



Weatherford HPS Order Form

Revision # _____

Date: October 13, 2011
Quote/FSSO # CH-110513-MH
Ordered By: MINDY HARRISON
Completed By: LINDSAY CAMERON

Ship Date: November 30, 2011 Time: _____
Customer: CNRL-CENTRAL BRITNELL BATTERY
Well # 01-36-80-22-W4
Field: CENTRAL BRITNELL TAG P-817 B

Shipper # N 2730 Ship To Address: Canadian Natural Resources Ltd, CBB Project C/O Universal Contract Logistics, 2840-76 Ave NW - Edmonton AB T6P 1J4
Ship Via: CF 1-877-582-8770 "COLLECT"

Skid Details → **WO #** WO 13432

Serial # WFTEM1113432 SKID #2 Type Double Beam Length 19' Ft

Saddles

Part # 809419 Series 862 Inserts _____ Quantity 3

Motor Manufacturer: _____

Serial # MV.C10C738-2 Part # 720713 HP 500 Supplier: TECO

Motor-Pump Coupling

Disc Coupling Part # 873225 Description COUPLING ASSEMBLY, HPS SX-158-6 2.626 ID

Coupling Guard Part # 1236330 Description COUPLING GUARD ASSEMBLY, SPLIT HPS LG:12.75 PVC

Thrust Chamber → **WO #** WO 13434

Part # 875503

Serial # WFT031113434 Description THRUST CHAMBER ASSEMBLY, HPS 3-BEARING STD SHAFT

TC - Pump Coupling

Part # 432264 Description COUPLING, PUMP 1.1875x1.375 MINGO W1126028 6 SPLINE

Intake Orientation: LEFT

Part # 429817 Description INTAKE ASSEMBLY, HPS ANSI FLANGE 6"-150RF SS

Seal

Part # 408182 Description SEAL, MECHANICAL JC-1-19422

Pump 1 → **WO #** WO 13597

Serial # 2NN11J13597 Part # 2007657 Description PUMP HPS 862-25000 14 HSG 14 STG CP CT TA

Pump 2 → **WO #** _____

Serial # _____ Part # _____ Description _____

Pump Coupling

Part # _____ Description _____

Bellhousing Part # _____ **TC Cooler** Part # _____

Description: _____ Description _____

Expansion Joint

Part # 2000367 Description JOINT, EXPANSION 6x18x150 DOUBLE BRAIDED HOSE SS316

Discharge Flange

Part # 751460 Description DISCHARGE FLANGE ASSEMBLY HPS 862 6-600RF

Instrumentation

Vibration Part # 897429 Description TRANSMITTER SEISMIC VIB. IPT METRIX ST5484E-121-020-00

TC Level Part # _____ Description _____

Pressure Switch Part # _____ Description _____

Miscellaneous Items:

Part # 751464 Description: PLATE, ADAPTOR, INTAKE, HPS, SS, 862
Part # _____ Description: _____
Part # _____ Description: _____
Part # _____ Description: _____
Part # _____ Description: _____
Part # _____ Description: _____

Special Instructions:

Bill of Lading to show/Freight charge to PO
2010066-015R2 Canadian Natural Resources Ltd
C/O Upside Engineering Ltd. 409-10th Ave SE,
Calgary Alberta, T2G 0W3

