



Maintenance Order-Operation Form

2019.08.20

CPSBATCHSC01

Page 1 of 5

Order	81406886	Order Type	MRX1-Maintenance Restore Expense
Work Order Description	TREATER TURNAROUND	Notification	11211054
Maint. Activity Type	BRK-Breakdown repair		

Order Details

Start Date	2019-08-19	End Date	2019-08-21
Priority	Z White: Z5	System Condition	-
Person Resp.	0000000000-	Requestor	BAUTZC Cory Bautz
Partner Fctn (Vendor)	-	Required End date	2019-08-19
System Status	REL PCNF GMPS NMAT PRC SE	User Status	5X
Safety Critical Element		H2S Indicator	
Location/Planning Data		Functional Location	HUSKY VERMILION BATTERY
Plant	2010-Lloydminster Production		14-18-050-06W4-
Location	-		H1-01-004-00006
Plant Section	105-Route 105	Equipment	TREATER,-66160155
Surface Location	14-18-050-06W4	Tag Number	
Main Work Center	GENC1C-H1 BULLGANG #1 -	Inventory	
	CONTRACT	Manuf. Serial Number	L-1087
PM Planner Group	100-Alberta North	Manufacturer	NATIONAL TANK
Maintenance Plan		Model Number	
Revision	-		
Well Information			
Lost Production (Oil)	0.00-	Down Hole Project	
Lost Production (Gas)	0.00-	Well Orient	

Order Long Text

TREATER TURNAROUND

JULY 3, 2019

L&L TO GO TO SITE FOR WALK THROUGH.

PYRAMID INST

TO ORDER REBUILD KITS FOR TURNAROUND.

AUGUST 19-23

L&L CREW

ASSIST AS NECESSARY WITH TREATER TURNAROUND.

L&L WELDER

REPAIR LATCHES ON TREATER BURNER HOUSINGS. L&L CREW TO ASSIST AS NECESSARY.

PYRAMID INSTRUMENTATION

ASSIST AS NECESSARY WITH TREATER TURNAROUND.

PYRAMID ELECTRICIAN

ASSIST AS NECESSARY WITH TREATER TURNAROUND.

GUEST (2 TECHS)

DISCONNECT BURNER ON TREATER. RECONNECT AT A LATER DATE.

IRIS

COMPLETE MAG AND TUBE INSPECTION ON TREATER FIRETUBE AT L&L SHOP. PLEASE CONTACT CRAIG AS L&L SHOP CONTACT 780-205-4891.

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LACD AUGUST 23, 2019

Route 105
Bret Kennedy 780- 581-8322
Dylan Pattison 780-205-6690
Approver Dylan Pattison 2Z-2009984
Approver: Bret Kennedy 2Z-10001258

FOR ANY QUESTIONS PLEASE CONTACT THE FOLLOWING
MECHANICAL ISSUES: AARON SKOMOROWSKI 306-830-2515
ELECTRICAL OR INSTRUMENTATION ISSUES: JAYSON TURCHAK 780-205-0112
GENC ISSUES: TYSON LOWRIE 780-872-2953

VENDORS:

****PLEASE ENTER CLOSE OUT NOTES AND UPLOAD ALL DOCUMENTATION UPON COMPLETION INTO SALESFORCE. IF FOR ANY REASON THE WORK ORDER IS UNABLE TO BE COMPLETED WITHIN THE DATES INDICATED, PLEASE REPLY TO THE EMAILED WORK ORDER INDICATING THE REASON, THANK YOU!****

[VENDOR TO COMPLETE AND SUBMIT PREVENTATIVE MAINTENANCE AUDIT FORMS AT THE COMPLETION OF EACH PM WORK ORDER REQUEST AND SUBMIT TO:
EQUIP_LLYD_HOG@HUSKYENERGY.COM AND CC APPLICABLE LEAD (MECH OR E/I) AND SCHEDULER].

FIELD MAINTENANCE EXPECTATION DOCUMENT

*****ENSURE TO REFERENCE SHOP PAPERS IN SALESFORCE. THIS IS WHERE ALL TASK LISTS WILL BE FOR PM SERVICES*****

Ensure all required training certificates are valid and in technician's possession:

- Husky Orientation: www.huskylearns.ca
- Husky Checkpoint Work Authorization: www.huskylearns.ca
- H2S Alive
- WHMIS
- Standard First Aid / CPR (to meet Provincial OH&S Regulations)

-All technicians performing electrical work require ESTS (Electrical Safety Training Systems) to work on Husky sites. ESTS is to be provided by the technician's employer.

-All technicians performing electrical work require ESS (Electrical Safety Standard training for electrical workers) to work on Husky sites. ESS can be accessed at the following website: www.huskylearns.ca.

- Additional training may be required, based on task to be performed.
- Site Specific Orientation for the appropriate site is required.

Prior to leaving for job site:

- Ensure Field Planner has provided a copy of the work order.
- Ensure you have proper PPE for the job (hoods and/or hoodies are not allowed on Husky locations).
- Ensure you have a Lock-out / Tag-out Kit.
- Contact Operations and set up time and discuss job.
- Obtain required parts for the job.
- Remember ALL diesel engines require a Positive Air Shut-off.
- Ensure a 4 head personal monitor is worn (requirement on all Husky sites).

