



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1213560
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: _____

1213560

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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Form	ACO1 - Well Completion
Operator	Raymond Oil Company, Inc.
Well Name	Michaelis 2
Doc ID	1213560

All Electric Logs Run

Dual Induction
Comp N-D
Micro
Sonic

Max R. Lovely

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY Raymond Oil Co.
LEASE Michaelis #2
FIELD Rose Garden West
LOCATION SE SE SE NW
SEC 3 TWSP 14 RGE 32W
COUNTY Logan STATE KS

ELEVATIONS
KB 2840
DF _____
GL 2835
Measurements Are All
From KB

CONTRACTOR LD Drilling
SPUD 4-7-14 COMP 4-19-14
RTD 4655 LTD 4654
MUD UP 3452 TYPE MUD Chem

CASING
SURFACE 8 7/8" @ 261'
PRODUCTION 5 1/2"

ELECTRICAL SURVEYS
DUAL IND, MICRO
COMP N/D, SONIC

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION		
				A	B	C
Base Anhydrite	2344	2340	500	504		
Stotler	3468	3468	-628	-620		
Heebner	3819	3824	-984	-975		
Lansing	3864	3864	-1024	-1019		
Stark	4117	4115	-1275	-1254		
Marmaton	4215	4211	-1371	-1359		
FT. Scott	4373	4373	-1533	-1518		
Cherokee	4401	4401	-1561	-1545		
Johnson	4443	4446	-1606	-1588		
Base Johnson	4473	4476	-1636	-1616		
Mississippi	4541	4558	-1718	-1664		

REFERENCE WELLS FOR STRUCTURE

A Raymond Michaelis #1 1258'FNL, 836'FEL NE/4 3-14-32W

B _____

C _____

REMARKS

Blank lines for recording remarks.

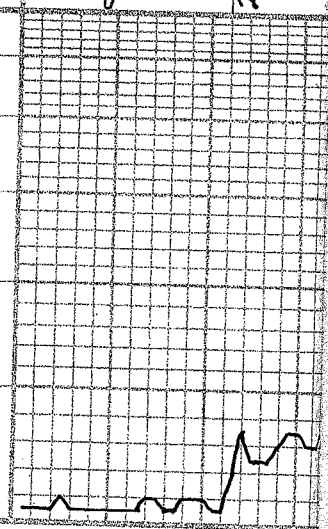
LEGEND

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

DRILLING TIME IN MINUTES
PER FOOT

Rate of Penetration Decreases

5" 10" 15" 20" 25"



LITHOLOGY



DEPTH

ANHYDRITE
2322 +518

REMARKS

OIL SHOWS

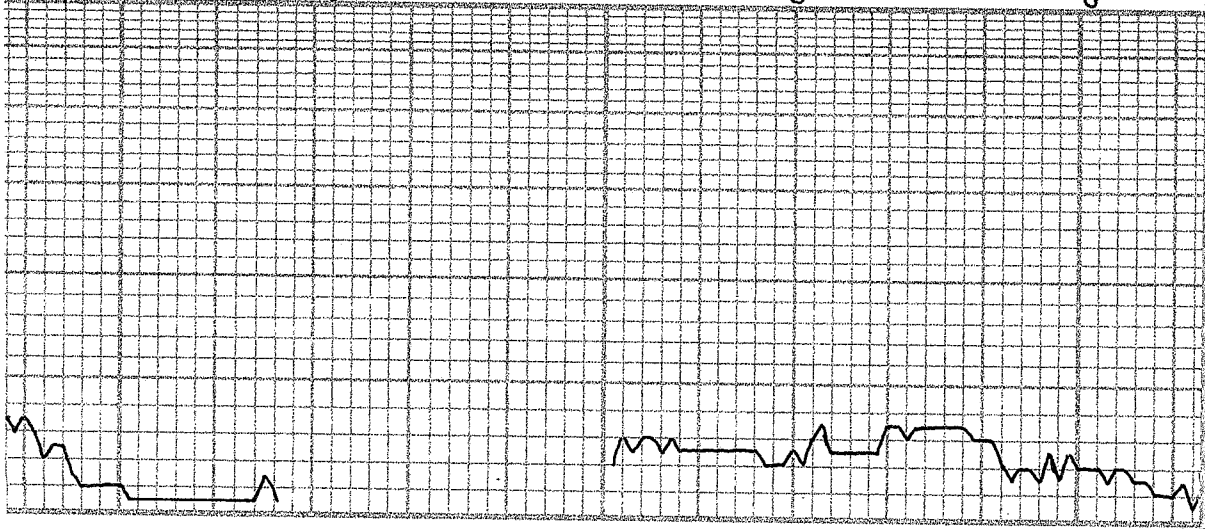
SAMPLE DESCRIPTIONS

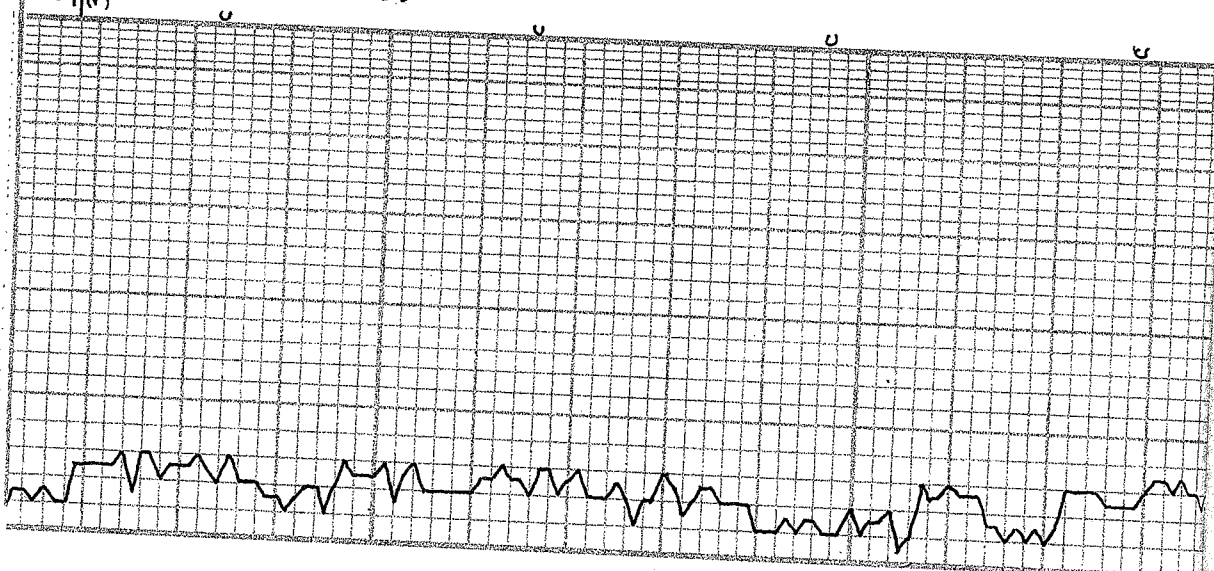
BASE
ANHYDRITE
2344 + 496
2350

3400

SH, REDIGRY, BURG
FLOOD

DISPLACE @ 3451'





STOTLER
3468 -628

3500

LS. CRM, F → M XTLN, S → M HRD, V FEW FOSS, P. NS	LS. TAN, GRN, BRN, F → M XTLN, M HRD, VP XTLN P. NS	LS. TAN, M XTLN, LG. XTLN VN, M HRD, P. NS	LS. GRN, WHT, F XTLN, BRILL, SL CHLKY ON BRK, NS	SH, GRN	A.A.	LS. GRN, BRN, F XTLN, HRD, TITE, NS
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LET #1

GED ON LOCK
4-11-14

SH, GRY, LT GRY

SH, AA.

