

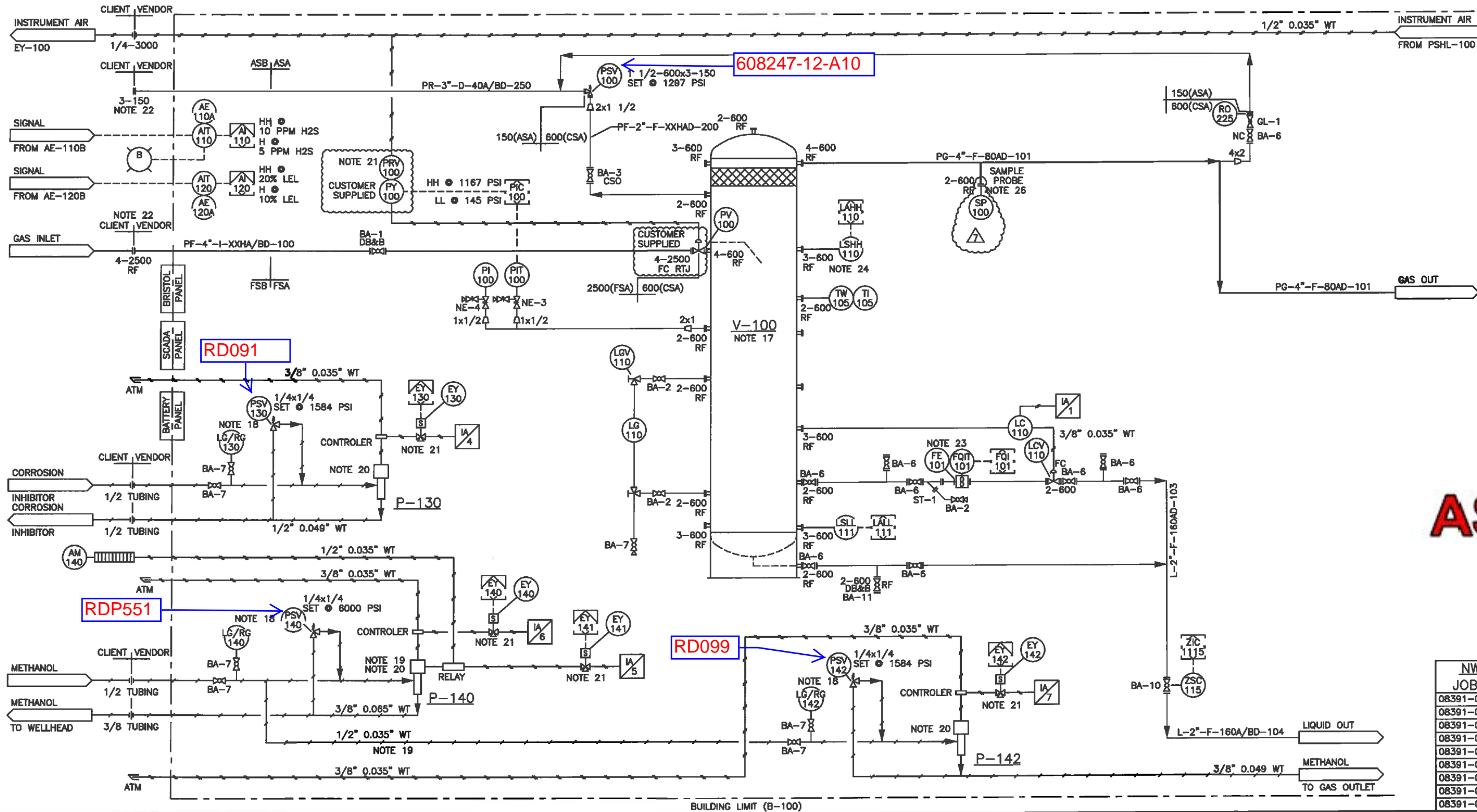
P-130
CORROSION INHIBITOR PUMP
MFR: WILLIAMS
MODEL NO.: CP500V300CRTC
MAX. DIS. PRESS.: 3250 PSI