*****IF SITE IS AN H2S LOCATION, AN AIR PACK IS REQUIRED IN WORK TRUCK*****

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Arriving on site:

- Contact operator prior to leaving for job site.
- Put on all required PPE including personal monitor.
- Check air quality in building and on location.
- On SCADA Panel, turn Maintenance switch to ON (if applicable).
- Obtain a copy of Site Hazard Assessment for location and sign Operations' copy to confirm Site Hazard Assessment has been received.
- Obtain safe work permit for job (hot or cold).
- Complete vendor Task Hazard Assessment for the job.
- Ensure all hazards are controlled before starting work.
- Ensure all Husky lock out / tag out (LOTO) procedures have been followed.

You are now ready to do the job safely:

IF PERSONAL MONITOR FLAGS ANY HIGH READINGS, LEAVE BUILDING OR AREA IMMEDIATELY. CONTACT OPERATIONS, LET AREA OR BUILDING AIR OUT BEFORE COMMENCING WORK. DO NOT WORK IN AN AREA WITH H2S PRESENT

- Report any near miss and/or incident to Operations and Maintenance immediately.
- If job changes, or if extra work is found, contact Senior Tradesperson or Maintenance Foreman for further instructions or approval to do extra work

After job is completed (only if applicable to job):

- If engine has been shut-down, and prior to starting engine, turn SCADA power to OFF. After engine is running, turn SCADA Power ON again.
- Ensure area is clean.
- Contact Operator after job is completed.
- Fill out appropriate paperwork.
- Go online to web based database (Salesforce) and fill in completion notes and attach any related reports (electronic format).
- Complete material transfers, including equipment serial numbers. An electronic copy is to be sent to hog.idleequipment@huskyenergy.com
- Complete and submit Preventative Maintenance Audit Form at the completion of each PM work order request and submit to Equip_LLYD_HOG@huskyenergy.com
- On SCADA panel, switch maintenance switch to OFF.
- Before leaving location, contact SWM Control room to verify SCADA is functioning properly.
- Do NOT kick-in well unless approved by Operations, and not before obtaining documentation that can be tracked.

Operation Details

Operation	0010-TREATER, TURNAROUND			GL Code
Work Center	GENC1C			
Work	0 HR	Control Key	INT1	
Duration	0 HR	Op. System Cond.		
Number	0	Remaining Work	0 HR	
Earliest Start Date/Time	Aug 19, 2019	8:00:00 AM	Latest Finish Date/Time	Aug 19, 2019 4:00:00 PM
User Status	3BEX			
Material Header				

Operation Details

Operation	0020-TREATER, TURNAROUND			GL Code
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Work Center	INST1C			Control Key	INT1	
Work	0 HR			Op. System Cond.		
Duration	0 HR			Remaining Work	0 HR	
Number	0			Latest Finish Date/Time	Aug 19, 2019 4:00:00 PM	
Earliest Start Date/Time	Aug 19, 2019	8:00:00 AM				
User Status	3BEX HOLD					
Material Header						

Operation Details						
Operation	0030-TREATER, BURNER, REMOVE/CONNECT				GL Code	
Work Center	BRNT9C			Control Key	INT1	
Work	0 HR			Op. System Cond.		
Duration	0 HR			Remaining Work	0 HR	
Number	0			Latest Finish Date/Time	Aug 19, 2019 4:00:00 PM	
Earliest Start Date/Time	Aug 19, 2019	8:00:00 AM				
User Status	3BEX					
Material Header						

Operation Details						
Operation	0040-TREATER, FIRETUBE, MAG				GL Code	
Work Center	GENC3C			Control Key	INT1	
Work	0 HR			Op. System Cond.		
Duration	0 HR			Remaining Work	0 HR	
Number	0			Latest Finish Date/Time	Aug 21, 2019 4:00:00 PM	
Earliest Start Date/Time	Aug 21, 2019	8:00:00 AM				
User Status	ONSC					
Material Header						

Object List Information

Object			
	Object	Part	Cause
Equipment	66160155		
Equipment Text	TREATER,		
Manuf. Serial Number	L-1087		
Tag number			
Floc Text	HUSKY VERMILION BATTERY 14		

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Comments : _____

Maintenance Signature	_____	Date	_____
Oper/process signature	_____	Date	_____

203324



API

FABRICATED BY
RSAL INDUSTRIES CORP.

LLOYDMINSTER, SASK./ALTA.

APPENDIX

12 F

YEAR COMPLETED

2002

EDITION

DESIGN PRESSURE

4.0Z / 0.4VAC

NOMINAL DIAMETER

15'-3"

DESIGN LIQUID LEVEL

NOMINAL HEIGHT

32'

MAX. OPERATING TEMP.

13-98°C

NOMINAL CAPACITY

1000 BBL

PARTIAL STRESS RELIEF

FLOOR THICKNESS

1 1/4"

SERIAL NO.

02 03 19 11697

ROOF THICKNESS

3/16"

PURCHASER'S TANK NO.