LS, CRM, TAN, F → M XTLN, M HRD
BRTL, SCT WHT CHT

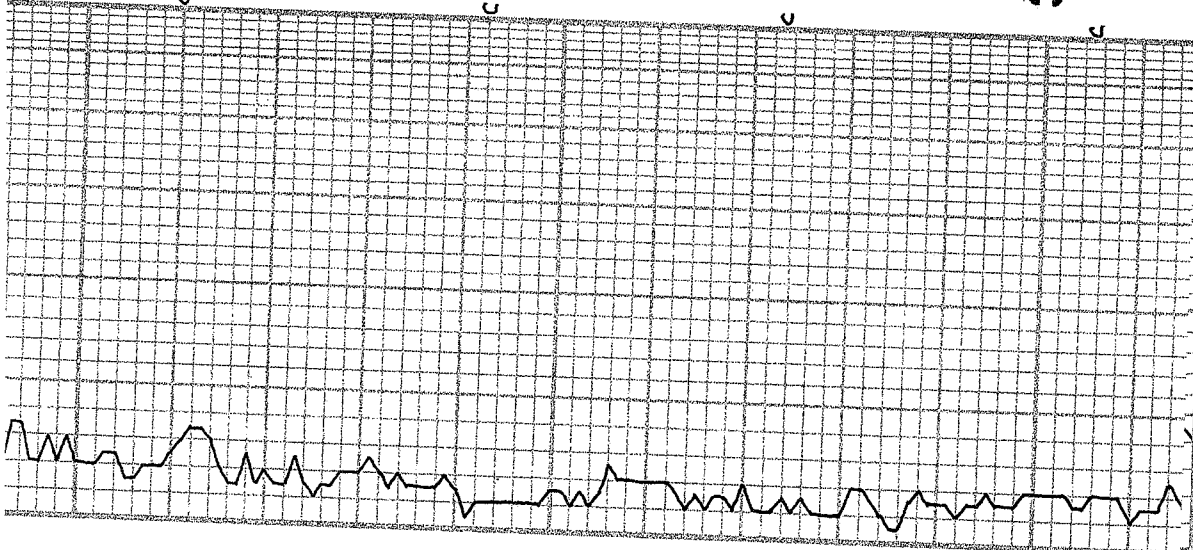
NO SAMPLES

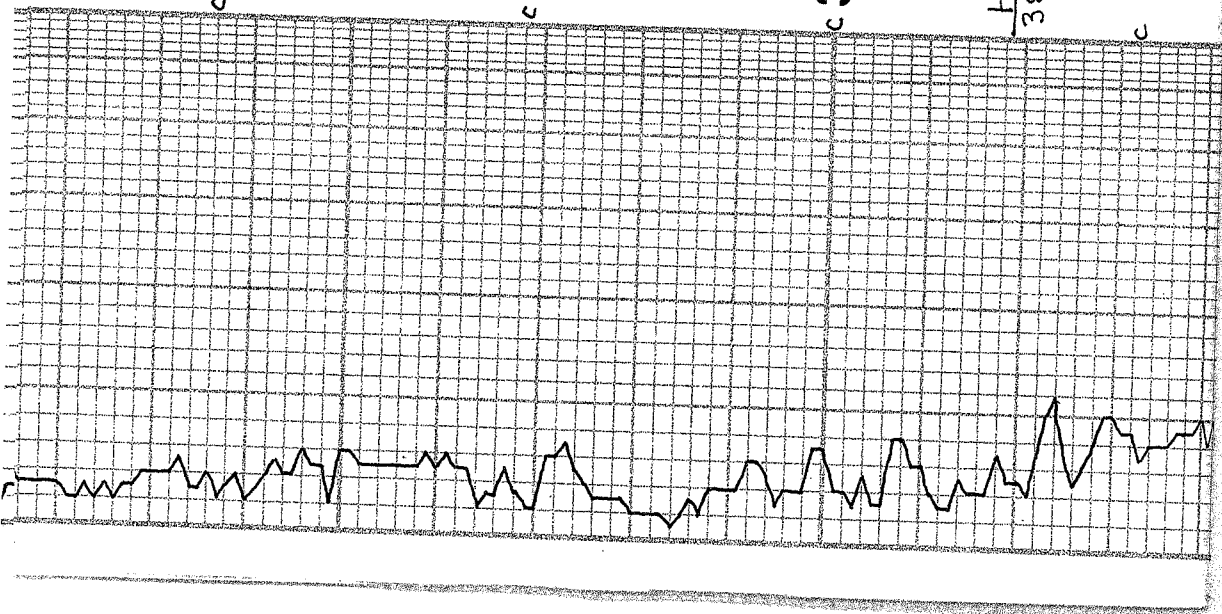
LS TAN, BRTL - SOFT, FXTLN,
Pcs SCT VUG @ .NS

SH, GRY

3600

3700



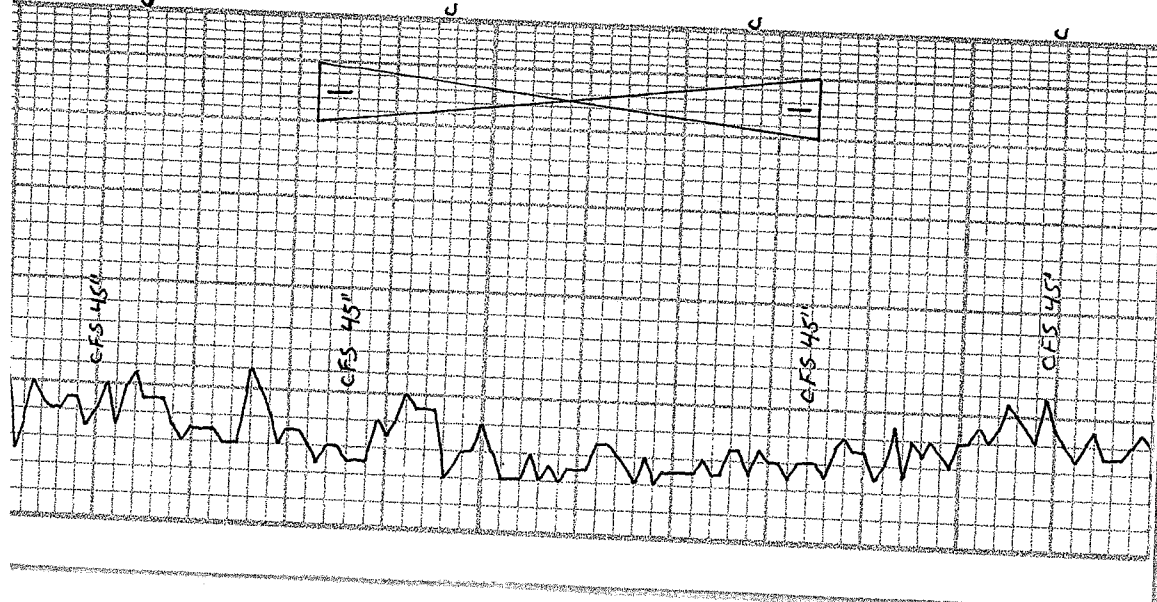


c 3800

HEEBNER
3819 -979

SH GRV
LS. CRM, V CHLKY, SOFT, NS
LS. WHT, CRM, F XTLN, SOFT, LG PBLS W/N, P → F, NS
LS. TAN, VF XTLN, DMS, HRD, TITE NS
LS. TAN, CRM, ALGAL, SOFT, BRITL, VG P, NS
LS. CRM, F XTLN, SOFT, V CHLKY, NS
LS. CRM / TAN, F → M XTLN, SOFT, BRITL, V FOSS / ALGAL, G FOSS NS
SLT STN, CRM / WHT
LS. TAN, BRN, F → M XTLN, BRITL, FOSS, NS
SH. BLK
LS. BRN, F XTLN, DMS, HRD, A BUN FOSS + FRAGS, TITE, NS
LS. WHT, V E XTLN, DMS, HRD, NP, FOSS

7:AM 4-12-14
DRLG @ 3774'



LAWSING
3864-1024

3900

DEV 1/4

LS, WHIT, GRABBY, STIMP, F, XTLN, HRD, ND, VIS, P, NS	LS, WHIT, VE, XTLN, S, M HRD, STRKS OF PP, SML VUG, DK & LT OIL FILL, TR GAS, LT ODOR, F, G, F, ON, BRK	LS, TAN, F, XTLN, M HRD, SL BRTL, FOSS, P, S, CT, P, NS	LS, BUFF, M, XTLN, M HRD, S, CT, V, G, XTLN, P, LT, SH, V, LT, OIL	SH, BLK, STICKY, CARB, S, BRN, F, XTLN, M HRD, EVEN FLUOR STN, G, FLUOR F, ON, BRK, V, LT FLUOR FO, 2, PCS, W, V, G, FLUOR SAT STING, & DIL, FILL, TR GAS, P, S, CHLKY, W, SHO	LS, CRM, WHT, VF, XTLN, D, NS, HRD, T, TE, NS
CHI, WHT, G, R, Y, BRN, S, CT, FOSS, NS	LS, WHIT, F, XTLN, HRD, V, FOSS, 4, 0, 0, L, W, CMTD, FOSS, T, TE, NS	LS, CRM, F, XTLN, D, NS, HRD, ABUN, SML, FOSS, & FRAGS, W, CMTD, T, TE, NS	LS, CRM / WHT, F, XTLN, HRD, G, EVEN FLUOR STING, & F, ON, BRK	LS, DK, TAN, VE, XTLN, CLEAN, LS, P, NS, V, HRD, T, TE, NS	LS, CRM, WHT, VF, XTLN, D, NS, HRD, T, TE, NS
LS, WHIT, F, XTLN, HRD, V, FOSS, 4, 0, 0, L, W, CMTD, FOSS, T, TE, NS	TRASHY SAMPLES				

JET #1- ADD MUD
MUD CHECK
VIS 51 WT 8.9
CHLOR 3,500 LCM1
FILT 6.4

DST #1 3882-3934
30.60.45.90
IF: BOB.6MIN 151.NR
FF: BOB.7MIN F51.NR
REC: 1150' MW
45,000 CHLOR
FP: 19-260, 264-510
SIP: 1032-1019
HP: 1826-1820

