

Confidentiality Requested:

☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1117502

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

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: _____



1117502

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 (Attach Additional Sheets)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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 (Amount and Kind of Material Used)	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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 (Explain) _____			
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 (If vented, Submit ACO-18.)	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled (Submit ACO-5) <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Max R. Lovely

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY **Raymond Oil Co.**
LEASE **#2 Holstein**
FIELD **N. White Woman**
LOCATION **SE NE SE NW**
SEC **12** TWP **20** R **36W**
COUNTY **Wichita** STATE **KS**
CONTRACTOR **H2 #2**
DPUD **11-12-2012** COMP **11-21-2012**
RTD **5058** LTD **5052**
MUD UP **3407** TYPE MUD **Chem**

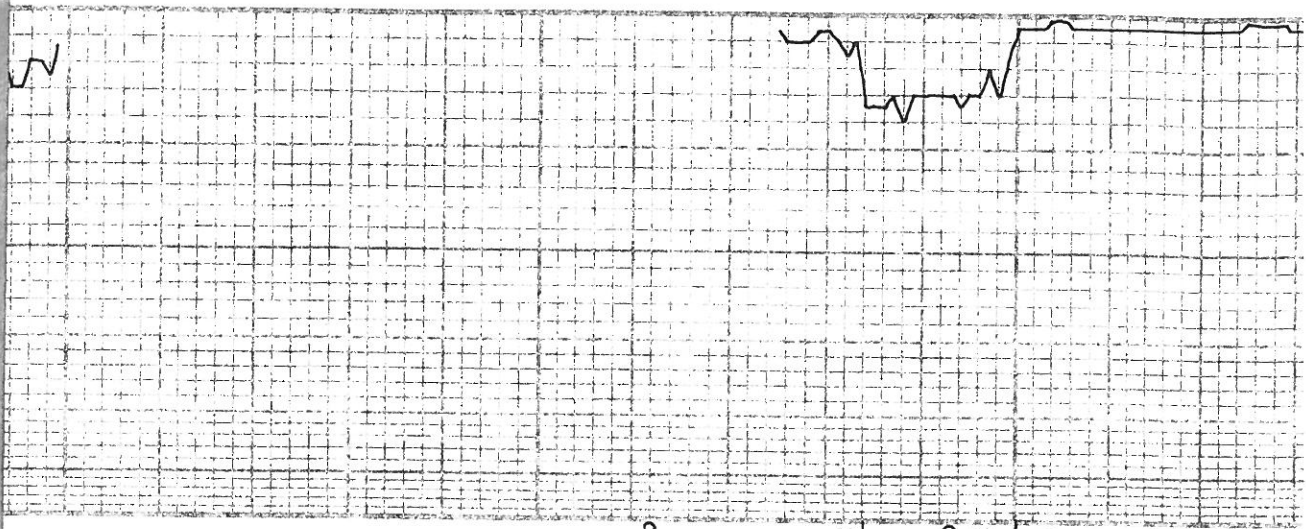
ELEVATIONS
KB **3200**
DT
CL **3188**
Measurements Are All
From **KB**
CASING
SURFACE **8 5/8" @ 269'**
PRODUCTION
ELECTRICAL SURVEYS
DUAL IND
COMP N/D, MICRO

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA BATHY	STRUCTURAL POSITION		
				A	B	C
B/Anhydrite	2316	2308	892	888	887	
Stoller	3536	3530	-330	-336	-341	
Heobner	3954	3942	-742	-754	-756	
Lansing	4009	4001	-801	-804	-812	
Stark	4314	4309	-1109	-1112	-1127	
Marmaton	4502	4490	-1290	-1296	-1294	
Pawnee	4604	4588	-1388	-1392	-1392	
Myric Station	4629	4614	-1414	-1420	-1419	
Cherokee	4669	4662	-1462	-1469	-1466	
Johnson	4723	4708	-1506	-1512	-1510	
Morrow SH	4848	4833	-1633	-1638	-1648	
Mississippi	4958	4940	-1740	-1755	-1756	

REFERENCE WELLS FOR STRUCTURE

- A **Raymond Holstein #1 NE NE SW NW 12-20-36W**
B **Raymond Alfred Holstein #1 SE SW NE SE 12-20-36W**
C