SHELL

COURSE 1

8' X 1 1/4"

COURSE 4

8' X 3/16"

COURSE 2

8' X 3/16"

COURSE 5

COURSE 3

8' X 3/16"

COURSE 6

JOB

11027



Vallourec Soluções Tubulares do Brasil S.A.
Barreiro Plant - Av. Olinio Mireles, 65
ZIP 30640-010 - Belo Horizonte, MG



Inspection Certificate

(According to DIN EN 10204.3.1)

N°.: 0030028655 / 00

Sheet: 1 / 3

Customer: VALLOUREC CANADA INC

Country: Canada

Material Number: 275472

Work Order: 525934 / 40

Customer Order: VM-4560/P O 70P626EDM

Inspection: Vallourec Soluções Tubulares do Brasil S.A.

PRODUCT: SEAMLESS STEEL PIPE, HOT FINISHED - BEVELED ENDS 30 DEG. - NORMALIZED

DIMENSIONS: 273,00 mm X 9,27 mm SCHEDULE: 040 GRADE: X42N # BN # GRADE 290 # C # B

STANDARD: API SPEC 5L, 12.2012, 45TH EDITION - PSL 2

IN ACCORDANCE ALSO TO THE STANDARDS: CSA-Z245.1-14 # ASTM A 106M - 15 ASTM A 53M - 12 # ASME SA-106M - 17 ASME SA-53M - 17

SURFACE PROTECTION: EXTERNAL: LACQUER PIPE ENDS PROTECTOR: PLASTIC CAP

TOLERANCES: OUTSIDE DIAMETER (PIPE BODY): -0,80 mm / +2,05 mm WALL THICKNESS: -1,16 mm / +1,39 mm

TOLERANCES(PPIPE ENDS): OUTSIDE DIAMETER: -0,40 mm / +1,37 mm

LENGTH: RANDOM 10973,00 mm - 11887,00 mm

STANDARD MARKING: PAINT STENCILED IN THE PIPE BODY: 525934/40 MANUFACTURER SPEC 5L-0150.4 API MONOGRAM MONTH/YEAR CSA-Z245.1-14-ASTM/ASME A/SA 53M/106M 273,00 X 9,27 X42N /BN/290/B/C
PSL2 SMLS HEAT NUMBER LENGTH SS S HN 16800 KPA SCH 040 WEIGHT VSB LOGO

SHIPPING MARKING: NACE MR 0175/NACE MR 0103 - MADE IN BRAZIL * VM4560 / P.O # 70P626EDM/ITEM-4 * VANCOUVER * KELLY PIPE

Heat	Pieces
174790	28
174791	18
Total	46

THE PRODUCT IS SATISFACTORY IN THE FOLLOWING TESTS / INSPECTIONS: DIMENSIONAL # VISUAL # FLATTENING TEST # ENDS INSPECTION : UNTESTED ENDS CROPPED # HYDROSTATIC TEST: 16800,0 KPA
5 S # RESIDUAL MAGNETISM: MAX 30 GAUSS # ELECTROMAGNETIC TEST : CSAZ245.1-N10,LON/TRAN,OUT/INS # ULTRASONIC TEST FOR LAMINAR DEFECTS: ACC. CSA Z245.1-SOUR SERVICE #

Chemical Composition (%)

Ceq: CSA-Z245.1-CE11

Process: Basic Oxygen Furnace, heats fully killed

Ceq: C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15

CE1: Nb + V

CE2: Cr + Cu + Mo + Ni + V

Heat Analysis

Min
Max

0,290
1,200

0,100
0,400

0,300
0,300

0,300
0,300

0,150
0,150

0,400
0,400

0,060
0,060

0,050
0,050

0,040
0,040

0,400
0,400

0,430
0,430

1,000
1,000

Product Analysis

Min
Max

0,290
1,200

0,100
0,400

0,300
0,300

0,300
0,300

0,150
0,150

0,400
0,400

0,060
0,060

0,050
0,050

0,040
0,040

0,400
0,400

0,430
0,430

1,000
1,000

Heat Control Lot

174790 030003034388

Check 1

174790 030003034388

Check 2

174790 030003034388

174791 030003034641

Check 1

174791 030003034641

Check 2

174791 030003034641

Ceq: Carbon Equivalent; Ceq: Carbon Equivalent; CE: Combined Elements;

Tensile Test

Specimen Direction: Longitudinal

Method: Elong-Total Under Load 0,50 %

Temperature: Room Temperature

Wall Thickness: 9,27 mm

Gage Length: L0=2"

Type of Specimen

STRIP WIDTH 38,1 MM
STRIP WIDTH 38,1 MM

Area

(MM²)

374,2
371,7

YS

(MPa)

290
495

TS

(MPa)

485
625

E

(%)

28
40

Required: Min

Max

Heat Control Lot

174790 030003034388

174791 030003034641

YS-Yield Strength; TS-Tensile Strength; E-Elongation;

Hardness Test

Scale: HV

Max

Required: Min

Max

Heat Control Lot

174790 030003034388

174791 030003034641

156,0
158,0

158,0
158,0

Impact Test

Test Specimen: CHARPY 10X55X7.5 V NOTCH

Direction: Transverse				Temperature: 0°C				Striking tip: 8 mm			
AE1	AE2	AE3	AE4	AE5	AE Avg	SA1	SA2	SA3	SA4	SA5	SA Avg
(J)	(J)	(J)	(J)	(J)	(J)	(%)	(%)	(%)	(%)	(%)	(%)
Required: Min	15	15	15			20					
Max											