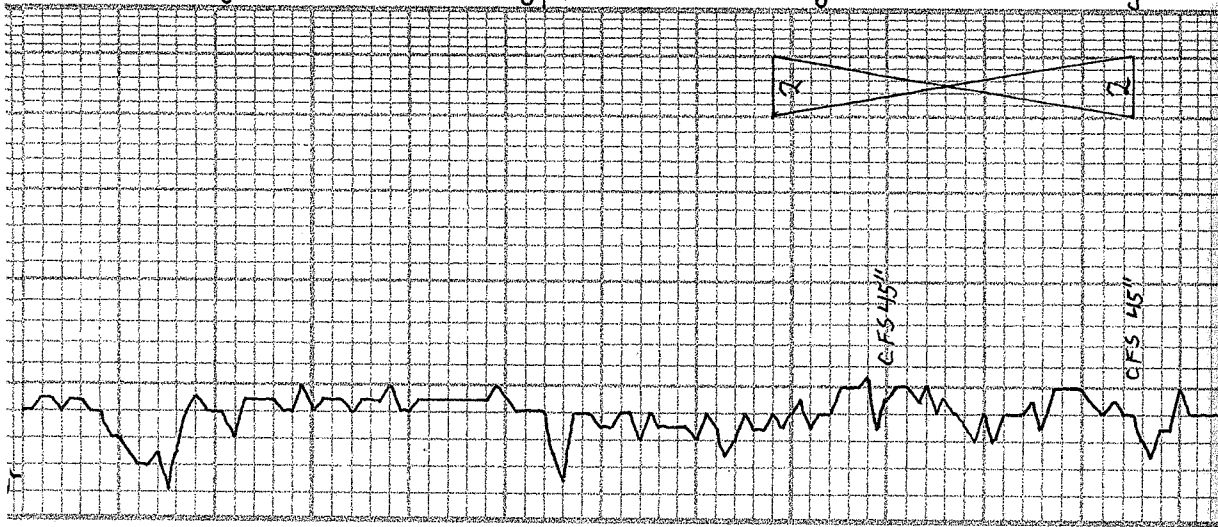
STRAP BOARD 3959.15
3959.46
short .31

7:AM 4-13-14
DST #1 @ 3934'
MUD CHECK
VIS 64 WT 9.2
CHLOR 4,000 LCM1
FILT 6.4

RAWBOW
FOUNDCUP
LT ODOR

2 PCS

LT ODOR



4000

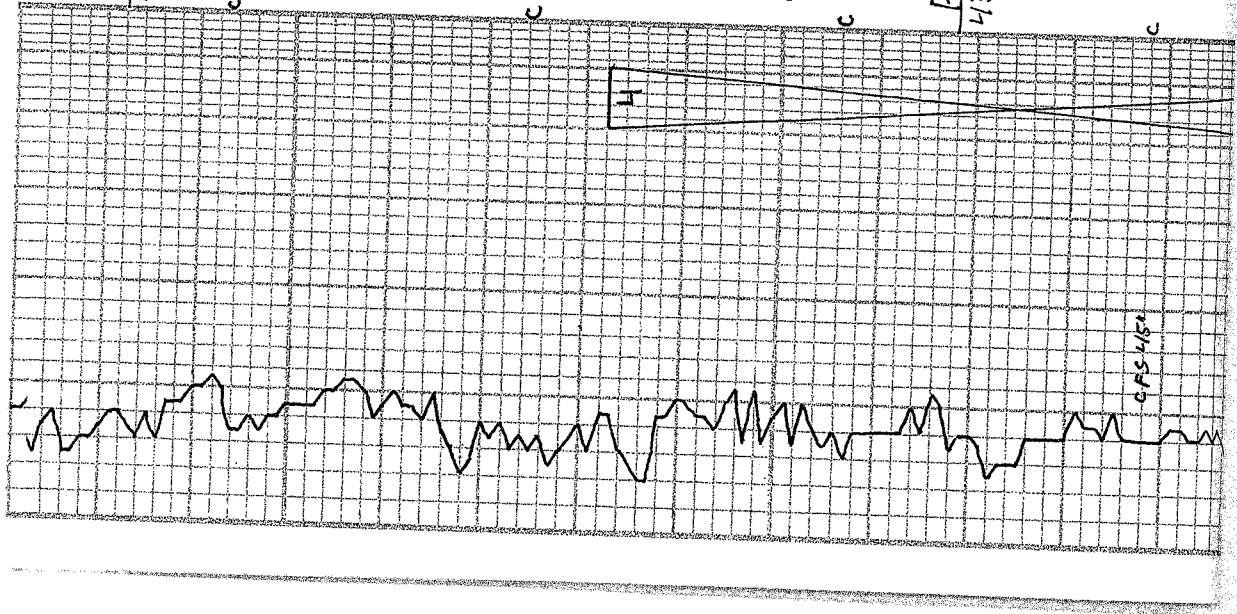
C MUDLOG
4024 - 1184

LS, WHT, F XTLN, M HRD, BRTL, SCT PP XTLN, NS	LS, CHLKY, WHT, SOFT, NS	LS, WHT, LT GRY, F XTLN, V HRD, DMS, NS	A.A.	A.A.	SH, BLK	LS, BRN, TAN, F XTLN, HRD, EESS, SCT P XTLN, NS	LS, CRM, LT GRY, VF XTLN, DMS, V HRD, TITE, NS	LS, RED/BRN, VF XTLN, V DMS, V HRD, TITE, NS	LS, WHT, F XTLN, MTD DOLS + FOSS, HRD, G SCT DK COATIS VUGS, SCT PLS OIL FILL PP, NS SOME SCT FO N TRAY, F FOUBR	LS, WHT → LT GRY, VF XTLN, V DMS, V HRD, TITE, NS	LS, WHT, SLE GRYS W/L, M HRD
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JET #1 - ADD PREMIX

DST #2 41048-41085
30.60.45.90
IF: DEAD N 10 MIN
FF: DEAD
REC: 2' M
FP: 8-5, 6-6
SIP: 40-26
HP: 1912-1903

7:10 AM 4-14-14
DST #2 @ 4085
MUD CHECK



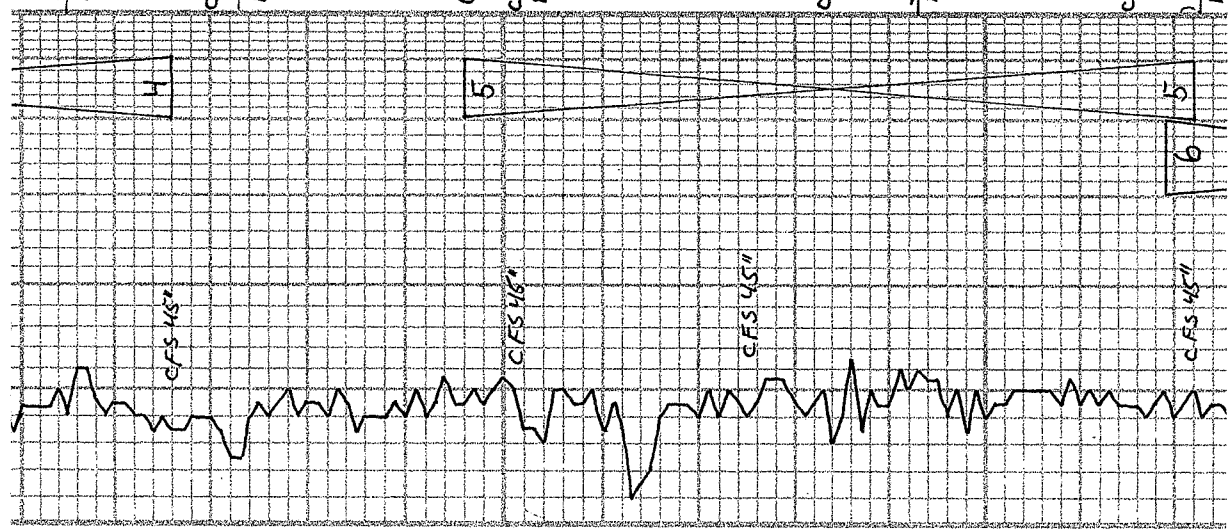
ALTA MOUNT
4232 - 1392

4300

PAWNEE
4318 - 1478

SH. GRAY	NS
LS, YELLOW BUFF, F → M XTLN, SOFT F → G XTLN Ø, F → G INT XTLN RING	
SS, F GRUS, W SORT, WHT, TAN, & GRY CMT'S, P CMT'D, FRIABLE, SOFT, G. M.S.	
AA - SLTY, SHLY	
LS TAN, CRM F XTLN, DNS, HRD, FEW SCT PCS W/ FOSS, NO APP	NS
LS, GRAY/WHT, V F XTLN, DNS, HRD, TLTE, NS	
LS, GRAY, BRN, F XTLN, HRD, SCT FOSS, SCT PP → SML VUG Ø, SCT BRN OIL STNG, F → P FO ON BRK, NO ENERGY	LT ODOR
LS, BUFF, TAN, F XTLN, NS SH, GRAY, GRN	
SH, GRAY	
SH, GRAY, DK GRAY	
LS, BUFF, F XTLN, S → M HRD, VG OIL SPTRD PP XTLN Ø, F FO ON BRK, NO VIS ENERGY, DULL FLOOR, SCT WHT ORA CRCH	G ODDOR RAINBOW SPTS
20" IPC DNS W/OIL FILL VUG Ø. GSY BAFED	G ODDOR DK OIL
LS, BRN, V F XTLN, DNS, HRD, TITE NS	
LS, BRN, F XTLN, HRD, V FOSS, W CMT'D FOSS, PCS BRTL, NO	

D ST #4 4282-4366
30.60.45.90
IF: DIED 10 MIN
FF: dead, flush, dead
REC: 25' 50 SM
TOOL: M w/ TR OIL
FP: 7-12, 12-17
SP: 1073-1072
HP: 2060-2049



MYRK
4355 - 1515

c FT. SCOTT
4373 - 1533

CHEROKEE
c 4400
4401 - 1561

c JOHNSON
4443 - 1603

c BASE
JOHNSON
4473 - 1633

LS, CRIM, VF XTLN, V DMS, V HRD, SL FOSS, SST EDGE + FRAC FILL OIL + STNG, NO V.S.G, NO ENERGY	LS, WHT, VF XTLN, DMS, HRD, G. VUG + FRAC FILL OIL, TR GAS, LT MED BRN OIL, G OIL ON BRK, PP XTLN	SH, BLK	LS, TAN, BRN, VF XTLN, HRD, ABUN FOSS + BOLS, W CMT'D FOSS, VP XTLN, B, NS	CHT, WHT, BRN, OPAQ, V FOSS, Pes SL AGATE	LS, DK BRN, CRIM, VF XTLN, DMS, HRD, TITE, NS	SN, BLK, GRY	LS, BUFE, ABUN, LG BOLS, F. CMT'D, FAIR STAB'D OOL, HRD, G FO ON BRK	LS, LT BRN, VF XTLN, DMS, HRD, SCT. PR. SML VUG, SCT. DK OIL STNG, Pes FO ON BRK	SH, BLK, GRY	A.A.	LS, CRIM/TAN, VF XTLN, V HRD, G VARI SIZE OIL CONT'D VUGS, P SHO FO ON BRK	LS, BRN, F + M XTLN, HRD, G OIL SAT, G PP XTLN, HRD, VY SFD ON BRK TR GAS	LS, GRY, VF XTLN, DMS, HRD, FEW FOSS, NO APP, NS	LS, GRY WHT, F XTLN W/FRAGS + PBLS WH, G, HRD, NS	LS, TAN, GRY, F XTLN, DMS, HRD, TITE, NS	SS, WHT CMT, CLR GRNS, F + M GRAS
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FAIR SHO
FO WCDP
VIT ODOR

G ODOR
ON BRK

LT ODOR

A ODOR

7:AM 4-16-14
DST # 4 @ 4366
MUD CHECK
WT: 9.3
CHLDR: 5,000 LCM 1
FILT: 9.2

DST # 5 4396-4472
30.60.45-90
IF: SURF BAO ISI: HR
FF: DEAD FSI: NR
REC: 10' M
FP: 8-15, 10-15
SIP: 810-776
HP: 2156-2145

