTE | 78482 | 031 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | |
| | 30449 | 035 | ASME SA ASTM A105-05 | Normalized at 880°-920°C / Air Cool | | | | | | | | | | | | |
| HEAT CODE | HEAT | ITEM | INSPECTION AUTHORITY | QUALITY CONTROL DEPARTMENT | MANUFACTURER'S SYMBOL | FITTINGS | IML | STUDBOLTS | | | | | | | | |
| C19 | AR2237 | 048 | ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B16.2.2 - NACE MR0175 ISO 15156/1 - NACE MR103 - MSS SP 83 - SUPPLIER MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS | PC COMPRESSION | FORIS FIZZOTTI | IML | STUDBOLTS | | | | | | | | | |
| 06A | 73413 | 003 | | RECEIVED JUN 24 2008 | | | | | | | | | | | | |
| TX2 | 72469 | 006 | | | | | | | | | | | | | | |
| 28A | 74795 | 008 | | | | | | | | | | | | | | |
| 80A | 74525 | 018 | | | | | | | | | | | | | | |
| 15A | 79141 | 030 | | | | | | | | | | | | | | |
| FTE | 78482 | 031 | | | | | | | | | | | | | | |
| | 30449 | 035 | | | | | | | | | | | | | | |

NOTES ASME B16.11/05 - ANSI B31.1/B31.3 - IML STD - ANSI B1.1-B16.2.2 - NACE MR0175 ISO 15156/1 - NACE MR103 - MSS SP 83 - SUPPLIER MATERIAL MEETS SPECIFICATIONS AND P.O. REQUIREMENTS

DATE RECEIVED JUN 24 2008
 P.O. # 510428 F832206
 SIGNATURE: M
 APPROVED BY Q.C. INSPECTOR

MAY 15 2005

Contract No.: 06HGC01038
L/C NO. 5FAHDS-00773

Name of Customer: CE FRANKLIN

P.O.NO.: PO.1441650-OR-2100-A

Description: Seamless Carbon Steel Pipe For Oil And Gas Use
TOTAL: 3909PIECES, 77BUNDLES, 155.811MT, 80020FT

HUNAN HENGYANG STEEL TUBE (GROUP) CO., LTD

MILL TEST REPORT

Date: MAR. 29, 2006
Page: 3/6

Add: 10 Dalixincun, Hengyang City, Hunan, China
Tel and Fax: +86 734 8873739 8872942
Cable: 6993
P.C. 421001

2" SCHRO SMLS PIPE HEAT CODE: 62K19 HEAT CODE: 2-DC

| NO. | HEAT | | STEEL GRADE | SIZE | BUNDLES | PIECES | FEET | QUANTITY (MT) | ACTUAL WEIGHT(MT) | CERTIFICATE NO: 0603045 | | | | |
|---------------------|------------------|-------------------|-------------------|------------------|-----------------|--------|------------------------|---------------|-------------------|-------------------------|--------------|---------|-----------|---------|
| | BATCH NO. | NO. | | | | | | | | | | | | |
| 12 | 963400706 | 0610795 | X42 | 2" *0.154" *20FT | 11 | 671 | 13420 | 22.275 | | | | | | |
| | 963400707 | 0610791 | X42 | 2" *0.154" *20FT | 8 | 488 | 9760 | 16.200 | | | | | | |
| | 963400708 | 0621924 | X42 | 2" *0.154" *20FT | 10 | 610 | 12200 | 20.250 | | | | | | |
| 13 | 963400705 | 0621923 | X42 | 2" *0.154" *40FT | 6 | 192 | 7680 | 12.750 | | | | | | |
| 14 | 963200413 | 0621919 | X42 | 2" *0.218" *20FT | 10 | 440 | 8800 | 20.080 | | | | | | |
| | 963300401 | 0621919 | X42 | 2" *0.218" *20FT | 16 | 704 | 14080 | 32.128 | | | | | | |
| | 963300402 | 0610785 | X42 | 2" *0.218" *20FT | 16 | 704 | 14080 | 32.128 | | | | | | |
| NONDESTRUCTIVE TEST | | | | | | | | | | | | | | |
| NO. | DELIVERY | | EDDY CURRENT TEST | | ULTRASONIC TEST | | CHEMICAL COMPOSITION % | | | | | | | |
| | CONDITION | EDDY CURRENT TEST | SI | MN | P | S | CU | NI | CR | MO | V | PB | MN/C | CE |
| 12 | HOT-ROLLED | OK | 0.18 | 0.48 | 0.015 | 0.009 | 0.08 | 0.04 | 0.04 | 0.02 | 0.003 | 0.010 | 4.867 | 0.34 |
| | HOT-ROLLED | OK | 0.18 | 0.50 | 0.015 | 0.008 | 0.08 | 0.03 | 0.02 | 0.01 | 0.003 | 0.010 | 4.944 | 0.34 |
| | HOT-ROLLED | OK | 0.20 | 0.48 | 0.015 | 0.007 | 0.09 | 0.04 | 0.02 | 0.01 | 0.003 | 0.010 | 4.3 | 0.36 |
| 13 | HOT-ROLLED | OK | 0.19 | 0.47 | 0.014 | 0.009 | 0.09 | 0.04 | 0.02 | 0.01 | 0.003 | 0.011 | 4.526 | 0.35 |
| 14 | HOT-ROLLED | OK | 0.19 | 0.55 | 0.013 | 0.009 | 0.08 | 0.03 | 0.01 | 0.01 | 0.004 | 0.011 | 4.842 | 0.36 |
| | HOT-ROLLED | OK | 0.19 | 0.55 | 0.013 | 0.009 | 0.08 | 0.03 | 0.01 | 0.01 | 0.004 | 0.011 | 4.842 | 0.36 |
| | HOT-ROLLED | OK | 0.19 | 0.47 | 0.013 | 0.009 | 0.07 | 0.03 | 0.01 | 0.01 | 0.004 | 0.012 | 4.526 | 0.34 |
| NO. | TENSILE STRENGTH | | YIELD STRENGTH | | ELONGATION | | HARDNESS | | HYDROSTATIC TEST | | FLATTEN TEST | | BEND TEST | |
| | σ_b (PSI) | σ_s (PSI) | 60175 | 54375 | 34.0 | 33.0 | HRC 6/6.5 | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI |
| 12 | 83375 | 60175 | 60175 | 54375 | 34.0 | 33.0 | HRC 6/6.5 | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI |
| | 76125 | 54375 | 54375 | 58000 | 33.0 | 33.0 | HRC 4.5/5 | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI |
| 13 | 80475 | 58000 | 58000 | 58000 | 33.0 | 36.0 | HRC 5/6 | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI |
| 14 | 76850 | 50025 | 50025 | 50750 | 27.5 | 29.0 | HB 137 | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI |
| | 77575 | 50750 | 50750 | 50750 | 29.0 | 28.0 | HB 140 | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI |
| | 78300 | 50750 | 50750 | 50750 | 28.0 | 28.0 | HB 135 | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI | 3000PSI |

REMARKS: 1. We hereby certify that the material has been manufactured, sampled, tested and inspected in accordance with the required standards.

2. Properties compliance to DIN 50049 3.1B /UNI EN 10204 3.1B

3. BRINELL /Rockwell hardness certified to NACE MR-0175-99.

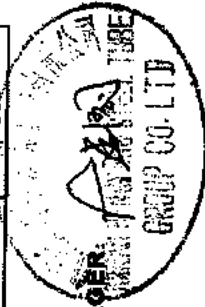
4. SPECIMEN SIZE: (Pipe end, Longitudinal, Gauge Length=2")

A. For pipes $\leq 1"$ full length specimen were used;

B. For pipes $> 1"$ longitudinal strip specimen were used; the width of

5. Origin: Made in China.

6. Materials confirm to ANSI B36.10



QUALITY MANAGER

| |
|----------------------------|
| PC COMPRESSION |
| DATE RECEIVED: MAY 15 2008 |
| P.O. # 510213 |
| SIGNATURE: <i>AD</i> |
| APPROVED BY Q.C. INSPECTOR |

07.

Line 8

ZSCH80 SMLS PIPE HEAT #: 621921V HEAT CODE: 2-DF

57

MAY 15 2006

Contract No.: 06HGCO1038
L/C NO. 5FAHDS-00773

Name of Customer: CE FRANKLIN

P.O.NO.: PO.1441650-OR-2100-A

Description: Seamless Carbon Steel Pipe For Oil And Gas Use
TOTAL: 3131PIECES, 81BUNDLES, 165.975MT, 62620FT

HUNAN HENGYANG STEEL TUBE (GROUP) CO., LTD

MILL TEST REPORT

Add: 10 Dalixincun, Hengyang City, Hunan, China
Tel and Fax: +86 734 8873739 8872942

Cable: 6993
P.C: 421001

Date: MAR. 29, 2006
Page: 4/6

SPEC: ASTM A53B-2002/A106B-2002a, ASME SA53B/SA106B-2004, API 5L/B/X42, PSL1-2004, NACE MR-0175-1999

| NO. | BATCH NO. | HEAT NO. | STEEL GRADE | SIZE | BUNDLES | PIECES | FEET | QUANTITY (MT) | CERTIFICATE NO: 0603045 | ACTUAL WEIGHT(MT) | | | | | |
|---------------------|------------------|-------------------|-----------------|------------------------|----------------------|--------|------------------|---------------|-------------------------|-------------------|-----------|-------|-------|-------|------|
| | | | | | | | | | | | SI | MN | P | S | CU |
| 14 | 963300403 | 0610786 | X42 | 2" * 0.218" * 20FT | 16 | 704 | 14080 | 32.128 | | | | | | | |
| | 963300405 | 0621917 | X42 | 2" * 0.218" * 20FT | 16 | 704 | 14080 | 32.128 | | | | | | | |
| | 963300406 | 0621921V | X42 | 2" * 0.218" * 20FT | 16 | 704 | 14080 | 32.128 | | | | | | | |
| 15 | 863400446 | 0611028 | X42 | 2" * 0.344" * 20FT | 15 | 487 | 9740 | 33.003 | | | | | | | |
| 16 | 863300525 | 0513231 | X42 | 2" * 0.436" * 20FT | 4 | 82 | 1640 | 6.717 | | | | | | | |
| 17 | 963101711 | 0610790 | X42 | 2-1/2" * 0.203" * 20FT | 2 | 69 | 1380 | 3.630 | | | | | | | |
| 18 | 963100505 | 0610790 | X42 | 3" * 0.216" * 20FT | 12 | 381 | 7620 | 26.241 | | | | | | | |
| NONDESTRUCTIVE TEST | | | | | | | | | | | | | | | |
| NO. | CONDITION | EDDY CURRENT TEST | ULTRASONIC TEST | CHEMICAL COMPOSITION % | | | | | | | | | | | |
| | | | | C | SI | MN | P | S | CU | NI | CR | MO | IV | PB | MN/C |
| 14 | HOT-ROLLED | OK | | 0.20 | 0.55 | 0.94 | 0.015 | 0.07 | 0.03 | 0.01 | 0.01 | 0.004 | 0.011 | 4.7 | 0.37 |
| | HOT-ROLLED | OK | | 0.20 | 0.82 | 0.93 | 0.014 | 0.07 | 0.03 | 0.02 | 0.01 | 0.003 | 0.010 | 4.66 | 0.37 |
| | HOT-ROLLED | OK | | 0.18 | 0.54 | 0.89 | 0.018 | 0.08 | 0.04 | 0.02 | 0.01 | 0.004 | 0.011 | 4.944 | 0.34 |
| 15 | HOT-ROLLED | OK | | 0.17 | 0.46 | 0.92 | 0.017 | 0.07 | 0.04 | 0.02 | 0.01 | 0.005 | 0.00 | 5.412 | 0.34 |
| 16 | HOT-ROLLED | OK | | 0.21 | 0.28 | 0.74 | 0.012 | 0.05 | 0.03 | 0.02 | 0.02 | 0.01 | 0.009 | 3.924 | 0.35 |
| 17 | HOT-ROLLED | OK | | 0.17 | 0.51 | 0.88 | 0.014 | 0.07 | 0.03 | 0.01 | 0.01 | 0.003 | 0.009 | 5.176 | 0.33 |
| 18 | HOT-ROLLED | OK | | 0.17 | 0.51 | 0.88 | 0.014 | 0.07 | 0.03 | 0.01 | 0.01 | 0.003 | 0.009 | 5.176 | 0.33 |
| NO. | TENSILE STRENGTH | YIELD STRENGTH | ELONGATION | HARDNESS | | | HYDROSTATIC TEST | | FLATTEN TEST | | BEND TEST | | | | |
| | | | | σ _b (PSI) | σ _s (PSI) | δ (%) | AK (J) | IMPACT | TEST | TEST | | TEST | | | |
| 14 | 80475 | 52200 | 27.5 | | | | HB 132 | 3000PSI | | OK | | | | | |
| | 76125 | 49300 | 29.5 | | | | HB 142 | 3000PSI | | OK | | | | | |
| | 79750 | 51475 | 28.5 | | | | HB 139 | 3000PSI | | OK | | | | | |
| 15 | 79750 | 55825 | 28.5 | | | | HB 155/156 | 3000PSI | | OK | | | | | |
| 16 | 79025 | 55825 | 29.0 | | | | HB 155 | 3000PSI | | OK | | | | | |
| 17 | 73225 | 52925 | 28.0 | | | | HB 154 | 3000PSI | | OK | | | | | |
| 18 | 76850 | 54375 | 35.0 | | | | HB 155 | 3000PSI | | OK | | | | | |