Heat Control Lot
174790 030003034388
174791 030003034641

AE - Absorbed Energy; SA - Shear Area;

Remarks:

1 MATERIAL IN ACCORDANCE WITH NACE MR 0175
PAR. 3.2/ISO 15156-2, ANNEX A.2.1.2/NACE MR0103 PAR.2.1. ALL LATEST EDITIONS

2. - NO WELD REPAIR
- FREE OF MERCURY CONTAMINATION
- NO RADIOACTIVE CONTAMINATION
- FINE GRAIN PRACTICE
- FULLY KILLED STEEL
- MATERIAL FROM BRAZIL

NORMALIZED

TEMPERATURE 878°C

SOAKING TIME 48 MINUTES

METHOD OF COOLING: AIR

We hereby certify that this product has been manufactured and examined in accordance with all requirements of the standards and specifications and all the results are found to be satisfactory. This testimonial and certificate respectively is recorded by a computer system and is valid without signature. Alteration or use for others products are regarded as falsification of documents and will be subject to criminal jurisdiction.

QUALITY CONTROL DEPARTMENT

FAX: (55-31) 3328-2773

e-mail: rodrigo.barroso@vallourec.com

DATE

05.24.2018

RODRIGO CAMARGOS BARROSO - CREA/MG-62.965
TECHNICAL RESPONSIBLE

ECO TUBES: The tubes from Vallourec do Brasil S.A. are manufactured with steel which uses charcoal as a source of energy in its production. This coal comes from more than 100.000 ha of forest planted by Vallourec Florestal Ltda.. With the acquisition of 32,7 ton(s) of steel tubes from Vallourec do Brasil S.A., your company contributed to the reduction of the greenhouse effect, avoiding the accumulation of 58,9 ton(s) of Carbon Dioxide CO2 in the atmosphere.



INSPECTION CERTIFICATE

CHUP HSIN ENTERPRISE CO., LTD.

CHUP HSIN ENTERPRISE CO., LTD.

Certificate No : 09900116-0201
Order No : CI-10-547
Date : 2011/11/22

Specification for Raw Material			Specification for Inspection			Visual Examination		Dimensional Inspection	
ASTM A106 GRB			ASME B16.9-2003			GOOD		GOOD	
Item	Description		Quantity	Heat ID.	Heat No.	Raw Material Mfg	Raw Certificate NO		
2	90 E/L/R STD SEAMLESS		10	4590	014590	TIANJIN	11081006		
6	45 E/L/R STD SEAMLESS		20	A956	1132956	HENGYANG	2011-01-0624-1		
14	90 E/S/R STD SEAMLESS		12	3412	1133412	HENGYANG	2011-01-0624-2		

Specifi cation	Chemical Composition %												Tension Test			HARD NESS TEST	Heat Treatment	Magnetic Particle Exam.	Remark
	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	C.E.	Y.S	T.S	E				
	X100	X100	X100	X1000	X1000	X1000	X100	X100	X100	X1000	X1000	X100	P.S.I	P.S.I	%	HB			
MIN	10	29	106	50	58	40	40	40	15	80	20	50	35000	60000	30	197			
MAX	30	17	105	12	3	7	3	8	3	0	0	36	49334	74000	45	136			
	16	22	85	10	6	6	2	2	1	2.5	1	31	41354	63800	42	134			
14	14	20	83	11	10	7	2	3	1	2.5	1	28	48609	66700	49	135			

Heat Treatment		Magnetic Particle Exam.		Remark
620°C TO 980°C	—			[DIN 50049/3.1B]
HOT FORMED				EN10204 3.1
				**& ISO 15156-2009

C.E=C+MN/6+(CR+MO+V)/5+(NI+CU)/15
We hereby certify that the material herein described has been manufactured,
sampled, tested and inspected in accordance with the requirements of above
specifications and purchaser's order.

L. S. Sai

Chief of Quality Assurance Section

140004



INSPECTION CERTIFICATE

Customer	:	TRANS AM PIPING PRODUCTS LTD.				Certificate No	:	00200118-0201
Product	:	SEAMLESS CARBON STEEL BUTT WELD FITTINGS				Order No	:	CH-13-592
Spec	:	ASME SA/ASTM A234 WPB-2013 CSA 245 11-09 Cat I/EN10204 3.1/NACE MR0175-09/ISO 15156-09/MR0103-10				Date	:	2014/03/20

(MILL TEST)

ACCORDANCE WITH EN 10204-3.1

CHUP HSIN ENTERPRISE CO., LTD.

17, TUNG LI ROAD HSIAO KANG,
KAOHSIUNG, TAIWAN, R.O.C.