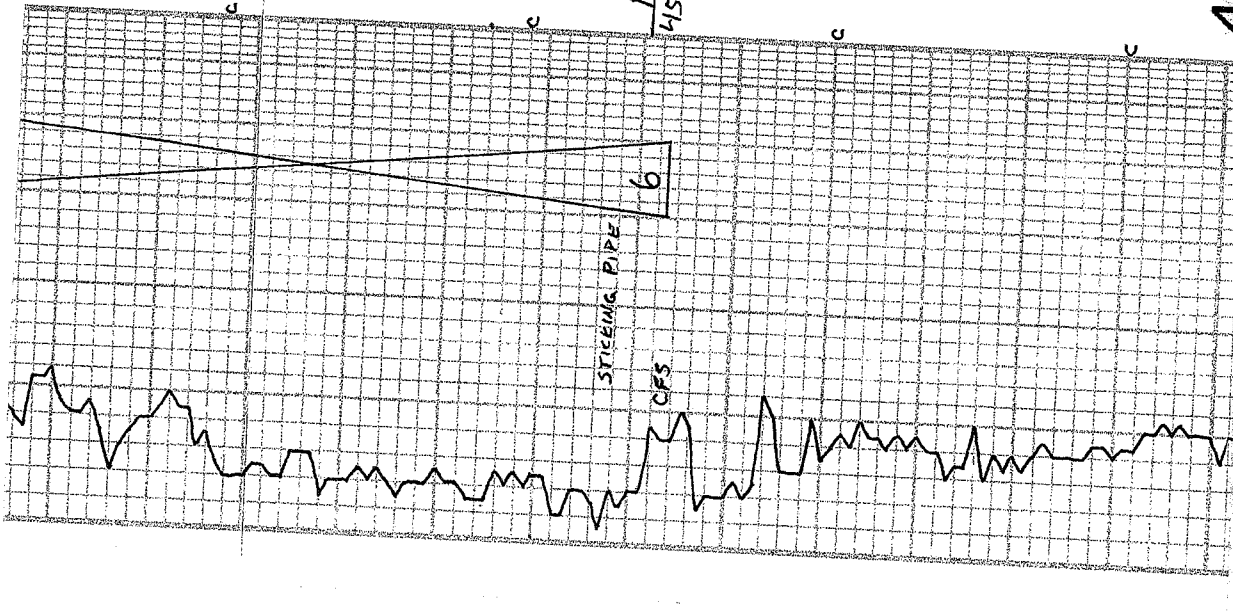
7:AM 4-17-14
DLG @ 4460
MUD CHECK
WT: 9.5
CHLDR: 4500 LCM 1
FILT: 9.0

FAIR SHO
FO WCDP
VIT ODOR

G ODOR
ON BRK

LT ODOR

A ODOR



PSORT, F. CNTID, G. INT GRNLR NS	
SH, VARI COLOR	
GRY, RED, GRN, MUSTARD	
SS, WHT, F. GRNS, HRD, VW CNTID, NO VIS. OF	
LS, CRM, F. XTLN, HRD, TITE, NS	
SH, GRY	
SS, CLR GRMS, PSORT, SUB ANG, LG, EM GRNS, YC, G, FO + ODOR, G BLEED, BRN OIL, GASSY, LT FLUR	G. ODOR FO. TRAY FO. CUP
SS, CLR GRNS, WHT CNT, FINE GRMS, OIL SAT, LT BRN OIL, G. BLEED, GASSY BLEED	G. ODOR FO. CUP FO. TRAY
SS, CLR FINE GRNS, GRN SLTY CNT, FRABLE, NS	
LS, WHT, F. XTLN, C. HTY, HRD, NO VIS. OF , NS	
SH, DK GRY (CHALKY - 3 OIL SHD)	
LS, CRM / TAN, M. XTLN, M. HRD, VP XTLN OF , NS	
M.A.	
LS, BUFF / BRN, VF XTLN, HRD, PES ABUN FOSS, T. ITE, NS	
LS, BRN, F. XTLN, HRD, SL BRTL, NO FOSS, T. ITE, NS	
LS, AA, GRY	

4500

Miss
4541 - 1701

4600

101.0.0

HVV ODOR ON BRK
HVV RAINBOW

7 AM 4-18-14 VISGO
DST#6 @ 4543, WT 9.2
MUD CHECK
VIS: 59 WT: 9.3
CHLDR: 5.000 LCM: 1
FLT: 7.2

DST#6 4469-4543
30.60.45.90
IF: BOB 5mm 151: BOB 23"
FF: BOB IMMED FS: BOB 16"
REC: 706' GIP
587' ... CGO - 15% G, 85% D
126 MCGO - 15% G, 60% D
Tool: 100% DIL 320 API
FP: 13-143, 155-295

DIP: 115Z-1148
HP: 2133-2113

@TD - COMDY 2 HRS
7:AM 4-19-14
OUT FOR LOGGING

NO ODR
MSFO

LS.TAN, WHT, M XTLN, V BRIL
N PCS, NO VIS P, 3 BLK DD STNG

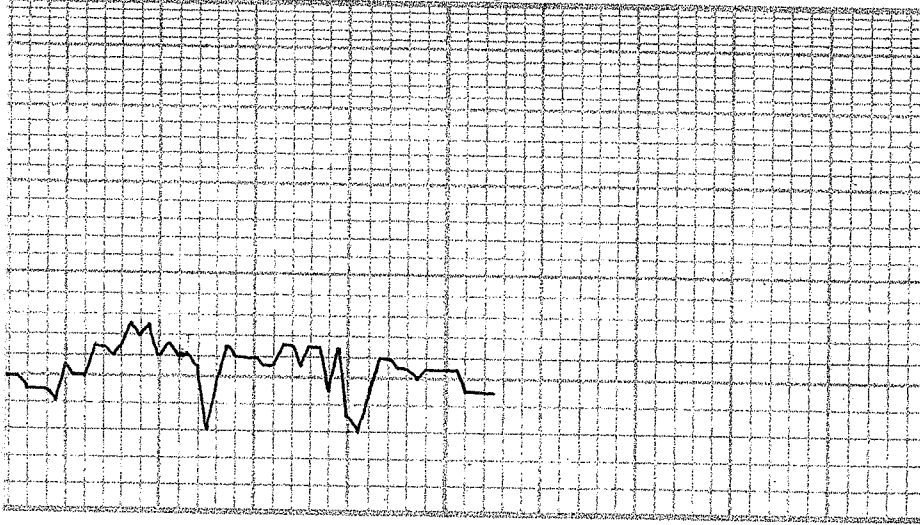
LS.BRM, VFXTLN, V DMS + HRD,
TITE, NS

LS.CRM, TAN, VFXTLN, V DMS + HRD,
TITE, NS

LS, TAN, F → M XTLN, SCT LG, XTLN
W/N, V BRIL, PINS

A.A.

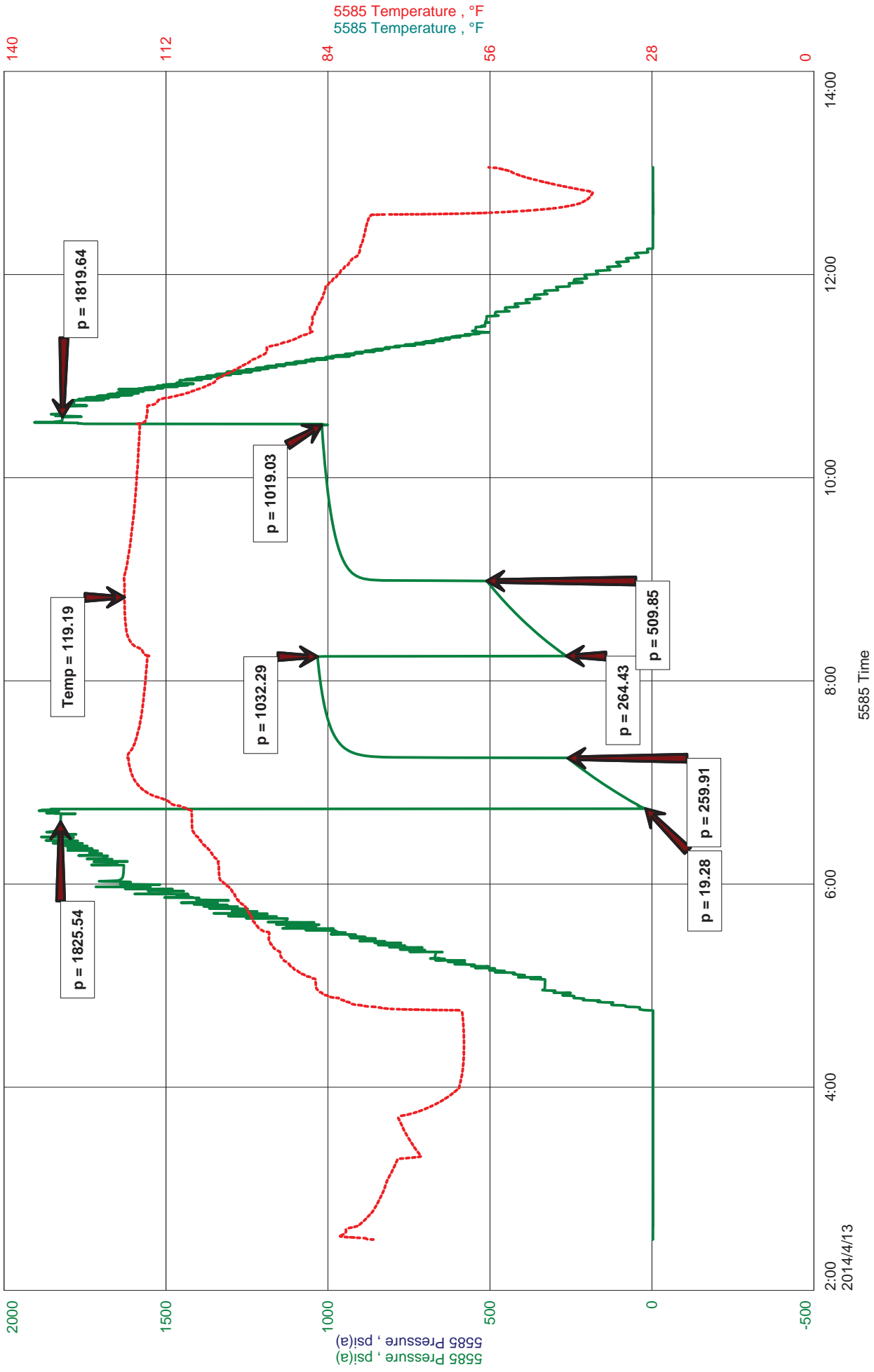
CTD



RAYMOND OIL CO INC
DST1 LANS"C"3882-3934
Start Test Date: 2014/04/13
Final Test Date: 2014/04/13

MICHAELIS 2
Formation: DST1 LANS"C"3882-3934
Pool: WILDCAT
Job Number: A039

MICHAELIS 2



DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA
CELL # 620-617-7202

General Information

Company Name	RAYMOND OIL CO INC	Contact	TED McHENRY	Job Number	A039
Well Name	MICHAELIS 2	Well Operator	RAYMOND OIL CO INC	Representative	ANDY CARREIRA
Unique Well ID	DST1 LANS"C"3882-3934	Report Date	2014/04/13	Prepared By	ANDY CARREIRA
Surface Location	SEC3-14S-32W LOGAN CNTY,KS	Field	WILDCAT	Well Type	Vertical