ANHYDRITE

2300

2300 + 900

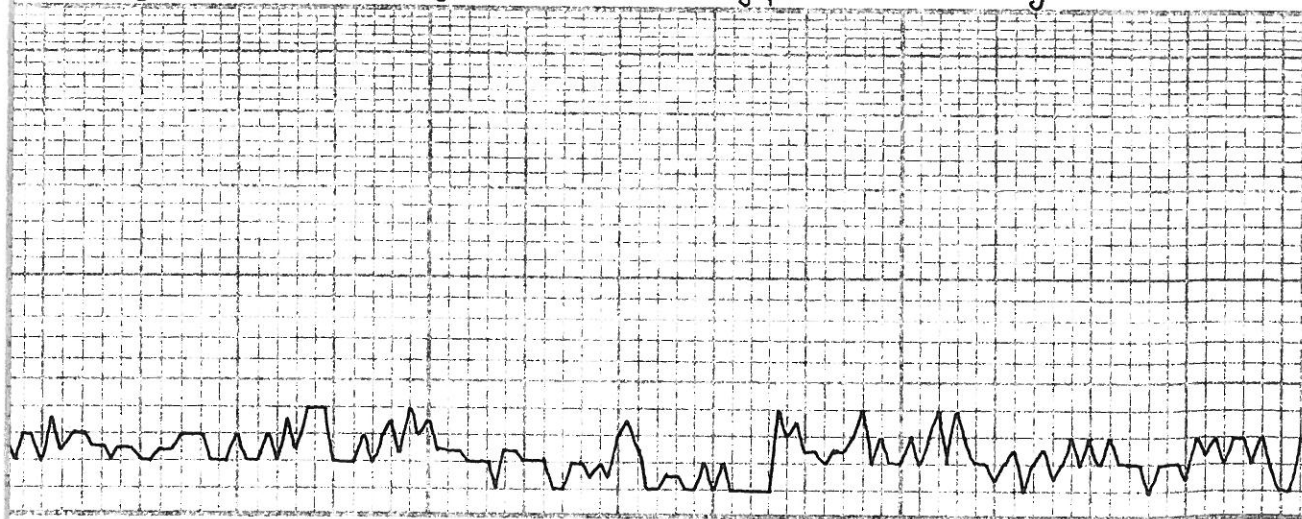
BASE

ANHYDRITE

2316 + 884

3450

LS, GRY, WHT, F → M XLN, BRN

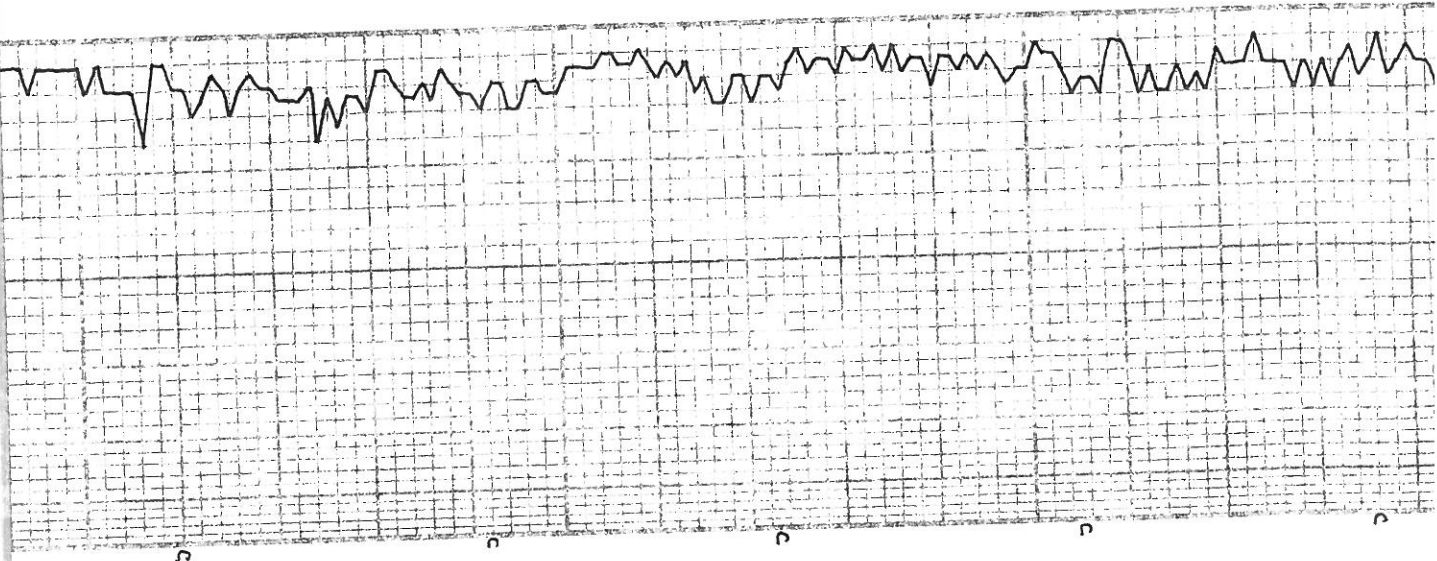


3500

STOTLER
3536 -336

NS	
LS, GR, BRN, VEXTN, DNS, M HRD, VPO, NS	
LS, BRN, EXTN, HRD, VFOSS, VPO, NS	
LS, WHT, VEXTN, SOFT, BRILL, BLK PELS, WIA, NS	
SS FGWS, CLR, LT GRN CMT, SOFT, SL FRIABLE, G INT GRNLR G, NS	
LS, GR, EXTN, M HRD, SCT FOSS, NS	
AA	
LS, GRM, WHT, GRV, EXTN, M HRD, SL FOSS, SCT GRV + WHT CHT, NS	

7:AM 11-16-12
DRLOG 3530'
MUD CHECK
VIS 62 WT 8.7
CHLOR 3,600 LCM13
FLT 7.2



3600

3700

LS, GRN, WHT, GRN, EXTEN,
M HRD, SL FOSS, SCT GRN +
W HT CHT, NS

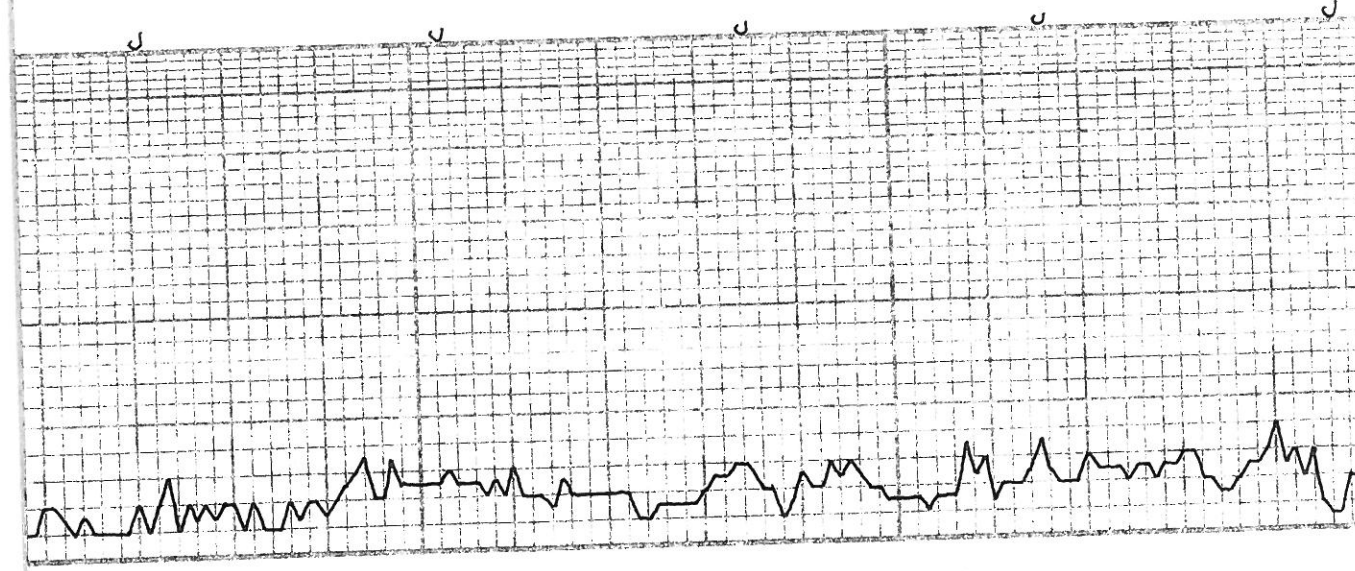
LS, GRN/WHT, F XTLM, SOFT,
CHT, GRN, V FOSS