TEL:(07)831-9157 FAX:(07)821-7500, 831-2942

Certificate No	:	00200118-0201
Order No	:	CI-13-592
Date	:	2014/03/20

Starting Material			Specification for Inspection				Visual Inspection			Dimensional Inspection							
ASTM A106 GR.B			ASME B16.9-2012				GOOD			GOOD							
Item	Description		Quantity	Heat ID	Heat No	Raw Certificate No.	NDE	Impact Test			Ave.						
								Size of specimen	Charpy V-Notch Impact Value	Test Temp							
1	90 E L/R SMLS STD	3 1/2	30	5531	335531	TIANJIN C102100010054											
3	90 E L/R SMLS STD	6	844	A672	331672	TIANJIN C102100010103											
4	90 E L/R SMLS STD	8	337	Q403	310403	TIANJIN C102100010152											
4	90 E L/R SMLS STD	8	1	3811	323811	TIANJIN C102100010258											
5	90 E L/R SMLS STD	10	100	2428	332428	TIANJIN C102100010249											
Specifi- cation	Chemical Composition%										Hardness Test	Heat Treatment	REMARK				
	C	SI	Mn	P	S	CU	Ni	Cr	Mo	V				Nb	C.E	Tension Test	
	X100	X100	X100	X1000	X1000	X100	X100	X100	X100	X100	X1000	X1000	X100	P.S.I	P.S.I	%	HB
Min.		10	29										35000	60000	30		
Max.	22		135	50	58	40	40	40	15	80	20	50		95000		197	
1	19	21	60	9	4	11	4	3	2	<1	<1	31	47883	69600	35	137	620°C TO 980°C HOT FORMED
3	16	25	87	15	5	1	6	12	5	6	3	35	49334	68900	46	139	
4	18	21	66	14	9	5	4	6	3	3	31	39177	65700	43.5	138		
4	13	27	100	10	8	12	4	5	0.6	3	1	32	49044	70200	45	136	
5	15	26	103	14	3	1	2	4	1	2	4	34	49044	68500	38	138	

$$\text{C.E.} = \text{C} + \text{Mn} / 6 + (\text{Cr} + \text{Mo} + \text{V}) / 5 + (\text{Ni} + \text{Cu}) / 15$$

We hereby certify that the material herein described has been manufactured, sampled, tested and inspected in accordance with, and was found to meet, the requirements of above specifications and purchaser's order.

Chief of Quality Assurance Section

L. S. Sai

WELDING PROCEDURE SPECIFICATION NO.: _____ L & L-15 (Rev.1)

WELDING PROCEDURE QUALIFICATION RECORD NO.(S): _____ WPS NO. L & L-15

QUALIFIED FOR

Base Metal (Typical): _____ P1 to P1 (SA 36, SA 106 Gr.B, SA 105, SA 516 Gr.70 etc.)
Process(es): _____ SMAW Weld Types: _____ GROOVE & FILLET
Position: _____ ALL POSITIONS Diameter: _____ ALL DIAMETERS
Filler Metal: _____ E6010, E7018-1

BASE METAL CONDITIONS & GROOVE THICKNESS RANGE QUALIFIED:

STANDARD APPLICATIONS AS WELDED

BASE METAL THICKNESS RANGE _____ 4.8 to 38.1 mm (0.188 to 1.50 in.) inclusive

COMBINED DEPOSITED WELD METAL THICKNESS

ASME B31.1	_____ 19.1 mm (0.750 in.) maximum
ASME B31.3	_____ 19.1 mm (0.750 in.) maximum
ASME SECTION VIII, DIVISION 1	_____ 38.1 mm (1.50 in.) maximum

SAFETY CODES ACT - PROVINCE OF ALBERTA
WELDING PROCEDURE

Reg. No. WP _____ 1914.2
Spec. No. _____ L+L-15 (REV.1)
Weld Process _____ SMAW
Mati. Gr. P No. _____ 1 to P No. _____ 1
Elec. Gr. F No. _____ 3+4 A No. _____ 1
Th. Qual. For _____ 38.1mm P.W.H.T. _____ NO

Yr. 10, Mo. 01, Day 14 Signed _____
R. ROSEBERG, P.ENG.
WELDING SPECIALIST

PROVINCIAL REGISTRATION

Ministry of Corrections, Public Safety and Policing
Boiler & P.V. Safety Unit
Province of Saskatchewan
Welding Procedure & Qualification

Reg. No. WP _____ 580.3
Spec. No. _____ L+L-15 (Rev.1)
Weld Process _____ SMAW
Mati. Gr. P No. _____ 1 to P No. _____ 1
Elec. Gr. F No. _____ 3+4 A No. _____ 1+1
Th. Qual. _____ (4.8-38.1)mm P.W.H.T. _____ NO

Remarks _____ Supporting R2P signed and dated 23/8/1999
Date _____ 6 April 2010
Approved _____ J. Chahrenan



Lakeland College

AOQP NO. 7105 (C)

WELDER PERFORMANCE QUALIFICATION CARD

Name **Devon Falk** ABSA File No. W **31972**

This card is issued pursuant to the 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.

26-Feb-18

Date of Test


Signature of Welder

Steve Dunn

Welding Examiner

5948

Card No.

PERFORMANCE QUALIFICATION

Card No.: 5948

Process(es)	SMAW	SMAW	(P.No.)	P1 - 15F
Filler Metal Group (F.No)	F3	F4	Materials	
Max. Deposited Weld Metal	5.34mm	max	Min. Outside Diameter	25.4mm
Backing	w/wo	w	Position(s) Qualified	all
Progression	uphill	uphill	Backing Gas	n/a

26-Feb-20

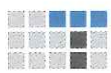
P.Q. Expiry Date



Welding Examiner Signature

E 00569

Examiner File No.



