



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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- 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

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

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

Form	ACO1 - Well Completion
Operator	Hess Oil Company
Well Name	McCurdy 1
Doc ID	1170394

Tops

Name	Top	Datum
Anhydrite	1590	+711
Base Anhydrite	1630	+671
Heebner	3711	-1410
Toronto	3735	-1434
Lansing	3754	-1453
Stark Shale	3989	-1668
Hushpuckney	4020	-1719
Base Kansas City	4043	-1742
Marmaton	4074	-1773
Pawnee	4140	-1839
Labette	4228	-1927
Ft. Scott	4236	-1935
Cherokee Shale	4252	-1951
Cherokee B Sand	4278	-1977
Lower Cherokee Sand	4327	-2026
Mississippian	4373	-2072
LTD	4396	-2095
RTD	4400	-2099

H · E · S · S



O · I · L
C · O

Scale 1:240 Imperial

Well Name:	#1 McCurdy	
Surface Location:	1600' FSL _950' FWL	
Bottom Location:		
API:	15-135-25666	
License Number:	5663	
Spud Date:	9/19/2013	Time: 3:10 PM
Region:	Ness County sec 16 T17S R22W	
Drilling Completed:	9/27/2013	Time: 12:00 AM
Surface Coordinates:	1600' FSL & 950' FEL	
Bottom Hole Coordinates:		
Ground Elevation:	2296.00ft	
K.B. Elevation:	2301.00ft	
Logged Interval:	1550.00ft	To: 4400.00ft
Total Depth:	4400.00ft	
Formation:	Lower Cherokee sandstone	
Drilling Fluid Type:	Chemical mud	

OPERATOR

Company: Hess Oil Company
 Address: PO Box 1009
 McPherson, KS 67460

Contact Geologist: James C. Hess
 Contact Phone Nbr: (620) 241-4640

Well Name: #1 McCurdy
 Location: 1600' FSL _950' FWL
 Pool: Wildcat
 State: Kansas

API: 15-135-25666
 Field: Wildcat
 Country: United States

ELEVATIONS

K.B. Elevation:	2301.00ft	Ground Elevation:	2296.00ft
K.B. to Ground:	5.00ft		

CONTRACTOR

Contractor: Company Tools
 Rig #: Standard Double
 Rig Type: Standard Double
 Spud Date: 9/19/2013
 TD Date: 9/27/2013
 Rig Release: 9/29/2013

Time: 3:10 PM
 Time: 12:00 AM
 Time: 9:00 AM

LOGGED BY

Company: S.L.E
 Address: 225 N. Market Suite 300
 Wichita, KS 67202

Phone Nbr: (620) 953-2066
 Logged By: Geologist

Name: Seth L. Evenson

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.7678917 Latitude: 38.5716547
 N/S Co-ord: 1600' FSL
 E/W Co-ord: 950' FEL

CASING SUMMARY

	Surface	Intermediate	Main		
Bit Size					
Hole Size					
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8 5/8 in	217 ft	na	na	9/20/2013 5:00 AM
Int Casing	na in	na ft	na	na	
Prod Casing	5 1/2 in	4394 ft	J-55	107	10/7/2013 2:00 PM

CASING SEQUENCE

Type	Hole Size	Casing Size	At
	0.00 in	0.00	0.00 ft

OPEN HOLE LOGS

Logging Company: Pioneer
 Logging Engineer: Robert Barnhart
 Truck #: 15
 Logging Date: 9/28/2013 Time Spent: 2
 # Logs Run: 2 # Logs Run Successful: 2

LOGS RUN

Tool	Logged Interval	Logged Interval	Hours	Remarks	Run #
Dual Compensa	3600.00ft	4375.00ft	2.00		1
Dual Induction	217.00ft	4395.00ft	2.00		1