Test Information

Test Type	CONVENTIONAL
Formation	DST1 LANS"C"3882-3934
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/04/13	Start Test Time	02:30:00
Final Test Date	2014/04/13	Final Test Time	13:04:00

Gauge Name	5585
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Test Results

RECOVERY:	1150' MW	CHLORIDES: 45000
		RW: .18 @ 69
		Ph: 7

TOOL SAMPLE: 100% WATER



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: MICHAELIS2DST1

TIME ON: 02:30
TIME OFF: 13:04

Company RAYMOND OIL CO INC Lease & Well No. MICHAELIS 2
Contractor LD DRLG Charge to RAYMOND OIL CO INC
Elevation 2840 KB Formation LANS"C" Effective Pay _____ Ft. Ticket No. A039
Date 4-13-14 Sec. 3 Twp. 14 S Range 32 W County LOGAN State KANSAS
Test Approved By MAX LOVELY Diamond Representative ANDY CARREIRA

Formation Test No. 1 Interval Tested from 3882 ft. to 3934 ft. Total Depth 3934 ft.
Packer Depth 3877 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 3882 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 3863 ft. Recorder Number 5585 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 3884 ft. Recorder Number 8471 Cap. 10000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 51 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 8.9 Water Loss 6.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 3500 P.P.M. Drill Pipe Length 3849 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 09 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 52 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: BOB IN 6 MIN. (NObb)
2nd Open: BOB IN 7 MIN. (NObb)

Recovered 1150 ft. of MW
Recovered _____ ft. of _____ CHLORIDES: 45000
Recovered _____ ft. of _____ RW: .18 @ 69
Recovered _____ ft. of _____ Ph: 7

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: 100% WATER	Total

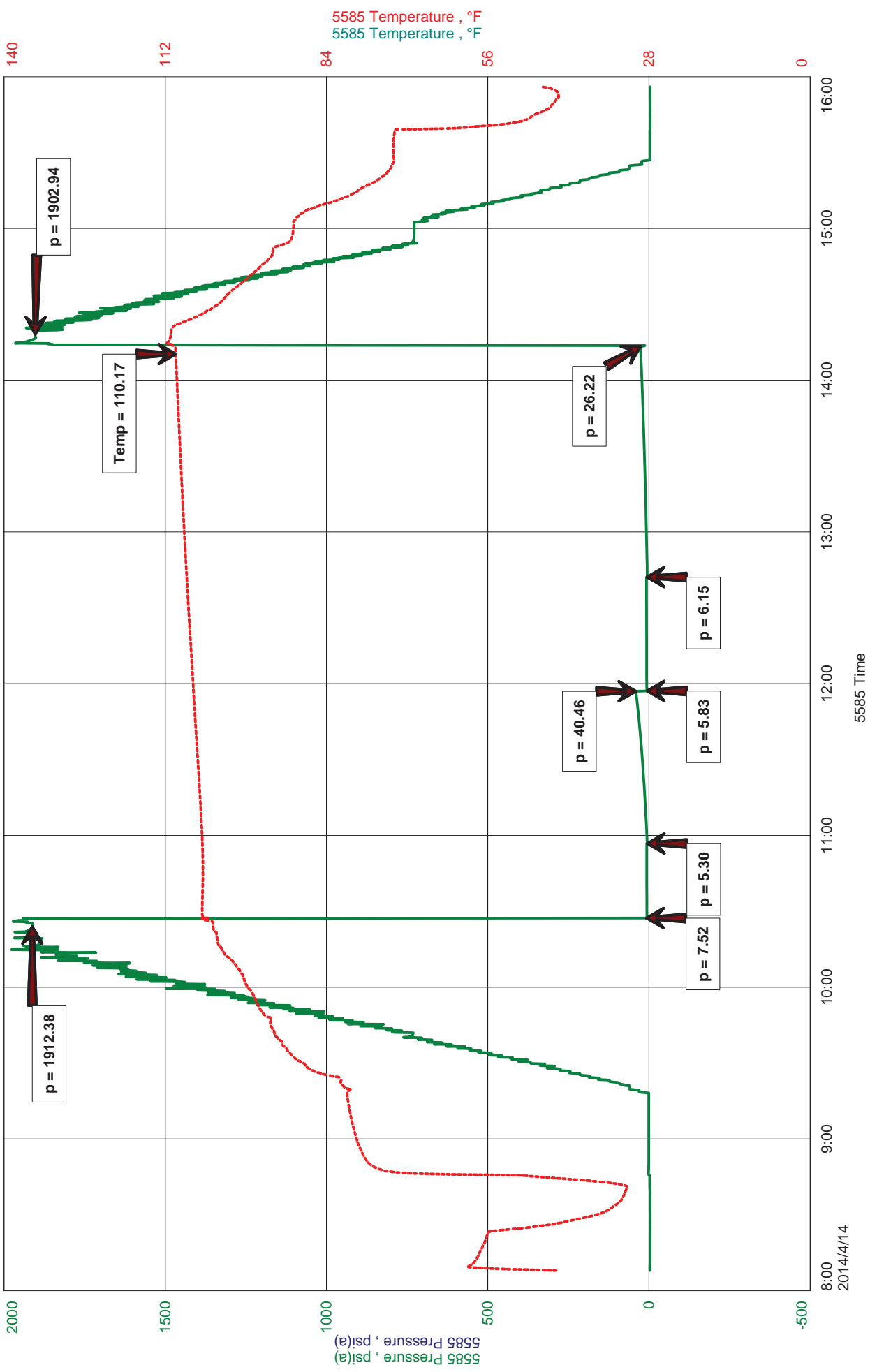
Time Set Packer(s) 6:45 AM A.M. P.M. Time Started Off Bottom 10:30 AM A.M. P.M. Maximum Temperature 119
Initial Hydrostatic Pressure..... (A) 1826 P.S.I.
Initial Flow Period..... Minutes 30 (B) 19 P.S.I. to (C) 260 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 1032 P.S.I.
Final Flow Period..... Minutes 45 (E) 264 P.S.I. to (F) 510 P.S.I.
Final Closed In Period..... Minutes 90 (G) 1019 P.S.I.
Final Hydrostatic Pressure..... (H) 1820 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

RAYMOND OIL CO INC
DST2 LANS"160" 4048-4085
Start Test Date: 2014/04/04
Final Test Date: 2014/04/04

MICHAELIS 2
Formation: DST2 LANS"160" 4048-4085
Pool: WILDCAT
Job Number: A040

MICHAELIS 2



DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA
CELL # 620-617-7202

General Information

Company Name	RAYMOND OIL CO INC	Contact	TED McHENRY	Job Number	A040
Well Name	MICHAELIS 2	Well Operator	RAYMOND OIL CO INC	Representative	ANDY CARREIRA
Unique Well ID	DST2 LANS"160" 4048-4085	Report Date	2014/04/04	Prepared By	ANDY CARREIRA
Surface Location	SEC4-14S-32W LOGAN CNTY,KS	Field	WILDCAT	Well Type	Vertical

Test Information

Test Type	CONVENTIONAL
Formation	DST2 LANS"160" 4048-4085
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/04/04	Start Test Time	08:08:00
Final Test Date	2014/04/04	Final Test Time	15:56:00

Gauge Name	5585
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Test Results

RECOVERY: 2' MUD

TOOL SAMPLE: 100% MUD



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: MICHAELIS2DST2

TIME ON: 08:08
TIME OFF: _____

Company RAYMOND OIL CO INC Lease & Well No. MICHAELIS 2
Contractor LD DRLG Charge to RAYMOND OIL CO INC
Elevation 2840 KB Formation LANS"160" Effective Pay _____ Ft. Ticket No. A040
Date 4-14-14 Sec. 3 Twp. 14 S Range 32 W County LOGAN State KANSAS
Test Approved By MAX LOVELY Diamond Representative ANDY CARREIRA

Formation Test No. 2 Interval Tested from 4048 ft. to 4085 ft. Total Depth 4085 ft.
Packer Depth 4043 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 4048 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 4029 ft. Recorder Number 5585 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4050 ft. Recorder Number 8471 Cap. 10000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 51 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 8.9 Water Loss 6.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 3500 P.P.M. Drill Pipe Length 4016 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 09 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 37 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: BLOW DIED IN 10 MIN. (NObb)
2nd Open: NO BLOW (NObb)

Recovered <u>2</u> ft. of <u>MUD</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>100% MUD</u>	Total