QUALITY MANAGER:

PC COMPRESSION
 DATE RECEIVED JUN 17 2008
 P.O. # 510395
 SIGNATURE: [Signature]
 APPROVED BY O.C. INSPECTOR

REMARKS: 1. We hereby certify that the material has been manufactured, sampled, tested and inspected in accordance with the required standards.
 2. Properties compliance to DIN 50049 3.1B / UNI EN 10204 3.1B
 3. BRINELL / Rockwell hardness certified to NACE MR-0175-99.
 4. SPECIMEN SIZE: (Pipe end, Longitudinal, Gauge Length=2")
 A. For pipes ≤ 1" full length specimen were used;
 B. For pipes > 1" longitudinal strip specimen were used; the width of the gauge length portion is 3/4".
 5. Origin: Made in China.
 6. Materials confirm to ANSI B36.10

MAY 15 2006
 Contract No.: 06HG001038
 L/C NO. 5FAHDS-00773

Name of Customer: CE FRANKLIN

P.O. NO.: PO.1441650-OR-2100-A

Description: Seamless Carbon Steel Pipe For Oil And Gas Use
 TOTAL: 207PIECES, 27BUNDLES, 49.197MT, 41540FT

SPEC: ASTM A53B-2002/A106B-2002B, ASME SA53B/SA106B-2004, API 5L B, PSL1-2004, NACE MR-0175-1999

HUNAN HENGYANG STEEL TUBE (GROUP) CO., LTD

MILL TEST REPORT

Add: 10 Dalixincun, Hengyang City, Hunan, China
 Tel and Fax: +86 734 8873739 8872942
 Cable: 6993
 P.C. 421001

Date: MAR. 29, 2006
 Page: 2/6

| NO. | BATCH NO. | HEAT NO. | STEEL GRADE | SIZE | # | BUNDLES | PIECES | FEET | QUANTITY (MT) | ACTUAL WEIGHT(MT) | CERTIFICATE NO: 0603045 |
|---------------------|-------------------|----------------|-------------|------------------------|-------|----------|--------|-------------|---------------|-------------------|-------------------------|
| | | | | | | | | | | | |
| 6 | 563200538 | 06201988-3 | B | 1" * 0.179" * 20FT | 5 | 510 | 10200 | 10.085 | 10.085 | | |
| 7 | 563200539 | 06201988-3 | B | 1" * 0.179" * 20FT | 5 | 510 | 10200 | 10.085 | 10.085 | | |
| 8 | 563300564 | 06201998-3 | B | 1" * 0.250" * 20FT | 4 | 245 | 4900 | 6.334 | 6.334 | | |
| 9 | 563300551 | 06201998-3 | B | 1" * 0.250" * 20FT | 2 | 137 | 2740 | 2.833 | 2.833 | | |
| 10 | 562401391 | 06301164-3 | B | 1-1/4" * 0.140" * 20FT | 3 | 197 | 3940 | 5.361 | 5.361 | | |
| 11 | 562101401 | 06301166-3 | B | 1-1/4" * 0.191" * 20FT | 2 | 154 | 3080 | 3.800 | 3.800 | | |
| 11 | 563200546 | 06201988-3 | B | 1-1/2" * 0.145" * 20FT | 6 | 324 | 6480 | 10.699 | 10.699 | | |
| NONDESTRUCTIVE TEST | | | | | | | | | | | |
| EDDY CURRENT TEST | | | | | | | | | | | |
| 6 | COLD-DRAWN(780°C) | OK | SI | MA | P | S | CU | NI | CR | MO | V |
| 7 | COLD-DRAWN(780°C) | OK | 0.24 | 0.49 | 0.016 | 0.027 | 0.03 | 0.01 | 0.03 | 0.01 | PB |
| 8 | COLD-DRAWN(780°C) | OK | 0.24 | 0.49 | 0.016 | 0.027 | 0.03 | 0.01 | 0.03 | 0.01 | CE |
| 9 | COLD-DRAWN(780°C) | OK | 0.24 | 0.47 | 0.015 | 0.030 | 0.03 | 0.01 | 0.03 | 0.01 | 0.29V |
| 10 | COLD-DRAWN(780°C) | OK | 0.24 | 0.47 | 0.015 | 0.030 | 0.03 | 0.01 | 0.03 | 0.01 | 0.29 |
| 11 | COLD-DRAWN(780°C) | OK | 0.22 | 0.46 | 0.015 | 0.020 | 0.04 | 0.01 | 0.03 | 0.01 | 0.30 |
| 11 | COLD-DRAWN(780°C) | OK | 0.23 | 0.26 | 0.014 | 0.020 | 0.04 | 0.01 | 0.02 | 0.01 | 0.32 |
| 11 | COLD-DRAWN(780°C) | OK | 0.24 | 0.49 | 0.016 | 0.027 | 0.03 | 0.01 | 0.03 | 0.01 | 0.33 |
| IMPACT | | | | | | | | | | | |
| AK (J) | | | | | | | | | | | |
| HARDNESS | | | | | | | | | | | |
| HYDROSTATIC TEST | | | | | | | | | | | |
| FLATTEN TEST | | | | | | | | | | | |
| BEND TEST | | | | | | | | | | | |
| 6 | TENSILE STRENGTH | YIELD STRENGTH | ELONGATION | IMPACT | | HARDNESS | | HYDROSTATIC | | FLATTEN | |
| 6 | 69600 | 44950 | 41.0 | AK (J) | | HRC 3 | | TEST | | TEST | |
| 7 | 69600 | 44950 | 48.0 | AK (J) | | HRC 4.5 | | 2500PSI | | OK | |
| 8 | 67425 | 46400 | 43.5 | AK (J) | | HB 130 | | 2500PSI | | OK | |
| 9 | 68875 | 44225 | 33.0 | AK (J) | | HB 127 | | 2500PSI | | OK | |
| 10 | 68875 | 44225 | 31.0 | AK (J) | | HRC 5.5 | | 2500PSI | | OK | |
| 11 | 73225 | 47850 | 33.0 | AK (J) | | HRC 4.0 | | 2500PSI | | OK | |

REMARKS: 1. We hereby certify that the material has been manufactured, sampled, tested and inspected in accordance with the required standards.

2. Properties compliance to DIN 50049 3.1B /UNI EN 10204 3.1B

3. BRINELL /Rockwell hardness certified to NACE MR-0175-99. ✓

4. SPECIMEN SIZE: (Pipe end, Longitudinal, Gauge Length=2")
 A. For pipes ≤ 1" full length specimen were used;
 B. For pipes > 1" longitudinal strip specimen were used;

5. Origin: Made in China.

6. Materials confirm to ANSI B36.10

PC COMPANY MANAGER
 RECEIVED AUG 16 2006

DATE

P.O. # 506869-06

SIGNATURE: HC

APPROVED BY C.O. INSPECTOR

1 1/2" SCH 80 SMLS PIPE Heat #: 06201988-3 Heat CODES: 1.5-Q

A7

Contract No: 05HGC12453
L/C NO. 5FAHDS-00774

APR 03 2006

HUNAN HENGYANG STEEL TUBE (GROUP) CO., LTD

Name of Customer: CE FRANKLIN
P.O.NO: 1411611-OR-2100-A

MILL TEST REPORT

Description: SEAMLESS CARBON STEEL PIPE FOR OIL AND GAS USE Date: FEB. 10. 2006
TOTAL: 231PIECES, 17BUNDLES, 37.089MT, 46620FT Page: 1/6

Add: 10 Daixincun, Hengyang City, Hunan, China
Tel and Fax: +86 734 8873739 8872942
Cable: 6993
P.C. 421001

1# SCH80 SMLS PIPE HEAT #: S111541-3

HEAT CODE: 1-LS

| NO. | BATCH NO. | HEAT NO. | STEEL GRADE | SIZE | BUNDLES | PIECES | FEET | QUANTITY (MT) | ACTUAL WEIGHT(MT) | CERTIFICATE NO: 0602021 |
|------------------------|-------------------|-------------------|----------------|--------------------------|---------|--------|----------|------------------|-------------------|-------------------------|
| | | | | | | | | | | |
| 1 | 561300581 | 05211583-3 | B | 540 1/2" * 0.147" * 20FT | 2 | 412 | 8240 | 4.073 | | |
| 2 | 761111227 | 05310998-2 | B | 540 1/2" * 0.294" * 20FT | 1 | 78 | 1560 | 1.210 | | |
| 3 | 561200469 | 05212611-1 | B | 540 3/4" * 0.113" * 20FT | 1 | 192 | 3840 | 1.986 | | |
| 4 | 561300540 | 05211585-3 | B | 540 3/4" * 0.154" * 20FT | 2 | 275 | 5500 | 3.692 | | |
| 5 | 561200533 | 05211585-3 | B | 540 1" * 0.133" * 20FT | 2 | 231 | 4620 | 3.520 | | |
| 6 | 561100514 | 05111541-3 | B | 540 1" * 0.179" * 20FT | 3 | 381 | 7620 | 7.536 | | |
| | 561100516 | 05111541-3 | B | 540 1" * 0.179" * 20FT | 3 | 381 | 7620 | 7.536 | | |
| | 561100607 | 05211573-3 | B | 540 1" * 0.179" * 20FT | 3 | 381 | 7620 | 7.536 | | |
| NONDESTRUCTIVE TEST | | | | | | | | | | |
| ULTRASONIC TEST | | | | | | | | | | |
| NO. | CONDITION | EDDY CURRENT TEST | Si | Min | P | S | Cu | Ni | Cr | Mo |
| 1 | COLD-DRAWN(780°C) | OK | 0.26 | 0.49 | 0.017 | 0.009 | 0.03 | 0.01 | 0.06 | 0.01 |
| 2 | COLD-DRAWN(780°C) | OK | 0.20 | 0.53 | 0.017 | 0.014 | 0.04 | 0.01 | 0.04 | 0.01 |
| 3 | COLD-DRAWN(780°C) | OK | 0.19 | 0.23 | 0.012 | 0.017 | 0.02 | 0.01 | 0.03 | 0.01 |
| 4 | COLD-DRAWN(780°C) | OK | 0.20 | 0.23 | 0.013 | 0.019 | 0.03 | 0.01 | 0.04 | 0.01 |
| 5 | COLD-DRAWN(780°C) | OK | 0.20 | 0.23 | 0.013 | 0.019 | 0.03 | 0.01 | 0.04 | 0.01 |
| 6 | COLD-DRAWN(780°C) | OK | 0.20 | 0.47 | 0.015 | 0.015 | 0.05 | 0.01 | 0.04 | 0.01 |
| | COLD-DRAWN(780°C) | OK | 0.20 | 0.47 | 0.015 | 0.015 | 0.05 | 0.01 | 0.04 | 0.01 |
| | COLD-DRAWN(780°C) | OK | 0.20 | 0.44 | 0.011 | 0.015 | 0.06 | 0.01 | 0.01 | 0.01 |
| CHEMICAL COMPOSITION % | | | | | | | | | | |
| NO. | DELIVERY | σ s (PSI) | YIELD STRENGTH | ELONGATION | δ (%) | AK (J) | HARDNESS | HYDROSTATIC TEST | FLATTEN TEST | BEND TEST |
| 1 | 68150 | 44225 | 45.5 | HRC 4.0 | 2500PSI | OK | | | | |
| 2 | 69600 | 44950 | 33.0 | HB 126 | 2500PSI | OK | | | | |
| 3 | 71050 | 46400 | 42.0 | HRC 3 | 2500PSI | OK | | | | |
| 4 | 71775 | 46400 | 43.0 | HRC 2.5 | 2500PSI | OK | | | | |
| 5 | 68875 | 44950 | 44.0 | HRC 3.5 | 2500PSI | OK | | | | |
| 6 | 68150 | 44225 | 46.0 | HRC 4 | 2500PSI | OK | | | | |
| | 67425 | 44225 | 42.0 | HRC 4.5 | 2500PSI | OK | | | | |
| | 71050 | 46400 | 42.0 | HRC 3.5 | 2500PSI | OK | | | | |

REMARKS: 1. We hereby certify that the material has been manufactured, sampled, tested and inspected in accordance with the required standards.