LOGGING OPERATION SUMMARY

Date	From	To	Description Of Operation
9/28/2013	0.00ft	4396.00ft	

NOTES

DST #1	DST #2	DST #3
4202'-4265'	4264'-4318'	4290'-4341'
30-30-15-pulled test	45-45-45-60	60-60-60-90
IHP 2082# IFP 23#-29# ISIP 341# FFP 29#-38# FSIP NA FHP 2042#	IHP 2129# IFP 29#-141# ISIP 364# FFP 143#-196# FSIP 364# FHP 2087#	IHP 2146# IFP 26#-126# ISIP 1285# FFP 139#-201# FSIP 1300# FHP 2057#
Rec: 55' mud	Rec: 70' MCW 300' Wtr	Rec: 200' GO (10% G, 90% O) 120' SOCM (10% O) 60' SOCWM (10% O, 30% W) 60' VSOCWM (5% O, 30% W) 40' GIP

ROCK TYPES

 Anhyprim	 Lmst fw<7	 Shblk	 Cht vari
 Coal	 Ss	 Shcol	 Chtcongl
 Dolprim	 Shgy	 Ool grnst	

ACCESSORIES

MINERAL

△ Chert White

FOSSIL

○ Oolites

STRINGER

Limestone

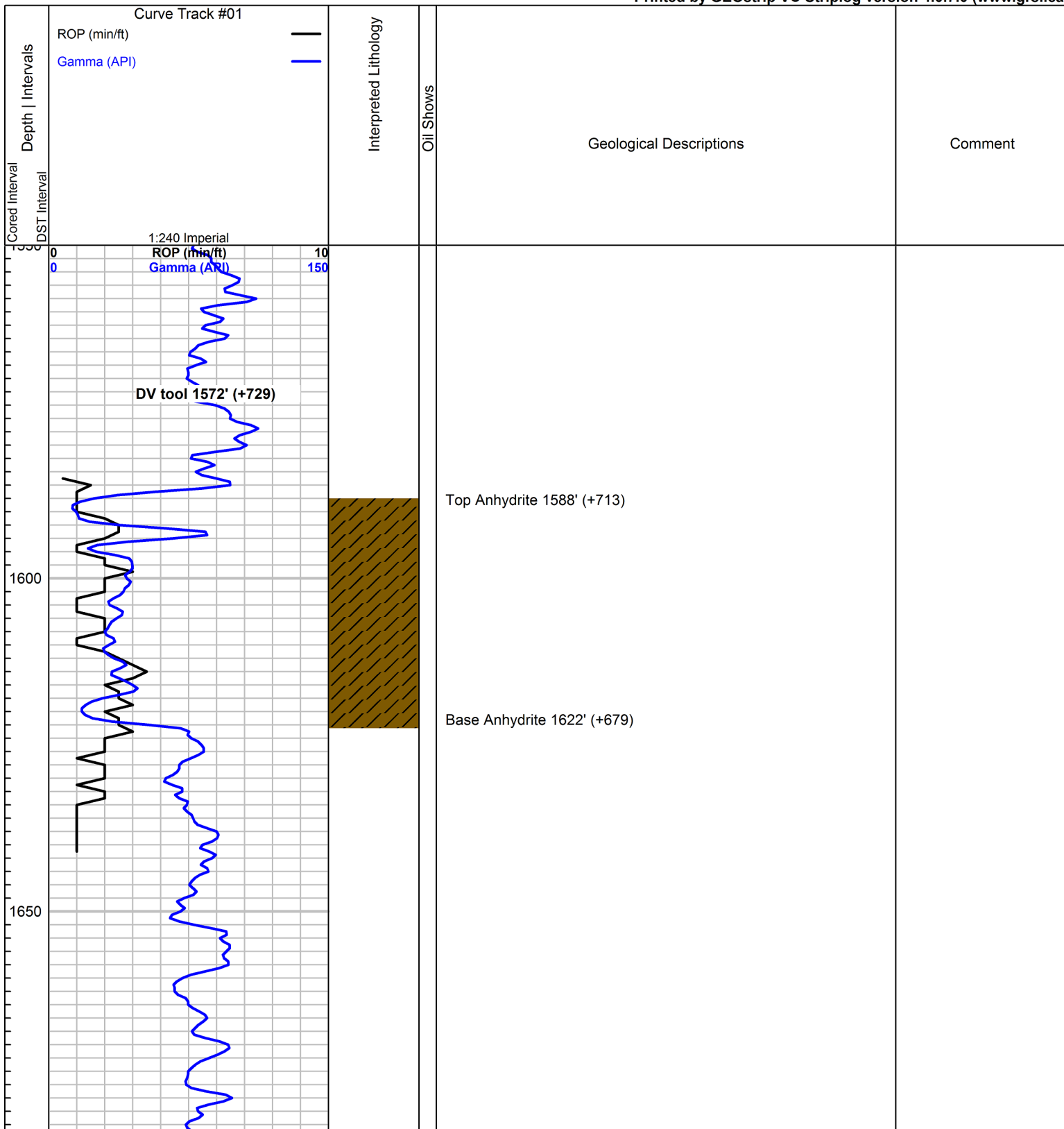
Siltstone

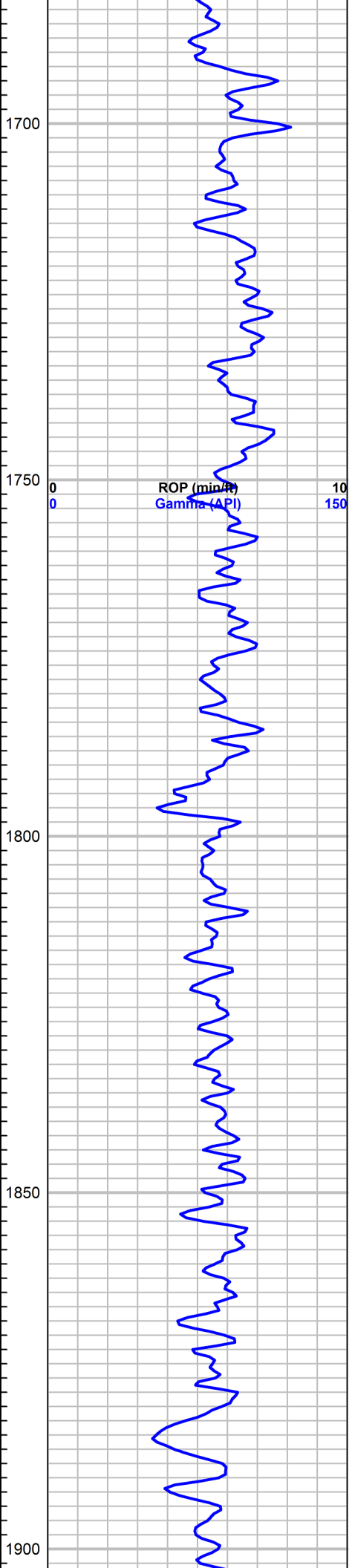
OTHER SYMBOLS

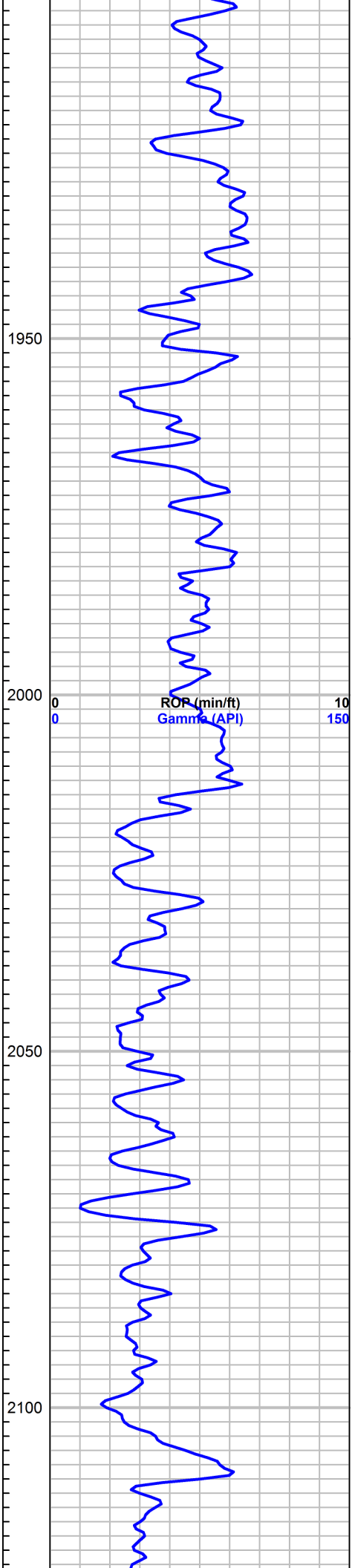
OIL SHOWS

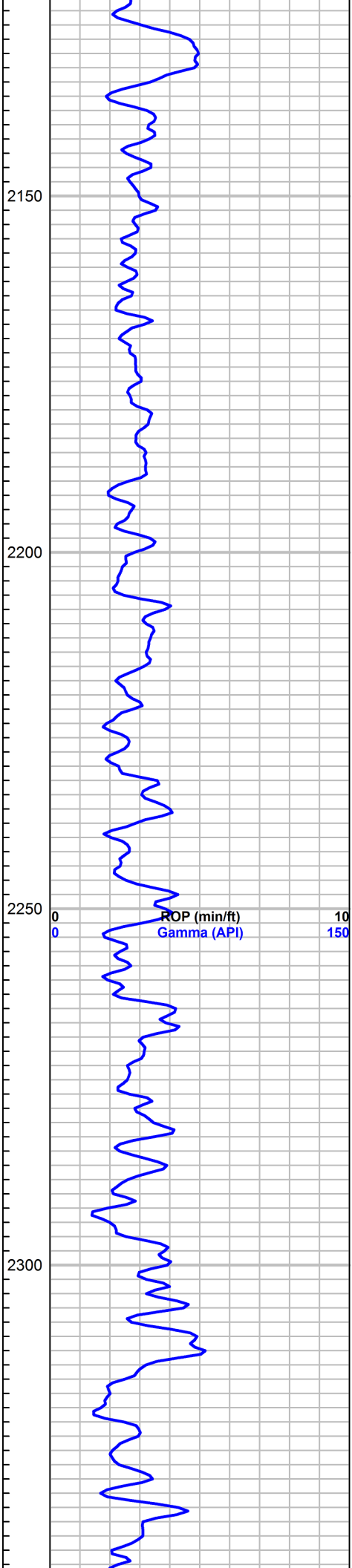
- Even Stn
- Spotted Stn 50 - 75 %
- Spotted Stn 25 - 50 %
- Spotted Stn 1 - 25 %
- Questionable Stn
- D Dead Oil Stn
- Fluorescence

