



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1237928
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1237928

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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CONSOLIDATED
Oil Well Services, LLC

8014

TICKET NUMBER 47865 ⁹⁰⁸ ₉₁₁
LOCATION Oakley KS
FOREMAN Jerry Y

INVOICE # 80147

FIELD TICKET & TREATMENT REPORT
CEMENT

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
11-15-14	7158	L-J Hartman #1	14	115	29W	Gove	
CUSTOMER		Garfield		TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS		5 Jock		399	Cory D		
CITY		1 W, 1/2 S		530 TR2	Lance R		
STATE		W into					
ZIP CODE							

JOB TYPE PTA HOLE SIZE 7 7/8 HOLE DEPTH 4640 CASING SIZE & WEIGHT _____
 CASING DEPTH _____ DRILL PIPE 4 1/2 TUBING _____ OTHER _____
 SLURRY WEIGHT 13.8 SLURRY VOL 1.42 WATER gal/sk 6.78 CEMENT LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting & rig up on H2 rig 2 plug as ordered with 255 sks 60/40
102 mix 4% gel 1/4 # 50 sec / pr 5 L
50 sks @ 2418'
100 sks @ 1428'
50 sks @ 320'
10 sks @ 40' with 8 5/8 wooden plug
15 sks MH 30 sks Rath

Thank you
Jerry screw

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5405 N	1	PUMP CHARGE	1395.00	1395.00
5406	20	MILEAGE	5.25	105.00
5407	10.97	ten military delivery (min)	430.00	430.00
1131	255 sks	60/40 m2 mix	15.85	4044.30
1186	877 #	gel	.27	236.79
1107	64 #	5% seal	2.97	190.08
4432	1	8 5/8 wooden plug	100.25	100.25
111	100 #	salt	NC	NC
			Subtotal	6501.92
			less 10% disc	650.19
			Subtotal	5851.73
			SALES TAX	325.97
			ESTIMATED TOTAL	6176.80

Revin 3737
 AUTHORIZATION Steven Craig TITLE Tool Pusher DATE 11-15-14

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

ALLIED OIL & GAS SERVICES, LLC 064223

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Oakley

DATE <u>11-5-14</u>	SEC <u>14</u>	TWP <u>11</u>	RANGE <u>29</u>	CALLED OUT	ON LOCATION <u>4:00 PM</u>	JOB START <u>4:30 PM</u>	JOB FINISH <u>5:00 PM</u>
LEASE <u>L+J Hartman</u>		WELL # <u>1</u>	LOCATION <u>Grainfield 1/25 1W</u>		COUNTY <u>Gove</u>	STATE <u>Ks</u>	
OLD OR <input checked="" type="radio"/> NEW (Circle one)			<u>1/25 W + 11 into</u>				

CONTRACTOR <u>H2 #2</u>	OWNER <u>same</u>
TYPE OF JOB <u>Surf Pace</u>	CEMENT
HOLE SIZE <u>12 1/4</u> T.D. <u>268'</u>	AMOUNT ORDERED <u>175 sks com 3% cl</u>
CASING SIZE <u>8 5/8</u> DEPTH <u>268'</u>	<u>2% gel</u>
TUBING SIZE DEPTH	
DRILL PIPE DEPTH	
TOOL DEPTH	
PRES. MAX MINIMUM	COMMON <u>175 sks @ 17.90 3132.50</u>
MEAS. LINE SHOE JOINT	POZMIX @
CEMENT LEFT IN CSG. <u>15'</u>	GEL <u>3.29# @ .50 164.50</u>
PERFS.	CHLORIDE <u>4.93# @ 1.10 542.50</u>
DISPLACEMENT <u>16.11 BBL</u>	ASC @

EQUIPMENT		Material Total @ <u>3839.80</u>
PUMP TRUCK # <u>422</u>	CEMENTER <u>Andrew Forstund</u>	@
	HELPER <u>Brandon Wilkinson</u>	@ <u>(161.86/200)</u>
BULK TRUCK # <u>891</u>	DRIVER <u>Wayne Messalle</u>	@
BULK TRUCK #	DRIVER	@
	HANDLING <u>189.23 cu/ft @ 2.48</u>	@ <u>469.29</u>
	MILEAGE <u>2.25 12/4 mile 8.68 7m</u>	@ <u>593.31</u>
REMARKS:		TOTAL _____

Cement did circulate

thank you

CHARGE TO: Raymond oil

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE	
DEPTH OF JOB <u>268'</u>	
PUMP TRUCK CHARGE <u>1512.25</u>	
EXTRA FOOTAGE @	
MILEAGE <u>25 miles @ 7.20</u>	@ <u>192.50</u>
MANIFOLD <u>head</u>	@ <u>225.00</u>
<u>light vehicle</u>	@ <u>4.40 110.00</u>
	@
<u>(630.47/200)</u>	TOTAL <u>3,152.85</u>

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME STEVEN CRAIG

SIGNATURE Steven Craig

PLUG & FLOAT EQUIPMENT	
_____	@ _____
_____	@ _____
_____	@ _____
_____	@ _____
_____	@ _____
	TOTAL _____
SALES TAX (If Any) _____	
TOTAL CHARGES <u>6,991.65</u>	
DISCOUNT <u>1,398.33 (20%)</u>	IF PAID IN 30 DAYS
<u>5,593.32 Net.</u>	

Max R. Lovely

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY Raymond Oil Co.
LEASE L&J Hartman #1
FIELD Wildcat
LOCATION SE NE SE NW
SEC 14 TWSP 11 RGE 29W
COUNTY Gove STATE KS

ELEVATIONS
KB 2835
DF _____
GL 2825
Measurements Are All
From KB

CONTRACTOR H2 #2
SPUD 11-5-14 COMP 11-14-14
RTD 4640 LTD 4640
MUD UP 3373 TYPE MUD Chem

CASING
SURFACE 8 7/8" e 265'
PRODUCTION _____

ELECTRICAL SURVEYS
DUAL IND MICRO
COMP N/D

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION		
				A	B	C
Anhydrite	2383	2379	456	451	458	
Base Anhydrite	2416	2410	425	410	426	
Stotler	3560	3554	-719	-734	-722	
Heebner	3934	3906	-1071	-1087	-1074	
Lansing	3966	3928	-1093	-1120	-1113	
Muncie	4104	4074	-1239	-1257	-1244	
Stark	4194	4153	-1318	-1340	-1322	
Marmaton	4272	4236	-1401	-1426	-1406	
Pawnee	4393	4360	-1525	-1552	-1532	
Ft. Scott	4435	4400	-1565	-1596	-1575	
Cherokee SH	4461	4426	-1591	-1623	-1600	
Morrow SH		4457	-1622	-1657	-1635	
Wea Mississippi	4504	4504	-1669		-1664	
Mississippi	4528	4530	-1695	-1690		

REFERENCE WELLS FOR STRUCTURE

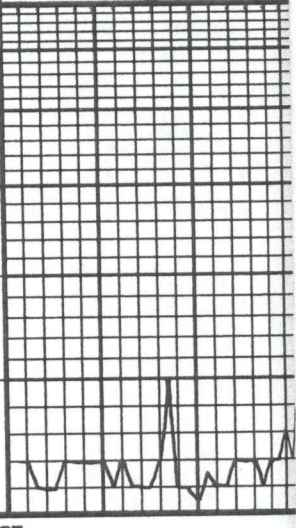

A Cinco Expl Gillespie #1-A NE SW 14-11-29W
B Imperial Oil Houser #1 NW NW NE 14-11-29W
C _____

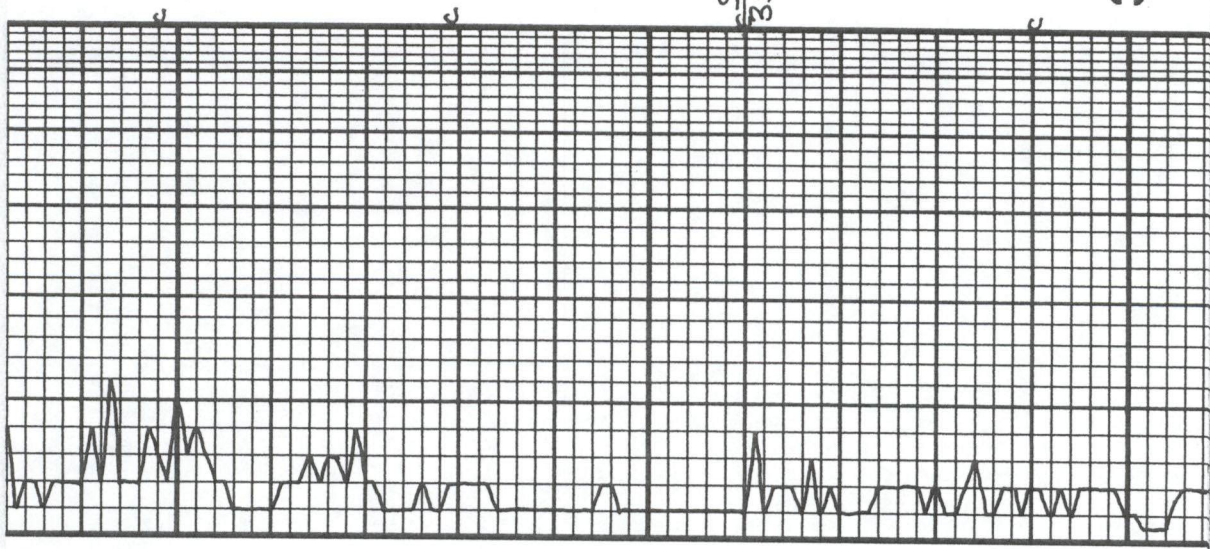
SOFT, C. O. M.C

REMARKS

LEGEND

- 
 Anhydrite
- 
 Salt
- 
 Sandstone
- 
 Shale
- 
 Carb sh
- 
 Limestone
- 
 Ool. Lime
- 
 Chert
- 
 Dolomite

DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
		LITHOLOGY	
		OIL SHOWS	
		LS, TAN, BRN, MXTLN, SOFT, Ms	



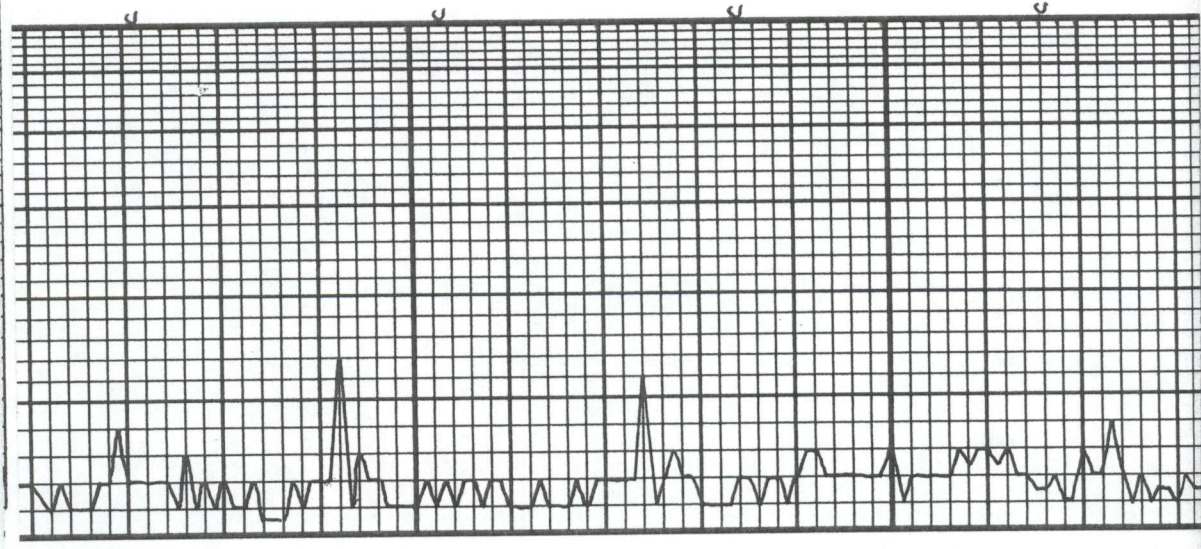
3500	LS, BUFF, F XTLN, HRD, ABUN FOSS, FEW OOL, W CMT'D OOLS, P, NS
	LS, TAN, F XTLN, FEW Pcs M XTLN, FOSS, M HRD, NS
	LS, LT GR, F XTLN, S → M HRD, NO APP, NS SH, GR
	SH, GR
STOTLER 3560 - 725	LS, TAN, F XTLN, HRD, ALGAL, NS
	AA, INCR FOSS
3600	LS, TAN, GR, VF XTLN, DNS, BRTL, NS

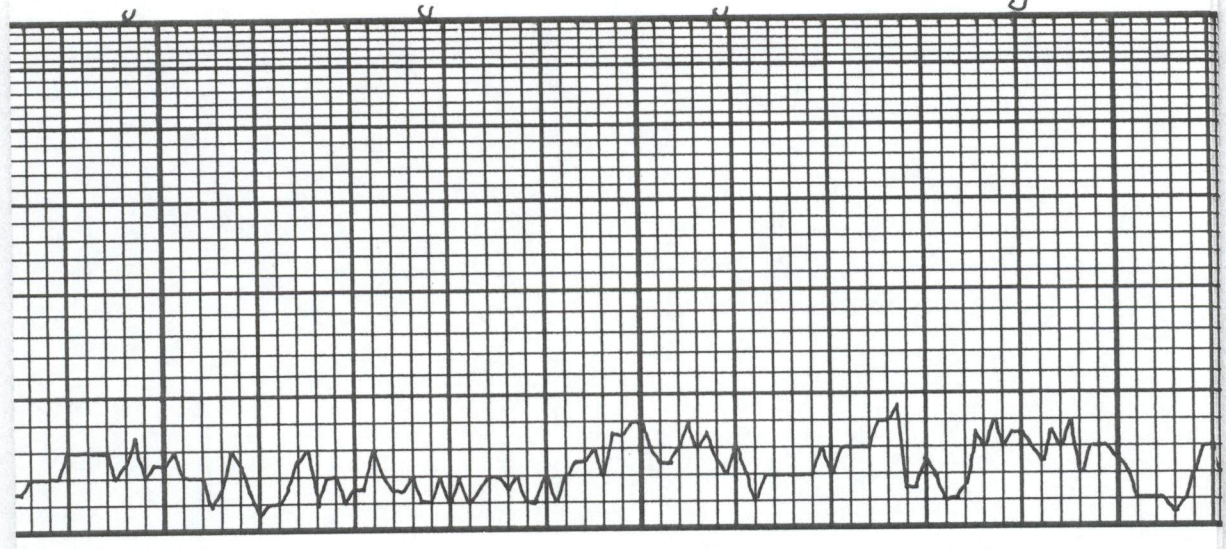




LS. CRM, RUFF, F XTLN, M HRD, BRILL, NS	SH, GRY	LS. TAN, M XTLN, BRILL, NO VIS #, NS		LS. LT GRY, CRM, VF XTLN, SOFT, NO VIS #, NS	LS. TAN, WHI, VF XTLN, CMT'D FOSS, * F OSS, TITR	SH, GRY	LS. CRM, F XTLN, M HRD, SML FOSS, VP FOSS #, NS	A.A.
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3700





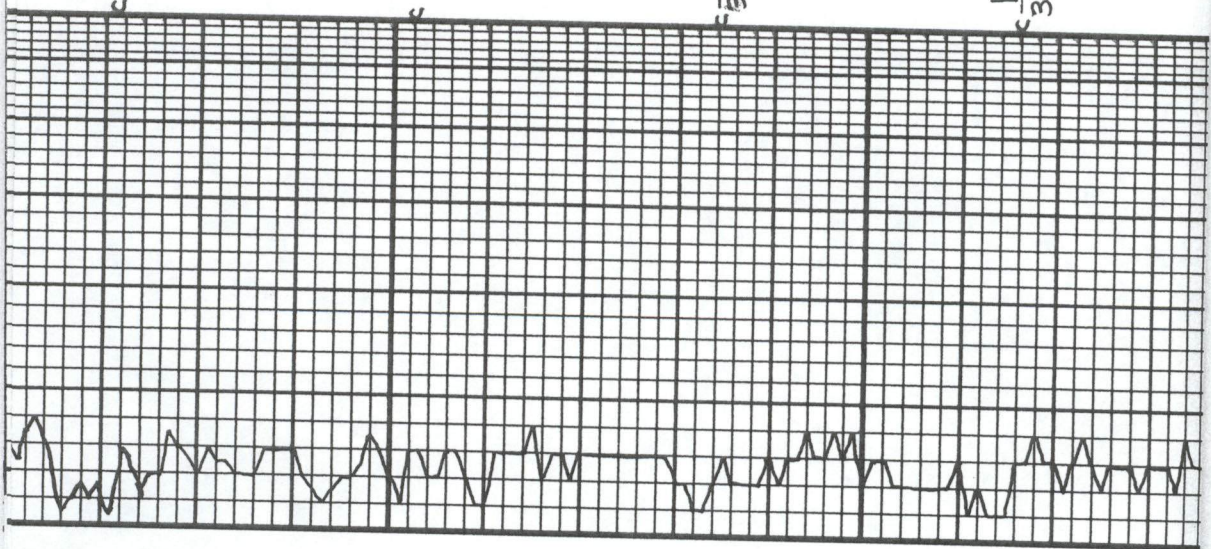
3800

	LS, CRM, F → M XTLN, HRD, A B ON FOSS → ALGAL, G FOSS φ INS
	S#1, GRY
	LS, CRM / TAN, F → M XTLN, BR TL, S → M HRD, V FOSS, F FOSS φ, NS
	LS, CRM, A.A.
	LS, WHT, F XTLN, HRD, V SL DMS, FEW FOSS, NO VIS φ INS
	LS, GRY, F → M XTLN, PEs DMS, HRD, TTE, NS
	LS, A.A.
	CHT, WHT, PEACH, FRESH