P-140
METHANOL PUMP
MFR: WILLIAMS
MODEL NO.: CRP500V400CRTC
MAX. DIS. PRESS.: 9200 PSI

P-142
METHANOL PUMP
MFR: WILLIAMS
MODEL NO.: CP500V300CRTC
MAX. DIS. PRESS.: 3250 PSI

V-100
VERTICAL SEPARATOR
MFR:
SIZE: 36" OD x 96" S/S
MAWP: 1480 PSI @ 100°F
MDMT: -20°F @ 1480 PSI
C.A.: 1/8"
CRN NO.: V8275.2

UAL 900 UAL 900



AS BUILT
ORIGINAL

NWP JOB #	ENCANA PO#
	CEDCDB-40985
08391-001	LSD: c-76-H/93-P-1 SCADAPAK
08391-002	LSD: b-52-I/93-P-6 SCADAPAK
08391-003	LSD: c-41-D/93-P-10 SCADAPAK/BRISTOL
08391-004	LSD: c-5-H/93-P-1 SCADAPAK
08391-005	LSD: a-77-A/93-P-1 SCADAPAK
08391-006	LSD: c-84-D/93-P-10 SCADAPAK/BRISTOL
08391-007	LSD: c-15-A/93-P-11 SCADAPAK/BRISTOL
08391-008	LSD: c-24-F/93-P-1 SCADAPAK/BRISTOL
08391-009	LSD: c-81-I/93-P-16 SCADAPAK/BRISTOL

DOCUMENT NO	DESCRIPTION	REV	DATE	BY	CHK	APP
		4	2012.08.03	EP	DF	GH
		3	2012.07.18	EP		
		2	2012.07.11	EP		
08391-5	VESSEL ASSEMBLY	1	2012.06.26	EP		
08391-3	SKID ASSEMBLY	7	2012.09.24	EP		
08391-2	PIPING ASSEMBLY	6	2012.09.07	EP	DF	GH
08391	GENERAL ARRANGEMENT	5	2012.08.24	EP	DF	GH
	REFERENCE DRAWINGS					
						DRAWING REVISIONS

ISSUED FOR CONSTRUCTION
SIGNED: _____
DATE: _____
W.O.: _____
S.O.: _____
ALL DIMENSIONS IN INCHES

NWP INDUSTRIES INC.
Total oilfield supply.
P.O. BOX 6280, INNISFAIL, AB T4G 1S9
PH: (403) 227-4100 FAX: (403) 227-4102
THIS DRAWING IS PROPERTY OF NWP INDUSTRIES INC. AND MAY NOT BE REPRODUCED WITHOUT PERMISSION. THIS DRAWING MUST BE RETURNED UPON REQUEST.