**Technical
Safety Authority
of Saskatchewan**

Issued On: Feb 12, 2019

This pressure welder's licence authorizes to weld on pressure equipment within the Province of Saskatchewan and is a record that the holder has been tested in accordance with ASME Section IX. This licence may be revoked at any time by the request of the Inspector or if the holder has not welded with a process during a period of 6 months or more.

Out-of-Province Transfer

ID No. : 5948

Welder's Licence

No : 030511

Pipe Tested Class : M
Groove Weld Ticket

Devon Falk

Chief Inspector

Name:

Devon Falk

Weld Symbol :

DJF

Process(es) QW350-357 (QW416):	SMAW	SMAW	Material P No. QW403.18 and QW423.1:	P1-15F P34,P4x
Filler Metal F No. QW404.15 and QW433:	F3	F4	Minimum Pipe O.D. QW303 / 403.16:	25 mm
Max Deposited Weld Metal(mm) QW404.30:	5.34	MAX	Weld Progression QW405.3:	Upward
Backing QW- 408.8 or QW402.4:	None	Metal	Positions Qualified QW461.9:	
			Groove	Fillet
Current Type / Polarity QW409.4:	ANY	ANY	ALL	ALL

SK ID No. : 004867

Expires On: 26-Feb-2020

WELDING PERFORMANCE QUALIFICATION

Kevin B Wilson
Name

is qualified as a Grade B Pressure Welder. This card is issued pursuant to the Safety Codes Act and Pressure Welders Regulation, subject to the limitations on the reverse side.

2013-12-20
Date of Test

[Signature]
Signature of Welder

Mike Prohman
Safety Codes Officer

File **W-30245**

PERFORMANCE QUALIFICATION

(In accordance with Section IX, A.S.M.E. Code)

Form No. AB-118 Rev (10/2006)

Process	SMAW	SMAW	Material	P1 to P1
Max Deposited Weld Metal	6 mm	16 mm	Minimum Pipe Dia.	NPS 2 1/2
Filler Metal Group	F3	F4	Position Qualified	ALL
Backing	No	Yes	Progression	Uphill

2015-12-20
Date of Expiry

[Signature]
Signature of Safety Codes Officer



**Technical
Safety Authority
of Saskatchewan**

Welder's Licence

No : **028752**

Pipe Tested Class : **M**
Groove Weld Ticket

Issued On: **Mar 27, 2018**

Kevin Wilson

This pressure welder's licence authorizes to weld on pressure equipment within the Province of Saskatchewan and is a record that the holder has been tested in accordance with ASME Section IX. This licence may be revoked at any time by the request of the Inspector or if the holder has not welded with a process during a period of 6 months or more.

Out-of-Province Transfer

ID No. : **1468**


Chief Inspector

Name:

Kevin Wilson

Weld Symbol :

KW

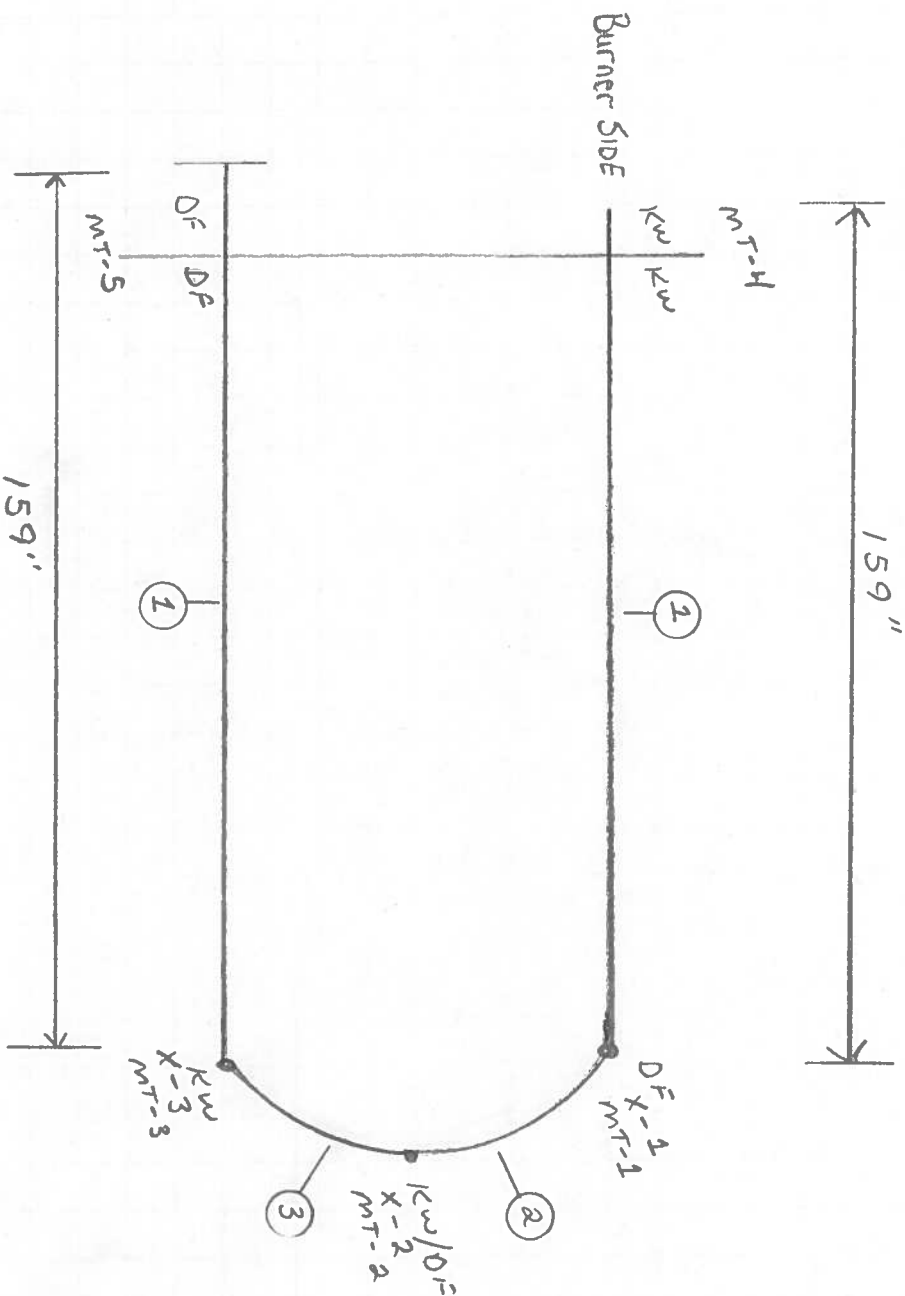
Process(es) QW350-357 (QW416):	SMAW	SMAW	Material P No. QW403.18 and QW423.1:	P1-15F P34,P4x
Filler Metal F No. QW404.15 and QW433:	F3	F4	Minimum Pipe O.D. QW303 / 403.16:	25 mm
Max Deposited Weld Metal(mm) QW404.30:	6.35	MAX	Weld Progression QW405.3:	Upward
Backing QW- 408.8 or QW402.4:	None	Metal	Positions Qualified QW461.9:	
			Groove	Fillet
Current Type / Polarity QW409.4:	ANY	ANY	ALL	ALL