2. Properties compliance to DIN 50049 3.1B / UNI EN 10204 3.1B

3. BRINELL /Rockwell hardness certified to NACE MR-0175-99.

4. SPECIMEN SIZE: (Pipe end, Longitudinal, Gauge Length=2")

A. For pipes ≤ 1" full length specimen were used;

B. For pipes > 1" longitudinal strip specimen were used; the width of the

5. Origin: Made in China.

6. Materials confirm in ANSI B36.10, A-530/A-530M

QUALITY MANAGER



| | |
|----------------------------|----------------------------|
| PC COMPRESSION | |
| DATE RECEIVED: MAY 15 2008 | PC length portion: 3/4" |
| 510213 | |
| SIGNATURE: <i>h</i> | APPROVED BY Q.C. INSPECTOR |

57

LINE#

1. SCH80 SMLS PIPE HEAT #: 07301185-1 HEAT CODE: 1-LRA

2

Contract No.: 06HCC11639-1-4
 L/C NO. 7FAHD5-06084
 Name of Customer: CE FRANKLIN
 P.O. NO.: PO.1641961-OR-2100-A

Address: 10 Dalixincun, Hengyang City, Hunan, China
 Tel and Fax: +86 734 8873739 8872942
 Cable: 6993
 P.C. 421001

MILL TEST REPORT

DESCRIPTION: SEAMLESS CARBON STEEL PIPE FOR OIL AND GAS USE
 Date: MAR. 08, 2007
 Page: 1/4

TOTAL: 2831 PIECES, 25 BUNDLES, 55,852 MT, 56620 FT
 SPEC: ASTM A53B-2002/A106B-2002a, ASME SA53B/SA106B-2004, API 5L B, PSL1-2004, NACE MR-0175-1999, CSA Z245.1
 CERTIFICATE NO: 07-02-0318

| NO. | BATCH NO. | HEAT NO. | STEEL GRADE | SIZE | BUNDLES | PIECES | FEET | QUANTITY (MT) | ACTUAL WEIGHT (MT) | CHEMICAL COMPOSITION % | | | | | | | | | | | |
|---------------------|--------------------|-------------------|-----------------|------------------------|------------------|--------|-------|---------------|--------------------|------------------------|---------------|-------|------|------|------|------|-------|-------|----|--------------|-----------|
| | | | | | | | | | | C | Mn | P | S | Cu | Ni | Cr | Mo | V | CE | FLATTEN TEST | BEND TEST |
| 1 | 572400966 | 07300249-1 | B | 1 1/2" * 0.147" * 20FT | 3 | 512 | 10240 | 5.062 | N/A | 0.21 | 0.44 | 0.016 | 0.02 | 0.01 | 0.02 | 0.00 | 0.000 | 0.289 | | | |
| 2 | 5722001013 | 07301185-1 | B | 1" * 0.179" * 20FT | 5 | 635 | 12700 | 12.56 | N/A | 0.23 | 0.47 | 0.017 | 0.03 | 0.01 | 0.03 | 0.01 | 0.01 | 0.321 | | | |
| | 572301024 | 07301185-1 | B | 1" * 0.179" * 20FT | 6 | 755 | 15100 | 14.932 | N/A | 0.23 | 0.47 | 0.017 | 0.03 | 0.01 | 0.03 | 0.01 | 0.01 | 0.321 | | | |
| | 572401007 | 07301184-1 | B | 1" * 0.179" * 20FT | 4 | 508 | 10160 | 10.048 | N/A | 0.20 | 0.53 | 0.025 | 0.04 | 0.01 | 0.05 | 0.01 | 0.01 | 0.306 | | | |
| 3 | 572100696 | 07201255-1 | B | 1" * 0.250" * 20FT | 1 | 91 | 1820 | 2.353 | N/A | 0.20 | 0.55 | 0.007 | 0.03 | 0.01 | 0.05 | 0.01 | 0.01 | 0.308 | | | |
| 4 | 572200987 | 07300249-1 | B | 1-1/2" * 0.200" * 20FT | 6 | 330 | 6600 | 10.887 | N/A | 0.21 | 0.44 | 0.016 | 0.02 | 0.01 | 0.02 | 0.00 | 0.000 | 0.289 | | | |
| NONDESTRUCTIVE TEST | | | | | | | | | | | HARDNESS TEST | | | | | | | | | | |
| NO. | DELIVERY CONDITION | EDDY CURRENT TEST | ULTRASONIC TEST | AK (J) IMPACT | HYDROSTATIC TEST | | | | | | | | | | | | | | | | |
| 1 | NORMALIZED | OK | N/A | N/A | 2800 PSI | | | | | | | | | | | | | | | | |
| 2 | NORMALIZED | OK | N/A | N/A | 2800 PSI | | | | | | | | | | | | | | | | |
| | NORMALIZED | OK | N/A | N/A | 2800 PSI | | | | | | | | | | | | | | | | |
| | NORMALIZED | OK | N/A | N/A | 2800 PSI | | | | | | | | | | | | | | | | |
| 3 | NORMALIZED | OK | N/A | N/A | 2800 PSI | | | | | | | | | | | | | | | | |
| 4 | NORMALIZED | OK | N/A | N/A | 2800 PSI | | | | | | | | | | | | | | | | |

REMARKS: 1. We hereby certify that the material has been manufactured, sampled, tested and inspected in accordance with the required standards.

- 2. Properties compliance to DIN 50049 3.1.B/UNI EN 10204 3.1B.
- 3. BRINELL/Rockwell hardness certified to NACE MR-0175-99.
- 4. SPECIMEN SIZE: (Pipe end, Longitudinal, Gauge Length=2")
 - A. For pipes ≤ 1" full length specimen were used;
 - B. For pipes > 1" longitudinal strip specimen were used; the width of the gauge length portion is 3/4".

- 5. Origin: Made in China.
- 6. MATERIALS CONFIRM TO ANSI B36.10, A-530/A530M-2003

QUALITY MANAGER: *F. [Signature]*

PC COMPRESSION
 DATE RECEIVED JUN 17 2008
 P.O.# 510 395
 SIGNATURE: *[Signature]*
 APPROVED BY Q.C. INSPECTOR

Line 1

1/2" SCH 80 SMLS PIPE HEAT #: 06106555-1

17

HEAT CODE: .5Q

Contract No.: 06HGC06324
 L/C NO. 6FAHDS-00415
 Name of Customer: CE FRANKLIN
 P.O. NO.: PO.1521057-OR-2100-A
 DESCRIPTION: SEAMLESS CARBON STEEL PIPE FOR OIL AND GAS USE
 TOTAL: 1343PIECES, 2BUNDLES, 15,392MT, 26860FT

HENGYANG VALIN STEEL TUBE CO., LTD
MILL TEST REPORT
 Date: AUG. 23, 2006
 Page: 1/6

Add: 10 Dalixincun, Hengyang City, Hunan, China
 Tel and Fax: +86 734 8873739 8872942
 Cable: 6993
 P.C. 421001

| NO. | BATCH NO. | HEAT NO. | STEEL GRADE | SIZE | BUNDLES | PIECES | FEET | QUANTITY (MT) | ACTUAL WEIGHT(MT) | CERTIFICATE NO: 0504056 | |
|------------------------|--------------------|-------------------|----------------|----------------------|------------|--------|-----------------|------------------|-------------------|-------------------------|------------------------|
| | | | | | | | | | | | CHEMICAL COMPOSITION % |
| NONDESTRUCTIVE TEST | | | | | | | | | | | |
| NO. | DELIVERY CONDITION | EDDY CURRENT TEST | | | | | ULTRASONIC TEST | | | | |
| | | σ s (PSI) | YIELD STRENGTH | δ (%) | ELONGATION | IMPACT | HARDNESS | HYDROSTATIC TEST | FLATTEN TEST | BEND TEST | |
| 1 | 567200485 | 06106557-1 | B | 5/8" x 0.109" x 20FT | 1 | 110 | 2200 | 0.848 | N/A | | |
| 2 | 568100368 | 06106555-1 | B | 3/4" x 0.147" x 20FT | 3 | 550 | 11000 | 5.438 | N/A | | |
| 3 | 568100308 | 06106558-1 | B | 3/4" x 0.113" x 20FT | 1 | 114 | 2280 | 1.179 | N/A | | |
| 4 | 568100375 | 06106555-1 | B | 3/4" x 0.154" x 20FT | 3 | 406 | 8120 | 5.45 | N/A | | |
| 5 | 568100664 | 06107605-1 | B | 1" x 0.133" x 20FT | 1 | 163 | 3260 | 2.484 | N/A | | |
| CHEMICAL COMPOSITION % | | | | | | | | | | | |
| NO. | DELIVERY CONDITION | σ s (PSI) | YIELD STRENGTH | δ (%) | ELONGATION | IMPACT | HARDNESS | HYDROSTATIC TEST | FLATTEN TEST | BEND TEST | |
| 1 | COLD-DRAWN(780°C) | OK | 43500 | 35.0 | N/A | N/A | HRC 3.5 | 1900 PSI | N/A | OK | |
| 2 | COLD-DRAWN(780°C) | OK | 44225 | 43.0 | N/A | N/A | HRC 3.5 | 1000 PSI | N/A | OK | |
| 3 | COLD-DRAWN(780°C) | OK | 44950 | 41.0 | N/A | N/A | HRC 4.0 | 1450 PSI | N/A | OK | |
| 4 | COLD-DRAWN(780°C) | OK | 44950 | 44.0 | N/A | N/A | HRC 4.0 | 1450 PSI | N/A | OK | |
| 5 | COLD-DRAWN(780°C) | OK | 44950 | 43.0 | N/A | N/A | HRC 4.5 | 1450 PSI | N/A | OK | |

REMARKS: 1. We hereby certify that the material has been manufactured, sampled, tested and inspected in accordance with the required standards.

2. Properties compliance to DIN 50049 3.1.B/UNI EN 10204 3.1B.

3. BRINELL/Rockwell hardness certified to NACE MR-0175-99.

4. SPECIMEN SIZE: (Pipe end, Longitudinal, Gauge Length=2")
 A. For pipes ≤ 1" full length specimen were used;
 B. For pipes > 1" longitudinal strip specimen were used; the width of the gauge length portion is 3/4".

5. Origin: Made in China.

6. MATERIALS CONFIRM TO ANSI B36.10

QUALITY MANAGER:

[Signature]

| | | |
|-------------|--------------------|-------------|
| DATE | RECEIVED | COMPRESSION |
| | MAY 09 2008 | |
| PO # | SID177 | |
| SIGNATURE: | <i>[Signature]</i> | |
| APPROVED BY | Q.C. INSPECTOR | |



M. A. Stewart & Sons Ltd.

VALVES AND FITTINGS

LETTER OF COMPLIANCE

TO WHOM IT MAY CONCERN,

WE HEREBY CERTIFY THAT ALL MAS BALL VALVES: B-SERIES BRONZE,
C-SERIES CARBON STEEL, AND G-SERIES STAINLESS STEEL BALL VALVES ARE
MANUFACTURED IN ACCORDANCE WITH ALL PUBLISHED SPECIFICATIONS

REGARDS,
M. A. STEWART & SONS LTD.

RANDY K. LONG
EDMONTON BRANCH MANAGER

J

NC: 0108

| | |
|----------------------------|----------------------|
| PC COMPRESSION | |
| DATE | RECEIVED JUN 06 2008 |
| P.O. # | 510340 |
| SIGNATURE: | W |
| APPROVED BY Q.C. INSPECTOR | |



Date : 05/31/2007

CERTIFICATE OF COMPLIANCE

Sales Order :883552

Customer : CE FRANKLIN LTD

Purchase Order : 1782826-OR-2100

Part Number : 9K-820-023100-280

SKU Number : 1402917

Description : 2" 1000 FNPT DUCTILE NACE SCV

These valves were manufactured and tested, and are in accordance with Cameron Valves & Measurement's standard practices / procedures, and were produced following an ISO 9001 - 2000 Quality system.