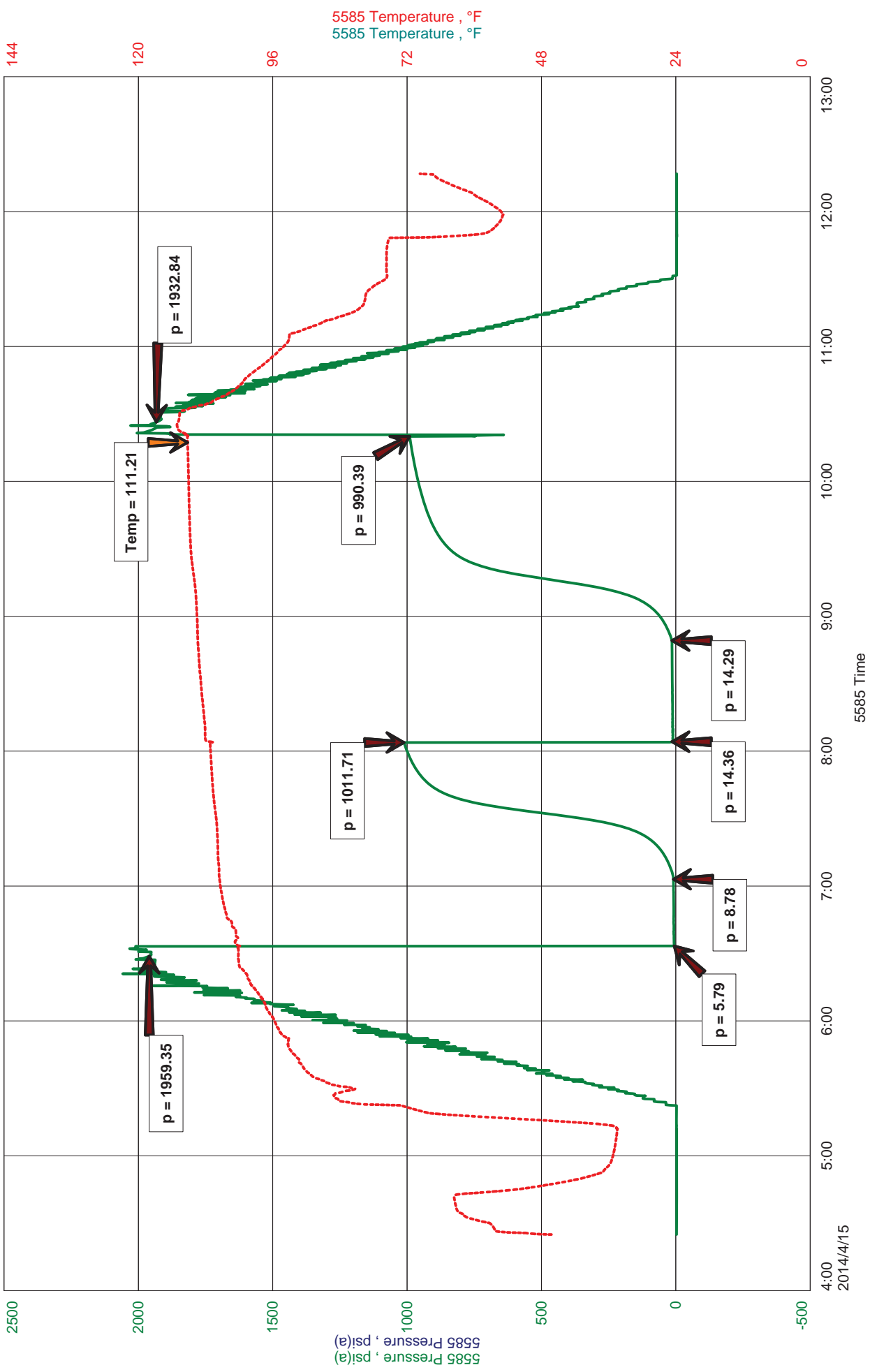
Time Set Packer(s) 10:27 AM A.M. P.M. Time Started Off Bottom 2:12 PM A.M. P.M. Maximum Temperature 110
Initial Hydrostatic Pressure..... (A) 1912 P.S.I.
Initial Flow Period..... Minutes 30 (B) 8 P.S.I. to (C) 5 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 40 P.S.I.
Final Flow Period..... Minutes 45 (E) 6 P.S.I. to (F) 6 P.S.I.
Final Closed In Period..... Minutes 90 (G) 26 P.S.I.
Final Hydrostatic Pressure..... (H) 1903 P.S.I.

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RAYMOND OIL CO INC.
DST3 LANS"220"4145-4165
Start Test Date: 2014/04/15
Final Test Date: 2014/04/15

MICHAELIS 2
Formation: DST3 LANS"220"4145-4165
Pool: WILDCAT
Job Number: A041

MICHAELIS 2



DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA
CELL # 620-617-7202

General Information

Company Name	RAYMOND OIL CO INC.	Contact	TED McHENRY	Job Number	A041
Well Name	MICHAELIS 2	Well Operator	RAYMOND OIL CO INC	Report Date	2014/04/15
Unique Well ID	DST3 LANS"220"4145-4165	Well Operator	RAYMOND OIL CO INC	Report Date	2014/04/15
Surface Location	SEC3-14S-32W LOGAN CNTY,KS	Report Date	2014/04/15	Prepared By	ANDY CARREIRA
Well License Number		Prepared By	ANDY CARREIRA		
Field	WILDCAT				
Well Type	Vertical				

Test Information

Test Type	CONVENTIONAL
Formation	DST3 LANS"220"4145-4165
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/04/15	Start Test Time	04:25:00
Final Test Date	2014/04/15	Final Test Time	12:17:00

Gauge Name	5585
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Test Results

RECOVERY:	35' GIP	
	20' CO	
	8' HOCM 20% O, 80%M	
	28' TOTAL FLUID	GRAVITY: 28 @ 60 deg

TOOL SAMPLE: 100% OIL



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: MICHAELIS2DST3

TIME ON: 04:25
TIME OFF: 12:17

Company RAYMOND OIL CO INC Lease & Well No. MICHAELIS 2
Contractor LD DRLG Charge to RAYMOND OIL CO INC
Elevation 2840 KB Formation LANS"220" Effective Pay _____ Ft. Ticket No. A041
Date 4-15-14 Sec. 3 Twp. 14 S Range 32 W County LOGAN State KANSAS
Test Approved By MAX LOVELY Diamond Representative ANDY CARREIRA

Formation Test No. 3 Interval Tested from 4145 ft. to 4165 ft. Total Depth 4165 ft.
Packer Depth 4140 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 4145 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 4126 ft. Recorder Number 5585 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4167 ft. Recorder Number 8471 Cap. 10000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 52 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.2 Water Loss 6.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 4500 P.P.M. Drill Pipe Length 4112 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 09 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 20 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: BLOW BUILT TO 4" (NObb)
2nd Open: BLOW BUILT TO 4.5" (SURFACEbb)

Recovered 35 ft. of GIP
Recovered 20 ft. of CO GRAVITY: 28 @ 60 deg
Recovered 8 ft. of HOCM 20%O, 80%M
Recovered 28 ft. of TOTAL FLUID

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>100% OIL</u>	Total

Time Set Packer(s) 6:34 AM A.M. P.M. Time Started Off Bottom 10:19 AM A.M. P.M. Maximum Temperature 111

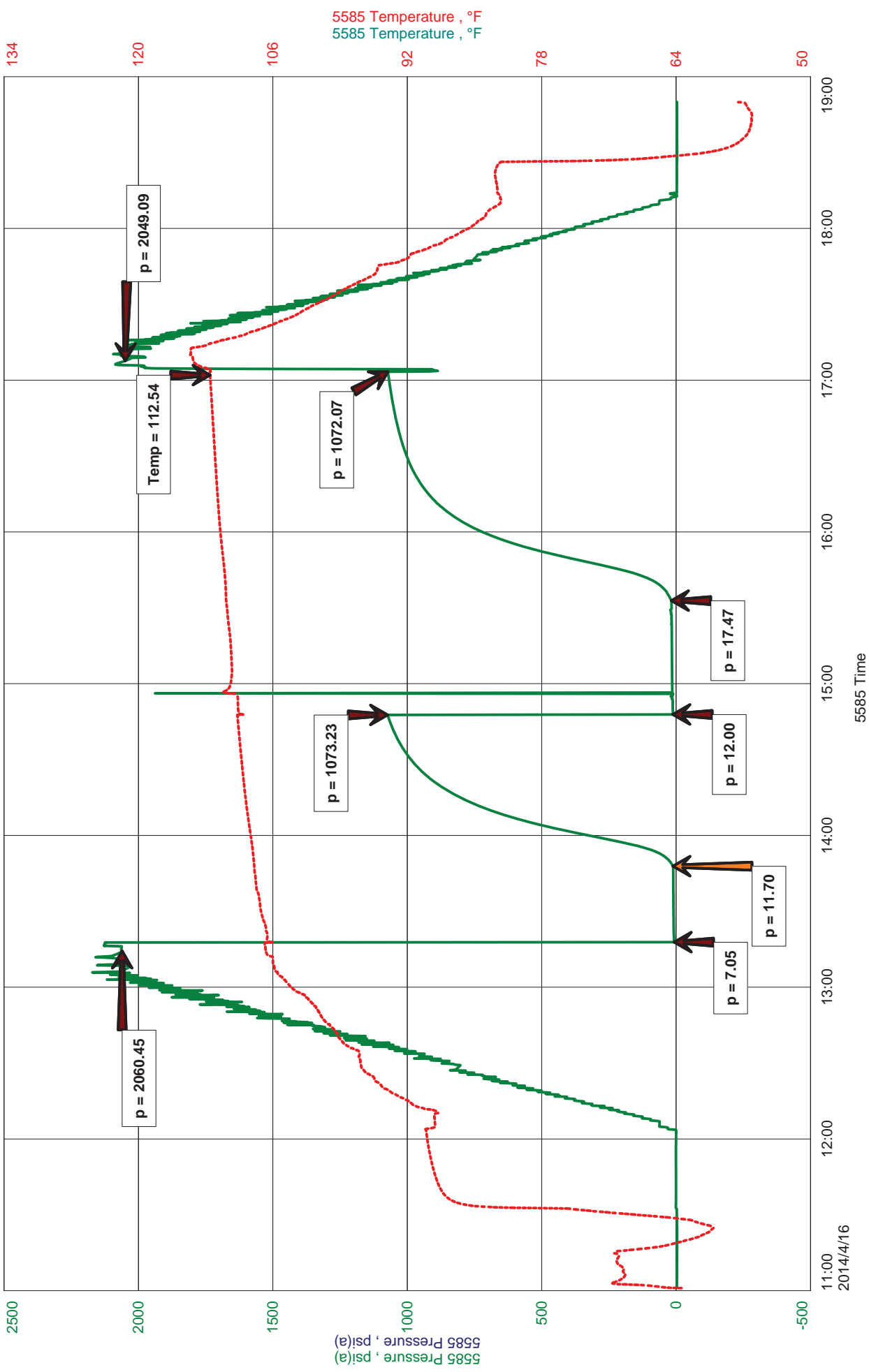
Initial Hydrostatic Pressure..... (A) 1959 P.S.I.
Initial Flow Period..... Minutes 30 (B) 6 P.S.I. to (C) 9 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 1012 P.S.I.
Final Flow Period..... Minutes 45 (E) 14 P.S.I. to (F) 14 P.S.I.
Final Closed In Period..... Minutes 90 (G) 990 P.S.I.
Final Hydrostatic Pressure..... (H) 1933 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

RAYMOND OIL CO INC
DST4 ALTC,PAW,MYRK4282-4366
Start Test Date: 2014/04/16
Final Test Date: 2014/04/16

MICHAELIS 2
Formation: DST4 ALTC,PAW,MYRK4282-4366
Pool: WILDCAT
Job Number: A042

MICHAELIS 2



DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA
CELL # 620-617-7202

General Information

Company Name	RAYMOND OIL CO INC	Job Number	A042
Contact	TED McHENRY	Representative	ANDY CARREIRA
Well Name	MICHAELIS 2	Well Operator	RAYMOND OIL CO INC
Unique Well ID	DST4 ALTC,PAW,MYRK4282-4366	Report Date	2014/04/16
Surface Location	SEC3-14S-32W LOGAN CNTY,KS	Prepared By	ANDY CARREIRA
Well License Number			
Field	WILDCAT		
Well Type	Vertical		