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

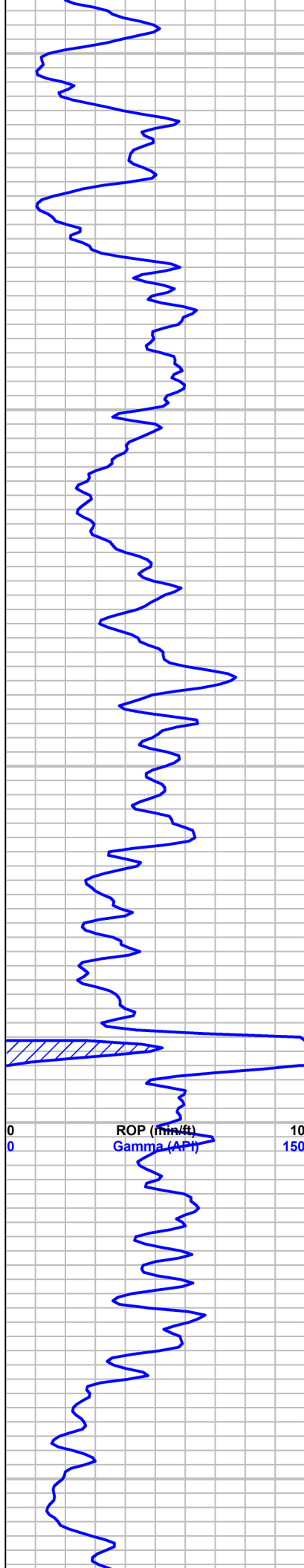






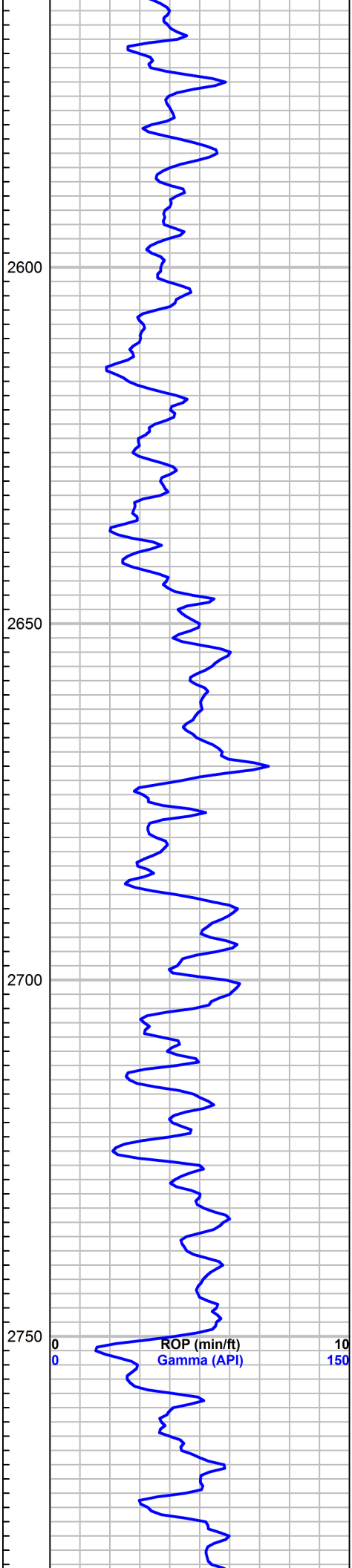