VALVE DESCRIPTION 2" (DI) THREADED END 1000# PSI WORKING PRESSURE

PRESSURE TESTS

| | | |
|------------------------|----------|-------------|
| Hydrostatic Shell Test | 1500 PSI | 0.5 MINUTES |
| Hydrostatic Seat Test | 900 PSI | 0.5 MINUTES |

MATERIAL TEST REPORTS

All materials used conform to NACE MR-0175, latest edition.

| PART DESCRIPTION | MATERIAL SPECIFICATION |
|------------------|--------------------------------|
| Body | ASTM A395 DUCTILE IRON |
| Cover | ASTM A395 DUCTILE IRON |
| Clapper/Arm | ASTM A351 CF8M Stainless Steel |

Wheatley Swing Check
HEAT #s 91152Z
002991


 Cameron Valves & Measurements Representative

| | |
|----------------------------|----------------------|
| PC COMPRESSION | |
| DATE | RECEIVED FEB 13 2008 |
| P.O. # | 509801 |
| SIGNATURE | <i>RP</i> |
| APPROVED BY Q.C. INSPECTOR | |

LINE 3



M. A. Stewart & Sons Ltd.

VALVES AND FITTINGS

LETTER OF COMPLIANCE

TO WHOM IT MAY CONCERN,

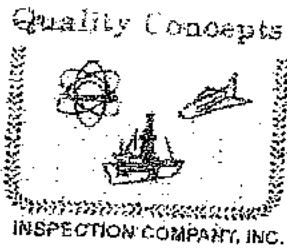
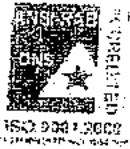
WE HEREBY CERTIFY THAT ALL MAS BALL VALVES: B-SERIES BRONZE,
C-SERIES CARBON STEEL, AND G-SERIES STAINLESS STEEL BALL VALVES ARE
MANUFACTURED IN ACCORDANCE WITH ALL PUBLISHED SPECIFICATIONS

REGARDS,
M. A. STEWART & SONS LTD.

RANDY K. LONG
EDMONTON BRANCH MANAGER

1/2" 1007

| | |
|----------------------------|--|
| DATE | PC COMPRESSION RECEIVED APR 09 2008 |
| P.O. # | 510031 |
| SIGNATURE: | nl |
| APPROVED BY Q.C. INSPECTOR | |



PC-407-00



Tensile Report D77954

Customer: CASTLE METALS
Material: 12L14 HT #: 777291
Customer Info: 1.250" HEX X 8" TEST BAR
Specification: BHN: TENSILE PER ASTM A370

P.O. #: 21-764871
Pcs: 1

Test Results:

| No. | Size (IN) | Yield (PSI) | Tensile (PSI) | Elong. (%) | Reduction (%) | Hardness |
|-----|-------------|---------------|---------------|------------|---------------|----------------|
| 1 | <u>.505</u> | <u>66,000</u> | <u>66,900</u> | <u>10</u> | <u>41</u> | <u>140 BHN</u> |

Comments:

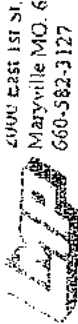
[Empty rectangular box for comments]

HIVDC-4Q

Date: 4/12/2007 Operator: JON DOWN

RAW MTL: 05-0012-063
HEAT: 777 291 1/2 = D031
USE: J. Martinez 4-19-07

| |
|----------------------------|
| PC COMPRESSION |
| DATE RECEIVED FEB 05 2008 |
| P.O. # <u>509739-00 IN</u> |
| SIGNATURE: <u>GE</u> |
| APPROVED BY Q.C. INSPECTOR |



2000 East 1st St.
 Maryville MO 64468 U.S.A.
 660-582-3127
 LMP Steel & Wire Co.

Castle Metals (Grand Prairie)

Printed: 4/5/2007

Material Certification

Order ID: CO35411/1
 Cust. PO Number: 27-15267

LMP Part number: 1551250-003 - 12L14 FX 1 250 X 12 CD
 Customer Part Number: 53104

HEAT # 777291

| | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C | P | S | Si | Mn | Cr | Ni | Cu | Mo | Al | N | As | Pb | Nb |
| 0.030 | 0.060 | 0.360 | 0.004 | 0.010 | 0.070 | 0.020 | 0.010 | 0.006 | 0.003 | 0.004 | 0.005 | 0.290 | 0.005 |

HEAT # 777291

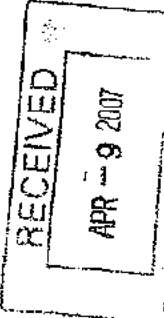
| | | | |
|---------------|-------------|----------------|----------------------------------|
| Tensile (psi) | Yield (psi) | Elongation (%) | Cross Section Area Reduction (%) |
| 66,466 | 65,759 | 10 | 44 |

Grain Size: COARSE
 Cast: STRAND
 Reduction Ratio: 106:1
 Manufactured in the USA

CASTLE METALS-DAL
 DATE REC'D 4-27-07
 REC'D FROM LMP
 APPROVED BY [Signature]

MEETS THE REQUIREMENTS OF: G12144-27; UNS#G12144 EN 10204 3.1, DIN EN 10204:2005 3.1
 MEETS THE REQUIREMENTS OF: G12114-06; UNS#G12114
 Meets the requirements of ASTM A 108-03a1

- Mechanical tests are performed in accordance to ASTM E8, E10, E18 and A370. All other tests are performed in accordance with the requirements of applicable specifications unless otherwise noted. LMP hereby certifies that the test results are representative of those contained in the records of this company.
- Any modification of this certificate of inspection as provided by LMP Steel & Wire without the expressed written consent of LMP Steel & Wire negates the validity of the certificate. This certificate shall not be reproduced except in full, without the expressed written consent of LMP Steel & Wire.
- The chemistry analysis provided within this certification is provided by LMP Steel & Wire's material producer LMP does not perform chemical analysis on certified material.
- This material is free from mercury contamination.
- No welding or weld repair was performed on this material.
- ISO 9001:2000 certified. Certificate NO: 990515, Expires October 29, 2008.



David R. Kiesel
 Quality Control Manager

RAW.MU.# 05-0018-063 CASTLE-DA
 HEAT# 777291 / PK = 0031
 INSP. J. Martine 4-19-07

IM-7-LOGISTICS.1

06/08/00 09:17

6780 435 0483

1399501



M. A. Stewart & Sons Ltd.

VALVES AND FITTINGS

9773 - 40th Avenue
Edmonton, Alberta, Canada
T6E 5V8

Phone: 1-800-222-7378
Phone: (403) 435-9651
Fax: (403) 435-0451

MARCH 21, 1996

LETTER OF COMPLIANCE

(MAS #CSSDR-1 / CSOR-2)

TO WHOM IT MAY CONCERN:

We hereby certify that the MAS Models #CSSDR-1 and CSOR-2 are manufactured in strict compliance with the specifications listed in Brochure #CA 0899

Should you require additional technical data, please do not hesitate to call.

Yours truly,

M. A. STEWART & SONS LTD.

Randy K. Long
Edmonton Branch Manager

3/8" 0207

| |
|----------------------------|
| PC COMPRESSION |
| DATE RECEIVED MAY 12 2008 |
| PO.# 510143 |
| SIGNATURE: <i>N</i> |
| APPROVED BY Q.C. INSPECTOR |

Line 5/16/7

CERTIFICATE OF COMPLIANCE

TYCO SALES ORDER: 3079308-00

CUSTOMER: PC Compression Inc.

CUSTOMER PURCHASE ORDER: 506677-00

PRODUCT DESCRIPTION: H5RDC-2 and H5RDC-22

We hereby certify that the valve(s) furnished on the aforementioned order are in accordance with standard materials, manufacturing, production and test specifications, and meet the requirements of the purchase order for which they are required.

Supplied by Tyco Flow Control
ISO 9001-2000

RECEIVED JUL 1 0 2006

| | |
|----------------------------|------------------------|
| PC COMPRESSION | |
| DATE | RECEIVED IIII 1 0 2006 |
| P.O. # | 506677-00 JAV |
| SIGNATURE: | HC. |
| APPROVED BY Q.C. INSPECTOR | |

John Buisman per _____

John Buisman
Operations Manager
Tyco Flow Control

Material Test Report Data - Certificate of Test

11/05/2007

AGS GROUP INC
4144 78 AVENUE

EDMONTON, AB T6B 3M8 CANADA

DAN-LOC Order Number: 802285

Customer PO Number: 0123858

| Item | Qty | DAN-LOC Heat Code | | Product | Size | Mill Heat Code | Standard | | | | | | | | | |
|------|------|-------------------|------|---------|------------------|----------------|-------------|------|------|----|---|---|----|------|-------|------------|
| 5 | 1300 | HSL07 | B | BTMATS | 1/2" X 2-1/2" FF | 481000 | ASTMA193 06 | | | | | | | | | |
| Item | C | MN | P | S | SI | CR | NI | MO | CU | TI | V | B | CB | AL | Other | Macro Etch |
| 5 | 0.41 | 0.88 | .007 | .009 | 0.24 | 0.84 | 0.04 | 0.21 | 0.08 | 0 | 0 | 0 | 0 | .023 | - | S1R1C1 |

Charpy Test = Impact V-Notch

| Item | Yield 0.2% Offset | Tensile | % Elong | % RA | Hardness Type | Actual Hardness | Temp (F) | Spcm #1 | Spcm #2 | Spcm #3 | 24 Hour Temp (F) | Hour Hardness | Test Proof Load (lbf) |
|------|-------------------|---------|---------|------|---------------|-----------------|----------|---------|---------|---------|------------------|---------------|-----------------------|
| 5 | 83330 | 101625 | 22.0 | 61.6 | HRB | 95 | N/A | - | - | - | - | - | - |

| Item | Quench Temp (F) | Tempera d (F) |
|------|-----------------|---------------|
| 5 | - | 1300 |

Additional Data

MODIFIED 100 % TESTED MEETS NACE MR0175
Additional Certificate Data: ALL STUDS M.F.G. IN USA PER EN 10204 1991 3.1B

The products referenced in this report were manufactured, sampled, tested and inspected in accordance with the specifications listed and any supplementary requirements or other requirements designated in the purchase order or contract and were found to meet those requirements. This report also certifies that the results shown are correct as contained in the company records and conform to the requirements of the listed standards. The results shown relate only to the items tested as identified above. The material noted within this document complies with the mechanical testing requirements within ASTM 193/194, as applicable. This certificate shall not be reproduced except in full, without the written approval of Dan-Loc Bolt & Gasket.

Isaac Armijo

Authorized Signatory (Typeset signatory indicates the use of Digital Password Authorization.)

| | |
|----------------------------|----------------------|
| PC COMPRESSION | |
| DATE | RECEIVED FEB 13 2008 |
| P.O. # | 509802 |
| SIGNATURE | GI |
| APPROVED BY Q.C. INSPECTOR | |

INSPECTION CERTIFICATE



Certificate No. : J420070510116
 P/O No. : 0117844
 L/C No. : CAD-AGS

Customer : AGS GROUP INC.
 Description : ASTM A194 GR.2HM HEAVY HEX NUTS WITH 100% HARDNESS TEST, PLAIN
 Grade : GR.2HM

FACTORY : 601 YONGTAN-DONG, CHUNGJU-CITY,
 CHUNGCHONGBUK-DO, KOREA 380-260
 TEL : (043) 849 - 1114
 FAX : (043) 849 - 1234

Date Issued : 2007/05/10
 Date Shipped : 2007/05/11
 Date Tested : 2007/04/14
 Date Manufactured : 2007/04/03

FIELD OF TESTING : MECHANICAL TESTING
 LAB. ID. : 111983
 CERT. NO. : 882-01

Surface Condition : PLAIN
 Lot No. : F2J0900300
 Q'ty Shipped : 30,100 PCS

STANDARD OF CERTIFIED : ISO/TS 16949, ISO 9001, ISO 14001
 CERT. NO. : TS-01899, AC-01899, EAC-01899



1. Chemical Composition (%)

| Heat No. | Specimen Tensile | | | | | | | | | | | | |
|---------------|------------------|---------|---------|----------|----------|---------|---------|---------|-----------|---------|---------|--------|----------|
| | C x100 | Si x100 | Mn x100 | P x10000 | S x10000 | Cr x100 | Mo x100 | Ni x100 | B x100000 | Cu x100 | Ti x100 | V x100 | A1 x1000 |
| Spec. SK54721 | Min. | 40 | 100 | 40 | 50 | | | | | | | | |
| | Max. | 45 | 19 | 74 | 12 | 4 | | | | | | | |

2. Macroetch Meet

| Division | Surface Condition | Random Condition | Center Segregation | Spec. of Test Method |
|-----------|-------------------|------------------|--------------------|----------------------|
| Spec. | S2 | P2 | C2 | ASTM E381 - |
| Results | S2 | P2 | C2 | |
| Tested By | K. R. LEE | | | |

3. Mechanical Properties

| Division | Hardness | | Tensile | | Proof Load | | Tensile Load | Elongation | Reduction of Area | Spec. of Test Method |
|----------------------|----------|--------|----------------|------------------|------------|------------|--------------|------------|-------------------|----------------------|
| | Surface | Core | Yield Strength | Tensile Strength | Load | Elongation | | | | |
| Unit | Min. | HRB | | | | | | | | |
| | Max. | HRB | | | | | | | | |
| Spec. | Min. | 84 | | | | | 21,280 | | | |
| | Max. | 99 | | | | | | | | |
| Results | 1 | HRB 94 | | | 6000 | | | | | |
| | 2 | 94 | | | 6000 | | | | | |
| Avg. | 3 | 94 | | | 6000 | | | | | |
| | 4 | 94 | | | 6000 | | | | | |
| Tested By | 5 | 94 | | | ... | | | | | |
| | 6 | 94 | | | | | | | | |
| Spec. of Test Method | 7 | | | | | | | | | |
| | 8 | | | | | | | | | |
| G. Y. HWANG | 9 | | | | | | | | | |
| | 10 | | | | | | | | | |
| ASTM A370 - | Avg. | | | | | | | | | |
| | | | | | | | | | | |