GEO ON LOC
CATCH UP DRILL TIME
+ SAMPLES

GEO OFF LOC

STAINING PINDERS BESIDE



LS. BUFF, R. XTLM, HRD, V FOS, SCT ODM, G ODM + FOSSILS	A A
H.A.	
DOLD, WHT-TAN, F XTLM, SL SUCR, G XTLM, INS	///
LS. TAN, GRAY, V F XTLM, DNS M HRD, NO VIS, INS	
LS. WHT, CRM, VF → F XTLM, HRD, DNS, NO VIS, INS	
SH, BLK, V FEW PCS	
LS. WHT, F XTLM, HRD, DNS, MS	
H.A.	
LS. WHT, SOFT, F XTLM, CMT, V DOL-C, ODL, G, TARRY-RUBBL SHDS N, NSFO, NO ODOB	
LS. WHT, F XTLM, IS → M HRD, FAIR CHD, ODM, E, INS, M, ODM, DNS	

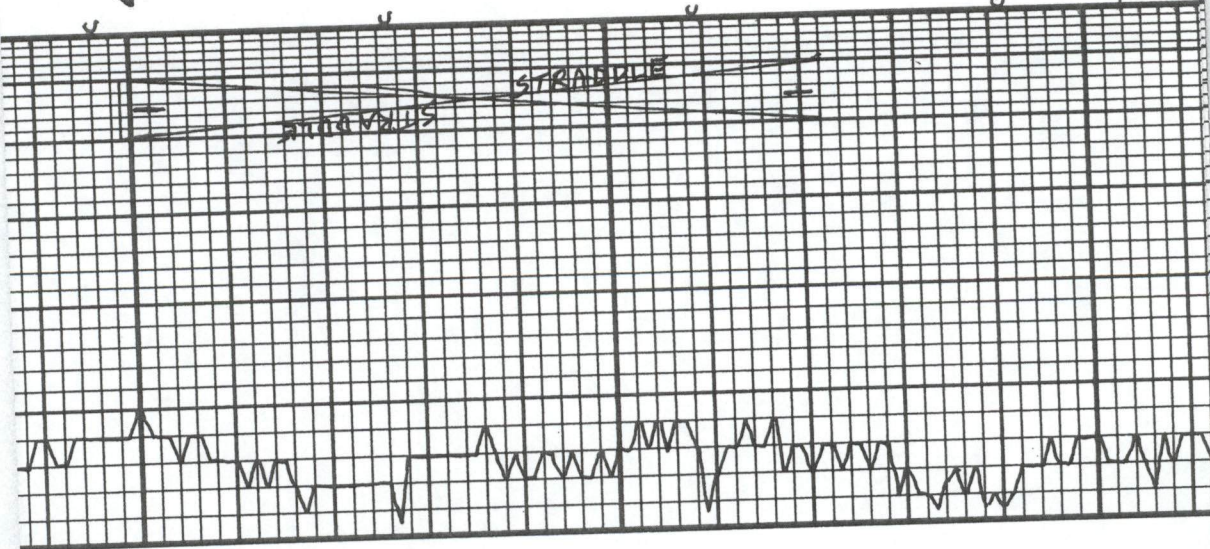
3900

HEEBNER
3934 -1099

LANSING
3966 -1131

4010' SMPL

NO DOB

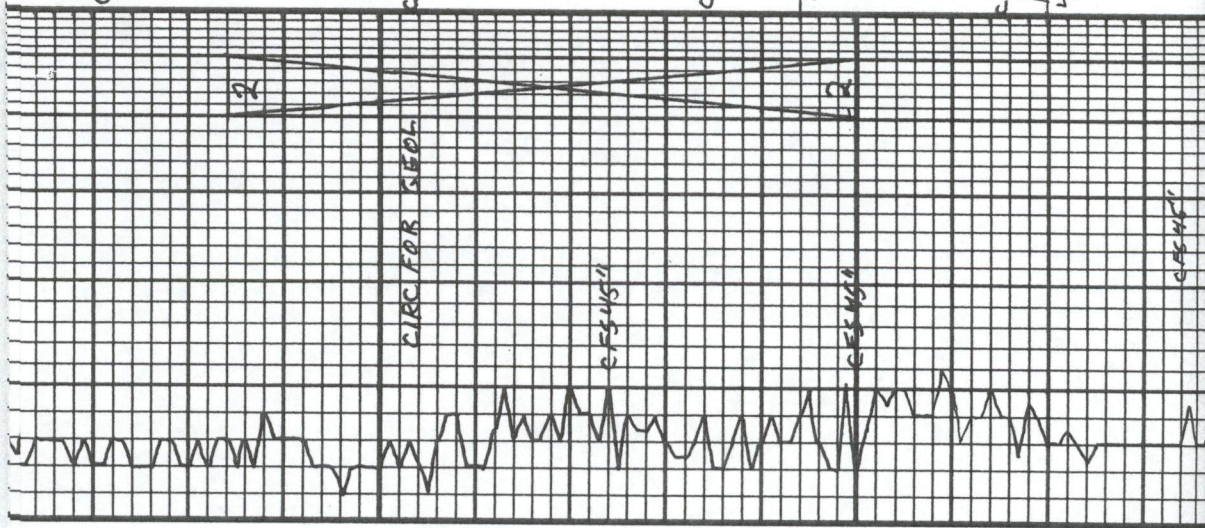


4000

4100

MUNCIE
4104 - 1269

<p>STRADDLE DST#1 3999-4072 30.60.45.90 IF: 3/4" 151:NR FF: 2/4" FSI:NR REC: 64' M 126' WCM-45%W 34000 CHLOR TOOL: 8%W, 92%M FP: 9-52, 54-105 SIP: 1224-1208 HP: 1940-1930 BELOW STRADDLE: 1804</p>	<p>GODOR GSFO 4030'smpl</p>	<p>LS, WHT, F → M XTLN, HRD, VG XTLN + 5 ML VUG Ø, VG Ø FILL OIL, BRN FLUOR OIL, GSFO N TRAY</p>	<p>LS, WHT, F, XTLN, DNS, P XTLN Ø NS</p>	<p>LS, WHT, F, XTLN, V, CHTY CHT-LT WHT OPAG, FRESH, NO SHO'S FO, SGT FLUOR STUO + SPY CHALK</p>	<p>SH, BLK LS, V LT GRY, VF XTLN, DNS, TITE, NS</p>	<p>LS, WHT, F, XTLN, HRD → SOFT, BRITL, G, OOL Ø, GSFO ON BRK HVY STNG</p>	<p>LS, WHT, F, XTLN, SL DNS, F → G BLK DD TARRY OIL FILL EDGE STNG</p>	<p>SH, BLK LS, WHT, BRN, FINE GRMLR TXT, F PP XTLN Ø, G STRKS Ø STNG</p>	<p>NO ODOR</p>	<p>GODOR</p>	<p>NO ODOR</p>	<p>NO ODOR</p>	<p>NO ODOR</p>	<p>NO ODOR</p>
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A	NSFO	LS, WHT, VF → FXTLN, MHRD, P → FXTLN Ø, 5 HR ROCKS - 8PKS	3 SHOWS UP HOLE NO ODOR
		LS, WHT, FXTLN, DNS, HRP, TITE NS	
		SH, GRN, GRY	
		SH, BLK, GRN, GRY	
		LS, WHT, VF XTLN, LG XTLN W/M, SOFT, MICRO BRN OIL SPTS ON BRK, 3 ODOR, GXTLN Ø, NO FLUOR	4PKS 3 ODOR
		LS, WHT, CRM/BRN, FXTLN, HRP VP SCT XTLN Ø, NS	
		LS, WHT, BRN, FXTLN, MHRD VBR TL, SCT PULL FLUOR STAG	
		LS, AA, SL SHO OIL NCUP, G ODOR ON BRK, LT FLUOR FO ON BRK + STAG, G STAG, LT FO, P Ø SH, BLK	G ODOR
		LS, WHT, LT → MED GRY, FXTLN, HRP, DNS, NO VIS Ø, NS	
		SS, WHT GRNS, V FINE, FRIABLE, G SHO DD OIL SAT, VG Ø, V FEW FLUOR MICRO OIL SPTS, NO VIS FO, V WET	NO ODOR
		SH, GRN, GRY	
		SH, GRN, GRN, BURG	
		LS, GRY, BRN, TAN, V FXTLN, DNS, HRP, TITE, NS	