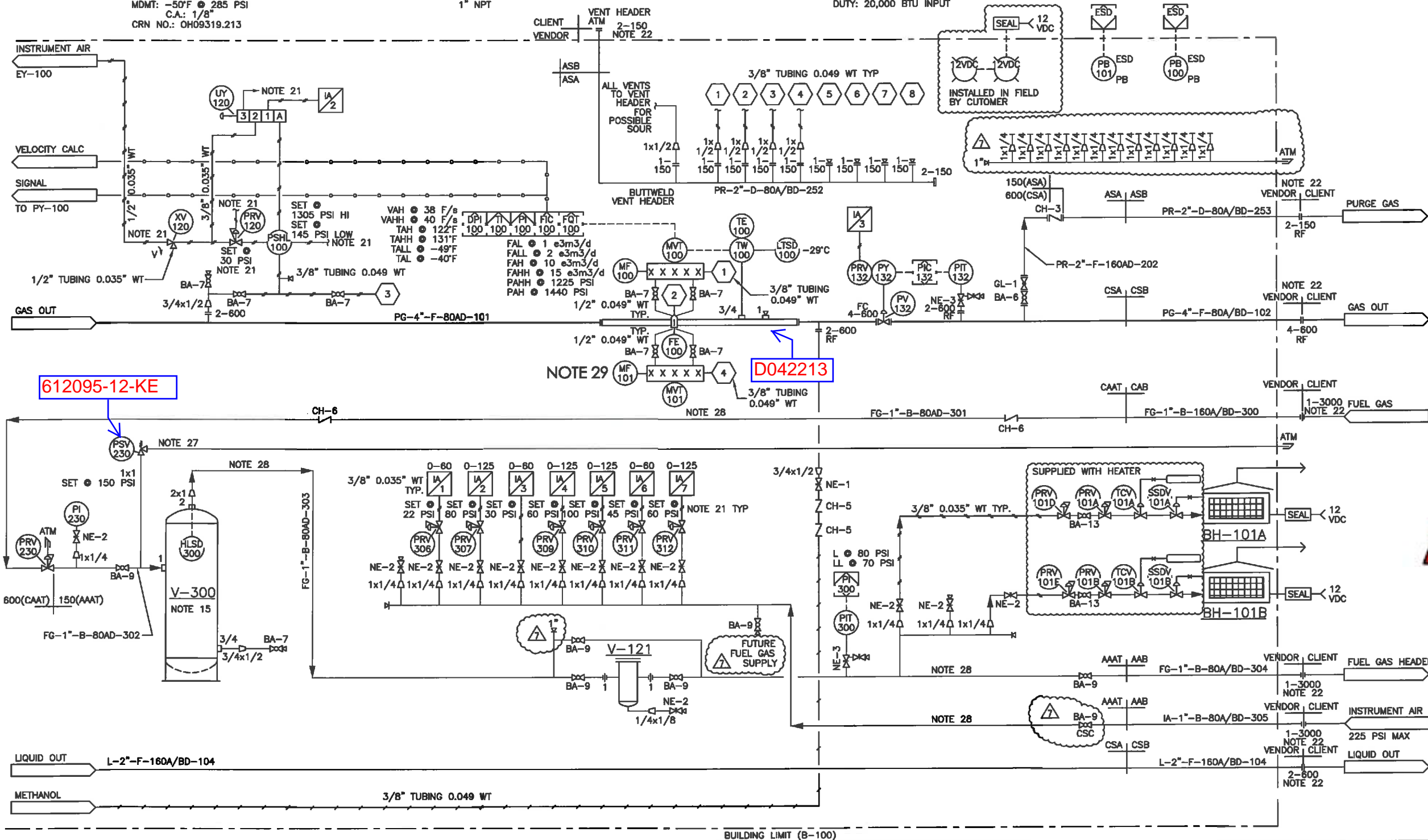
ENCANA CORPORATION
VERTICAL SEPARATOR PACKAGE
36" OD x 96" S/S 1480 PSI VESSEL
PIPING AND INSTRUMENTATION DIAGRAM

DWN: JHK	CHK: DF	APP: GH
DATE: 12.04.02	DATE: 12.08.24	DATE: 12.08.04
SCALE: NTS	DWG: 08391-1	REV: 7
SHEET: 1 OF 3		

V-300 FUEL GAS SCRUBBER
 MFR: MFR:
 SIZE: 8 5/8" OD x 30' S/S
 MAWP: 285 PSI @ 100°F
 MDMT: -50°F @ 285 PSI
 C.A.: 1/8"
 CRN NO.: OH09319.213

V-121 FUEL GAS FILTER
 MFR: HEADLINE
 MODEL NO.: 380A
 MAWP: 250 PSI
 1" NPT

BH-101A/B BUILDING HEATER
 MFR: CATADYNE
 SIZE: 24" x 24"
 MODEL NO.: WX24x24
 DUTY: 20,000 BTU INPUT



612095-12-KE

D042213

AS BUILT ORIGINAL

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08391-003	LSD: b-52-I/93-P-6
08391-004	LSD: c-41-D/93-P-10
08391-005	LSD: c-5-H/93-P-1
08391-006	LSD: a-77-A/93-P-1
08391-007	LSD: c-84-D/93-P-10
08391-008	LSD: c-15-A/93-P-11
08391-009	LSD: c-24-F/93-P-1
08391-009	LSD: c-81-I/93-P-16

