



DYNAMOMETER ANALYSIS

INNOVATIVE RESOURCES LTD.

Innovative HZ PROLIFIC 03-04-05-06

100/03-04-05-06W6/0

SURFACE LOCATION: 03-04-05-06W6

FIELD / FORMATION: RYCROFT AB / MONTNEY

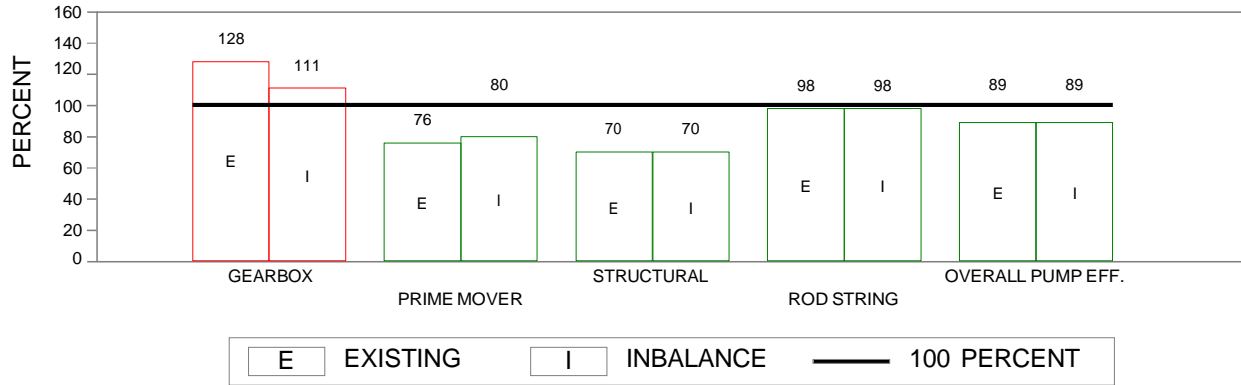
TEST DATE: February 8, 2012

DISTRIBUTION: John Doe- Calgary, Ab.

PREPARED BY: Definitive Optimization

DATE: February 9, 2012

DYNALOG GRAPHIC SUMMARY



PRODUCTION POTENTIAL

The results of the fluid level test indicate approximately 416 meters of pump submergence. A pump intake pressure of 3171 kPa was determined from these results using an estimated annular fluid gradient of 4 kPa/m. Based on these results additional production may be available from the well.

GENERAL COMMENTS

The pump card indicates good efficiency with slight losses due to gas interference. Varying degrees of barrel fillage is affecting pumping efficiency throughout daily operations (as evident in the Surface Card Overlay). Frictional loading is apparent and may be masking the interpretation somewhat.

The valve checks indicate that the bottomhole pump is in excellent mechanical condition.

Horizontal completion - depths and submergence calculations have not been corrected to TVD.

It is also noted that CNRL has indicated that the pumping unit has been shutting down frequently lately due to high loads.

RECOMMENDATIONS

In order to reduce the existing equipment loading to more acceptable conditions, reduce the stroke length by operating in pitman 2 of 3. It should be noted that this will result in a significant reduction in pump displacement from existing levels. A complete system re-design should be considered to maintain or increase production levels without experiencing any equipment overload.

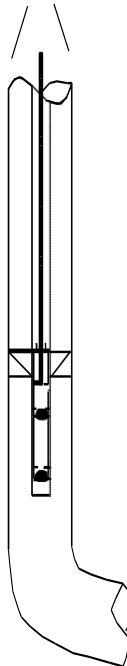
Counterbalance requirements should be re-evaluated following any changes to equipment or operation.

If a more accurate calculation of the pump intake pressure is desired to determine the amount of available productivity, an annular fluid depression test and inflow performance relationship study should be conducted.



PRIME MOVER			
WEG	ELECTRIC		
SHEAVE O.D. (cm)			24.13
RATED HORSEPOWER			45
RATED AMPS (RMS)			69.5
RATED RPM			1180
		EXISTING	INBALANCE
POLISHED ROD H.P.		22.03	22.03
CYCLIC LOAD FACTOR		1.312	1.396
APPROX. MOTOR H.P.		34.0	36.2

PUMP UNIT		
WEATHERFORD CONVENTIONAL		912-365-192
ROTATION		CW
PITMAN POSITION		1 OF 3
PUMPING SPEED (SPM)		4.4
STROKE LENGTH (cm) / (in)		482 / 190
BALANCE CONDITION		UNDER
	EXISTING	INBALANCE
MAX. TORQUE (in-lb)	1164788	1007976
- % OF RATING	128	111
MIN. TORQUE (in-lb)	-172808	-193345
- % OF RATING	19	21
MAX. LOAD (lb)	25397	25397
- % OF RATING	70	70
C.B. EFFECT (lb)	15441	17360
C.B. MOMENT (in-lb)	1466222	1640477