11-9: MUD CHECK
 VIS: 46 WT: 9.3
 CHLOR: 1,500 LCM: 1
 FILT: 8.8

STRAP BOARD
 4151.43
 4153.04
 SHORT 1.61

7:AM 11-10-14
 COME OUT w/ DST #1

MUD CHECK
 VIS: 60 WT: 9.2
 CHLOR: 1,800 LCM: 1.5
 FILT: 7.2

7:AM 11-11-14
 DST #2 @ 4200
 MUD CHECK

VIS: 55 WT: 9.3
 CHLOR: 2,200 LCM: 1
 FILT: 8.8

DST #2 4134-4200
 80.60.45.90
 IF: WK SUAF BLO
 FF: NO BLO
 REC: 5'M

TOOL: 1007.M
 FP: 11-12, 12-13
 SIP: 26-21
 HP: 2014-1997

← COULD BE FRAC'D BY BIT

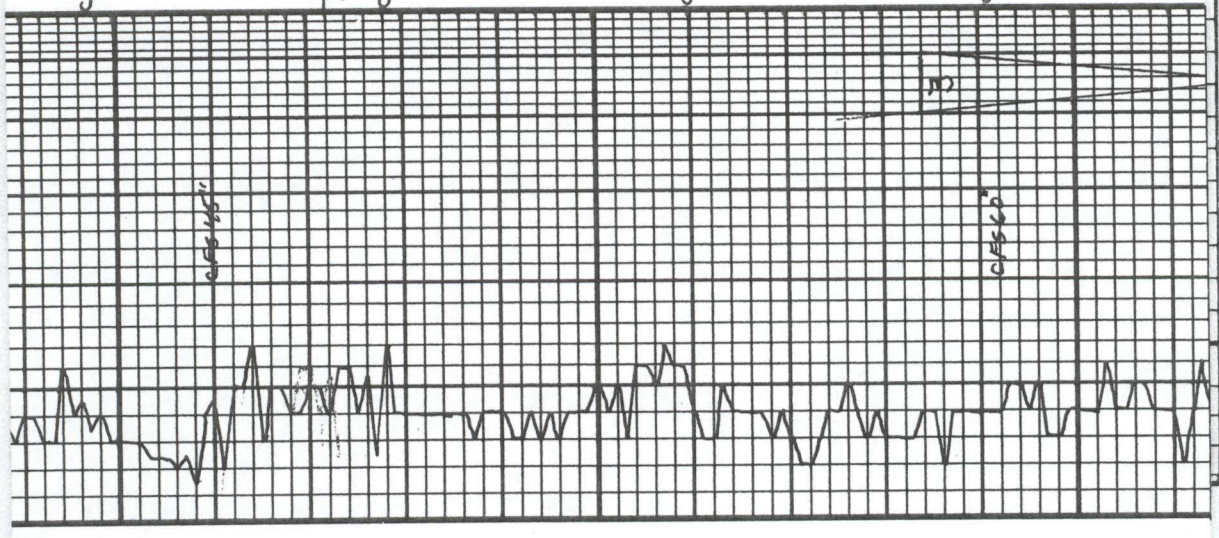
DST #3 4334-4403
 30.60.45.90
 IF: WSB, dead 20 min
 FF: DEAD
 REC: 15' OSM - 2% OIL
 TOOL: 1% OIL, 99% MUD
 FP: 10-15, 12-15
 SIP: 69-44
 HP: 2133-2120

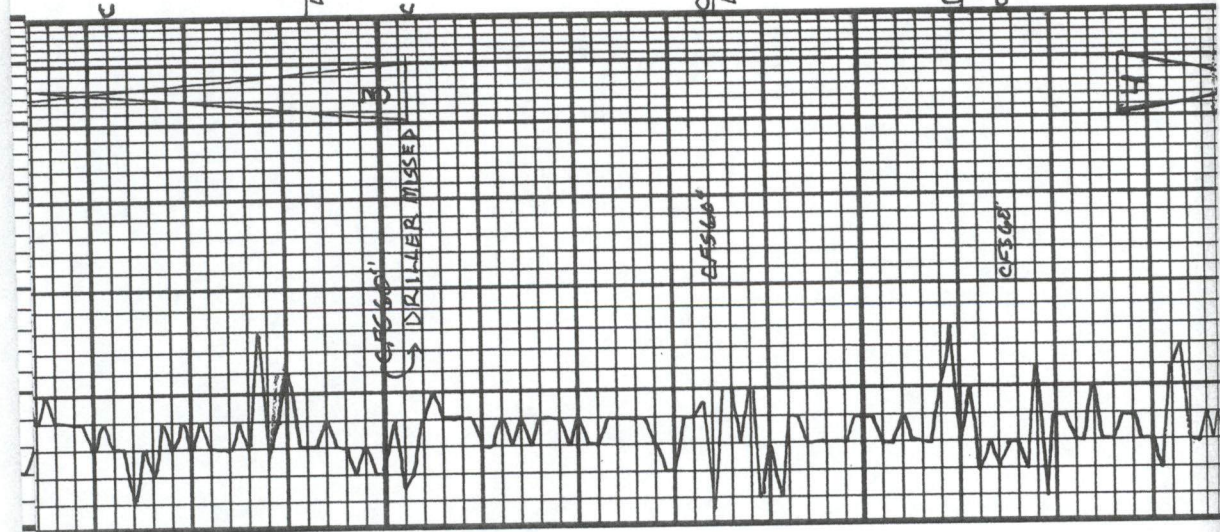
SH, GRY, GRN	SH, RED	LS, WHT W/ RED SH, F XTLN, S HLY, HRD, NS	LS, WHT + REDISH BRN M XTLN, HRD SCT REXTLD FRACS, P FRAC ^{NS}	LS, WHT, F XTLN, HRD, V SL GRN R TXT, NO APP ^{NS}	LS, TAN, WHT, F XTLN, BRITL, Pcs HRD → M HRD, NO APP ^{NS}	CHT, PEACH, ORANGE, TAN, SHARP, FRESH	LS, CRM, F XTLN, DNS, HRD, SL FRAC'D, NO VIS XTLN ^{NS}	SH, GRY	SH, GRY, DK GRY	LS, GRY, TAN, VF XTLN, V HRD, DNS, FOSS, TITE, NS	LS, WHT, VF XTLN, HRD, V SL BRITL, TITE, NS	LS, TAN, VF XTLN, HRD, DNS, TITE, AK	LS, GRY, VF XTLN, HRD, DNS, CLEAN, TITE, NS	LS, LT GRY, WHT, DK GRY, F → M XTLN, HRD, P ^{NS}
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BKC
 4247-1412

MARMATON
 4272-1437

4300





PAWNEE
4393-1558

4400

CF SCOTT
4435-1600

CHEROKEE
4461-1626

LS, TAN, F → M XTLN, M HRD → HRD, G FLUOR SAT STNG + FO N TRAY, TR GAS ON BRK, FO, LG, GNTY SHO RKS, C XTLN	LS, CRM, F XTLN, HRD, NO APP, AS	SH, GRN	LS, WHT, VF XTLN, V SL VUGGY, F, FLUOR STN STRKS, FILMY OIL ON BRK, NO VISEMERGY, LT ODOR	LS, CRM, VF XTLN, V DNS + V HRD, FOSS, V TITE, NS	LS, WHT, CRM, F XTLN, FEW SCT CHLK, HRD, V SL FOSS, NO APP NS	SH, GRN, BRN SH, BLK, GRN	LS, WHT, CRM, F XTLN, SCT LG XTLS WIN, HRD, VP XTLN, NS	H.A.	SH, BRN, GRN, GRN	LS, WHT, CRM, F XTLN, HRD, SCT CHLKY Pcs, VP PP, NS	CHY, OPAQ, PEACH, FRESH
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ODOR
FO-CUP
RAINBOW

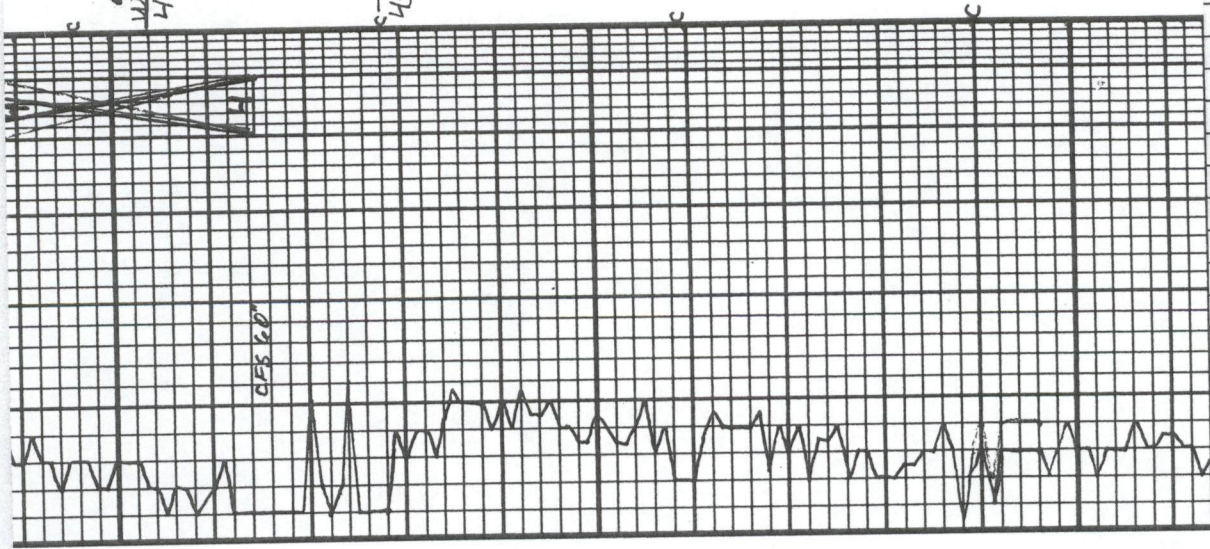
7:AM 11-12-14
DRLG @ 4384'