SK ID No. : **005091**

Expires On: **20-Mar-2020**

Welders name	Province	Welder	Process	Weld procedure	P#	F#	Position	Max Dep Weld Metal T	Min Pipe D	Expiry Date	Date Left	Return Date	Comments
Phil Jezowski	AB,SK	PJ	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1mm	25 mm	Nov 5/2020			
Troy Ferguson	AB,SK	TF	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	4.8 mm/ 17.4 mm	25 mm	Feb 12 / 20			
Jeff Hansen	AB,SK	JH	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6.35 mm / Max	25 mm	Mar 2/21			
Mike Lantz	AB,SK	ML	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P11	F3-F4	All	6.34 mm / 15.79mm	25 mm	Aug 15/19			
Phil Jezowski	AB,SK	PJ	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	5.36mm / MAX mm	25mm	Aug 29/20			
Rodger Darren	AB,SK	RD	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	4.8 mm / 17.4 mm	25 mm	June 20/20			
Steve Royan	AB,SK	CN	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6 mm/Max	25 mm	April 9/20			
Steve Royan	AB,SK	CN	GTAW/SMAW	L&L 17	P1-P15F/P34,P4x	F6-F5	All	2.79 mm / 17.1 mm	25 mm	Feb 13/20			
Waylon Marshall	AB,SK	WM	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	5mm / 17 mm	25 mm	Mar 27/20			
Rodger Darren	AB,SK	RD	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1mm	25 mm	Feb 7/21			
Shawn Rhinehart	AB,SK	SR	SMAW	L&L 15 / L&L 16 / L&L 17 / LLOCL-1	P1-P15F/P34,P4x	F6-F5	All	5.36mm / MAX mm	25 mm	Sept 20/20			
Colby Field	AB,SK	CF	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	ALL	6.35 mm / 15.79mm	25 mm	April 10/20			
Devon Falk	AB,SK	DF	GMAW/SMAW	L&L 17	P1-P15F/P34,P4x	F6-F4	F (1F)	2.79mm / 16.92 mm	25 mm	May 28/20			
Devon Falk	AB,SK	DF	SMAW/SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	ALL	5.36 mm / Max	25 mm	Feb 26/20			
Devon Falk	AB,SK	DF	GTAW/SMAW	L&L 18	P8-P8	F6-F5	All	5.03 mm / 17.1 mm	25.4 mm	May 28/20			
Jamie Elliott	AB,SK	JE	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6 mm/Max	25 mm	June 6/20			
Waylon Marshall	AB,SK	WM	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1 mm	25 mm	Feb 13/20			
Michael Lantz	AB,SK	ML	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1 mm	25 mm	Feb 13/20			
Steve Royan	AB,SK	CN	SMAW	L&L 18 Rev 0	P1-P15F/P34,P4x	F5	All	Max	25 mm	April 9/20			
Shawn Rhinehart	AB,SK	SR	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	F(1G)	2.79mm / 16.92 mm	25 mm	Oct 15/20			
Randy Flint	AB,SK	RF	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1 mm	25 mm	Feb 13/20			
Randy Flint	AB,SK	RF	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	4.8 mm / 17.4 mm	25mm	Feb 22/19			
Kevin Wilson	AB,SK	KW	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79mm / 17.1 mm	25mm	Jun 25/21			Tested On June 20, 2019
Robert Johnston	AB,SK	RJ	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	5.36 mm / Max	25.4 mm	May 30/20			
Robert Johnston	AB,SK	RJ	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 16.92 mm	25.4 mm	May 30/20			
Brad Andrews	AB,SK	BA	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79mm / 16.92 mm	25 mm	May 28/20			
Brad Andrews	AB,SK	BA	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	5.36 mm/Max	25 mm	Mar 31/21			
Christopher Flath	AB,SK	CFF	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6 mm/ 16mm	25 mm	Sept 27/18	Dec 7,2018		
Christopher Flath	AB,SK	CFF	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79mm / Max	25.4 mm	May 30/20	Dec 7,2018		
Kevin Wilson	AB,SK	KW	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6.35 mm / Max	25 mm	Mar 20/20			Tested On June 20, 2019