PC COMPRESSION
 DATE RECEIVED APR 18 2008
 PO # 510087
 SIGNATURE: GY
 APPROVED BY Q.C. INSPECTOR

Reference : RESULTS OF 100% HARDNESS TEST ARE WITHIN THE REQUIREMENT(HR84+HR99) SPECIFIED IN ASTM A194/A194M COMPLIES WITH EN10204.1B

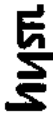
This is to certify that the above results are true and correct in every details

G. Y. HWANG
 Chief of Quality Management Dept.

KPF

INSPECTION CERTIFICATION

검 사 증 명 서



HAN YOUNG STEEL WIRE CO., LTD
 Head office & Chungju works
 630-13 Youngjae-dong, Chungju-city, Chungbuk, Korea
 Tel: (043)853-5544 Fax: (043)853-8835
 Ansan Office
 688-4 Choji-dong, Danwon-pu, Ansan-city, Gyeonggi-do, Korea
 Tel: (031)491-5050 Fax: (031)491-6593

Certificate No. (증명서번호): HY070329006-01
 Date of issue (발행일자): 2007/03/29
 Coating (피막):
 Packing (포장): 뱀뎀

Customer (수요자): (주)케이피에프
 Order No. (주문번호): 20070329-806
 Manufacture No. (제조번호): P0701378050000
 Commodity (품명): AISI1045 ST-BAR 17.00

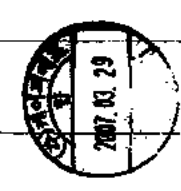
Specification (규격): AISI1045

| Heat No. | Coil No. | Product No. | Specifiation | 중량 Weight Kg | 선경 Dia. mm | 길이 Length mm | 편경차 Roundness mm | Physical Properties (물리적 성질 검사) | | | | 직진도 St/Gt mm/M | 외관 Apparent |
|----------|------------|----------------|--------------|--------------------|------------|--------------|------------------|---------------------------------|-------------------------|--------|-------|----------------|-------------|
| | | | | | | | | Y/S kg/mm ² | T/S kgf/mm ² | E.L. % | R/A % | | |
| | | | | kg/mm ² | mm | mm | mm | % | % | % | mm | mm | mm |
| SAS4747 | VMK3300281 | P0701378050000 | | 1,942 | 17.00 | | | | | | | | |
| SAS4747 | VMK3300321 | P0701378030000 | | 1,945 | 17.00 | | | | | | | | |
| SAS4721 | VMK3210031 | P0701413020000 | | 1,891 | 17.00 | | | | | | | | |
| SAS4747 | VMK3300301 | P0701378010000 | | 1,897 | 17.00 | | | | | | | | |
| SAS4747 | VMK3300311 | P0701413040000 | | 1,934 | 17.00 | | | | | | | | |
| SAS4747 | VMK3300291 | P0701431020000 | | 1,884 | 17.00 | | | | | | | | |
| SAS4745 | VMK3290511 | P0701431030000 | | 1,944 | 17.00 | | | | | | | | |
| SAS4721 | VMK3210321 | P0701431120000 | | 1,914 | 17.00 | | | | | | | | |
| Total | | | | 38,185 | | | | | | | | | |

| Heat No. | Coil No. | Product No. | Chemical Composition (화학성분) (%) | | | | | | | | | | | | | | | |
|----------|------------|----------------|---------------------------------|-------|-------|--------|--------|--------|------|------|-------|--------|--------|--------|--------|-------|------|--|
| | | | C | Si | Mn | P | S | Cr | Mo | NI | Cu | Sol-Al | Pb | B | Ti | V | BI | |
| | | | X100 | X100 | X1000 | X10000 | X10000 | X10000 | X100 | X100 | X1000 | X1000 | X10000 | X10000 | X10000 | X1000 | X100 | |
| SAS4747 | VMK3300281 | P0701378050000 | 48.00 | 35.00 | 90.00 | 30.00 | 35.00 | | | | | | | | | | | |
| SAS4747 | VMK3300321 | P0701378030000 | 42.00 | 15.00 | 60.00 | | | | | | | | | | | | | |
| SAS4721 | VMK3210031 | P0701413020000 | 45.40 | 19.20 | 77.60 | 9.40 | 8.20 | | | | | | | | | | | |
| SAS4747 | VMK3300301 | P0701378010000 | 45.30 | 19.20 | 77.60 | 9.40 | 8.20 | | | | | | | | | | | |
| SAS4747 | VMK3300311 | P0701413040000 | 45.40 | 19.20 | 77.60 | 11.50 | 3.60 | | | | | | | | | | | |
| SAS4747 | VMK3300291 | P0701431020000 | 45.40 | 19.20 | 77.60 | 9.40 | 8.20 | | | | | | | | | | | |
| SAS4745 | VMK3290511 | P0701431030000 | 45.46 | 19.50 | 77.50 | 9.40 | 8.20 | | | | | | | | | | | |
| SAS4721 | VMK3210321 | P0701431120000 | 45.30 | 19.20 | 74.10 | 13.00 | 8.50 | | | | | | | | | | | |

Notes (주): Y/S: Yield Strength T/S: Tensile Strength E.L.: Elongation R/A: Reduction of Area SA: Spheroidized Annealing
 De-F: Decarburized microscope Ferrite De-T: Decarburized microscope Total St/Gt: Straightness
 We hereby certify that material has been tested in accordance with the specification.
 상기 검사는 규격의 시험을 행하여 합격하였음을 증명합니다.

Surveyor to: Chief of O.A. Section
K. M. KIM



STS 500 035 316L

検査成績表 (MILL CERTIFICATE)

請要家: (CUSTOMER) MARMON / KEYSTONE CANADA
 注文者: 三京物産株式会社
 (SUPPLIER) (SANKYO & CO., LTD.)
 品名: (COMMODITY) SEAMLESS STAINLESS STEEL TUBE (NO.115 MEIGUI STREET, SUJIATUN DISTRICT, SHENYANG, P.R. CHINA) (CUSTOMER ORDER NO.)
 ASTM A269/ASTM A213/ASME SA213 TP316/TP316L

発行日: 2004.09.16
 証明書番号: 04-383
 (CERTIFICATE NO.)
 請要家管理番号: P.O.BN8231
 (CUSTOMER ORDER NO.)

寸法: 1/2"OD x 0.035"WT x 20FT

引張試験 (Tension Test)

| 製品番号 (Mfg. No.) (三京) | ロット番号 (Lot No.) | 製造番号 (Mfg. No.) (KST) | 製鋼番号 (Heat No.) (KST) | 検査 (Quantity) | | 長さ (Total Length) (m) | 0.2%耐力 (0.2% Y.S.) (MPa) | 引張り強さ (T.S.) (MPa) | 伸び (E.L.) (%) | 硬さ試験 (Hardness Test) HRB | 結晶粒度 (Grain Size) | へん平試験 (Planing) | GOOD |
|----------------------------|--------------------|-----------------------------|-----------------------------|---------------------|-------------|-----------------------------|--------------------------------|--------------------------|---------------------|--------------------------------|----------------------|--------------------|------|
| | | | | 本数 (No. of Pcs.) | 水 (Pcs.) | | | | | | | | |
| 04-03-004 | 01 | | V30984 | 99 | 159 | | 270 | 580 | 63.1 | 67.2 | | | GOOD |
| 04-03-004 | 01-1 | | V30978 | 118 | 190 | | 275 | 585 | 65.1 | 69.2 | | | GOOD |
| 04-03-004 | 04 | | V30983 | 119 | 192 | | 280 | 580 | 64.1 | 68.3 | | | GOOD |
| 04-03-004 | 04-2 | | V30959 | 15 | 24 | | 275 | 575 | 65.6 | 67.5 | | | GOOD |
| 04-03-004 | 05-1 | | V30957 | 113 | 182 | | 270 | 575 | 65.0 | 68.8 | | | GOOD |
| TOTAL | | | | 464 | 747 | | 285 | 580 | 63.1 | 67.5 | | | |

| 製品番号 (Heat No.) (最大) | C × 100 | Si × 100 | Mn × 100 | P × 1000 | S × 1000 | Ni × 100 | Cr × 100 | Mo × 100 | 化学成分表 (Chemical Composition) % | | |
|----------------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|-------------|-------------|
| | | | | | | | | | Mo × 100 | Cr × 100 | Mo × 100 |
| V30984 | 3.5 | 75 | 200 | 40 | 30 | 1000 | 1600 | 200 | QC REVIEWED NOV 09 2004 | | |
| V30978 | 2.2 | 43 | 171 | 30 | 1 | 1233 | 1673 | 207 | 備考 (Remarks) SOLUTION HEAT TREATMENT: 1100 °C x 2.0Min/W.Q EN 10204/3.1.B | | |
| V30983 | 1.7 | 53 | 170 | 28 | 1 | 1222 | 1648 | 214 | | | |
| V30959 | 2.3 | 43 | 171 | 30 | 1 | 1233 | 1673 | 207 | | | |
| V30957 | 2.2 | 43 | 171 | 29 | 1 | 1225 | 1633 | 207 | | | |

上記注文品は、御指定の規格又は仕様に従って製造されその要求事項を満足し PQQ COMPRESSION 工場長 Sheng Zhang
 (IT IS HEREWITH CERTIFIED THAT THE ABOVE MATERIALS ARE SATISFACTORY IN COMPLIANCE WITH THE
 REQUIREMENTS SPECIFIED IN THE CONTRACT.)
 (MANUFACTURING QUALITY CONTROL SECTION)
 DATE RECEIVED AUG 15 2005
 P.O. # 504405-00 JUN
 SIGNATURE: SDC

検査成績表 (MILL CERTIFICATE)

発行日 : 2007.12.18
 (DATE OF ISSUE)
 証明書番号 : 07-976
 (CERTIFICATE NO.)
 需要家管理番号 : P.O.#ES5298
 (CUSTOMER ORDER NO.)

需要家 : MARMON / KEYSTONE CANADA
 (CUSTOMER)
 注文者 : 三京物産株式会社
 (SUPPLIER)
 (SANKYO & CO., LTD.)
 品名 : 中国・濟陽市蘇家屯区玫瑰街115号

三京不銹鋼管(沈陽)有限公司
 SANKYO STAINLESS TUBE (SHEN YANG) CO., LTD.

(COMMODITY) SEAMLESS STAINLESS STEEL TUBE (NO.115 MEIGUI STREET, SUJATUN DISTRICT, SHENYANG, P.R. CHINA)

CASE NO. : 08.12

寸法 : 3/8"OD X 0.035"WT X 20' LG
 (SIZE)

契約番号 : S7YCA02

(CONTRACT NO.)

| 製作番号 (Mfg. No.) 〔三京〕 | ロット番号 (Lot No.) | 製造番号 (Mfg. No.) (KST) | 製鋼番号 (Heat No.) (KST) | 数量 (Mass) kg | 引張試験 (Tension Test) | | | 硬さ試験 (Rockwell Test) HRB | 結晶粒径 (Grain Size) | へん平試験 (Flattening) | GOOD |
|----------------------------|--------------------|-----------------------------|-----------------------------|--------------------|-------------------------------|------------------------|------------------|--------------------------------|---|-----------------------|------|
| | | | | | 0.2% 耐力 (0.2% Y.S.) MPa | 引張り強さ (T.S.) MPa | 伸び (E) (%) | | | | |
| 06-12-012 | 25 | | 672-1337 | 66 | 295 | 595 | 54.7 | 75.7 | | GOOD | |
| 07-11-002 | 37 | | 772-1901 | 194 | 290 | 585 | 64.5 | 77.2 | 外観寸法試験 (Measurement/Dimension) | GOOD | |
| 07-11-002 | 39-A | | 772-1901 | 26 | 285 | 580 | 59.1 | 76.2 | 弾性率試験 (Eddy Current) | GOOD | |
| | | | | | 285 | 565 | 58.9 | 75.9 | 検漏試験 (Microscopic) | GOOD | |
| | | | | | | | 50.1 | 77.0 | 連続耐腐食試験 (Intergranular Corrosion Test) ASTM A262 PRACTICE B | GOOD | |
| TOTAL 242 286 | | | | | | | | | | | |

化学成分表 (Chemical Composition) %

| 製鋼番号 (Heat No.) | C X 100 | Si X 100 | Mn X 100 | P X 1000 | S X 1000 | Ni X 100 | Cr X 100 | Mo X 100 | 引張試験 (Tension Test) | |
|--------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------|------------------------|
| | | | | | | | | | 0.2% 耐力 (0.2% Y.S.) MPa | 引張り強さ (T.S.) MPa |
| 最小 (Min) | 3.5 | 100 | 200 | 45 | 30 | 1400 | 1600 | 200 | 290 | 580 |
| 最大 (Max) | 2.5 | 36 | 133 | 29 | 7 | 1281 | 1630 | 209 | 285 | 565 |
| 772-1901 | 3.0 | 34 | 151 | 29 | 8 | 1100 | 1695 | 201 | | |

SOLUTION HEAT TREATMENT:
 1100 °C X 2.15Min/W.Q
 EN 10204/3.1.B
 NACB MR-0175

検査部長
 (MANAGER OF QUALITY SYSTEM SECTION)

上記注成品は、御指定の規格又は仕様に従って製造されその要求事項を満足していることを証明します
 (IT IS HEREWITH CERTIFIED THAT THE ABOVE MATERIALS ARE SATISFACTORY IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE CONTRACT.)