LS, GRN, GRN/GRN, V F XTLM,
DMS, NO APPD, NS

LS, BRN/WHT, F → M XTLM, HRD,
V FOSS, W CMT D FOSS, TITE, NS

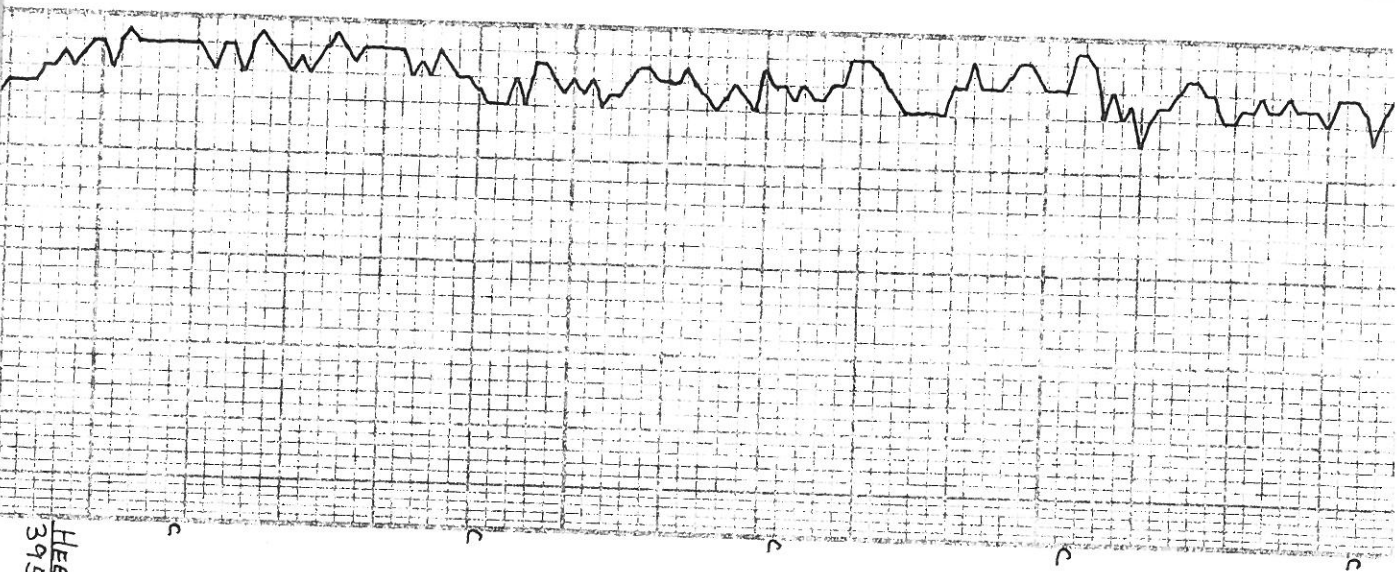
RA, SCT PCS W/BLK PELLE W/M

LS, TAN, F XTLM, LG XTLS W/M, SOFT,
"MEALY", NS



3800

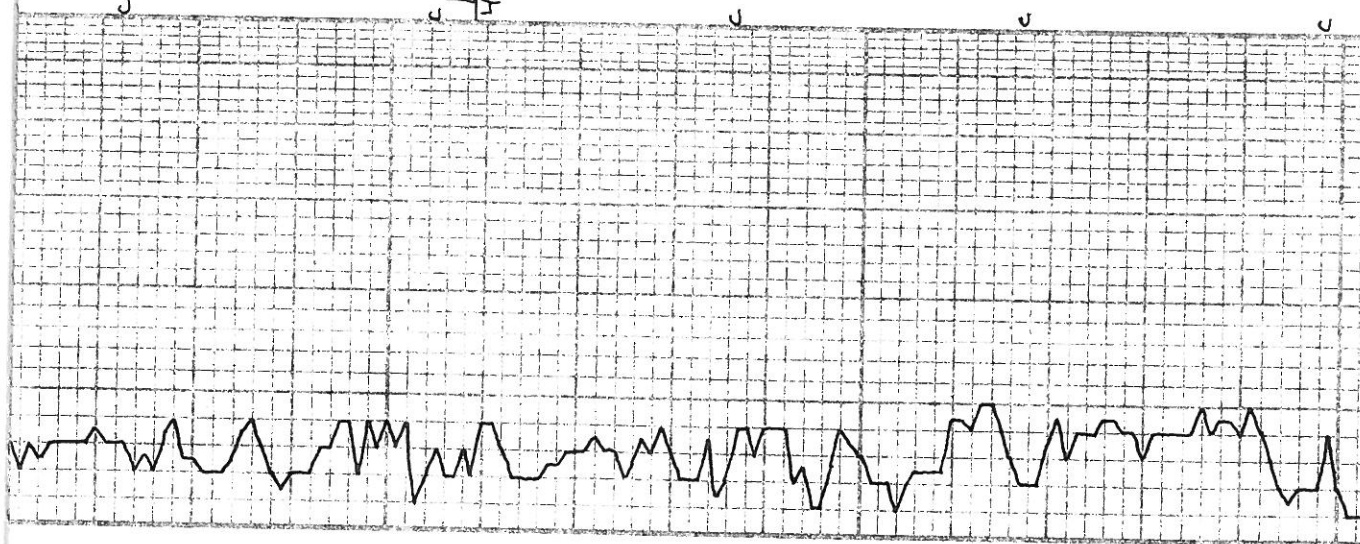
LS, GRY, FXTLN, SHLY, NS	SH, GRY/GRN	LS, BUFF, VALGAL, M HRD, VG FOSS Ø, NS	LS, TAN, CRM, FXTLN, BR TL, P XTLN Ø, NS	LS, CRM, GRY, VHRD, FXTLN, TITE, NS	LS, GRY/WHIT, FXTLN w/ LG XTLN ⁴ , SLREW, SOFT, 2 Ø, NS	SH, GRY, DK GRY, BLK	LS, CHINA WHIT, VE XTLN, SOFT, NO APP Ø, NS
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3900

HEBNER
3954-754

SH, GRV, DK GRV, BLK	
LS, CHINA WHIT, VE XTLN, SOFT, NO APPR, NS	
LS, TAN, FXTLN, CHICKY, SL FOS, SOFT, NS	
AA	
LS, WHIT, FXTLN, SOFT, SL CHICKY, V FEW FOS, FAIR XTLN Ø, NS	
SH, DK GRV, BLK	
LS, TAN, BRN, F → M XTLN, SOFT, V FOS	
LS, TAN, WHIT, V CHICKY, SCT CARB W/M, NS	
SH, GRV, GRN	
SH, BLK, CARB	