MVA C CHECK
VIS: 55 WT: 9.3
CHLOR: 2,500 LCM: 1
FILT: 7.2

7:AM 11-13-14
CFS @ 4434

AST #4 4400-4515
30.60.45.90

IF: 3/4"
FF: dead
REC: 5'M
TOOL: 100% M w/ few oil spks
FP: 10-13, 13-15
SIP: 1032-990
HP: 2181-2171



4500
WTEA MISS
4504-1669

MISS
4528-1693

4600

CHY, WHT, AQUA, WHT, FRESH, SHARP, NS	SH, VARI COLOR	CHT, WHT, WEA, MOSTLY HRD, SET PCS CRUMBLY + SOFT, G SHO FLUOR EDGE STNG, PCS G SHO BRN FD + STNG	SH, VARI COLOR	LS, CRM, FXTLN, BRTL, FAIR	LS, WHT, FXTLN, HRD, NO VIS NS	LS, CRM, FXTLN, HRD, SET CHLK, V SHLY + CHTY	SH FLOOD - VARI COLOR	A.A.	LS, WHT, TAN, GRY, BLK, FXTLN, DUS, HRD - V HRD, TITE, NS	LS, CRM, FXTLN, SET MIXTLS W/M HRD, NO VIS NS	SS, CLR, ANG, P, SORT, S + M GRNS
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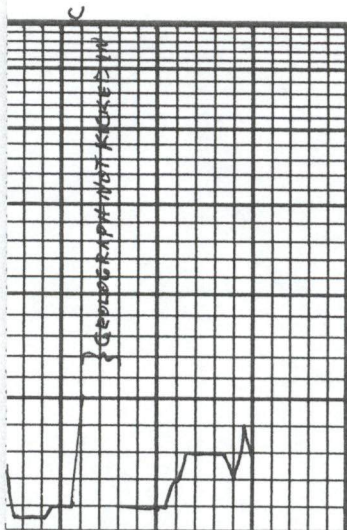
ODOR

MUD CHECK WT: 9.4
VIS: 57 LCM: 2
CHLOR: 2.000
FILT: 7.2

7: AM 11-14-14
COND N HOLE AFTER DST

MUD CHECK WT: 9.5
VIS: 50 LCM: 1
CHLOR: 2.400
FILT: 8.0

SH FLOOD



DRILLING TIME Minutes/Foot

Rate of Penetration Decreases



LITHOLOGY

SOFT, G.P., MS

LS, CR, M, TAN, F, X, TLN, S, CT, WHF
OP, AQ, CH, T, MS

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

← POOR SAMPLES

CONTRACTOR _____ LOCATION _____

LEASE _____ IP _____ SEC _____ TWP _____ RNG _____

ELEVATION _____ RTD _____ COUNTY _____ STATE _____



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: LJHartman1Dst#1

TIME ON: 2135 11-9
TIME OFF: 0820 11-10

Company Raymond Oil Company Lease & Well No. L&J Hartman #1
Contractor H2 Drilling LLC Charge to Raymond Oil Company
Elevation 2835KB Formation LKC 35'-50'-70' Effective Pay _____ Ft. Ticket No. P0015
Date 11-09-14 Sec. 14 Twp. 11 S Range 29 W County Gove State KANSAS
Test Approved By Max Lovely Diamond Representative Michael Carroll

Formation Test No. 1 Interval Tested from 3999 ft. to 4072 ft. Total Depth 4153 ft.
Packer Depth 3994 ft. Size 6 3/4 in. Packer depth 4072 ft. Size 6 3/4 in.
Packer Depth 3999 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3981 ft. Recorder Number 0063 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Below Straddle Recorder Depth 4150 ft. Recorder Number 6884 Cap. 6275 P.S.I.

Mud Type Chem Viscosity 46 Drill Collar Length 251 ft. I.D. 2 1/4 in.
Weight 9.3 Water Loss 8.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 1500 P.P.M. Drill Pipe Length 3797 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 73(31dp) ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. 81' tail pipe Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: 1/4" BLOW-BUILT TO 3 1/4" IN 30MINS NOBB
2nd Open: NO BLOW-BUILT TO 2 1/4" IN 45MINS NOBB

Recovered 64 ft. of M 100%M
Recovered 126 ft. of WCM 45%W 55%M
Recovered 190 ft. of TOTAL FLUID
Recovered _____ ft. of CHLOIDES 34000PPM RW .51@43DEGREES

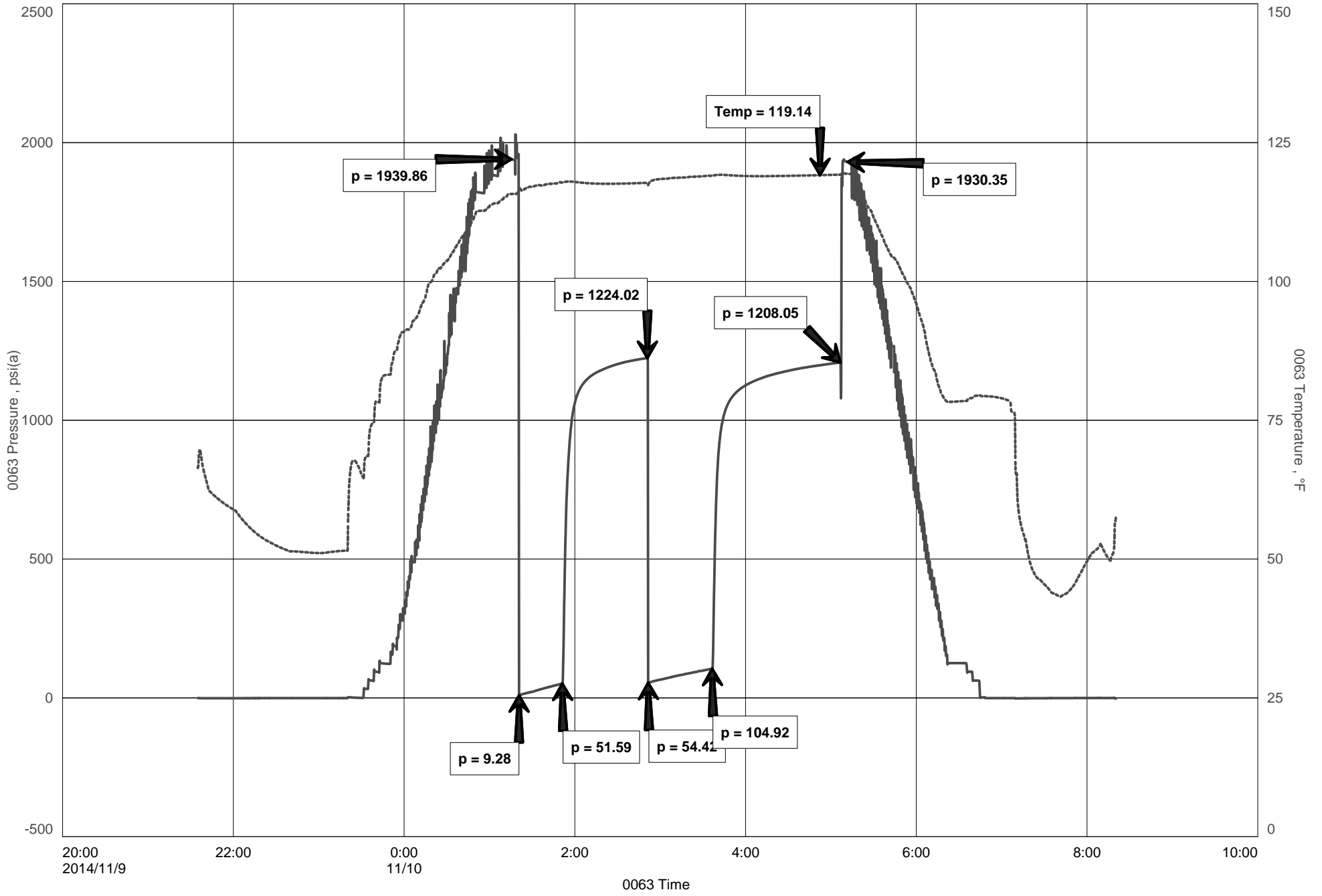
Recovered _____ ft. of <u>PH 11.0</u>	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: <u>BELOW STRADDLE PSI: 1804</u>	Insurance
TOOL SAMPLE:	Total

Time Set Packer(s) 1:19A.M. A.M. P.M. Time Started Off Bottom 5:04A.M. A.M. P.M. Maximum Temperature 119

Initial Hydrostatic Pressure..... (A) 1940 P.S.I.
Initial Flow Period..... Minutes 30 (B) 9 P.S.I. to (C) 52 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 1224 P.S.I.
Final Flow Period..... Minutes 45 (E) 54 P.S.I. to (F) 105 P.S.I.
Final Closed In Period..... Minutes 90 (G) 1208 P.S.I.
Final Hydrostatic Pressure..... (H) 1930 P.S.I.