DATE RECEIVED MAY 01 2008

PO.# 510144

SIGNATURE: GJ

APPROVED BY Q.C. INSPECTOR

検査成績表 (MILL CERTIFICATE)

需要家: (CUSTOMER) MARMON / KEYSTONE CANADA
 注文者: 三京物産株式会社
 (SUPPLIER) (SANKYO & CO., LTD.)
 品名: SEAMLESS STAINLESS STEEL TUBE (NO.115 MEIGUI STRBET, SUJIATUN DISTRICT, SHENYANG, P.R. CHINA) (CUSTOMER ORDER NO.)
 (COMMODITY) ASTM/ASME A269/A213/A213 (A.W.) TP316TP316L

三京不銹鋼管(沈陽)有限公司
 SANKYO STAINLESS TUBE (SHEN YANG) CO., LTD.
 中国・瀋陽市蘇家屯区玖瑰街115号

発行日: 2007.03.14
 (DATE OF ISSUE)
 証明書番号: 07-199
 (CERTIFICATE NO.)
 需要家管理番号: P.O.#ES5115
 (CUSTOMER ORDER NO.)

CASE NO.: 10

寸法: 3/8"OD X 0.035"WT X 20FT
(SIZE)

契約番号: S7402
(CONTRACT NO.)

| 製作番号 (Mfg. No.) (三京) GSANBNG | ロット番号 (Lot No.) | 製造番号 (Mfg. No.) (KST) | 製鋼番号 (Heat No.) (KST) | 数量 (No. of Tps.) 本 (Pcs.) | 重量 (Mass) kg | 延長 (Tensile Length) m | 0.2%耐力 (0.2% Y.S.) MPa | 引張試験 引張り強さ (T.S.) MPa | 伸び (E.L.) (%) | 硬さ試験 (Hardness Test) HRB | 結晶粒度 (Grain Size) | へん平試験 (Flatness) | GOOD |
|---------------------------------------|--------------------|-----------------------------|-----------------------------|---------------------------------|--------------------|-----------------------------|------------------------------|--------------------------------|---------------------|--------------------------------|----------------------|--|------|
| | | | | | | | | | | | | | |
| 07-03-046 | 49 | | 656-2605 | 192 | 226 | | 290 | 590 | 53.9 | 76.5 | | 押し広げ試験 (Flattening) | GOOD |
| 07-03-046 | 50 | | 656-2605 | 145 | 170 | | 285 | 585 | 54.3 | 75.4 | | 外周寸法試験 (Measurement of Surface) | GOOD |
| | | | | | | | 295 | 590 | 53.1 | 76.5 | | 滑液標識試験 (Slippery Contact) | GOOD |
| | | | | | | | 290 | 585 | 53.9 | 76.1 | | 試験試験 (Indigenetic) | GOOD |
| | | | | | | | | | | | | 硫酸銅腐食試験 (Sulphuric Acid Corrosion Test) | GOOD |
| TOTAL 337 396 | | | | | | | | | | | | | |
| 化学成分表 (Chemical Composition) % | | | | | | | | | | | | | |
| 製鋼番号 (Heat No.) | C | Si | Mn | P | S | Ni | Cr | Mo | | | | | |
| 最小 (Min) | 2.5 | 100 | 200 | 45 | 30 | 1400 | 1800 | 300 | | | | | |
| 最大 (Max) | 2.0 | 43 | 104 | 29 | 4 | 1260 | 1680 | 208 | | | | | |

上記注文品は、御指定の規格又は仕様に従って製造されその要求事項を満足していることを証明します。
(IT IS HEREWITH CERTIFIED THAT THE ABOVE MATERIALS ARE SATISFACTORY IN COMPLIANCE WITH THE REQUIREMENTS SPECIFIED IN THE CONTRACT.)

検査部長 *Zhang*
 (MANAGER OF QUALITY SYSTEM SECTION)
 Marmon/Keystone
 Q.C. Reviewed
 Date: *May 2-07*
 Signed: *JF*

PC COMPRESSION
 DATE RECEIVED *III 16 2008*
 P.O. # *SIOSSO*
 SIGNATURE: *SC*
 APPROVED BY Q.C. INSPECTOR



Copeland Customer Service
(800) 996-4660
www.copeland-corp.com

Material Data Safety Sheet

From: Copeland Customer Service

Subject: Copeland Fuel Gas Booster Oil

CAUTION:

This oil is intended for use only in the Copeland Fuel Gas Booster.

Use of any other oil in the Copeland Fuel Gas Booster oil may result in failure and is not covered by warranty.

Dispose Waste Oil Properly:

If the oil has not been contaminated it can be disposed the same as a synthetic motor oil.

If the oil is contaminated the end user must comply with all applicable regulations for disposal of hazardous materials.

Supplier:

CPI Engineering Services INC.
2300 James Savage Rd.
Midland, MI 48642

Emergency Number: (989) 496-3780

Form No. 2001-125
Page 1 of 5
Revision 1
Issued 12/17/01

Section 1**Product Name and Information**

Product (Trade Name and Synonyms): CP-6006 Series

Chemical Name: Polyalphaolefin

Chemical Family: Synthetic Hydrocarbon

Formula: C_{10n}H_{20n+2}

CAS#: Proprietary

Section 2**Components and Hazard Statement**

This product is non-hazardous. The product contains no known carcinogens. No special warning labels are required under OSHA 29 CFR 1910.1200.

FDA Statement. This product complies with FDA 21 CFR 178.3570 regarding lubricants for incidental food contact.

Section 3**Safe Handling and Storage**

Handling. Do not take internally. Avoid contact with skin, eyes, and clothing. Upon contact with skin, wash with soap and water. Flush eyes with water for 15 minutes and consult physician. Wash contaminated clothing before reuse.

Storage. Keep container tightly sealed when not in use.

Section 4**Physical Data**

Appearance: Clear, water-white liquid

Boiling Point: >300°F

Vapor Pressure: <0.01mmHg @ 20°C

Specific Gravity (water=1): 0.79-0.85

Volatiles, Percent by Volume: 0%

Odor: None

Solubility in Water: Insoluble

Evaporation Rate (butyl acetate=1): Nil

Form No. 2001-125

Page 2 of 5

Revision 1

Issued 12/17/01

Section 5

Fire and Explosion Hazards

Flash Point (by Cleveland Open Cup): 320-530°F (160-276°C)

Flammable Limits: not established

Autoignition Temperature: no data

HMIS Ratings:

Health: 0

Flammability: 1

Reactivity: 0

NFPA Ratings: not established

Extinguishing Media: Dry chemical; CO₂ foam; water spray (fog)

Unusual Fire and Explosion Hazards: None

Special Fire Fighting Techniques: Burning fluid may evolve irritating/noxious fumes. Firefighters should use NIOSH/MNSA-approved self-contained breathing apparatus.

Use water to cool fire-exposed containers. Use water carefully near exposed liquid to avoid frothing and splashing of hot liquid.

Section 6

Reactivity Data

Stability: **Stable**

Hazardous Polymerization: Will not occur

Incompatible Materials: Strong oxidizers

Conditions to Avoid: Excessive heat

Hazardous Decomposition Products: Analogous compounds evolve carbon monoxide, carbon dioxide, and other unidentified fragments when burned. See Section 5.

Section 7**Health Hazard Data**

Threshold Limit Value: 5mg/m³ ACGIH

Situations to Avoid: Avoid breathing oil mists

First Aid Procedures:

Ingestion: Consult physician at once. **DO NOT INDUCE VOMITING.** May cause nausea and diarrhea.

Inhalation: Product is not toxic by inhalation. If oil mist is inhaled, remove to fresh air and consult physician.

To the best of our knowledge the toxicity of this product has not been fully investigated. Analogous compounds are considered to be essentially non-toxic.

Section 8**Personal Protection Information**

Respiratory Protection: Use in well ventilated area

Ventilation: Local exhaust

Protective Gloves: Not required, but recommended, especially for prolonged exposure.

Eye/Face Protection: Goggles

Section 9**Spill or Leak Procedures**

In Case of Spill: Wear suitable protective equipment, especially goggles. Stop source of spill. Dike spill area. Use absorbent materials to soak up fluid (i.e. sand, sawdust, and commercially available materials). Wash spill area with large amounts of water. Properly dispose of all materials.

Section 10**Waste Disposal Methods**

Incinerate this product and all associated wastes in a licensed facility in accordance with Federal, state, and local regulations.

Form No. 2001-125

Page 4 of 5

Revision 1

Issued 12/17/01

Copeland is a registered trademark of Copeland Corporation. ©2001 Copeland Corporation.

The information in this material safety data sheet should be provided to all who use, handle, store, transport, or are otherwise exposed to this product. CPI believes the information in this document to be reliable and up to date as of the date of publication, but makes no guarantee that it is.

For additional information or if questions arise, please contact Copeland Customer Service.

Copeland Customer Service:
Phone: (800) 996-4660
Fax: (937) 493-2447
E-mail: scroll@copeland-corp.com

Copeland Corporation
1675 W. Campbell Rd.
P.O. Box 669
Sidney, Ohio 45365-0669
Phone: (937) 498-3011
Toll Free: (800) 440-6512

Form No. 2001-125
Page 5 of 5
Revision 1
Issued 12/17/01

Copeland is a registered trademark of Copeland Corporation. ©2001 Copeland Corporation.





ALCOA

Alcoa Industrial Chemicals

ACTIVATED
ALUMINAS

F-200

ALCOA

PRODUCT
DATA

USA 1001 (Rev. 10/77) (Page 1 of 2)

Smooth spheres of uniform size and high crush strength for drying gases and liquids

Product Information

F-200 is a smooth sphere of activated alumina produced by Alcoa's unique manufacturing process, and is available in a variety of sizes. F-200 is an excellent desiccant for drying a wide variety of liquids and gases. Although all molecules are adsorbed to some extent on F-200, those molecules having the highest polarity are preferentially adsorbed. Stream conditions such as pressure, concentration and molecular weight of the molecules, temperature, and site competing molecules affect the efficiency of adsorption.

Product Benefits

- 1. Uniform ball size.** This property is especially useful in high pressure gas dehydration where minimizing pressure drop is important. The uniform size and sphericity of F-200 prevents adsorbent segregation during pneumatic loading, thus minimizing channeling and yielding more efficient use of the entire desiccant tower.
- 2. High crush strength.** F-200 has a high crush strength which allows rapid pneumatic loading of towers. The high crush strength also allows use of taller towers that make more efficient use of the desiccant. F-200 activated alumina is highly resistant to amine attack. Furthermore, F-200's high crush strength enables it to dehydrate acid containing gases and liquids, such as CO_2 , for a longer operating life.
- 3. Low abrasion.** The low abrasion of F-200 ensures less dusting during transport, loading, and service life which reduces pressure drop and minimizes downstream valve and filter plugging, common with dustier products.
- 4. High adsorptive capacity.** F-200's high surface area and tailored pore distribution provide a high dynamic H_2O adsorption capacity. With proper tower design and effective regeneration, F-200 can achieve an

ultra low H_2O effluent specification (i.e. dew point). F-200 also has excellent cyclic stability that yields a long life.

Applications

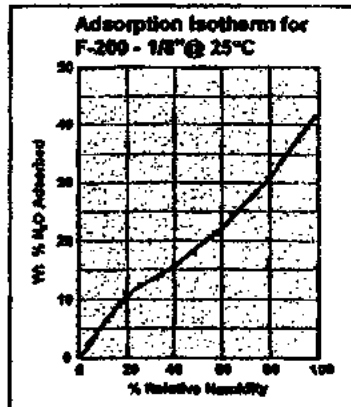
1. Drying. Nearly all gases and liquids can be dried with F-200. Water removal is often necessary for efficient processing, storage, and transportation of fluids.

The 3/16" size is normally recommended for vapor phase dehydration applications where pressure drop minimization yet high H_2O adsorption capacity is desirable. The 1/4" size provides the lowest pressure drop characteristics in vapor phase service but does not have as high an H_2O adsorption capacity as do smaller diameter sizes of F-200.