4000

LANSING
4009-809

4100

SH, GRY

LS, GRY, VFXTLN, V DMS, HRD,
FEW FOSS, NS

LS, WHT, VFXTLN, V HRD, V FOSS
VW CMT'D FOSS, TR XTLN Ø, NS

SH, GRY

LS, WHT, TAN, F → M XTLN, LG
XTLS W/IN, SCT FOSS, M HRD,
CA INT XTLN Ø, NS

LS, GRM, F XTLN, V HRD, SCT
FOSS, NO VIS Ø, NS

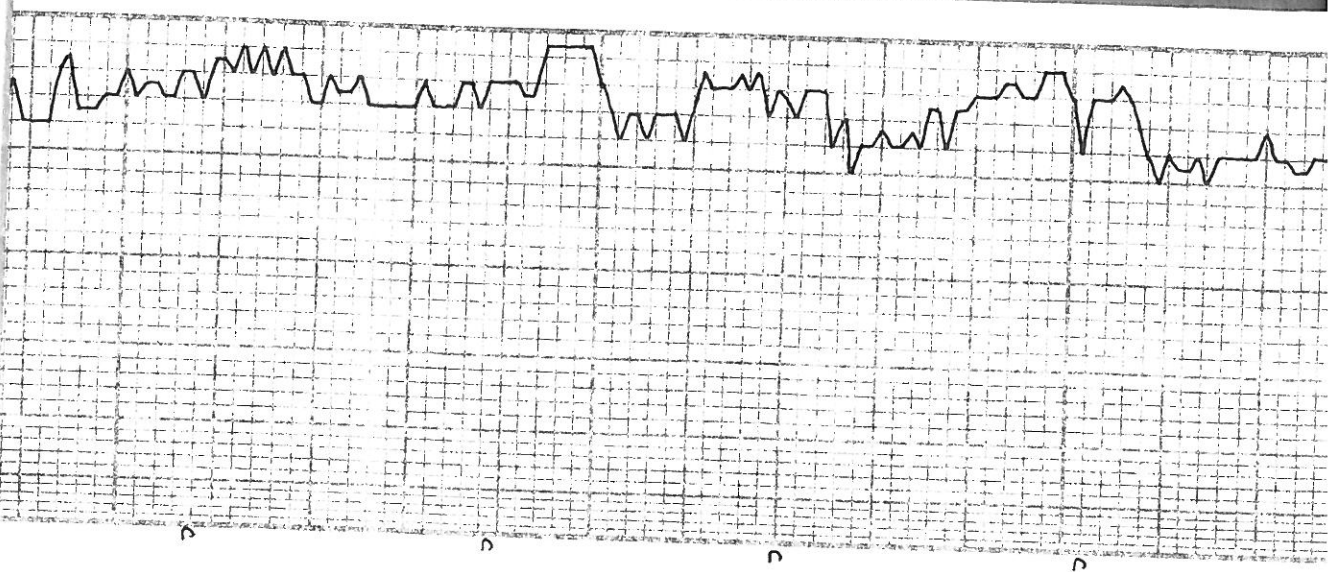
SH, GRY

LS, TAN, WHT, F XTLN, HRD,
FEW SCT BRN MINS W/IN, NS

LS, WHT, TAN, VFXTLN, SCT MED
OOLS, F → W CMT'D OOLS, SCT
OOL Ø, NS

LS, WHT, F XTLN, MED OOLS,
SOFT, F → P CMT'D OOLS,
C OOL Ø, NS

LS, BRN, GRY, VFXTLN, DMS,
TITE, NS



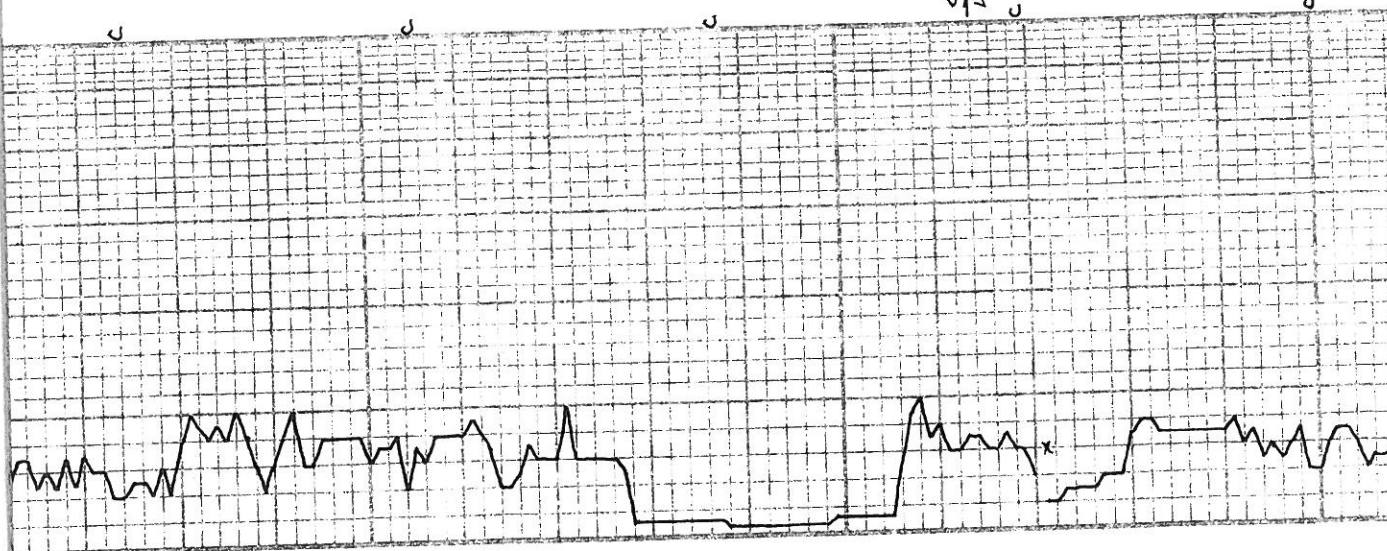
4100

4200

LS, WHT, F XTLW, MED OOLG, SOFT, F P CMT'D OOLG, G OOLG, NS	LS, BRN, GRY, VF XTLW, DNS, TITE, NS	LS, CRM, F XTLW, SOFT, "ROTTED", G SCT XTLW P, NS	SH, GRY	LS, GRY, F XTLW, V FOSS, SCT OOLG, W CMT'D FOSS, VP TITE P, NS	SH, GRY	LS, TAN, VF XTLW, V DNS, HRD, W CMT'D LG OOLG, TITE, NS	A.A.	LS, LT GRY, VF XTLW, V DNS, V HRD, SCT FOSS, TITE, NS	A.A.
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7:AM 11-17-12
DRLG @ 4100

MUD CHECK
VIS 50 WT 9.2
CHLOR 4,500 LCM 2
FLT 9.6



4300

STARK
4314 - 1114

CHT, MILKY, GRY, V FOSS IN Pcs, NS	LS, TAN, VFX TLN, DNS, HRD, STRKS OF G WEATH Ø, NS	A.A.	LS, TAN, CRM, FXTLN, HRD, V FEW FOSS, TITE, NS	LS, TAN, CRM, FXTLN, MHRD, V FOSS SL S COOLS, MOSTLY W/CMTD, P Ø, NS	SH, BLK	LS, BUFF, WHT, FXTLN, SOFT, "MEALY", SCT XTEN + VUG Ø, NS	LS, CRM, BUFF, VFX TLN, HRD V DOM, TR VUG Ø, NS	SH, BLK	LS, TAN, BAN, VFX TLN, VHRD, V ØØL, VWCMTD ØØLS, NO APP Ø, NS	CHLK	LS, GRY, VFX TLN, DNS, HRD, NO VIS FOSS + Ø, NS	SH, DK GRY
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STARK
4314 - 1114