DOCUMENT NO.	DESCRIPTION	REV	DATE	BY	CHK	APP	
		4	2012.08.03	EP	DF	GH	GENERAL REVISIONS
		3	2012.07.18	EP			GENERAL REVISIONS
		2	2012.07.11	EP			REVISED PER CUSTOMER REQUEST
08391-5	VESSEL ASSEMBLY	1	2012.06.26	EP			RE-ISSUED FOR CONSTRUCTION
08391-3	SKID ASSEMBLY	7	2012.09.24	EP			01205 ADD FUTURE FG, ADD VENT HEADER, ADD SAMPLE BAL.
08391-2	PIPING ASSEMBLY	6	2012.09.07	EP	DF	GH	01197 GENERAL INSTRUMENT/VENTING REVISIONS
08391	GENERAL ARRANGEMENT	5	2012.08.24	EP	DF	GH	01183 REV'D PSV-140 SET PRESSURE
	REFERENCE DRAWINGS						DRAWING REVISIONS

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 P.O. BOX 6280, INNISFAIL, AB T4G 1S9
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ENCANA CORPORATION VERTICAL SEPARATOR PACKAGE 36" OD x 96" S/S 1480 PSI VESSEL
PIPING AND INSTRUMENTATION DIAGRAM

DWN: JHK	CHK: DF	APP: GH
DATE: 12.04.02	DATE: 12.08.13	DATE: 12.08.13
SCALE: NTS	DWG: 08391-1	REV: 7
SHEET: 2 OF 3		

NOTES

- PIPE SUPPORTS WHERE REQUIRED.
- AIR TEST TO 75 PSI AND ALL PNEUMATIC INSTRUMENTS TO BE FUNCTION TESTED.
- SHIP LOOSE ITEMS TO BE BOXED AND SEALED PRIOR TO SHIPMENT.
- PLUG ALL OUTLETS PRIOR TO SHIPMENT.
- ALL ELECTRICAL TO SCADAPACK 32 UNLESS OTHERWISE NOTED
- ALL INSTRUMENTS VENT TO COMMON HEADER EXCEPT ATO MUFFLERS ON CHEMICAL PUMPS.
-
-
-
- HYDRO TEST PER ASME B31.3.
- WELD PIPING 100% X-RAY REQUIRED.
- INSULATING KITS WILL BE INSTALLED BETWEEN DISSIMILAR METALS PER ENCANA PRODUCED WATER/BRACKISH WATER SPECIFICATION.
- BALL VALVES SHALL USE AN ANTI STATIC DEVICE TO ENSURE ELECTRICITY BETWEEN THE BALL, STEM AND BODY.
- ALL BALL VALVES ARE TO BE COMPLIANT WITH API 598.
- V-300 DOES NOT REQUIRE X-RAY PER UW-11C, PWHT.
- INSTRUMENTATION WILL BE OPERATIONALLY TESTED TO ENSURE FUNCTION.
- STENCIL ON VESSELS TO BE ADDED "VESSELS POST WELD HEAT TREATED".
- RG/LG'S & PSV VENTS WILL BE RESTRAINED TO THE WALL OF BLDG.
- RELAY EXHAUST TUBING TO BE 1/2" (0.035" WT) 316 SS.
- VENT PUMP EXHAUST TO EAVE HEIGHT TO ATM.
- VENT TO ATMOSPHERE AT INSTRUMENT, TUBING NOT REQUIRED FOR INSTRUMENT AIR.
- LOW TEMP MATERIAL REQUIRED FROM FLANGE OR THREADED FITTING OUTSIDE BUILDING TO FIRST CONNECTION INSIDE BUILDING.
- MIN TO PIPE # UPSTREAM AND 5 PIPE # DOWNSTREAM.
- USE FLOAT STYLE PROBES RATHER THAN CAPACITANCE FOR HLLSD'S.
- ENCANA SPECS:

ECA-CIV-S-15 REV 0	ECA-GEN-R-02 REV A.1	ECA-PVF-S-01 REV A
ECA-CIV-S-16 REV 1	ECA-GEN-R-03 REV D	ECA-PVF-S-02 REV A
ECA-CIV-S-17 REV 1	ECA-GEN-S-02 REV 5	ECA-PVF-S-03 REV 0
ECA-CIV-S-18 REV 1	ECA-GEN-S-05 REV A.1	ECA-PVF-S-04 REV 0
ECA-VESL-S-01 REV D	ECA-INSUL-S-01 REV A.1	ECA-COAT-S-01 REV D.1
ECA-INST-S-01 REV C	ECA-WELD-S-01 REV A.1	
- AS PER DIRECTIVE 17.
- 100% RADIOGRAPHY ON PSV-230 THREADED PIPING.
- 10% RADIOGRAPHY ON ALL NWP MANUFACTURED NIPPLES
- REQUIRED FOR UNITS 08391-003,006,007,008 & 009 ONLY