The 1/8" and 7 x 14 Tyler mesh size are recommended for use in liquid dehydration and other mass transfer limited adsorption applications.

F-200 is rapidly becoming the industry standard for drying compressed air. Providing long service life with performance at or below dew point specifications, F-200 is a "peace of mind" product for both large and small dryers.

F-200 is appropriate for use in dehydrating gases in both thermally regenerative (350 to 600°F) and pressure swing (PSA) modes.



2. Acid removal. Transformer oils, lubricating oils, and refrigerants form degradation acids upon use. F-200 will remove these acids during use. In the manufacture of chlorinated and/or fluorinated hydrocarbons, removal of these residual halides and water is essential for a noncorrosive product.

3. Process stream purification. F-200 is excellent for removal of highly polar compounds such as

TBC, alcohols, ethers, etc. It also readily adsorbs heavy metal ions from hydrocarbons.

4. Hydrocarbon adsorption. Under proper operating conditions, the pore size distributions and surface chemistry of activated aluminas are conducive to the adsorption of hydrocarbons.

Typical Properties of F-200 Activated Alumina

| Physical | 7x14 Tyler mesh | 1/8 inch | 3/16 inch | 1/4 inch |
|---|-----------------|------------|-----------|----------|
| | (2.0 mm) | (3.2 mm) | (4.8 mm) | (6.4 mm) |
| Surface area, m ² /g | 360 | 355 | 340 | 325 |
| Total pore volume, cc/g | 0.5 | 0.5 | 0.5 | 0.5 |
| Packed Bulk Density, lbs/ft ³ (kg/m ³) | 48 (769) | 48 (769) | 48 (769) | 48 (769) |
| Crush Strength lbs, (kgs) | 11 (5) | 30 (14) | 55 (25) | 70 (32) |
| Abrasion loss, wt% | 0.1 | 0.1 | 0.1 | 0.1 |
| Water Adsorption Data | | | | |
| Static sorption @ 11% RH | 8 | 8 | 7 | 7 |
| Static sorption @ 55% RH | 22 | 22 | 21 | 19 |
| Static sorption @ 97% RH | 42 | 42 | 40 | 38 |
| Chemical | | wt% | | |
| Al ₂ O ₃ | 93.1 | | | |
| SiO ₂ | 0.02 | | | |
| Fe ₂ O ₃ | 0.02 | | | |
| Na ₂ O | 0.30 | | | |
| LOI (250 - 1100°C) | 6.5 | | | |

Nothing herein shall be construed as an invitation to use processes covered by patents without proper arrangements with individuals or companies owning those patents.

Information presented herein is believed to be accurate and reliable but is not intended to meet any specification and does not imply any guarantee or warranty by Alcoa.

MSDS Number: 149

Alcoa Industrial Chemicals

PRODUCT
DATA

USA 30-23030 (437) F-200-2-12

United States of America & Latin America
Alcoa Industrial Chemicals
Adsorbents & Catalysts Division
10510 Barbara Point Lane, Suite 250, Houston, TX 77078, USA
Phone: 800-221-7382 or 281-870-8038 • Fax: 281-870-9844
South America: São Paulo, Brazil • Europe: Frankfurt, Germany • Asia: Tokyo, Japan



CUSTOMER : 45322366
SALES AREA: AB0D
DATE : 09.01.2003

PC COMPRESSION
A DIV OF PYRAMID CORP
607- 15 AVE
NISKU, AB
T0C 2G0 CA

RE: MATERIAL SAFETY DATA SHEETS
=====

FIND ENCLOSED THE NEW/REVISED MATERIAL SAFETY DATA SHEETS FOR PRODUCTS THAT OUR RECORDS INDICATED ARE REQUIRED. SHOULD YOU HAVE ANY QUESTIONS REGARDING THESE DOCUMENTS, PLEASE CONTACT OUR WHMIS CONTROLLER IMMEDIATELY SO THAT WE MAY FURTHER ASSIST YOU. LISTED BELOW IS THE NAME OF OUR WHMIS CONTROLLER FOR YOUR ACCOUNT. BRENTAG CANADA INC. REQUIRES, AS A CONDITION OF SALE, THAT VITAL SAFETY AND HEALTH INFORMATION BE COMMUNICATED TO ALL END-USERS,

| ITEM | MSDS NUMBER | DESCRIPTION LANGUAGE | # OF COPIES | REFERENCE/ ORDER NUMBER |
|------|-------------------------|---|--------------------|----------------------------|
| 1 | HCI0872/03A 00062014 | ACTIVATED ALUMINA (ALL GRADES) ENGLISH | (ALL GRADES) 01 | REVISION |

SUZANNE LAVOIE
REGIONAL WHMIS COORDINATOR
Alberta District
Brenntag Canada Inc.
777-8 TH. AVE. S.W., 19TH. Floor
Calgary, AB
T2P 3R5
Phone: 403-263-8660
Fax : 403-233-7011

MATERIAL SAFETY DATA SHEET
ACTIVATED ALUMINA (ALL GRADES), SOLID
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Brenntag Canada Inc.
 43 Jutland Road.
 Toronto, Ontario
 M8Z 2G6
 (416) 259-8231

WHMIS Number: 00062014
 Index: HCl0872/03A
 Effective Date: 2003 January 08
 Date of Revision: 2003 January 08

EMERGENCY TELEPHONE NUMBERS

| | | |
|-----------------------------|-----------------------------|------------------------------|
| Toronto, ON (416) 226-6117 | Montreal, QC (514) 861-1211 | Winnipeg, MB (204) 943-8827 |
| Edmonton, AB (780) 424-1754 | Calgary, AB (403) 263-8660 | Vancouver, BC (604) 685-5036 |

PRODUCT IDENTIFICATION

Product Name: Activated Alumina (All Grades), Solid.
 Chemical Name: Aluminium Oxide.
 Synonyms: Alumina; Aluminum Trioxide; Alumina Feedstock; Alumina Activated; Activated Alumina AA; Alumina 202 HF; Alumina AA-400; Alumina A2; Alumina A2 Dupont; Alumina A201; Alumina A203 CL; Alumina A204-4; Alumina A204-4E; Alumina A206; Alumina ABS; Alumina Bed Support; Alumina CL-750; Alumina D201; Alumina DD PG; Alumina DD2; Alumina DD 431; Alumina DD 432; Alumina DD447-165; Alumina DD450; Alumina DD 831; Alumina F200; Alumina Feedstock; Alumina PX 1; Alumina RP200; Alumina S201; Alumina S400; Alumina S431; Alumina S501; Alumina S2001; Alumina S-100 SR; Alumina Selexb CDO-200; Alumina Selexorb CD; Alumina Selexorb CDX; Alumina Selexorb CL-750; Alumina Selexorb COS; Alumina Selexorb SPCL; Alumina Spent A2 Dupont; Alumina Support Balls; Alumina T-162 Tabular; Alumina Tab. T-1061; Selexorb CL-750; Selexorb COS; Alumina DRM; Alumina CG-20; DD-931; CL-760; CP-5; DD-710; SRU; HF 200; A-1; A-2; A-201; A-202HF; A-206; A-300; A-302; A-305CS; 1/2" CBS; D-201; LCPP; S-200; S-201; S-2001; DrySep; A-203 (Cl); S-501, Claus Catalyst; Activated Alumina Grade A & AA; Alumina Desiccant; Catalit Alumina; Adsorbent Alumina; MMS-411-120 Aluminum Oxide.
 Chemical Family: Inorganic Oxide.
 Molecular Formula: Al₂O₃.
 Product Use: Catalyst. Drying agent. Abrasives. Chemical intermediate.
 CAS #: 1344-28-1.
 WHMIS Classification / Symbol: Not regulated. / Not required.

READ THE ENTIRE MSDS FOR THE COMPLETE HAZARD EVALUATION OF THIS PRODUCT.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Activated alumina adsorbs certain gases and liquids. While the alumina itself is principally inert, the bead/powder may exhibit properties of adsorbed material. (3) Dust is irritating to respiratory tract. Low hazard for usual industrial or commercial handling. See "Other Health Effects" Section. Can decompose at high temperatures forming toxic gases. Contents may develop pressure on prolonged exposure to heat.

POTENTIAL HEALTH EFFECTS

The following health effects data pertains only to Activated Alumina. Activated alumina adsorbs certain gases and liquids. While the alumina itself is principally inert, the bead/powder may exhibit properties of adsorbed material. (3)

- Inhalation: Product may be mildly irritating to the nose, throat and respiratory tract and may cause coughing and sneezing. Excessive contact with powder may cause drying of mucous

membranes of nose and throat due to absorption of moisture and oils. See "Other Health Effects" Section.

- . Skin Contact: This product may cause irritation due to abrasive action. Excessive contact with powder may cause drying of the skin due to absorption of moisture and oils. May cause defatting, drying and cracking of the skin. May cause staining.
- . Skin Absorption: Not likely to be absorbed through the skin.
- . Eye Contact: This product may cause irritation, redness and possible damage due to abrasiveness. Excessive contact with powder may cause drying of mucous membranes of the eyes due to absorption of moisture and oils.
- . Ingestion: This product may cause mild gastrointestinal discomfort. Ingestion of large amounts may cause intestinal obstruction.

Other Health Effects: Effects (irritancy) on the skin and eyes may be delayed, and damage may occur without the sensation or onset of pain. Strict adherence to first aid measures following any exposure is essential.

May cause staining, metal fume fever, pulmonary fibrosis and pneumoconiosis. Metal fume fever can be caused by inhalation of fumes formed in the air from welding or heating the metal. Symptoms of metal fume fever occur about 4 to 12 hours after exposure and usually last about 24 hours. Recovery is complete with no apparent permanent disability. The symptoms resemble the "flu" and include: sweating, shivering, headache, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness and tiredness. (4)

A metallic or sweet taste in the mouth, dryness or irritation of the throat and coughing may occur at the time of exposure to the metal fumes. (4)

Some workers develop a short-term immunity so that repeated exposure to the fumes does not cause metal fume fever. This immunity is quickly lost after short absences from work (weekends or vacations). (4) Pneumoconiosis is the deposition of dust in the lungs and the tissue's reaction to its presence. When exposure to the dust is severe or prolonged, the lungs' defenses are overwhelmed.

A severe scarring of the lungs (fibrosis), referred to as Shaver's disease, has been associated with production of corundum abrasives which involved exposure to the fine airborne fumes of Aluminum Oxide and Silica. This disease worsens even after exposure has stopped and has caused death in serious cases. Exposure to Crystalline Silica or to the mixed dust is believed to be responsible. Early symptoms of the disease include cough, excessive mucous productions and shortness of breath upon exertion. Modern exposure controls have almost removed the threat of this disease. (4)

Evidence of scarring of the lungs (pulmonary fibrosis) has been reported among workers exposed to Aluminum Oxide dust or fume has, in some cases, been attributed to Aluminum Oxide exposure. However, some of the reports were individual cases, the exposure was usually mixed and other studies have failed to show similar effects. (4)

Some changes in the lung function and chest X-rays have also been observed in workers exposed to aluminum oxide. However, these changes have been attributed to chronic bronchitis related to excessive dust exposure and not specifically to Aluminum Oxide. (4)

Prolonged and repeated exposure to Aluminum may cause pulmonary fibrosis, numbness of the fingers and encephalopathy (a degenerative disease of the brain).

There may be a relationship between aluminum exposure and a brain disease which causes early senility (Alzheimer's Disease), but at present this is unproven and controversial. Asthma-like symptoms have been reported in association with refining aluminum materials and fumes from aluminum soldering. (4)

Ingestion of large amounts of Aluminum salts over a prolonged period of time may lead to phosphate deficiency, based on animal and human information. Prolonged ingestion of vary large amounts (several grams/day) may result in osteomalacia (softening and bending of the bones). (4)

3. COMPOSITION, INFORMATION ON INGREDIENTS (Not Intended As Specifications)

Hazardous Ingredients: None according to Controlled Products Regulations.

| Non-Hazardous Ingredients | CAS No. | ACGIH TLV | ‡ |
|---------------------------|-------------|--------------------|----------|
| Aluminium Oxide | 001344-28-1 | 10 mg/M3 as Al *A4 | 85 - 95 |
| Calcium Oxide (Lime) | 001305-78-8 | 2 mg/M3 | 5 - 10 |
| Sodium Oxide | 001313-59-3 | Not Listed. | 1 - 5 |
| Water | 007732-18-5 | Not Listed. | Balance. |

A4 = Not classifiable as a human carcinogen. (ACGIH-A4)

4. FIRST AID MEASURES

FIRST AID PROCEDURES

The following recommendations pertain only to Activated Alumina.