SH, BLK

LS, TAN, BRN, VEXTN, VHRD,
VDBL VUCMTD OOLS,
NO APPD. NS

CHLK

LS, GRY, VEXTN, DWS, HRD,
NO VIS FOS + D, NS

SH, DK GRY

LS, TAN, BRN, VEXTN, V FOS
LG XTS W/ W, PXTN D, NS

LS, CRM, LT TAN, FXTN,
SCT FOS, P D, NS

A.A

LS, LT GRY, TAN, VEXTN, V DWS,
HRD, NO APPD. NS

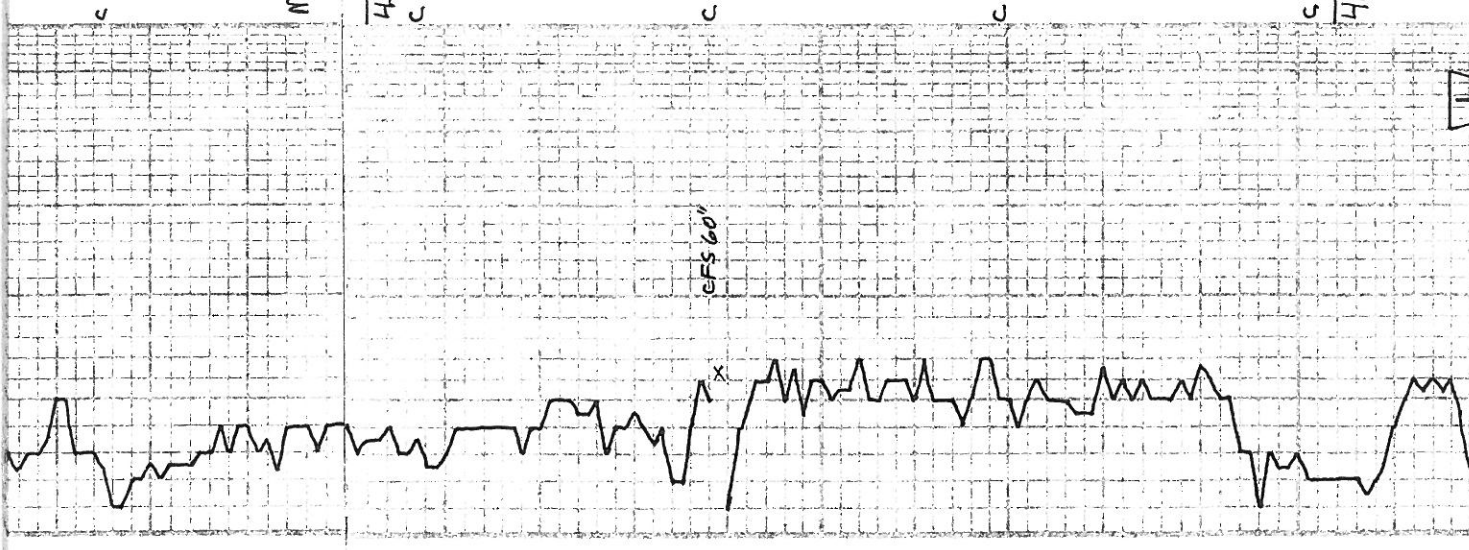
A.A

LS, DK GRY, GRY, BRN, VEXTN,
V DWS, VHRD, TITE

CHT, BRN, SL OPAQ

LS, TAN, LT GRY, VEXTN,
CRYPTO, TITE, NS

4400



LS, TAN, LTGRY, A.A.

SLTSTN, GRY, V SUDY, FGAMS

SH, GRY, SLTY

LS, TAN, BUFF, FXTLN, DNS
HRD, V FEW SET FOSS, TBE
NS

LS, BUFF, ABUN OOL + FOSS, VW
CMT'D FOSS, HRD, NO APP
NS

LS, AA, LOOSE, SOFT, OOLS, NS

LS, BUFF, VFXTLN, DNS, V HRD,
LITE, NS

LS, CRM, VFXTLN, V HRD, V DNS,
TITE, NS

LS, AA, SET PYR

LS, GRY, DKGRY, VFXTLN, V HRD,
DNS, TITE, CHTY

SH, GRY, HRD

LS, TAN, F → MXTLN, SET LG
FRAGS + FOSS, W CMT'D,
VP → TITE Ø, NS

MARMATON

4500

4502 - 1302

4600

SPAWNNEE

4604 - 1404

7:AM 11-18-12
DRLG @ 4502'

MUD CHECK

VIS 51 WT 9.4
CHLDR 5000 LCM 2
FILT 8.0

DST #1 4616-4639
30.60.45.90

IF: 1 1/4" 151:NR

FF: 1/4" FSI:NR

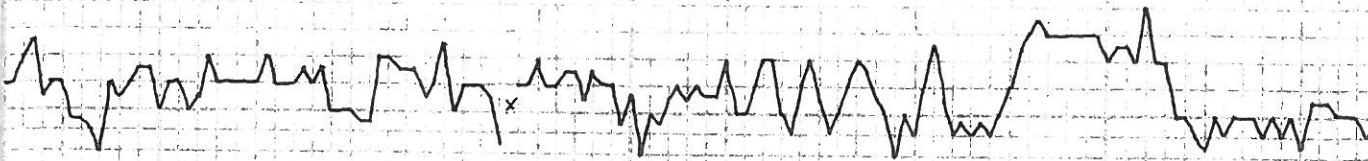
REC: 1'FO

79' MCW 40 SPTS
70%W, 30%W

FP: 17-32, 37-54

SIP: 1003-961

HP: 2330-2235



4600

RAWNIE
4604-1404

LS, GRAY, DKG, RY, VEX TLN, VHRD,
DNS, TITE, CHTY

DST#1 4616-4639
IF: 1X4" 151:NR
FF: 1/4" FSI:NR
REC: 1'FO

SH, GRAY, HRD
LS, TAN, F-M XTLN, SCT LG
FRAGS + FOSS, W CMT'D,
VP-TITE Ø, NS

79' MCW W/O SPTS
70%W, 30%M
FR: 17-32, 37-54
SIP: 1003-961
HP: 2330-2235

MYRIC

C 4629-1429

SH, GRAY

DST1: 37 STAND SHEETTRIP

DEV 3/4"

LS, WHT, FXTLN, CHLKY, LT FLUOR,
CHLKY TXI, FAIR PP FLUOR D SPTS
ON BRK, NO OBOIR
LS, BUFE, FXTLN, SCT LG, XTLN W/W,
S2M HRD, W6 BRN OIL FILL Ø,
F-M FO ON BRK

VTOL
ISL RWSW
LT OBOIR
MED BRN 7:AM

STRAP 4659, 46
BOARD 4662.67
SHORT 3.27'
DST@ 4639'

FT SCOT
4646-1446

SH, BLK

MUD CHECK

VIS 56 WT 9.4
CHLOR 6,400 LCM 2
FILT 88

CHEROKEESH
4669-1469

LS, TAN, GRAY, VEX TLN, VHRD, V DNS,
SCT BRN FOSS CHT, TITE, NS
LS, WHT, A.A.
LS, GRAY, BRN, VEX TLN, VHRD,
DNS, SCT FOSS, SCT WHT FOSS
CHT, NS

SH, BLK

CFS 60'

LS, WHT, FXTLN, SOFT, SLTY TXI,
NO VIS Ø, NS

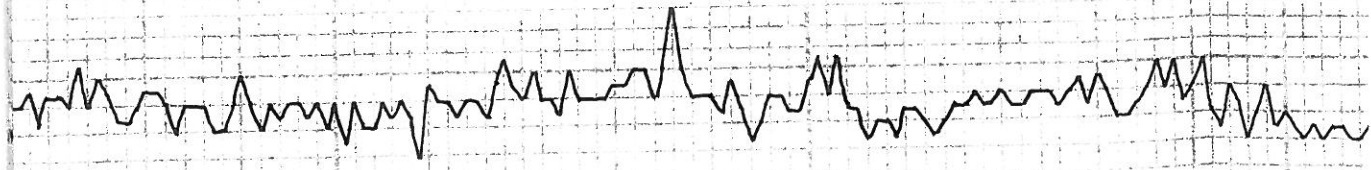
LS, WHT, CRM, FXTLN, MHRD,
FOSS, PXTLN Ø, NS

4700

LS, TAN, GRAY, FXTLN, HRD,
ABUN FOSS, PXTLN Ø, NS

LS, A.A., VHRD, TITE, NS

LS, BRN, TAN, VEX TLN, V DNS, HRD



JOHANSON
4723-1523

ATOKA
4766-1566

4800

MORROW SH
4848-1648

SCT FOSS, NO MTT P, NS	LS, BRN, VF XTLN, CRYPTO XTLN, VF SCT MED XTLN W/N, DMS, TITE, NS
SH, GR	
SH, GR, GRN	
CHT, WHY, TAN/OPA Q, FRESH, SHARP, NS	LS, TAN, CRM, EXTLN, BRIL, SCT FOSS, NO APP Q, NS
SH, DK GR	
LS, TAN, FXTLN, CHT W/N, HRD, TITE, NS	CHT, TAN, FOSS, FRESH, NS
LS, WHY, V GRN LR, SOFT, G Q, BLK + BRN MIN'S W/N, NS	
LS, AA, INC R CHT	
SS, CLR, DRNG TINT'D, RND ANG, QTE, UNCONSOL, NO ODOR, NS	LS, TAN, V FXTLN, M HRD, FEW FOSS
SH, GR, BLK, LT GRN	

7:AM 11-20-12
DRLG @ 4852'
MUD CHECK

MORROW SH
4848-1648

SS, CLR DRUG, TINT'D, RWD ANA,
QZ, UNCONSOL, NO OBR, NS
LS TAN, V FXTLN, M HRB, FEW FOSS

7:AM 11-20-12
DRLG @ 4852'

MUD CHECK

VIS 55 WT 9.4

CHLOR 6,000 LCM 1
FLT 8

SH, A.A.