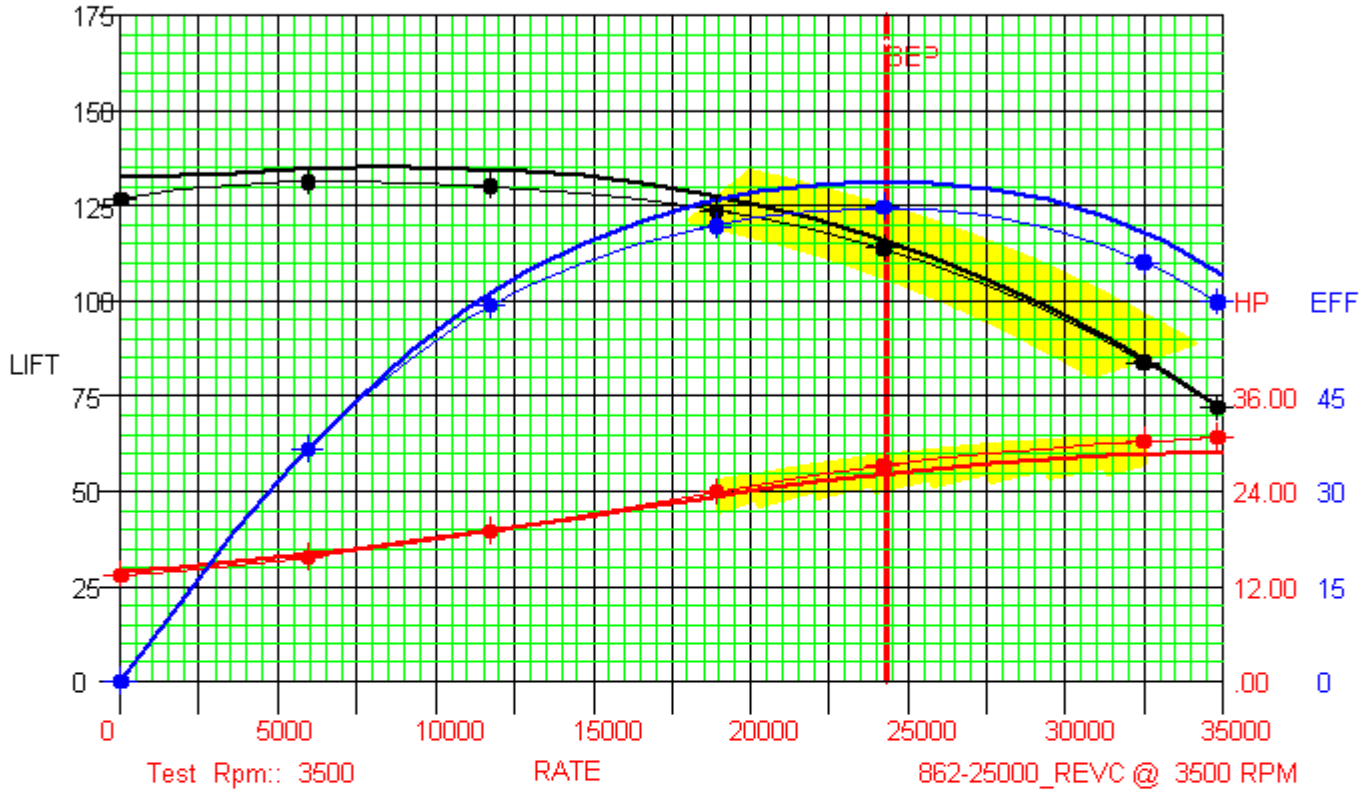
Shaded items are reason for latest revision



PUMPTEST REPORT

Prepared For CNRL
 CENTRAL BRINTNELL
 DATE/TIME: 11/28/2011 9:36:34 AM
 WORK ORDER: 13597

Test Data Adjusted to Test RPM A Specific Gravity Of 1 and To 1 Pump Stage



Max(Recommended)	LIFT	-0.47%	(84.48)	POWER	5.85%	(30.321)	EFF	-6.59%	(66.18)
@ BEP-1 STG	LIFT	-1.12%	(114.31)	POWER	3.62%	(27.240)	EFF	-5.20%	(74.62)
Min (Recommended)	LIFT	-2.52%	(124.16)	POWER	2.19%	(23.981)	EFF	-5.11%	(72.08)

RATE	LIFT	POWER	EFF	DEFECTS/REPAIRS/FAILURES		
34826	71.94	1007.16	30.821	431.494	59.9	NEW PUMP TEST
32492	83.82	1173.48	30.335	424.69	66.1	PUMP TEST ACCEPTABLE
24232	113.92	1594.88	27.178	380.492	74.8	VIBRATION TEST ACCEPTABLE
18901	123.51	1729.14	23.95	335.3	71.8	SHIMMED UP .030
11735	130.08	1821.12	18.957	265.398	59.3	
5961	131.25	1837.5	15.714	219.996	36.7	
0	126.8	1775.2	13.457	188.398	.0	

TYPE: BWFT 862-25000	Comment 1:
HOUSING: 14	Comment 2:
SN: 2NN11J13597	
STAGES: 14	

MISC. DATA			
Before Shims	H -0.068	B -0.141	Shaft Travel 0.164
After Shims	No Shim Bolts		TEST BY TRAVIS



Hydrostatic Test Report

Ensure the Pump is 100% liquid filled before starting the test

Customer Name:	CNRL	Design Pressure (psig)	1600
Serial No.:	2NN11J13597	Test Pressure (psig)	2400
Part No.:	2007657	PRV Set Point (psig)	
Description:	862-25000-14STG	Pressure Gauge No.	JW031202-1
Calibration Ref:	37027/35115	Calibration Date	

First Pressure Test

Time (minutes)	Applied Pressure (psi)	Measured Pressure (psi)	Tolerance (+/-) psi	Accept/Reject
0.00	2400	2400		A
2.00	2400	2400		A
3.00	2400	2400		A
4.00	2400	2400		A
5.00	2400	2400		A
6.00	2400	2400		A
7.00	2400	2400		A
8.00	2400	2400		A
9.00	2400	2400		A
10.00	2400	2400		A
11.00	2400	2400		A
12.00	2400	2400		A
13.00	2400	2400		A
14.00	2400	2400		A
15.00	2400	2400		A