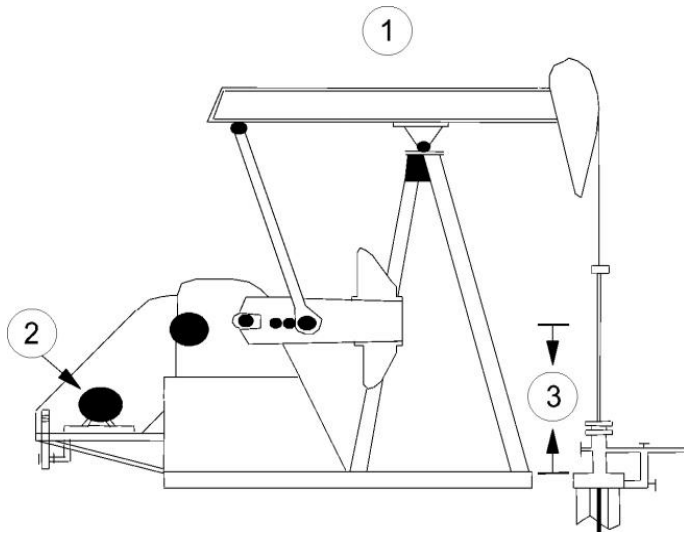


FLUID LEVEL AND PRESSURES	
TUBING PRESSURE (kPa)	938
CASING PRESSURE (kPa)	1334
PUMPING FLUID LEVEL (mCF)	1403.82
PUMP SUBMERGENCE (m)	415.65
* ANNULAR FLUID GRADIENT (kPa/m)	4.000
PRESS. DUE TO GAS COLUMN (kPa)	174
PRESS. DUE TO FLUID COLUMN (kPa)	1663
PUMP INTAKE PRESSURE (kPa)	3171
* ESTIMATED	

PUMPEFFICIENCY	
TOTAL PLUNGER STROKE (cm)	415
PUMP DISPLACEMENT (m3/d)	53.4
FLUID PROD'N AS % OF TOTAL DISP.	89
OIL PRODUCTION RATE (m3/d)	13.47
WATER PRODUCTION RATE (m3/d)	34.13
TOTAL FLUID PROD. RATE (m3/d)	47.60
GAS - OIL RATIO	579
EFFECTIVE PLUNGER STROKE (cm)	395
EFFECTIVE PUMP DISPLACEMENT (m3/d)	50.8
FLUID PROD. AS % OF EFF. PUMP DISP.	94
PRODUCTION TEST DATE	2014-10-27

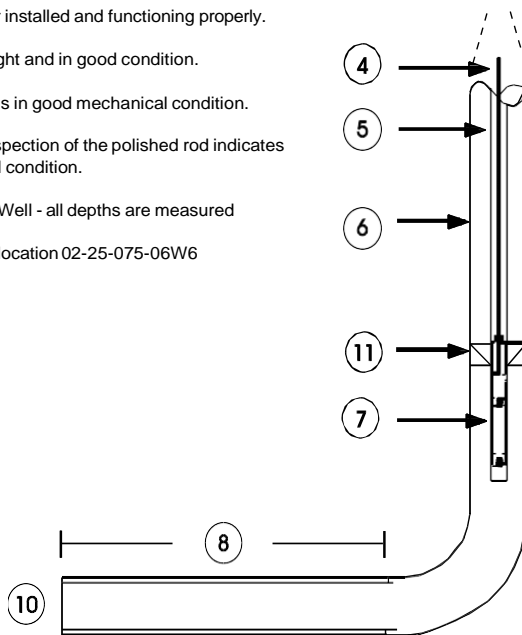
RODLOADING

SECTION	DIAM. (mm)	LOAD (lb)		STRESS (psi)		PERCENT API GOODMAN			ROD GRADE
		MAX.	MIN.	MAX.	MIN.	1.0 S.F.	0.8 S.F.	0.6 S.F.	
POL. ROD	38.10	25397	5867	14372	3320	40	52	73	D
2	22.23	25397	5867	42236	9756	74	98	145	T66/XD
3	19.05	17739	2082	40153	4712	75	97	135	T66/XD
4	22.23	13365	-1183	22226	-1968	47	58	77	T66/XD



NOTES:

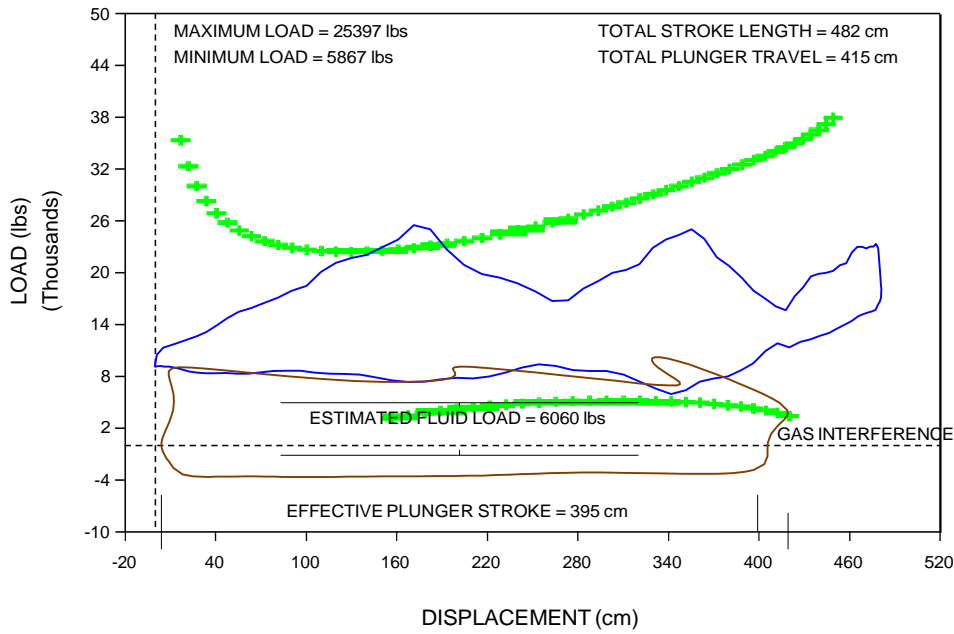
- Rod rotator installed and functioning properly.
- Belts are tight and in good condition.
- The brake is in good mechanical condition.
- A visual inspection of the polished rod indicates it is in good condition.
- Horizontal Well - all depths are measured depths:
Surface location 02-25-075-06W6



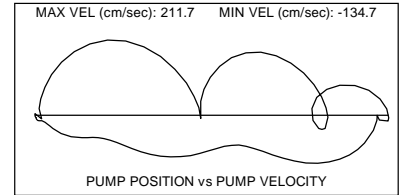
SUMMARY OF BASIC WELL INFORMATION			
1. PUMP UNIT			
WEATHERFORD	CONVENTIONAL	912-365-192	
STROKE LENGTH (cm) / (in)		482 / 190	
SHEAVE O.D.: 50.0 inches		GEARBOX RATIO: 31.49:1	
BELT SIZE: C240		CRANK #: CA54	
	COUNTER	AUXILIARY	WEIGHT
	<u>WEIGHTS</u>	<u>WEIGHTS</u>	<u>POSITION</u>
LEAD A	XJ		35.0"
LAG A	XJ		47.5"
LEAD B	XJ		47.5"
LAG B	XJ		29.0"
2. PRIME MOVER			
WEG	ELECTRIC		
SHEAVE O.D. (cm)		24.13	
RATED HORSEPOWER		45	
RATED AMPS (RMS)		69.5	
RATED RPM		1180	
VOLT RATING		460	
3. ELEVATIONS			
KB ELEVATION (m)		827.35	
CF ELEVATION (m)		823.40	
KB - CF (m)		3.95	
5. TUBING			
DIAMETER (mm)		73.03	
SET AT (mKB)		1880.11	
NO. OF JTS. / AVG. JT. LENGTH (m)		199.0 / 9.428	
6. CASING			
DIAMETER (mm)		139.70	
SET AT (mKB)		4146.00	
7. BOTTOMHOLE PUMP			
63.5 X 50.8 X RWBC X 7.9 X 1.5			
PLUNGER DIAMETER (in) / (mm)		2.00 / 50.80	
BARREL LENGTH (ft) / (m)		26.00 / 7.92	
SETTING DEPTH (mKB)		1823.42	
COMPLETION DETAILS (HORIZONTAL COMPLETION)			
8.	PRODUCING INTERVAL (mKB)		
	TOP / BOTTOM	2025.89 / 4118.70	
9.	PLUG-BACK DEPTH (mKB)	4141.82	
10.	TOTAL DEPTH (mKB)	4146.00	
11.	ANCHOR - TRYTON	SET AT (mKB)	1803.57
	GAS SEPARATOR - SPIRIT	SET AT (mKB)	1826.82

RODSTRING								
SECTION	DIAMETER (mm)	LENGTH (m)	UNIT WT. (lb/m)	WT. IN AIR (lb)	WT. IN FLUID (lb)	API ROD GRADE	TENSILE STRENGTH (psi)	COMMENTS
POL. ROD	38.10	10.97	20.11	221	194	D	115000	
2	22.23	765.10	7.28	5573	4934	T66/XD	140000	Scrapered c/w Ponies
3	19.05	655.32	5.35	3505	3102	T66/XD	140000	Scrapered
4	22.23	381.00	7.28	2775	2457	T66/XD	140000	NEXXTB Scrapered
		1812.39		12073	10686			