LS, TAN, FXTLN, FOSS, SOFT,
SLATY, GXTLN Ø, NS

SH, GRY, DK GRY

A.A.

SS, CLR GRNS, W SORT, SML
GRNS, SOFT, P FCMTD, P FØ
NS
LS TAN, FXTLN, FOSS, HRB, TITE
NS

SH, GRY, GRY

SS, GRY, CLR GRNS, F M GRNS,
W SORT, SL STY, SOFT, NS

SS WHT, CLR GRNS, F GRNS, W SORT,
CLEAN, V G Ø, NS
SS, TAN, CRM, A.A.

SH, BLK

LS, CRM, V FXTLN, HRB, FOSS,
TITE, NS

MISS
4958-1758

4900

SS + SH FLOOD

LS, WHT, FXTLN, BRITL, NS

LS, CRM, $F \rightarrow M$ XLN, FOSS,
HRD, TITE, NS

SS + HS FL000

LS, WHT, CRM, VGRNLR, SOFT,
P → F₀, MS

LS, BRN/WHT, M → CRS XTLN,
VHRB, NO APPQ, NS

5000

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

February 18, 2013

Ted McHenry
Raymond Oil Company, Inc.
PO BOX 48788
WICHITA, KS 67202-1822

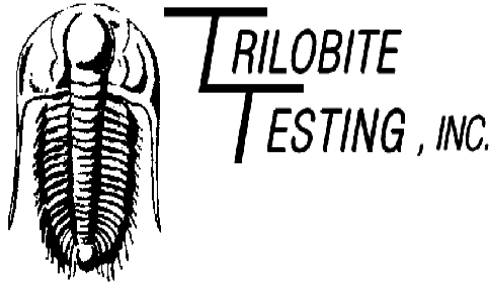
Re: ACO1
API 15-203-20193-00-00
Holstein 2
NW/4 Sec.12-20S-36W
Wichita County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Ted McHenry



DRILL STEM TEST REPORT

Prepared For: **Raymond Oil Company**

PO Box 48788
Wichita, KS 67202

ATTN: Max Lovely

Holstein #2

12-20s-36w Wichita,KS

Start Date: 2012.11.18 @ 23:55:52

End Date: 2012.11.19 @ 08:58:22

Job Ticket #: 50104 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.23 @ 14:40:25



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Company

PO Box 48788
Wichita, KS 67202

ATTN: Max Lovely

12-20s-36w Wichita, KS

Holstein #2

Job Ticket: 50104

DST#: 1

Test Start: 2012.11.18 @ 23:55:52

GENERAL INFORMATION:

Formation: **Myric**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:29:22

Time Test Ended: 08:58:22

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

Interval: 4616.00 ft (KB) To 4639.00 ft (KB) (TVD)

Total Depth: 4639.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3200.00 ft (KB)

3190.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press @ Run Depth: 54.70 psig @ 4617.00 ft (KB)

Start Date: 2012.11.18

End Date:

2012.11.19

Start Time: 23:55:57

End Time:

08:58:22

Capacity: 8000.00 psig

Last Calib.: 2012.11.19

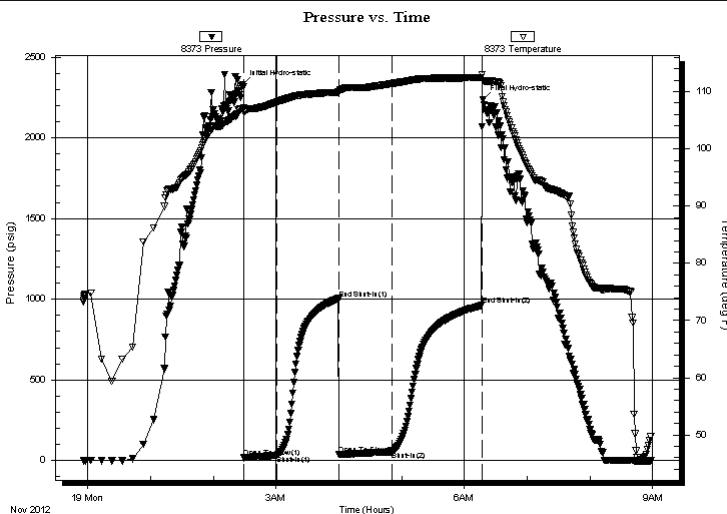
Time On Btm: 2012.11.19 @ 02:27:52

Time Off Btm: 2012.11.19 @ 06:17:52

TEST COMMENT: IF: 1/4" blow built to 1 1/4" in 30.
IS: No return.
FF: Weak blow built to 1/4" in 45.
FS: No return.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2330.46	107.08	Initial Hydro-static
2	17.28	106.41	Open To Flow (1)
33	32.34	108.19	Shut-In(1)
92	1003.88	109.89	End Shut-In(1)
92	37.99	109.86	Open To Flow (2)
143	54.70	111.41	Shut-In(2)
229	961.33	112.45	End Shut-In(2)
230	2235.30	111.95	Final Hydro-static



Recovery

Length (ft)	Description	Volume (bbl)
79.00	mcw oil spots 70%w 30%m	0.39
1.00	free oil 100%o	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Company

PO Box 48788
Wichita, KS 67202

ATTN: Max Lovely

12-20s-36w Wichita, KS

Holstein #2

Job Ticket: 50104

DST#: 1

Test Start: 2012.11.18 @ 23:55:52

GENERAL INFORMATION:

Formation: **Myric**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:29:22

Time Test Ended: 08:58:22

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

Interval: 4616.00 ft (KB) To 4639.00 ft (KB) (TVD)

Total Depth: 4639.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3200.00 ft (KB)

3190.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8356 Outside

Press @ Run Depth: psig @ 4617.00 ft (KB)

Start Date: 2012.11.18

End Date:

2012.11.19

Start Time: 23:55:20

End Time:

08:57:45

Capacity: 8000.00 psig

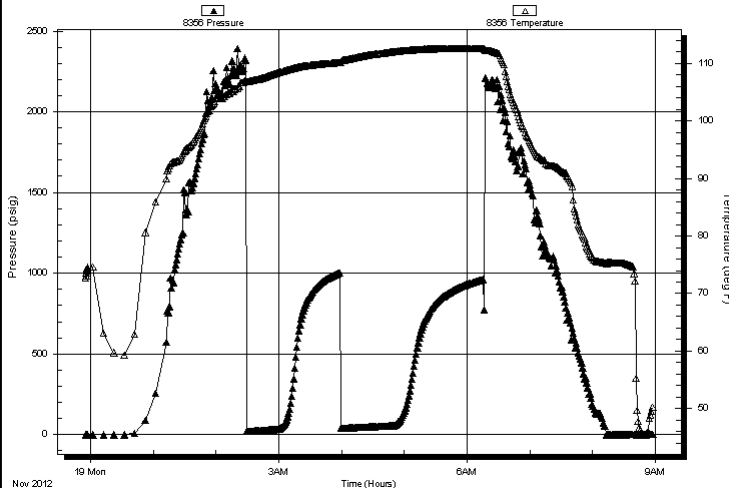
Last Calib.: 2012.11.19

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 1 1/4" in 30.
IS: No return.
FF: Weak blow built to 1/4" in 45.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
79.00	mcw oil spots 70%w 30%m	0.39
1.00	free oil 100%o	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raymond Oil Company