Second Pressure Test

Time (minutes)	Applied Pressure (psi)	Measured Pressure (psi)	Tolerance (+/-) psi	Accept/Reject
0.00	1600	1600		A
2.00	1600	1600		A
3.00	1600	1600		A
4.00	1600	1600		A
5.00	1600	1600		A
6.00	1600	1600		A
7.00	1600	1600		A
8.00	1600	1600		A
9.00	1600	1600		A
10.00	1600	1600		A

Allowable Tolerance on Establishing Initial Test Pressure

TEST PRESSURE	TOLERANCE
0 - 500 psig	—————> (+/-) 5 psig
500 - 2000 psig	—————> (+/-) 10 psig
2000 - 5000 psig	—————> (+/-) 15 psig
5000 - 10000 psig	—————> (+/-) 20 psig

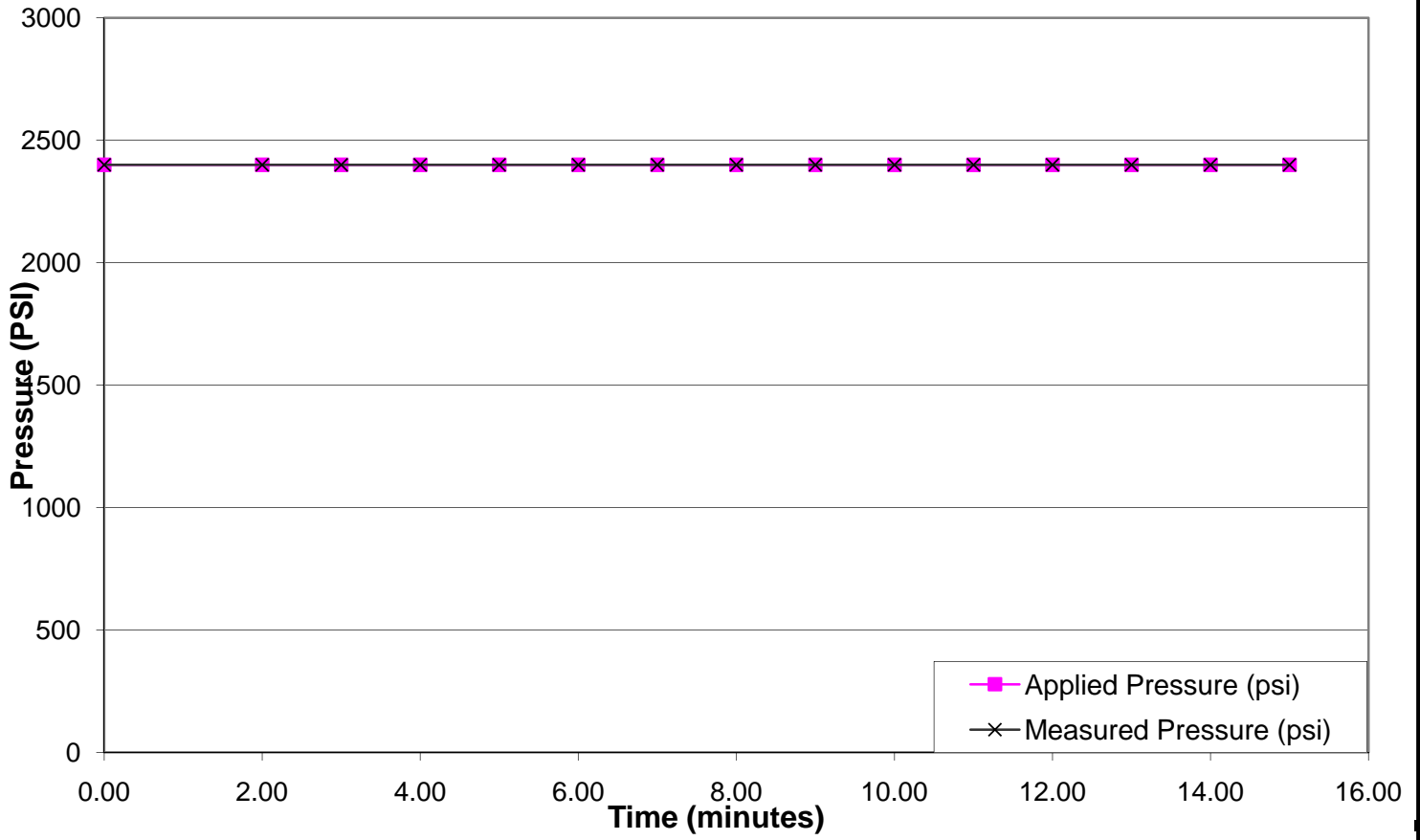
Test Description/Comments

GLYCOL TEST

Test Performed By: LAURENT VALLEE
 Test Performed By: _____
 Witnessed By: _____
 Witnessed By: _____

Date: 11/26/2011
 Date: _____
 Date: _____
 Date: _____

First Pressure Test



Second Pressure Test