LEGEND

- MAJOR PROCESS LINE
- UTILITY LINE
- BUILDING LIMITS
- PROCESS/UTILITY TUBING LINE
- INSTRUMENT PNEUMATIC LINE
- INSTRUMENT CAPILLARY LINE
- ELECTRICAL DATALINK LINE
- ELECTRICAL CONNECTION LINE
- BALL VALVE
- GLOBE VALVE
- GATE VALVE
- CHECK VALVE
- PLUG VALVE
- NEEDLE VALVE
- STRAIGHT CHOKE VALVE
- SOCKET WELD VALVE
- RUPTURE VALVE
- SOLENOID VALVE
- BUTTERFLY VALVE
- 3-WAY VALVE
- 4-WAY VALVE
- DIAPHRAGM ACTUATED CONTROL VALVE
- PRESSURE REGULATOR
- 3-WAY DIAPHRAGM CONTROL VALVE

LINE TAGGING

- XX-X"-X-XXXX-XXX
- CONDENSATE - C
 - DRAIN - D
 - FUEL GAS - FG
 - LIQUID - L
 - LEAN GLYCOL - LG
 - METHANOL - M
 - OIL - O
 - PROCESS FLUID - PF
 - PROCESS GAS - PG
 - PRESSURE RELIEF - PR
 - RICH GLYCOL - RG
 - WATER - W
- NOMINAL PIPE SIZE
- CLASS 2000 THREADED - A
 - CLASS 3000 THREADED - B
 - CLASS 6000 THREADED - C
 - 150 ANSI FLANGED - D
 - 300 ANSI FLANGED - E
 - 600 ANSI FLANGED - F
 - 900 ANSI FLANGED - G
 - 1500 ANSI FLANGED - H
 - 2500 ANSI FLANGED - I
- 100-199 MAJOR PROCESS FLUIDS
 - 200-249 MINOR PROCESS FLUIDS
 - 250-299 RELIEF, DRAINS
 - 300-399 UTILITY VAPOURS
 - 400-499 UTILITY LIQUIDS
- INSTRUMENT TUBING
- A - GALVANIZED TUBING w/ CS FITTINGS
 - B - 304 SS TUBING w/ CS FITTINGS
 - C - 304 SS TUBING w/ 316 SS FITTINGS
 - D - 316 SS TUBING w/ 316 SS FITTINGS
 - E - NOT APPLICABLE
- PIPE GRADE
- A - SA-106B
 - B - SA-333 GR.6
- PIPE SCHEDULE

VALVE TAGGING

- XX-X
- START WITH 1
- BALL VALVE - BA
 - NEEDLE VALVE - NE
 - GLOBE VALVE - GL
 - CHECK VALVE - CH
 - GATE VALVE - GA
 - BUTTERFLY VALVE - BU

- ANGLE VALVE
- RELIEF VALVE
- ANGLE CHOKE VALVE
- PRESSURE ACTUATED CONTROL VALVE/AMOT
- ORIFICE METER
- METER RUN
- TURBINE METER
- VENTURI
- 5-VALVE MANIFOLD
- THREADOLET c/w PLUG
- FLANGE SET
- UNION
- CAP
- PIPE BREAK
- SOCKET WELD CONNECTIN
- VENT
- REDUCER/SWAGE
- STRAINER
- FLEXIBLE HOSE
- SPECTACLE BLIND OPEN
- SPECTACLE BLIND CLOSED
- THREADOLET/COUPLING
- FLANGED NOZZLE
- MANWAY

- PAGE CONNECTOR
- SPEC/RESPONSIBILTY BREAK
- SPEC/RESPONSIBILTY BREAK
- LOCALLY MOUNTED INSTRUMENT
- SHARED DISPLAY SHARED CONTROL
- FIELD MOUNTED
- RTU PANEL
- 1/8 TO AND FROM

AS BUILT

ORIGINAL

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