WEEKENDS: DEVON FRANK
KEVIN WILSON



19-FT-29
from

11-1-50-27w3
w.o# 81383316
JESSIE SCHLOSER
22-2006778

TO
14-18-50-6
VERMILION BATTERY
1000 B&L UNIVERSITY
SER# 02-03-19-11697

[illegible]

Exhibit 12.1

Certifying Statement

Acceptance of Procedures Manual

L&L Oilfield Construction 1990 Ltd. has reviewed the written practices, procedures records and certification of:

IRIS NDT

5311-86ST.EDM.AB

T6E-5T8

In our opinion, they comply in all respects with the requirements of:

CGSB/ASNT

(CGSB/ASNT)

L&L Oilfield Construction hereby appoints the aforementioned NDE company to perform the following:

RT,UT,MT,PT

(RT,UT,PT,MT,ET,VT and/orLT)

For
L&L Oilfield Construction 1990 Ltd.
Box 313
Marshall, SK
S0M 1R0

CURTIS SZEMAN

Quality Control Manager



Natural Resources
Canada

Ressources naturelles
Canada



Name/
Nom **Tristan D. Sommerfeld**
Reg. No. /
No. matricule **7829**
Issue Date/
Date d'émission **2016/12/02**

This card does not identify the stated individual to be an employee or representative of Natural Resources Canada, Government of Canada.
Cette carte n'identifie pas l'individu d'être un employé ou un représentant de Ressources naturelles Canada, Gouvernement du Canada

Corrective lenses for [] near [X] far vision.
Verres correctifs pour la vision de [] près [X] distance.

Signature [

Canada



[Handwritten signature]



Natural Resources
Canada

Ressources naturelles
Canada

Certified to/ Certifié selon : CAN/CGSB-48.9712

7829

Method Méthode	Level Niveau	Sector Secteur	Cert. Date Date cert.	Date recert. Date recert.	Expires Expiration
MT	2	EMC	2000/09/08		2021/09/15
PT	2	EMC	2000/09/08		2021/09/15
RT	2	EMC	2004/01/29		2021/09/15

For verification of certification status, policies and definitions, visit website:
<http://ndt.nrcan.gc.ca/> Pour la vérification de la certification, les politiques, et les définitions,
visitez le site web: <http://ndt.nrcan.gc.ca/>

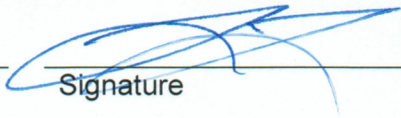
Manager, Certifying Agency
Gestionnaire, Organisme de certification

[Handwritten signature]

NAME: Tristan Sommerfeld

NEAR VISION:

uncorrected RE _____ LE _____

corrected RE J1 LE J1COLOUR VISION: 14/14 Pass SHADES OF GREY: 17/17 PassDATE OF EXAM: 2-Jan-19 DATE OF EXPIRY: 2-Jan-20EXAMINER: Sheldon Trachuk
Print
Signature

REQUIREMENTS:

- 1) NEAR-VISION - The examination shall assure natural or corrected near-distance acuity in at least one eye such that the applicant is capable of reading a minimum of Jaeger Number 2 or equivalent type and size letter at a distance of not less than 30 cm (12 inches) on a standard Jaeger test chart. The ability to perceive an Ortho-Rater minimum of 10 or similar test patterns is also acceptable. This test shall be administered annually.
- 2) COLOUR-VISION - The examination, by use of Ishihara plates, or other similar method, shall demonstrate the capability of distinguishing contrast among colours used in non-destructive examination. All 14 Ishihara plates shall be used in the assessment and the individual must correctly identify 13 out of 14 plates. Successful completion of a practical test in the applicable method shall be accepted as demonstrating acceptable colour contrast differentiation. This test shall be administered annually.
- 3) SHADES OF GREY - An examination, by use of a calibrated step tablet or other similar method, shall demonstrate the capability of distinguishing contrast among shades of grey used in non-destructive examination. The individual must correctly identify all the steps presented. Successful completion of a practical test in the applicable method shall be accepted as demonstrating acceptable differentiation in shades of grey. This test shall be administered annually..