Test Information

Test Type	CONVENTIONAL
Formation	DST4 ALTC,PAW,MYRK4282-4366
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/04/16	Start Test Time	11:01:00
Final Test Date	2014/04/16	Final Test Time	18:50:00

Gauge Name	5585
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Test Results

RECOVERY: 25' SOSM

TOOL SAMPLE: TRACE OIL, MUD



DIAMOND TESTING
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (800) 542-7313
DRILL-STEM TEST TICKET
 FILE: MICHAELIS2DST4

TIME ON: 11:01
 TIME OFF: 18:50

Company RAYMOND OIL CO INC Lease & Well No. MICHAELIS 2
 Contractor LD DRLG Charge to RAYMOND OIL CO INC
 Elevation 2840 KB Formation ALT,C,PAW,MYRK Effective Pay _____ Ft. Ticket No. A042
 Date 4-16-14 Sec. 3 Twp. 14 S Range 32 W County LOGAN State KANSAS
 Test Approved By MAX LOVELY Diamond Representative ANDY CARREIRA

Formation Test No. 4 Interval Tested from 4282 ft. to 4366 ft. Total Depth 4366 ft.
 Packer Depth 4277 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 4282 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
 Top Recorder Depth (Inside) 4263 ft. Recorder Number 5585 Cap. 5,000 P.S.I.
 Bottom Recorder Depth (Outside) 4284 ft. Recorder Number 8471 Cap. 10000 P.S.I.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 54 Drill Collar Length 0 ft. I.D. 2 1/4 in.
 Weight 9.3 Water Loss 9.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
 Chlorides 5000 P.P.M. Drill Pipe Length 4249 ft. I.D. 3 1/2 in.
 Jars: Make STERLING Serial Number 09 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
 Did Well Flow? NO Reversed Out NO Anchor Length 84 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: BLOW DIED IN 10 MIN. (NObb)
 2nd Open: NO BLOW, FLUSHED, SURGED, NO BLOW. (NObb)

Recovered <u>25</u> ft. of <u>SOSM</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>TRACE OIL, MUD</u>	Total

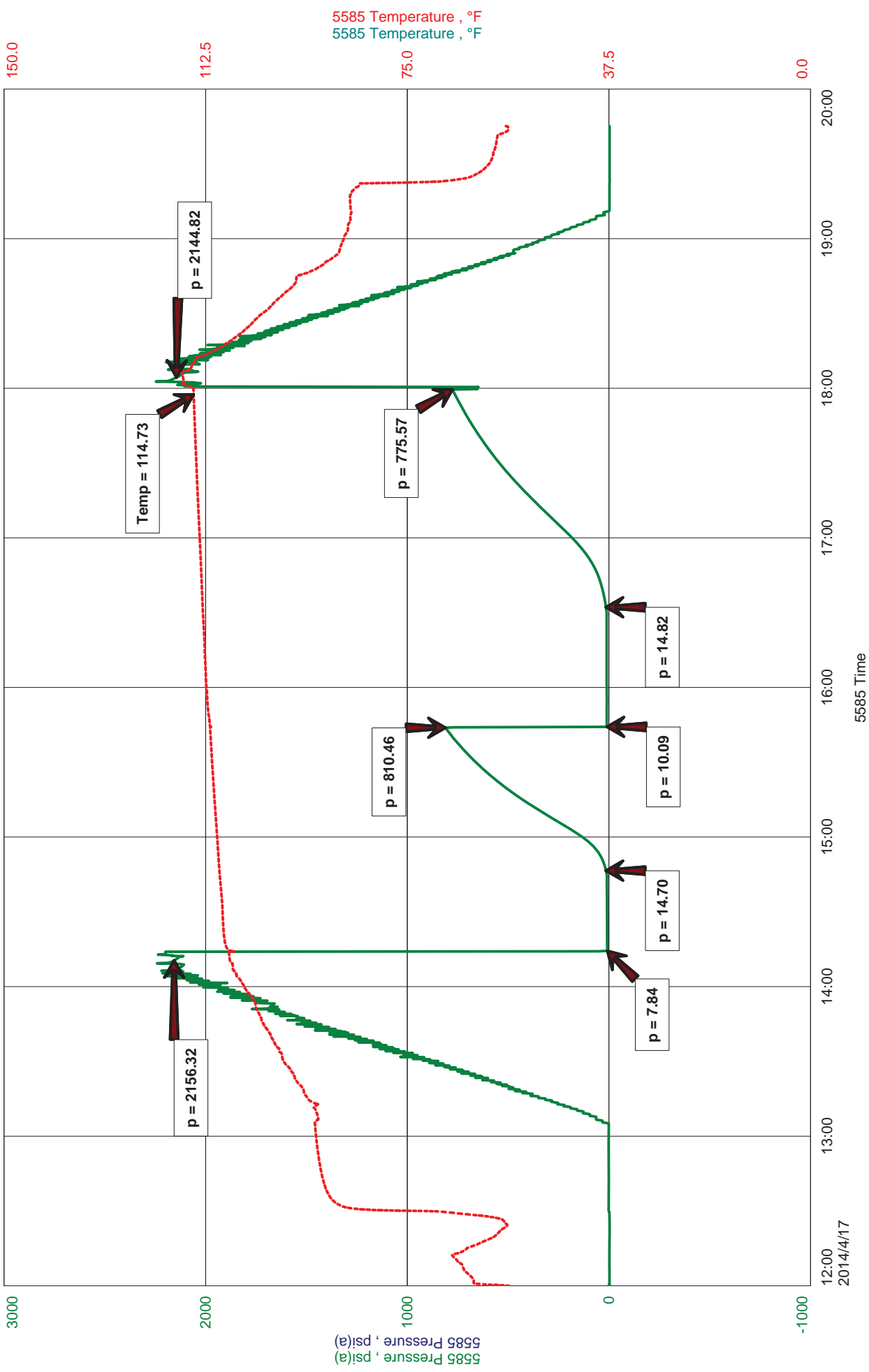
Time Set Packer(s) 1:18 PM A.M. P.M. Time Started Off Bottom 5:03 PM A.M. P.M. Maximum Temperature 113
 Initial Hydrostatic Pressure..... (A) 2060 P.S.I.
 Initial Flow Period..... Minutes 30 (B) 7 P.S.I. to (C) 12 P.S.I.
 Initial Closed In Period..... Minutes 60 (D) 1073 P.S.I.
 Final Flow Period..... Minutes 45 (E) 12 P.S.I. to (F) 17 P.S.I.
 Final Closed In Period..... Minutes 90 (G) 1072 P.S.I.
 Final Hydrostatic Pressure..... (H) 2049 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

RAYMOND OIL CO INC
DST5 CHEROKEE, JOHNSON 4396-4472
Start Test Date: 2014/04/17
Final Test Date: 2014/04/17

MICHAELIS 2
Formation: DST5 CHEROKEE, JOHNSON 4396-4472
Pool: WILDCAT
Job Number: A043

MICHAELIS 2



DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA
CELL # 620-617-7202

General Information

Company Name	RAYMOND OIL CO INC	TED McHENRY	Job Number	A043
Contact		MICHAELIS 2	Representative	ANDY CARREIRA
Well Name			Well Operator	RAYMOND OIL CO INC
Unique Well ID	DST5 CHEROKEE,JOHNSON 4396-4472		Report Date	2014/04/17
Surface Location	SEC3-14S-32W LOGAN CNTY,KS		Prepared By	ANDY CARREIRA
Well License Number				
Field		WILDCAT		
Well Type		Vertical		

Test Information

Test Type	CONVENTIONAL
Formation	DST5 CHEROKEE,JOHNSON 4396-4472
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/04/17	Start Test Time	12:00:00
Final Test Date	2014/04/17	Final Test Time	19:45:00

Gauge Name	5585
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Test Results

RECOVERY: 10' MUD

TOOL SAMPLE: 100% MUD



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: MICHAELIS2DST5

TIME ON: 12:00
TIME OFF: 19:45

Company RAYMOND OIL CO INC Lease & Well No. MICHAELIS 2
Contractor LD DRLG Charge to RAYMOND OIL CO INC
Elevation 2840 KB Formation CHEROKEE, JOHNSON Effective Pay _____ Ft. Ticket No. A043
Date 4-17-14 Sec. 3 Twp. _____ 14 S Range _____ 32 W County LOGAN State KANSAS
Test Approved By MAX LOVELY Diamond Representative ANDY CARREIRA

Formation Test No. 5 Interval Tested from 4396 ft. to 4472 ft. Total Depth 4472 ft.
Packer Depth 4391 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 4396 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 4377 ft. Recorder Number 5585 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4398 ft. Recorder Number 8471 Cap. 10000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 54 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.3 Water Loss 9.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 5000 P.P.M. Drill Pipe Length 4363 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 09 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 76 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: WEAK SURFACE BLOW (NObb)
2nd Open: NO BLOW (NObb)

Recovered <u>10</u> ft. of <u>MUD</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>100% MUD</u>	Total