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L&J Hartman #1





Michael Carroll
 620-617-0368
 carroll.dtlc@gmail.com

Hoisington, Kansas

General Information

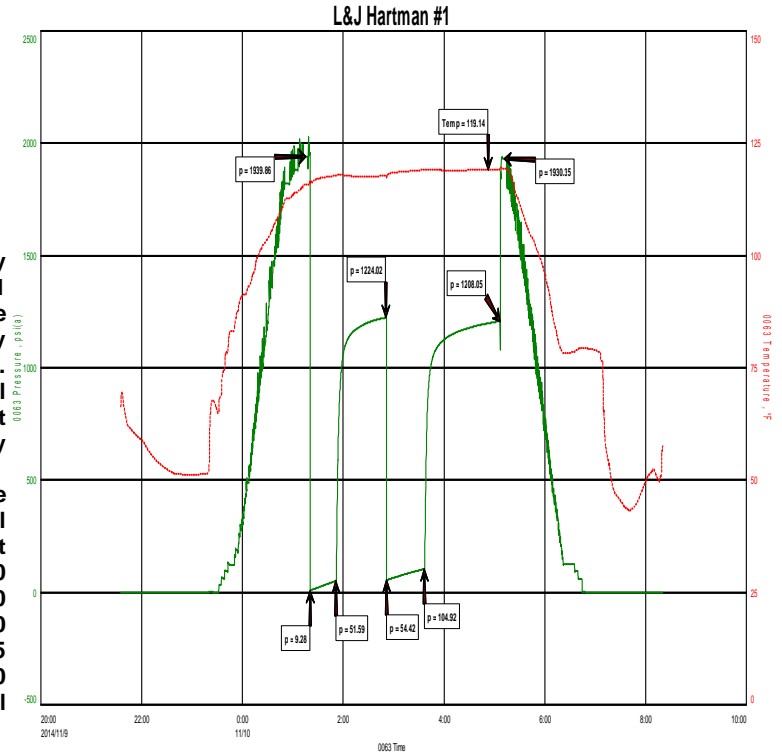
Company Name Raymond Oil Company

Contact
Well Name
Unique Well ID
Surface Location
Field
Well Type
Test Type
Well Operator

Ted McHenry
L&J Hartman #1
Dst #1 L/KC 35'-50'-70' 3999'-4072' Straddle
Sec14-11s-29w Gove County
W.C.
Vertical
Drill Stem Test
Raymond Oil Company

Formation
Well Fluid Type
Test Purpose
Start Test Date
Start Test Time
Final Test Time
Job Number
Report Date
Prepared By

Dst #1 L/KC 35'-50'-70' 3999'-4072' Straddle
01 Oil
Initial Test
2014/11/10
21:35:00
08:20:00
P0015
2014/11/10
Michael Carroll

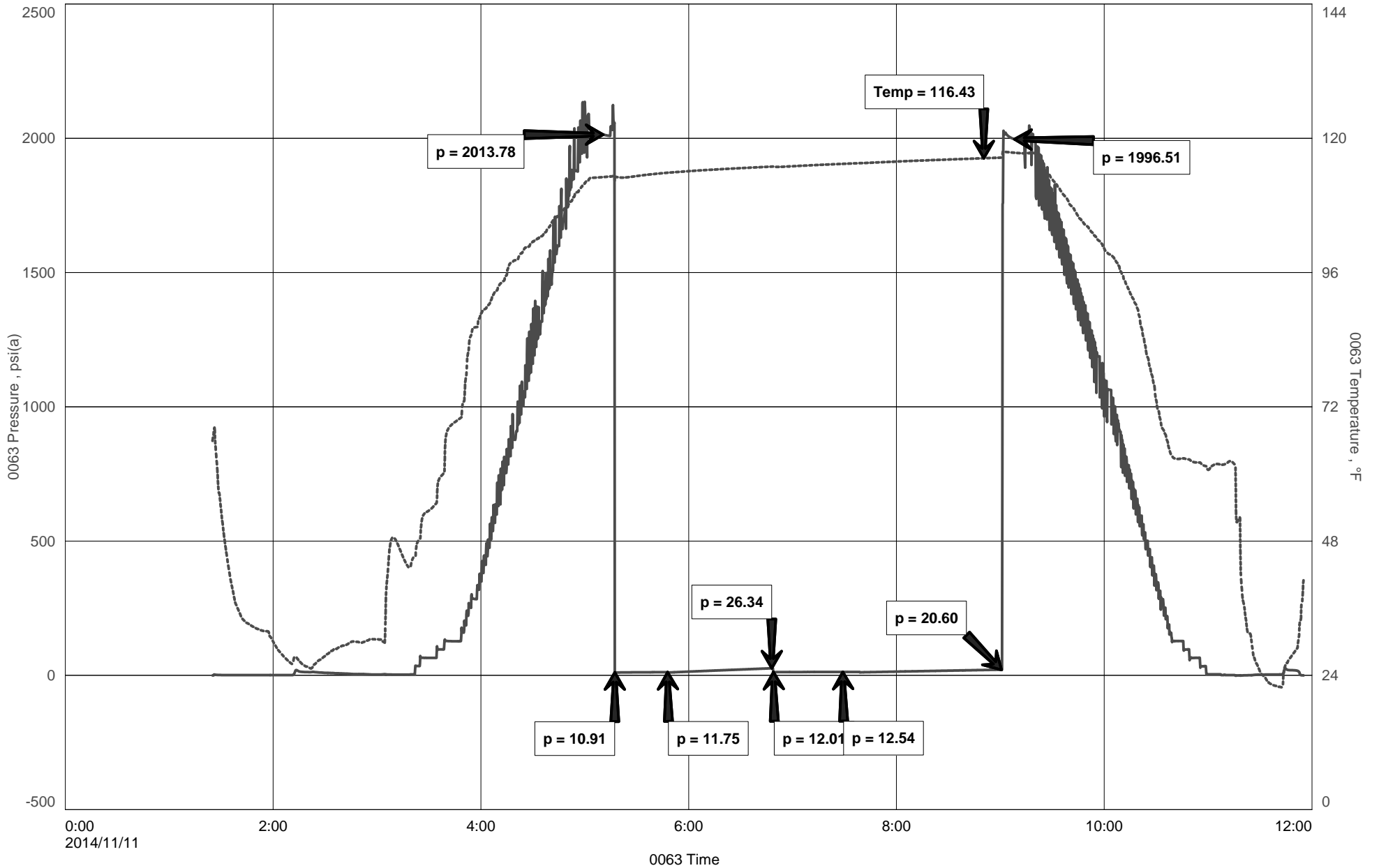


TEST RECOVERY

Remarks Recovery:
 64' mud 100%
 126' wcm 45%w 55%
 190' total fluid
 chloirides 34000ppm rw .51 @43degrees
 ph 11.0

tool sample:
 8%w 92%
 92%
 8%w

L&J Hartman #1



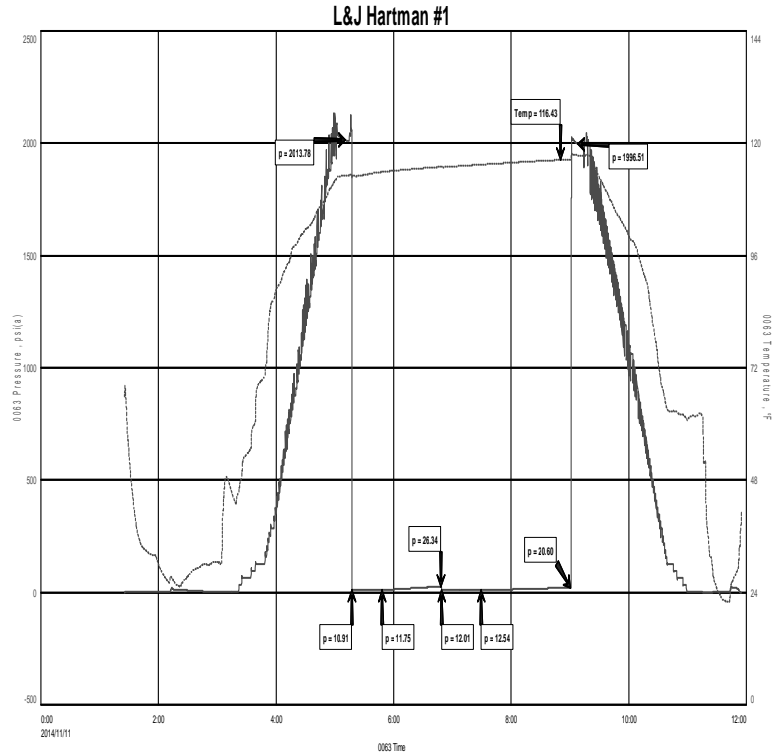


Hoisington, Kansas

Michael Carroll
620-617-0368
carroll.dtlc@gmail.com

General Information

Company Name	Raymond Oil Company
Contact	Ted McHenry
Well Name	L&J Hartman #1
Unique Well ID	Dst #2 L/KC 160'-180' Zones 4134-4200'
Surface Location	Sec14-11s-29w Gove County
Field	WC
Well Type	Vertical
Test Type	Drill Stem Test
Well Operator	Raymond Oil Company
Formation	Dst #2 L/KC 160'-180' Zones 4134-4200'
Well Fluid Type	01 Oil
Test Purpose	Initial Test
Start Test Date	2014/11/11
Start Test Time	01:25:00
Final Test Time	11:55:00
Job Number	P0016
Report Date	2014/11/11
Prepared By	Michael Carroll