12-20s-36w Wichita,KS

PO Box 48788
Wichita, KS 67202

Holstein #2

Job Ticket: 50104

DST#: 1

ATTN: Max Lovely

Test Start: 2012.11.18 @ 23:55:52

Tool Information

Drill Pipe:	Length:	4363.00 ft	Diameter:	3.80 inches	Volume:	61.20 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	240.00 ft	Diameter:	2.25 inches	Volume:	1.18 bbl	Weight to Pull Loose:	75000.00 lb
					Total Volume:	62.38 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight: Initial	72000.00 lb
Depth to Top Packer:		4616.00 ft					Final	72000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		23.00 ft						
Tool Length:		51.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4589.00	
Shut In Tool	5.00			4594.00	
Hydraulic tool	5.00			4599.00	
Jars	5.00			4604.00	
Safety Joint	3.00			4607.00	
Packer	5.00			4612.00	28.00 Bottom Of Top Packer
Packer	4.00			4616.00	
Stubb	1.00			4617.00	
Recorder	0.00	8373	Inside	4617.00	
Recorder	0.00	8356	Outside	4617.00	
Perforations	17.00			4634.00	
Bullnose	5.00			4639.00	23.00 Bottom Packers & Anchor

Total Tool Length: 51.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Raymond Oil Company

12-20s-36w Wichita,KS

PO Box 48788
Wichita, KS 67202

Holstein #2

Job Ticket: 50104

DST#: 1

ATTN: Max Lovely

Test Start: 2012.11.18 @ 23:55:52

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

46000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
79.00	mcw oil spots 70%w 30%m	0.389
1.00	free oil 100%o	0.005

Total Length: 80.00 ft

Total Volume: 0.394 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .28@42=46000