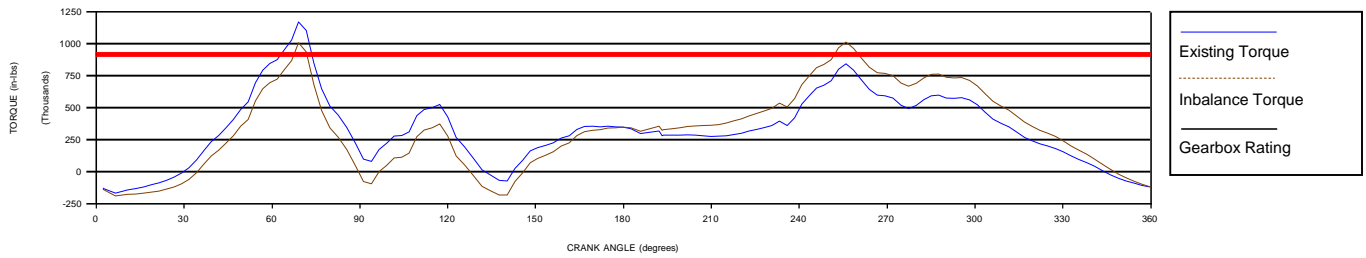
SURFACE AND PUMP CARDS

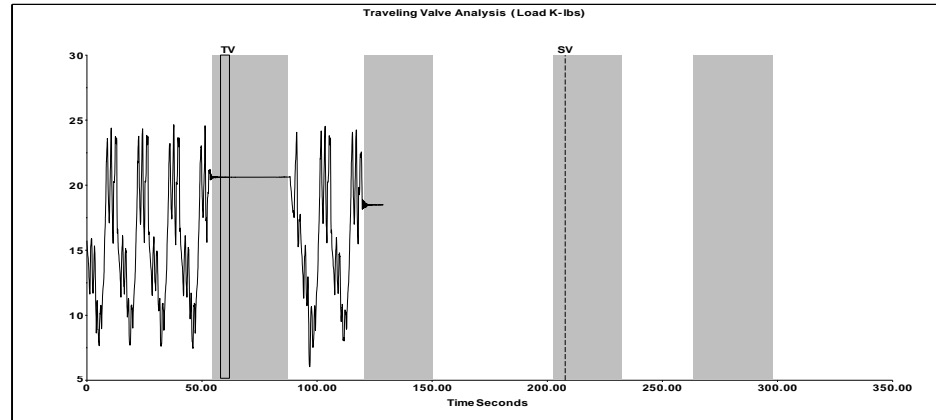
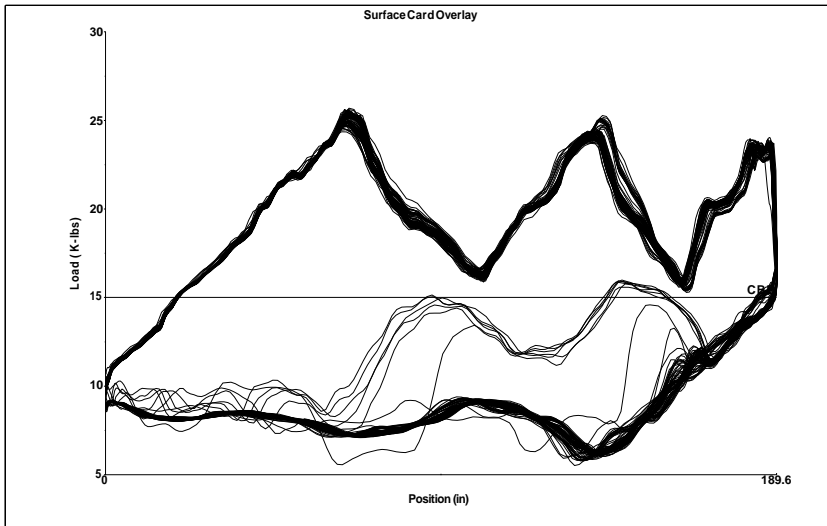


PUMP VELOCITY PLOT



GEARBOX TORQUES





Traveling Valve Analysis

Calc. Buoyant Rod Weight + Fluid Load - * - lbf
 Measured Load TV 20601 lbf
 Leakage -0.0 BBL/D

Standing Valve Analysis

Calculate Buoyant Rod Weight - * - lbf
 Measured Load SV 11094 lbf
 Intake Pressure 193.6 psi (g)