TEST RECOVERY

Remarks Recovery:

5'Mud 100%M

Tool Sample:

100%M



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: LJHartman1Dst#2

TIME ON: 0125
TIME OFF: 1155

Company Raymond Oil Company Lease & Well No. L&J Hartman #1
Contractor H2 Drilling LLC Charge to Raymond Oil Company
Elevation 2835KB Formation LKC 160'-180' Zones Effective Pay _____ Ft. Ticket No. P0016
Date 11-11-14 Sec. 14 Twp. _____ 11 S Range _____ 29 W County _____ Gove State KANSAS
Test Approved By Max Lovely Diamond Representative Michael Carroll

Formation Test No. 2 Interval Tested from 4134 ft. to 4200 ft. Total Depth 4200 ft.
Packer Depth 4129 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 4134 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4116 ft. Recorder Number 0063 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4171 ft. Recorder Number E1150 Cap. 5000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type Chem Viscosity 60 Drill Collar Length 251 ft. I.D. 2 1/4 in.
Weight 9.2 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 1800 P.P.M. Drill Pipe Length 3851 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 66(34.5a) ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB-NO BUILD IN 30MINS NOBB
2nd Open: NO BLOW-NO BUILD NOBB

Recovered 5 ft. of Mud 100%M
Recovered 5 ft. of Total Fluid
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____

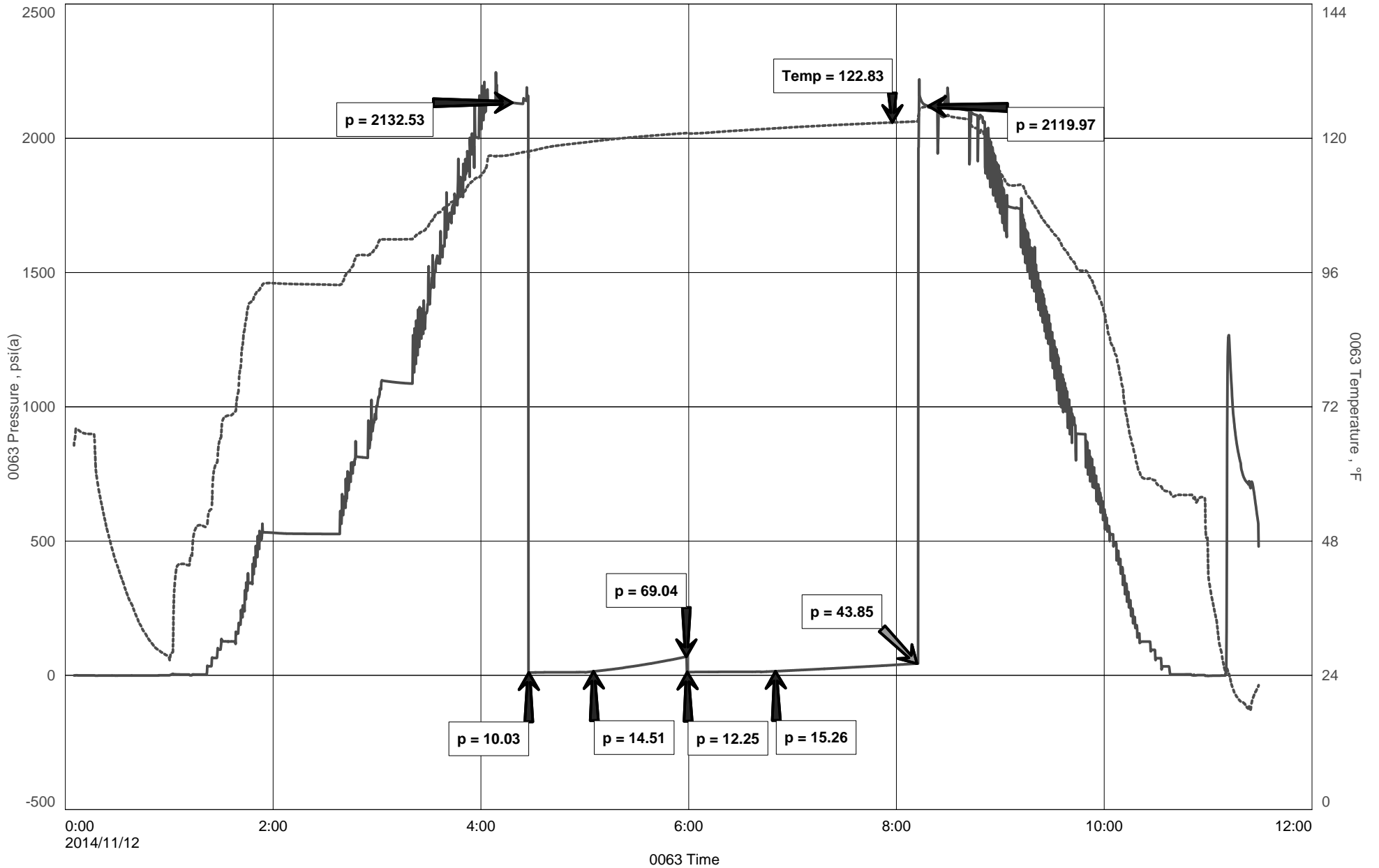
Remarks: _____	Price Job
TOOL SAMPLE: _____	Other Charges
_____	Insurance
_____	Total

Time Set Packer(s) 5:15A.M. A.M. P.M. Time Started Off Bottom 9:00A.M. A.M. P.M. Maximum Temperature 116

Initial Hydrostatic Pressure..... (A) 2014 P.S.I.
Initial Flow Period..... Minutes 30 (B) 11 P.S.I. to (C) 12 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 26 P.S.I.
Final Flow Period..... Minutes 45 (E) 12 P.S.I. to (F) 13 P.S.I.
Final Closed In Period..... Minutes 90 (G) 21 P.S.I.
Final Hydrostatic Pressure..... (H) 1997 P.S.I.

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L&J Hartman #1





Michael Carroll
620-617-0368
carroll.dtlc@gmail.com

Hoisington, Kansas

General Information

Company Name Raymond Oil Company

Contact	Ted McHenry
Well Name	L&J Hartman #1
Unique Well ID	Dst #3 Marmaton 'C' 4334-4403'
Surface Location	Sec14-11s-29w Gove County
Field	WC
Well Type	Vertical
Test Type	Drill Stem Test
Well Operator	Raymond Oil Company

Formation	Dst #3 Marmaton 'C' 4334-4403'
Well Fluid Type	01 Oil
Test Purpose	Initial Test
Start Test Date	2014/11/12
Start Test Time	00:05:00
Final Test Time	23:29:00
Job Number	P0017
Report Date	2014/11/12
Prepared By	Michael Carroll

Double-Click In Design View
To Select/Edit
[DataChart][1]

TEST RECOVERY

Remarks Recovery:

15' OSM 2%O 98%

15' Total Fluid

Tool Sample:

1%O 99%M



DIAMOND TESTING
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (800) 542-7313
DRILL-STEM TEST TICKET
 FILE: LJHartman1Dst#3

TIME ON: 0005
 TIME OFF: 2329

Company Raymond Oil Company Lease & Well No. L&J Hartman #1
 Contractor H2 Drilling LLC Charge to Raymond Oil Company
 Elevation 2835KB Formation Marmaton 'C' Effective Pay _____ Ft. Ticket No. P0017
 Date 11-12-14 Sec. 14 Twp. 11 S Range 29 W County Gove State KANSAS
 Test Approved By Max Lovely Diamond Representative Michael Carroll

Formation Test No. 3 Interval Tested from 4334 ft. to 4403 ft. Total Depth 4403 ft.
 Packer Depth 4329 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 4334 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4316 ft. Recorder Number 0063 Cap. 5,000 P.S.I.
 Bottom Recorder Depth (Outside) 4371 ft. Recorder Number E1150 Cap. 5000 P.S.I.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type Chem Viscosity 55 Drill Collar Length 251 ft. I.D. 2 1/4 in.
 Weight 9.3 Water Loss 8.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
 Chlorides 2200 P.P.M. Drill Pipe Length 4051 ft. I.D. 3 1/2 in.
 Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
 Did Well Flow? NO Reversed Out NO Anchor Length 69(37.5a) ft. Size 4 1/2-FH in.
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB-DIED IN 20MINS **NOBB**
 2nd Open: NO BLOW-NO BUILD **NOBB**

Recovered 15 ft. of OSM 2%O 98%M
 Recovered 15 ft. of TOTAL FLUID
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