Serial #: 8373

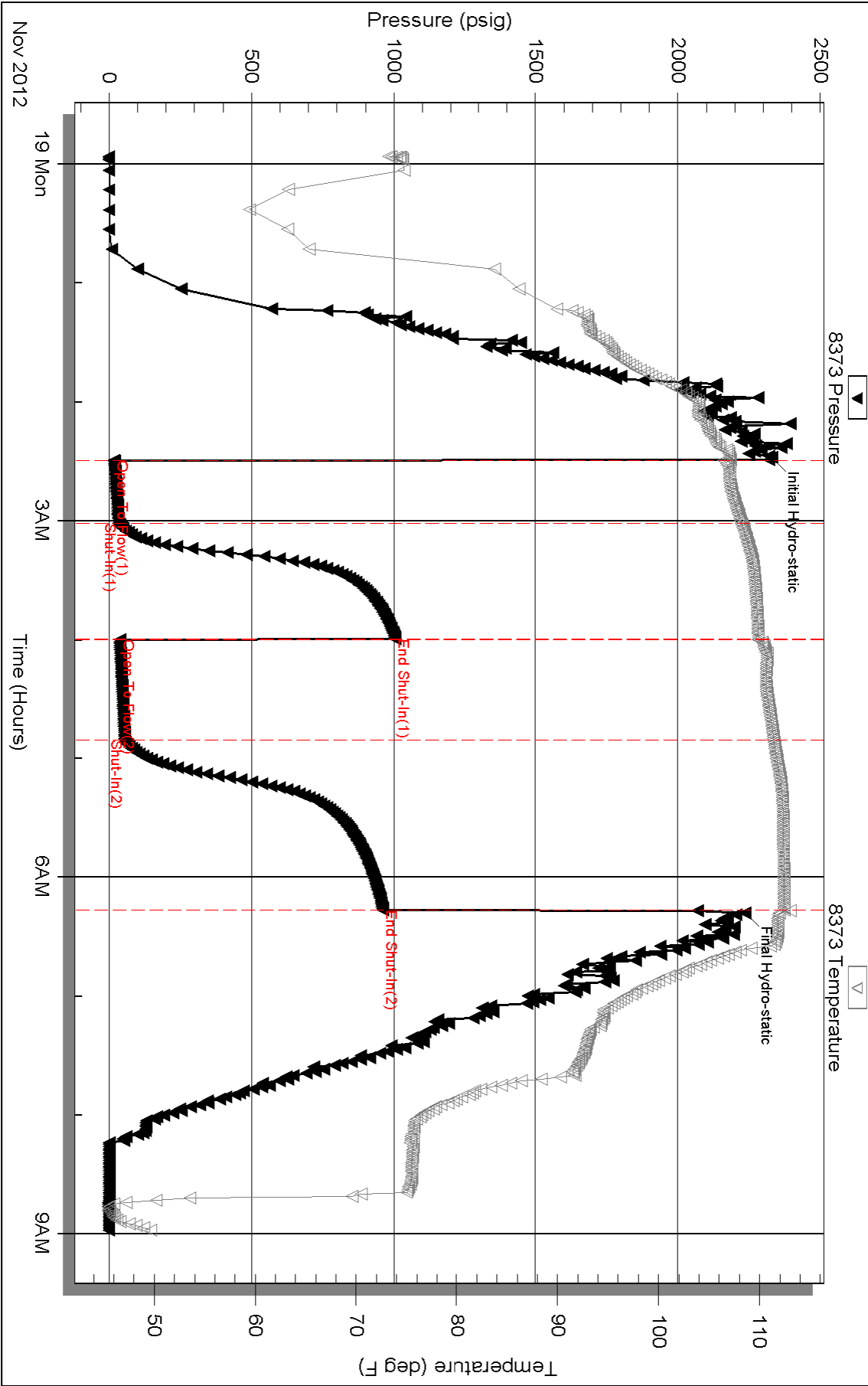
Inside

Raymond Oil Company

Holstein #2

DST Test Number: 1

Pressure vs. Time

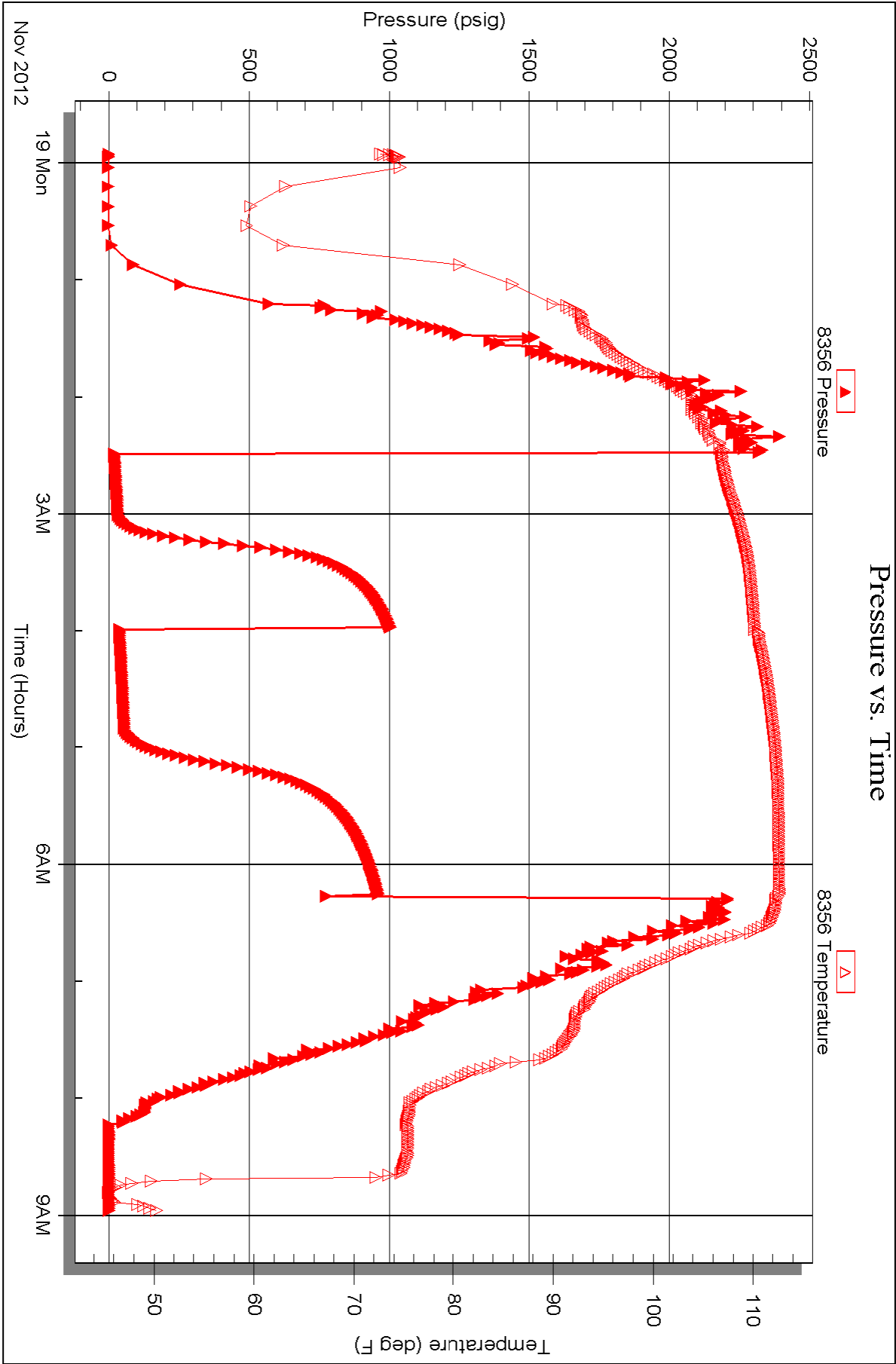


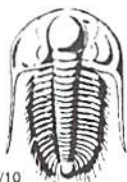
Serial #: 8356

Outside Raymond Oil Company

Holstein #2

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50104

Well Name & No. Holsteina #2 Test No. 1 Date 11-18-12
 Company Raymond oil company Elevation 3200 KB 3190 GL
 Address P.O. Box 48788 Wichita, KS 67202
 Co. Rep / Geo. Max Locely Rig H2 #2
 Location: Sec. 12 Twp. 20 Rge. 36W Co. Wichita State KS

Interval Tested 4616 4639 Zone Tested Myric
 Anchor Length 23 Drill Pipe Run 4363 Mud Wt. 9.4
 Top Packer Depth 4611 Drill Collars Run 240 Vis 51
 Bottom Packer Depth 4616 Wt. Pipe Run — WL 8.0
 Total Depth 4639 Chlorides 5000 ppm System LCM 2

Blow Description IF: 1/4 blow built to 1 1/4 in 30.
IS: No return,
FF: Weak blow built to 1/4 in 45.
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Free oil</u>		<u>100</u>		
<u>79</u>	<u>MCW oil spots</u>		<u>70</u>	<u>30</u>	

Rec Total 80 BHT 112 Gravity — API RW .28 @ 42 °F Chlorides 46,000 ppm

(A) Initial Hydrostatic <u>2330</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>20:00 30</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>23:55</u>
(C) First Final Flow <u>32</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>2:27</u>
(D) Initial Shut-In <u>1003</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>6:12</u>
(E) Second Initial Flow <u>37</u>	<input checked="" type="checkbox"/> Hourly Standby <u>2 1/2</u> 250	T-Out <u>9:00</u>
(F) Second Final Flow <u>54</u>	<input checked="" type="checkbox"/> Mileage <u>68</u> 105.40	Comments <u>1096 tool/s</u>
(G) Final Shut-In <u>961</u>	<input type="checkbox"/> Sampler	<u>11-20-12 11:00 pm</u>
(H) Final Hydrostatic <u>2235</u>	<input type="checkbox"/> Straddle	

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>800</u>
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Day Standby <u>1 1/2</u> 1d 13h	Total <u>2880.40</u>
	<input checked="" type="checkbox"/> Accessibility <u>150.00</u>	MP/DST Disc't

Sub Total 2080.40
 Approved By Max Locely Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of 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 statements or opinion concerning the results 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.

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

FIELD TICKET & TREATMENT REPORT CEMENT

 π

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
11-12-12	7158	Holstein # 2	12	20	36	Wichita
CUSTOMER Raymond Oil Co. MAILING ADDRESS CITY STATE ZIP CODE			MARIONETTE			
			TRUCK #	DRIVER	TRUCK #	DRIVER
			463	Senay		
			693	Mike		

JOB TYPE	Surf	HOLE SIZE	12 1/4	HOLE DEPTH	269'	CASING SIZE & WEIGHT	8 5/8
CASING DEPTH	268'	DRILL PIPE		TUBING		OTHER	
SLURRY WEIGHT	14.7	SLURRY VOL	1.36	WATER gal/sk	6.5	CEMENT LEFT in CASING	20'
DISPLACEMENT	15.7	DISPLACEMENT PSI		MIX PSI		RATE	

REMARKS: Safety meeting on H₂ #3 Rigup and circulate
 mix 225 sacks Class 'A' 390 or 290 gel. Displace 15 3/4 BBL
 and shoot in Cement did circulate approx 4 BBL to pit

Thanks Forst & Krow

[illegible]

Bayin 3737

AUTHORIZATION Steven Craig TITLE Tool Pusher

DATE 11-13-13

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.

254582

TICKET NUMBER 39163

LOCATION Delkey 15

FOREMAN Walt Dinkel

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
11-21-12	7158	Holstein #2	12	20 ^s	36 ^w	Wichita
CUSTOMER Raymond Oil Co			Marathon			
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
			399	Damon Miller		
			530-T129	Travis Williams		
CITY						
STATE						
ZIP CODE						

JOB TYPE	PTA	HOLE SIZE	7 7/8	HOLE DEPTH	5058'	CASING SIZE & WEIGHT	
CASING DEPTH		DRILL PIPE		TUBING		OTHER	
SLURRY WEIGHT	13	SLURRY VOL		WATER gal/sk		CEMENT LEFT in CASING	
DISPLACEMENT		DISPLACEMENT PSI		MIX PSI		RATE	5 BPM

REMARKS: Safety Meeting, rig up on H₂ #2, Plug as ordered

50 5Ks @ 2310'

80 SKS @ 1200'

50 5/6 \approx 600

50 kg @ 300'

20 sks @ 60'

2055 14 M.H.

30 SKS in RL

Thank You
Walt & crew

[illegible]

Rayin 3737

AUTHORIZTION Steven Craig

TITLE TOOL PUSHER

DATE 11-21-12

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.

254816