- Inhalation: If respiratory problems arise, move the victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical advice IMMEDIATELY.
- Skin Contact: Start flushing while removing contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation, redness, or a burning sensation develops and persists and obtain medical advice.
- Eye Contact: Immediately flush eyes thoroughly for 5 minutes with running water. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention.
- Ingestion: Do not attempt to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give 1/2 to 1 glass of water to dilute material. DO NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. Obtain medical attention IMMEDIATELY.

Note to Physicians: Treat symptomatically. Medical conditions that may be aggravated by exposure to this product include diseases of the skin, eyes or respiratory tract.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flammability Class (WHMIS): Not regulated.
Flash Point (TCC, Deg. Celsius): Non-combustible (does not burn).
Autoignition Temperature (Deg. Celsius): Not applicable.
Flammability Limits in Air (%): LEL: Not applicable. UEL: Not applicable.

Hazardous Combustion Products: Thermal decomposition products are toxic and may include oxides of aluminum, calcium and irritating gases.

Unusual Fire or Explosion Hazards: Minimize air borne spreading of dust. Closed containers exposed to heat may explode. Spilled material may cause floors and contact surfaces to become slippery.

Sensitivity to Mechanical Impact: Not expected to be sensitive to mechanical impact.
Rate of Burning: Not available.
Explosive Power: Not available.
Sensitivity to Static Discharge: Not expected to be sensitive to static discharge.

EXTINGUISHING MEDIA

Fire Extinguishing Media: Use media appropriate for surrounding fire and/or materials.

FIRE FIGHTING INSTRUCTIONS

Instructions to the Fire Fighters: Spilled material may cause floors and contact surfaces to become slippery.

Fire Fighting Protective Equipment: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Information in this section is for responding to spills, leaks or releases in order to prevent or minimize the adverse effects on persons, property and the environment. There may be specific reporting requirements associated with spills, leaks or releases, which change from region to region.

Containment and Clean-Up Procedures: Minimize air borne spreading of dust. Wear respirator, protective clothing and gloves. Avoid dry sweeping. Do not use compressed air to clean surfaces. Vacuuming or wet sweeping is preferred. Return all material possible to container for proper disposal. Do not allow to enter sewers or watercourses.

Any recovered product can be used for the usual purpose, depending on the extent and kind of contamination. Where a package (drum or bag) is damaged and / or leaking, repair it, or place it into an over-pack drum immediately so as to avoid or minimize material loss and contamination of surrounding environment. Replace damaged containers immediately to avoid loss of material and contamination of surrounding atmosphere.

Collect product for recovery or disposal. For release to land, or storm water runoff, contain discharge by constructing dykes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Ventilate enclosed spaces. Notify applicable government authority if release is reportable or could adversely affect the environment. See Section 13, "Disposal Considerations".

7. HANDLING AND STORAGE

HANDLING

Handling Practices: Use normal "good" industrial hygiene and housekeeping practices. Minimize air borne spreading of dust. Sweep up immediately to eliminate slipping hazard.

Ventilation Requirements: See Section 8, "Engineering Controls".

Other Precautions: Use only with adequate ventilation and avoid breathing dusts. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use.

STORAGE

Storage Temperature (Deg Celsius): See below.

Ventilation Requirements: General exhaust is acceptable.

Storage Requirements: Store in a cool, dry and well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Avoid moisture contamination. Prolonged storage may result in lumping or caking. Protect from direct sunlight. Protect against physical damage.

Special Materials to be Used for Packaging or Containers: Confirm suitability of any material before using.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Recommendations listed in this section indicate the type of equipment which will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

ENGINEERING CONTROLS

Engineering Controls: General exhaust is acceptable. Local exhaust ventilation preferred. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense dust may collect.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye Protection: Safety glasses with side shields are recommended to prevent eye contact. Use chemical safety goggles when there is potential for eye contact. Contact lenses should not be worn when working with this material.

Skin Protection: Gloves and protective clothing made from cotton, canvas, rubber or plastic should be impervious under conditions of use. Prior to use, user should confirm impermeability. Discard contaminated gloves.

Respiratory Protection: No specific guidelines available. A NIOSH/MSHA approved dust mask for concentrations of nuisance dust up to 100 mg/M3 particulate. An air-supplied respirator if concentrations are higher or unknown.

If while wearing a respiratory protection, you can smell, taste or otherwise detect anything unusual, or in the case of a full facepiece respirator you experience eye irritation, leave the area immediately. Check to make sure the respirator to face seal is still good. If it is, replace the filter, cartridge or canister. If the seal is no longer good, you may need a new respirator. (4)

Other Personal Protective Equipment: Wear regular work clothing. The use of coveralls is recommended. Locate safety shower and eyewash station close to chemical handling area. Take all precautions to avoid personal contact.

EXPOSURE GUIDELINES

Recommended Exposure Limit: None established for this product.

| | ACGIH TLV (STEL) | OSHA PEL (TWA) | (STEL) | NIOSH REL (TWA) | (STEL) |
|-------------------------|---------------------|-------------------------------|--------|--------------------|--------|
| Aluminum Oxide | ---- | 15 mg/M3 | ---- | ---- | ---- |
| Calcium Oxide (Lime) | ---- | as Al (Total dust) 5 mg/M3 | ---- | 2 mg/M3 | ---- |

9. PHYSICAL AND CHEMICAL PROPERTIES (Not intended as Specifications)

Physical State: Solid.
Appearance and Odour: Dry, white granules: fine sized, beads pucks, or powder. Odourless.
Odour Threshold (ppm): Not applicable.
Boiling Range (Deg Celsius): 2,980.
Melting/Freezing Point (Deg Celsius): 2,045 to 2,072.
Vapour Pressure (mm Hg at 20 Deg. Celsius): Not applicable.
Vapour Density (Air = 1.0): Not applicable.
Relative Density (g/cc): 3.0 to 3.7.
Bulk Density: 640 to 691 Kg/M3; 40 to 60 lb/ft3.
Viscosity: Not applicable.
Evaporation Rate (Butyl Acetate = 1.0): Not applicable.
Solubility: Not soluble in water.
% Volatile by Volume: 0 %.
pH: Not available.
Coefficient of Water/Oil Distribution: Not available.
Volatile Organic Compounds (VOC): Not applicable.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY

Under Normal Conditions: Stable.
Under Fire Conditions: Not flammable.
Hazardous Polymerization: Will not occur.

Conditions to Avoid: High temperatures, sparks, open flames and all other sources of ignition. Minimize air borne spreading of dust. Sweep up immediately to eliminate slipping hazard.

Materials to Avoid: Strong oxidizers. Lewis or mineral acids. Chlorine trifluoride. Ethylene Oxide. Vinyl Acetate.

Activated alumina adsorbs certain gases and liquids. While the alumina itself is principally inert, the bead/powder may exhibit properties of absorbed material. (3)

Decomposition or Combustion Products: Thermal decomposition products are toxic and may include oxides of aluminum, calcium and irritating gases.

11. TOXICOLOGICAL INFORMATION

Toxicological Data: None established for this product.

Aluminium Oxide Meaningful toxicological test data
 could not be found for this substance.

Calcium Oxide Meaningful toxicological test data
 could not be found for this substance.

Carcinogenicity Data: The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP. See "Other Studies Relevant to Material".

Reproductive Data: No adverse reproductive effects are anticipated.

Mutagenicity Data: No adverse mutagenic effects are anticipated.

Teratogenicity Data: No adverse teratogenic effects are anticipated.

Respiratory / Skin Sensitization Data: None known.

Synergistic Materials: None known.

Other Studies Relevant to Material: In animal studies, another insoluble Aluminum compound (Aluminum Hydroxide) was not embryotoxic or fetotoxic, unless administered in the presence of citric acid, lactic acid or ascorbic acid. In these cases, there was also maternal toxicity. Very high oral exposure of rats to soluble Aluminum compounds has caused fetotoxicity, in the absence of maternal toxicity. It is not known if Aluminum or its insoluble compounds would have a similar effect. (4)

An insoluble Aluminum compound (Aluminum Hydroxide) produced no evidence of embryo or fetotoxicity when administered orally to mice. However, when it was administered with common dietary constituents, such as citric acid, lactic acid and ascorbic acid, fetotoxicity was observed in the presence of maternal toxicity. These studies indicate that Aluminum absorption may be greatly enhanced by certain dietary constituents. Other reports have indicated that very high oral doses of soluble Aluminum compounds during lactation have caused fetotoxicity, in the absence of maternal toxicity. It is not known if Aluminum or its insoluble compounds would have a similar effect. (4)

Application of a compound containing 96.7 % atomized Aluminum caused irritation to the eyes, but no corneal opacity and cleared up within seven days. Slight inflammation and small lens opacity have been observed following implantation of Aluminum particles into the eye. No irritation was observed after application of a compound containing 96.7 % atomized Aluminum to intact or abraded skin. (4)

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available. May be harmful to aquatic life.

Environmental Fate: Not available. Can be dangerous if allowed to enter drinking water intakes. Product has an unaesthetic appearance and can be a nuisance. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

13. DISPOSAL CONSIDERATIONS

Deactivating Chemicals: None required.

Waste Disposal Methods: This information applies to the material as manufactured. Reevaluation of the product may be required by the user at the time of disposal since the product uses, transformations, mixtures and processes may influence waste classification. Small quantities (less than 25 Kg) of unused portions of this product may be discarded with normal, non-hazardous industrial wastes. Large quantities (25 Kg or more) of unused portions of this product may be discarded with normal, non-hazardous wastes, however such disposal should be cleared with the intended recipient. Disposal of post-service material must be done in accordance with local regulations.

The product may pose new hazards as a result of its use. It may be necessary to test the post-service flash point and/or leachable heavy materials, and/or benzene, toluene, ethylbenzene and xylene (BTEX) as well as total extractable hydrocarbons (TEH) and mineral oil and grease (MOG). Disposal may be dependent upon whether or not it meets regulatory criteria for control as a hazardous waste. The intended recipient should be consulted prior to initiating disposal.

Safe Handling of Residues: See "Waste Disposal Methods".

Disposal of Packaging: Empty containers retain product residue. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Do not expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not dispose of package until thoroughly washed out.

14. TRANSPORTATION INFORMATION

CANADIAN TDG ACT / U.S. DOT CLASSIFICATION: Not regulated.

15. REGULATORY INFORMATION

CANADA

CEPA - NSNR: All constituents of this product are included on the DSL.
CEPA - NPRI: Aluminium Oxide.
Controlled Products Regulations Classification (WHMIS): Not regulated.

USA

Environmental Protection Act: All constituents of this product are included on the TSCA inventory.
OSHA Hazard Communication (29CFR 1910.1200) Classification: Not regulated.

HMIS: 1 Health, 0 Fire, 0 Reactivity. (3)
NFPA: 1 Health, 0 Fire, 0 Reactivity. (3)

INTERNATIONAL: Aluminium Oxide is found on the following inventories: EINECS (European Inventory of Existing Commercial Chemical Substances), ACOIN (Australia), MITI (Japan) and Korea.

16. OTHER INFORMATION

ADDITIONAL INFORMATION AND SOURCES USED

1. RTECS-Registry of Toxic Effects of Chemical Substances, Canadian Centre for Occupational Health and Safety RTECS database.
2. Clayton, G.D. and Clayton, F.E., Eds., Patty's Industrial Hygiene and Toxicology, 3rd ed., Vol. IIA,B,C, John Wiley and Sons, New York, 1981.
3. Supplier's Material Safety Data Sheet(s).
4. "CHEMINFO", through "CCINFODisc", Canadian Centre for Occupational Health and Safety, Hamilton, Ontario, Canada.

5. Guide to Occupational Exposure Values, 1999, American Conference of Governmental Industrial Hygienists, Cincinnati, 1999.

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Brenntag Canada Inc. will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein. This Material Safety Data Sheet is valid for three years.

To obtain revised copies of this or other Material Safety Data Sheets, contact your nearest Brenntag Canada Regional office.

British Columbia: 20333-102B Avenue, Langley, BC, V1M 3H1
Phone: (604) 513-9009 Facsimile: (604) 513-9010

Alberta: 6628 - 45 th. Street, Leduc, AB, T9E 7C9
Phone: (780) 986-4544 Facsimile: (780) 986-1070

Manitoba: 681 Plinquet Street, Winnipeg, MB, R2J 2X2
Phone: (204) 233-3416 Facsimile: (204) 233-7005

Ontario: 43 Jutland Road, Toronto, ON, M8Z 2G6
Phone: (416) 259-8231 Facsimile: (416) 259-6175

Quebec: 2900 Jean Baptiste Des., Lachine, PQ, H8T 1C8
Phone: (514) 636-9230 Facsimile: (514) 636-0877

Atlantic: A-105 Akerley Boulevard, Dartmouth, NS, B3B 1R7
Phone: (902) 468-9690 Facsimile: (902) 468-3085

Prepared By: Regulatory Affairs Group, Brenntag Canada Inc., (416) 259-8231.