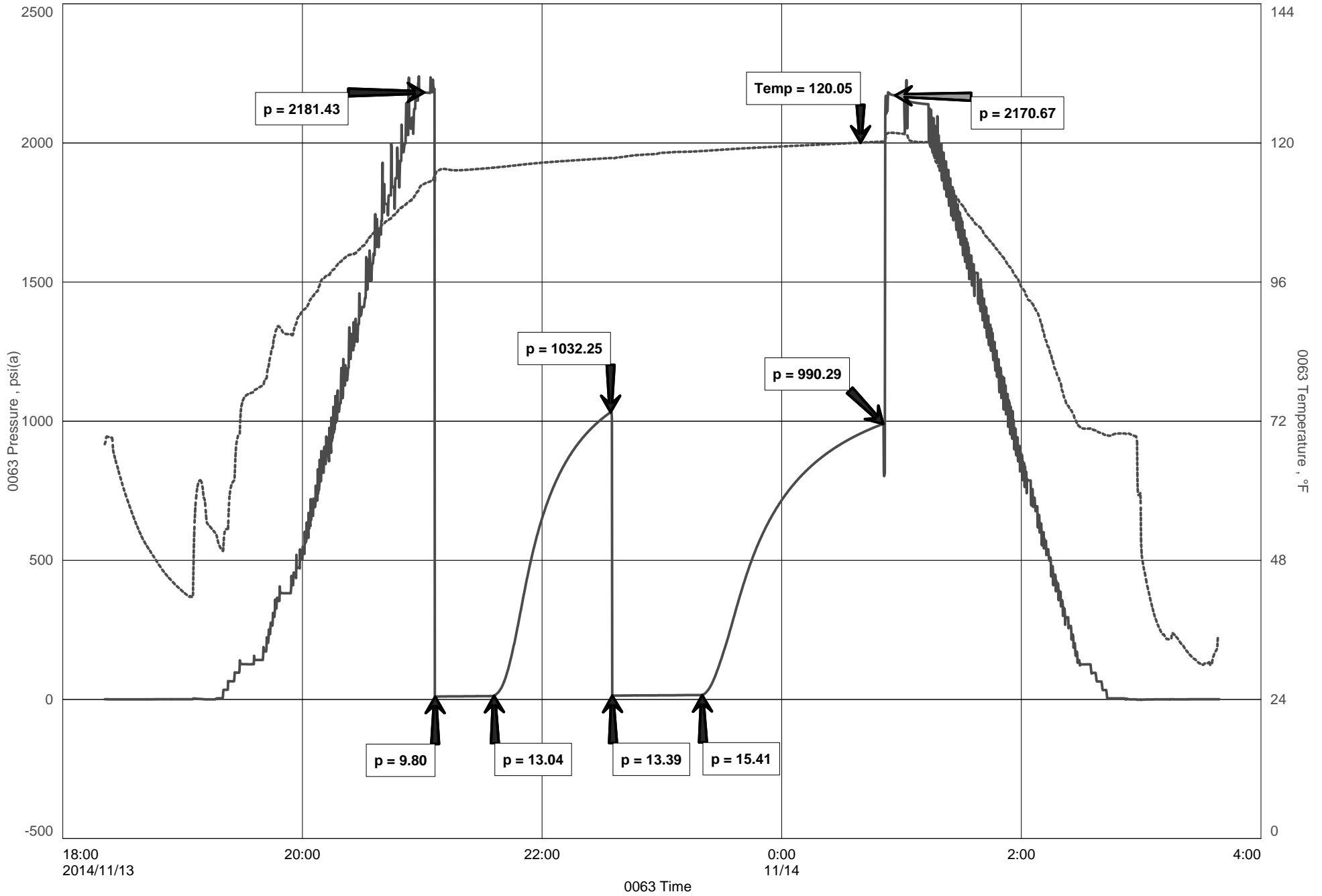
Remarks: _____	Price Job
_____	Other Charges
_____	Insurance
TOOL SAMPLE: <u>1%O 99%M</u>	Total

Time Set Packer(s) 4:26P.M. A.M. P.M. Time Started Off Bottom 8:11P.M. A.M. P.M. Maximum Temperature 123

Initial Hydrostatic Pressure..... (A) 2133 P.S.I.
 Initial Flow Period..... Minutes 30 (B) 10 P.S.I. to (C) 15 P.S.I.
 Initial Closed In Period..... Minutes 60 (D) 69 P.S.I.
 Final Flow Period..... Minutes 45 (E) 12 P.S.I. to (F) 15 P.S.I.
 Final Closed In Period..... Minutes 90 (G) 44 P.S.I.
 Final Hydrostatic Pressure..... (H) 2120 P.S.I.

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L&J Hartman #1





Hoisington, Kansas

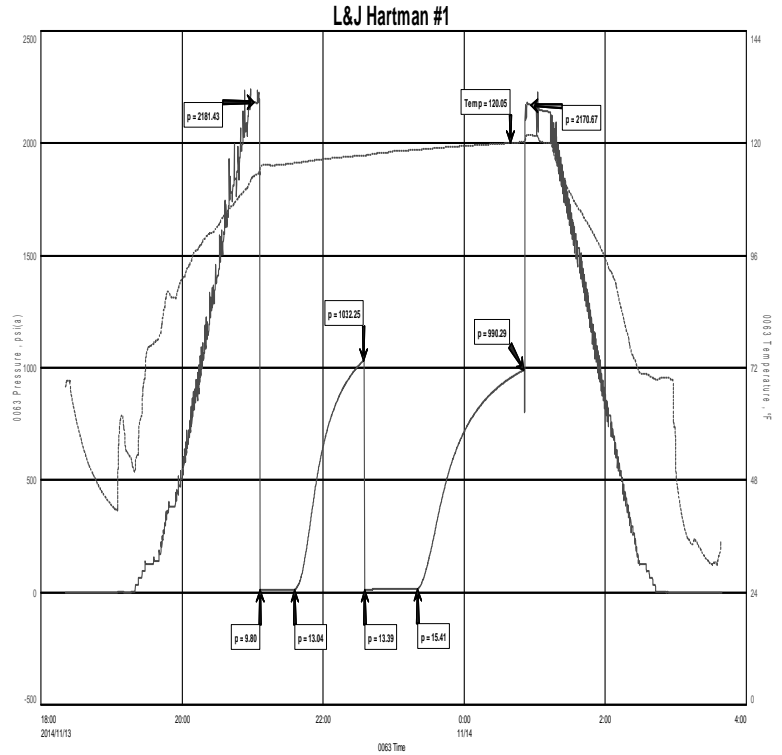
Michael Carroll
620-617-0368
carroll.dtlc@gmail.com

General Information

Company Name Raymond Oil Company

Contact	Ted McHenry
Well Name	L&J Hartman #1
Unique Well ID	Dst #4 Miss 4477-4515'
Surface Location	Sec14-11s-29w Gove County
Field	WC
Well Type	Vertical
Test Type	Drill Stem Test
Well Operator	Raymond Oil Company

Formation	Dst #4 Miss 4477-4515'
Well Fluid Type	01 Oil
Test Purpose	Initial Test
Start Test Date	2014/11/13
Start Test Time	18:21:00
Final Test Time	03:39:00
Job Number	P0018
Report Date	2014/11/13
Prepared By	Michael Carroll



TEST RECOVERY

Remarks Recovery:

5'Mud 100%M

Total Fluid:

5'Mud

Tool Sample:

100%Mud with a few oil specks.



DIAMOND TESTING
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (800) 542-7313
DRILL-STEM TEST TICKET
 FILE: _____

TIME ON: _____
 TIME OFF: _____

Company _____ Lease & Well No. _____
 Contractor _____ Charge to _____
 Elevation _____ Formation _____ Effective Pay _____ Ft. Ticket No. _____
 Date _____ Sec. _____ Twp. _____ S Range _____ W County _____ State **KANSAS**
 Test Approved By _____ Diamond Representative _____

Formation Test No. _____ Interval Tested from _____ ft. to _____ ft. Total Depth _____ ft.
 Packer Depth _____ ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth _____ ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Depth of Selective Zone Set _____

Top Recorder Depth (Inside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
 Bottom Recorder Depth (Outside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type _____ Viscosity _____ Drill Collar Length _____ ft. I.D. 2 1/4 in.
 Weight _____ Water Loss _____ cc. Weight Pipe Length _____ ft. I.D. 2 7/8 in.
 Chlorides _____ P.P.M. Drill Pipe Length _____ ft. I.D. 3 1/2 in.
 Jars: Make STERLING Serial Number _____ Test Tool Length _____ ft. Tool Size 3 1/2-IF in.
 Did Well Flow? _____ Reversed Out _____ Anchor Length _____ ft. Size 4 1/2-FH in.
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: _____
 2nd Open: _____

Recovered _____ ft. of _____	Price Job Other Charges Insurance Total
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Remarks: _____	

Time Set Packer(s) _____ A.M. P.M. Time Started Off Bottom _____ A.M. P.M. Maximum Temperature _____
 Initial Hydrostatic Pressure..... (A) _____ P.S.I.
 Initial Flow Period..... Minutes _____ (B) _____ P.S.I. to (C) _____ P.S.I.
 Initial Closed In Period..... Minutes _____ (D) _____ P.S.I.
 Final Flow Period..... Minutes _____ (E) _____ P.S.I. to (F) _____ P.S.I.
 Final Closed In Period..... Minutes _____ (G) _____ P.S.I.
 Final Hydrostatic Pressure..... (H) _____ P.S.I.

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