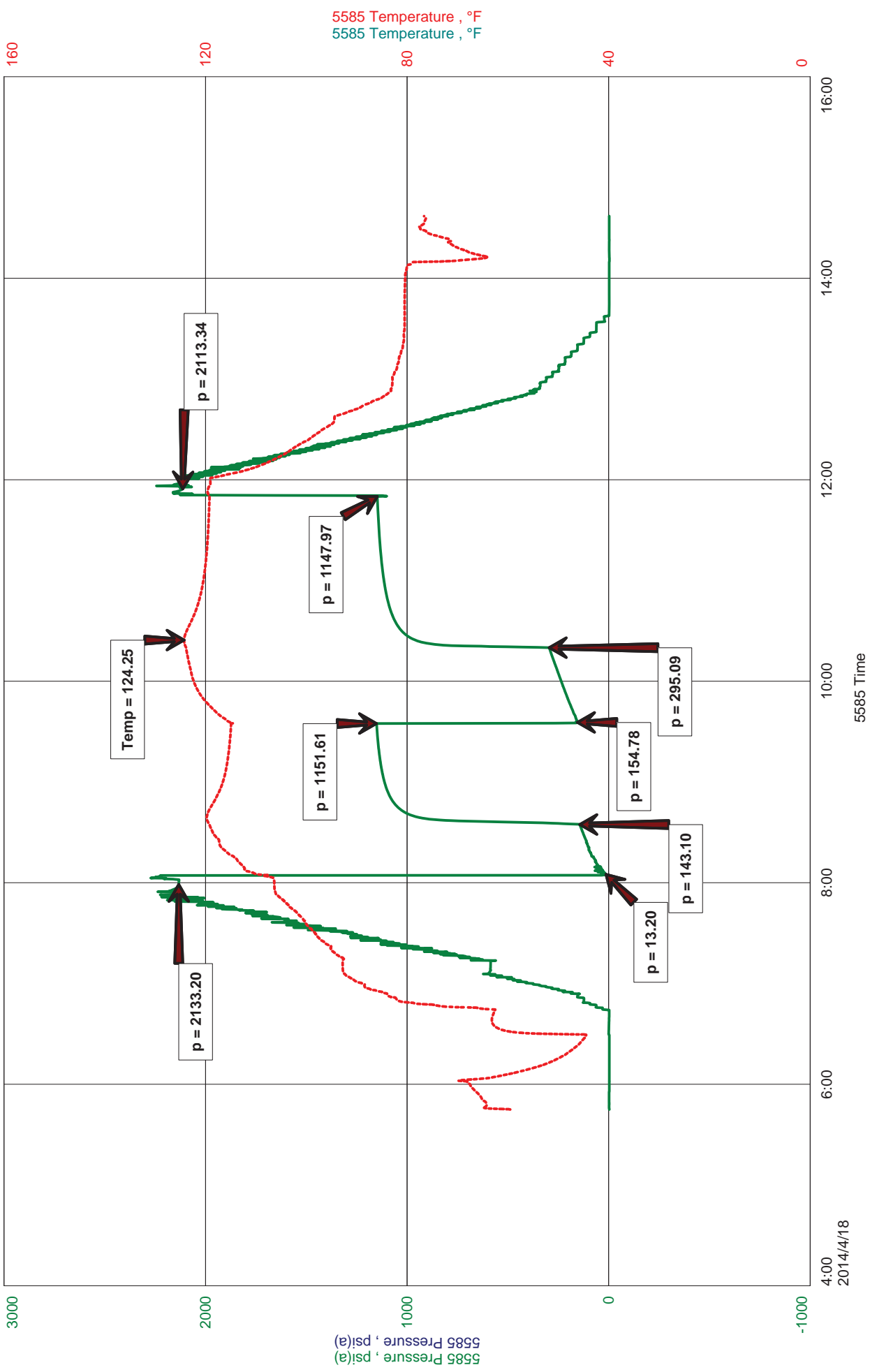
Time Set Packer(s) 2:14 PM A.M. P.M. Time Started Off Bottom 5:59 PM A.M. P.M. Maximum Temperature 115
Initial Hydrostatic Pressure..... (A) 2156 P.S.I.
Initial Flow Period..... Minutes 30 (B) 8 P.S.I. to (C) 15 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 810 P.S.I.
Final Flow Period..... Minutes 45 (E) 10 P.S.I. to (F) 15 P.S.I.
Final Closed In Period..... Minutes 90 (G) 776 P.S.I.
Final Hydrostatic Pressure..... (H) 2145 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

RAYMOMD OIL CO INC
DST6 MORROW SD 4469-4543
Start Test Date: 2014/04/18
Final Test Date: 2014/04/18

MICHAELIS 2
Formation: DST6 MORROW SD 4469-4543
Job Number: A044

MICHAELIS 2



DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA
CELL # 620-617-7202

General Information

Company Name	RAYMOMD OIL CO INC	Contact	TED McHENRY	Job Number	A044
Well Name			MICHAELIS 2	Representative	ANDY CARREIRA
Unique Well ID	DST6 MORROW SD 4469-4543	Well Operator	RAYMOND OIL CO INC	Report Date	2014/04/18
Surface Location	SEC3-14S-32W LOGAN CNTY,KS	Prepared By	ANDY CARREIRA		
Well License Number		Field	WILDCAT		
Well Type			Vertical		

Test Information

Test Type	CONVENTIONAL
Formation	DST6 MORROW SD 4469-4543
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/04/18	Start Test Time	05:45:00
Final Test Date	2014/04/18	Final Test Time	14:37:00

Gauge Name	5585
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Test Results

RECOVERY:	706' GIP	GRAVITY: 32 @ 60 deg
	587' CGO 15%G, 85% O	
	126' MCGO 15%G, 65%O, 20%M	
	713' TOTAL FLUID	

TOOL SAMPLE: 100% OIL



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: MICHAELIS2DST6

TIME ON: 05:45
TIME OFF: 14:37

Company RAYMOND OIL CO INC Lease & Well No. MICHAELIS 2
Contractor LD DRLG Charge to RAYMOND OIL CO INC
Elevation 2840 KB Formation MORROW SD Effective Pay _____ Ft. Ticket No. A044
Date 4-18-14 Sec. 3 Twp. 14 S Range 32 W County LOGAN State KANSAS
Test Approved By MAX LOVELY Diamond Representative ANDY CARREIRA

Formation Test No. 6 Interval Tested from 4469 ft. to 4543 ft. Total Depth 4543 ft.
Packer Depth 4464 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 4469 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 4450 ft. Recorder Number 5585 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4471 ft. Recorder Number 8471 Cap. 10000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 51 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.5 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 4500 P.P.M. Drill Pipe Length 4436 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 09 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 74 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: BOB IN 5 MIN. (BOBbb IN 23 MIN)
2nd Open: BOB IMMEDIATELY (BOBbb IN 16 MIN)

Recovered 706 ft. of GIP
Recovered 587 ft. of CGO 15%G, 85%O GRAVITY: 32 @ 60 deg
Recovered 126 ft. of MCGO 15%G, 65%O, 20%M
Recovered 713 ft. of TOTAL FLUID

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>100% OIL</u>	Total

Time Set Packer(s) 8:05 AM A.M. P.M. Time Started Off Bottom 11:50 AM A.M. P.M. Maximum Temperature 124

Initial Hydrostatic Pressure..... (A) 2133 P.S.I.
Initial Flow Period..... Minutes 30 (B) 13 P.S.I. to (C) 143 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 1152 P.S.I.
Final Flow Period..... Minutes 45 (E) 155 P.S.I. to (F) 295 P.S.I.
Final Closed In Period..... Minutes 90 (G) 1148 P.S.I.
Final Hydrostatic Pressure..... (H) 2113 P.S.I.

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267188

TICKET NUMBER 38170
 LOCATION Oakley, KS
 FOREMAN Jerry Y

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

**FIELD TICKET & TREATMENT REPORT
 CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
4-8-14	7158	Michaelis #2	3	14S	32W	Logan
CUSTOMER Raymond Oil			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			399	Cory D		
CITY			460	Jake H		
STATE		ZIP CODE				

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 264 CASING SIZE & WEIGHT 8 5/8 24#
 CASING DEPTH 261 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 20'
 DISPLACEMENT 15 1/4 bbl DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting & rig up on L.D. Dilig heat circulation w/ rig tree back up to pump truck
& mix 180 sks com class A cement with 3% calcium chloride & 2% gel wash up & displace
with 15 1/4 bbl fresh water & shut in circulated approx 3661 to pit

Cement Did Circulate

Thanks Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401s	1	PUMP CHARGE	11500 ⁰⁰	11500 ⁰⁰
5406	20	MILEAGE	5 ²⁵	105 ⁰⁰
5407		ton mileage delivery (min)	430 ⁰⁰	430 ⁰⁰
1104s	180 sks	com class A cement	1855	3339 ⁰⁰
1102	507 #	calcium chloride	94	47658
1118b	338 #	gel	27	9126
			subtotal	559184
			less 10% disc.	55918
			subtotal	503266
			<input checked="" type="checkbox"/> completed	
			SALES TAX	208.98
			ESTIMATED TOTAL	530164

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AUTHORIZATION Rubel W. [Signature] TITLE _____ DATE _____

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



CONSOLIDATED
Oil Well Services, LLC

267504

TICKET NUMBER 47592
LOCATION Oakley KS
FOREMAN Dane Retzlaff

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
4-19-14	7158	Michals #2	3	14	32	Logan
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
Raymond Oil			399	London		Fuzzy
MAILING ADDRESS			460	Jake		
CITY			530	Dale		
STATE			Supervisor	Miles		
ZIP CODE						

JOB TYPE 2 stage HOLE SIZE 7 7/8 HOLE DEPTH 9654 CASING SIZE & WEIGHT 5 1/2 15.0'
CASING DEPTH 4637.17 DRILL PIPE 4.5 TUBING _____ OTHER _____
SLURRY WEIGHT 14.6/125 SLURRY VOL 1.56/1.26 WATER gal/sk 6.97/9.48 CEMENT LEFT in CASING 42.18
DISPLACEMENT 109/56 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting on LD. Rig up - Run float equip. Cents on 1'3'7'11'14'
57. Basket on 57. DV Tool on 56. Finish running casing. Circulate mud. mix mud flush
mix 175 sks of Owe 5 Kol Seal. Wash up pump & lines. Release plug. Displace
50 BBLs of water 5 1/2 bbls of mud. Lift 1000 psi. Plug landed at 1500 psi.
Open tool. Circulate 2 hrs. mix 15 sks 60/40 Rathole. mix 455 sks 60/40 2% fls
wash up pump & lines. Release plug. Displace 55 BBLs of water. 20 BBLs of cement
circulated to pit. Lift 900 psi 1400 Land plug. Hold.

Thanks Dane & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401k	1	PUMP CHARGE	3175.00	3175.00
5402	20	MILEAGE	5.75	115.00
5407a	27.57	Ten mileage Delivery	1.75	964.95
1126	175 sks	Owe Cement	23.70	4147.50
1131	450 sks	60/40 Poz mix	16.00	7200.00
1116A	875	Kol Seal	.56	490.00
1116A	3096	Bentonite	.27	835.92
1107G	500 gal	mud flush	1.00	500.00
1107	225	Flt Seal	2.97	668.25
4277A	1	5 1/2 DV Tool	4900.00	4900.00
4203	1	5 1/2 Guide shoe API Float	359.25	359.25
4130	6	5 1/2 Centralizers	61.00	366.00
4104	1	5 1/2 Basket	290.00	290.00
4454	1	5 1/2 Latch Down Plug Assembly	567.00	567.00
			Sub	24578.87
			10% 109%	2457.89
			Sub	22120.98
			SALES TAX	1399.31
			ESTIMATED TOTAL	23520.29

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AUTHORIZATION [Signature] TITLE Company man DATE 4-20-14

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