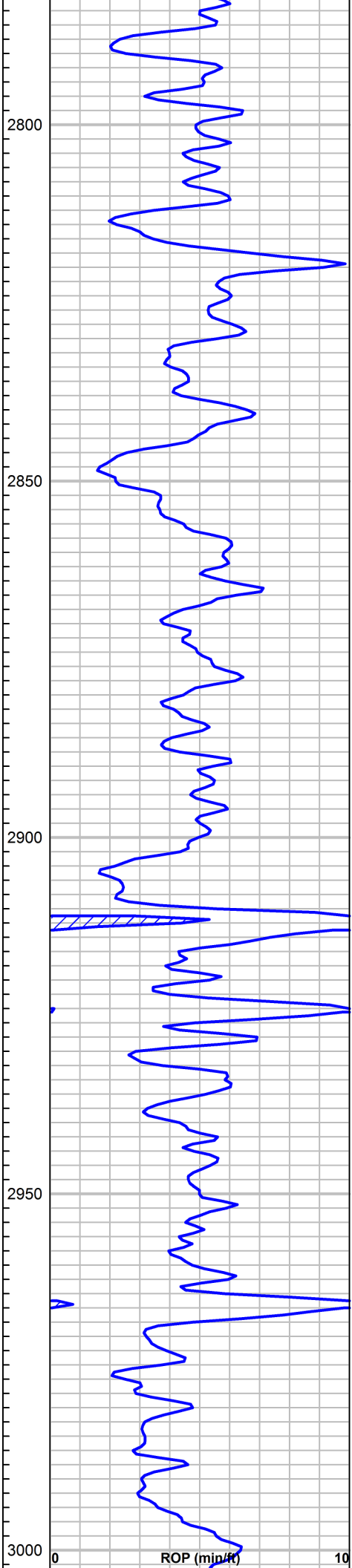
2350
2400
2450
2500
2550

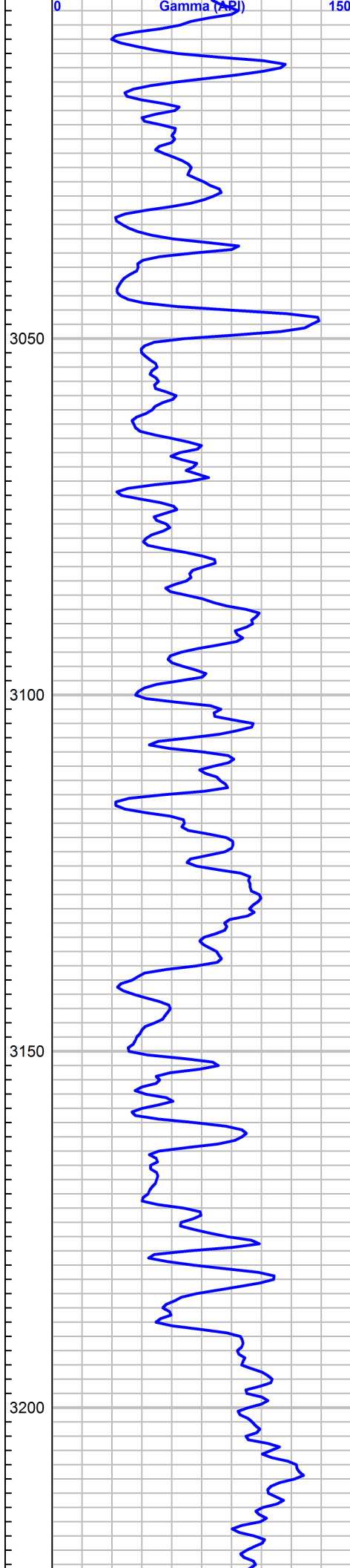


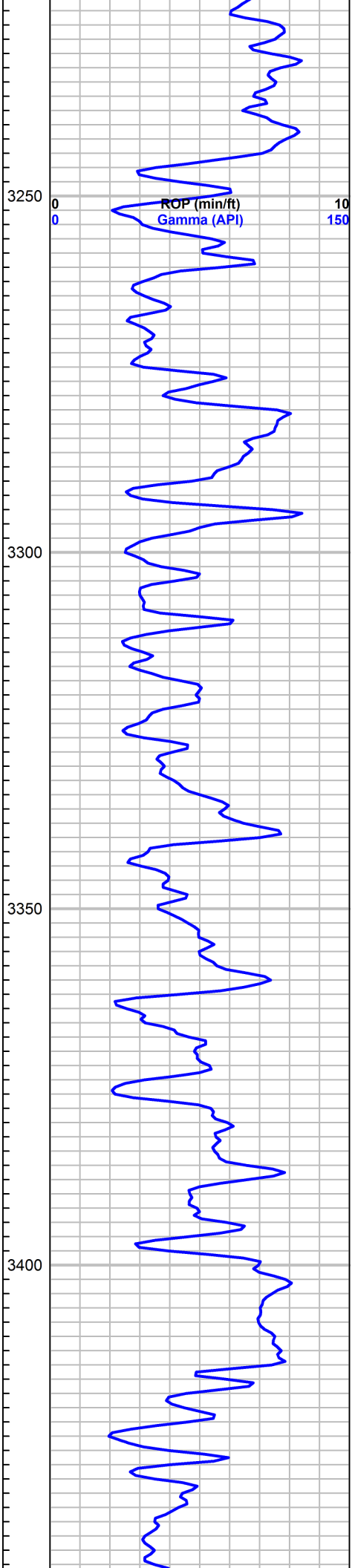
ROP (min/ft)
Gamma (API)

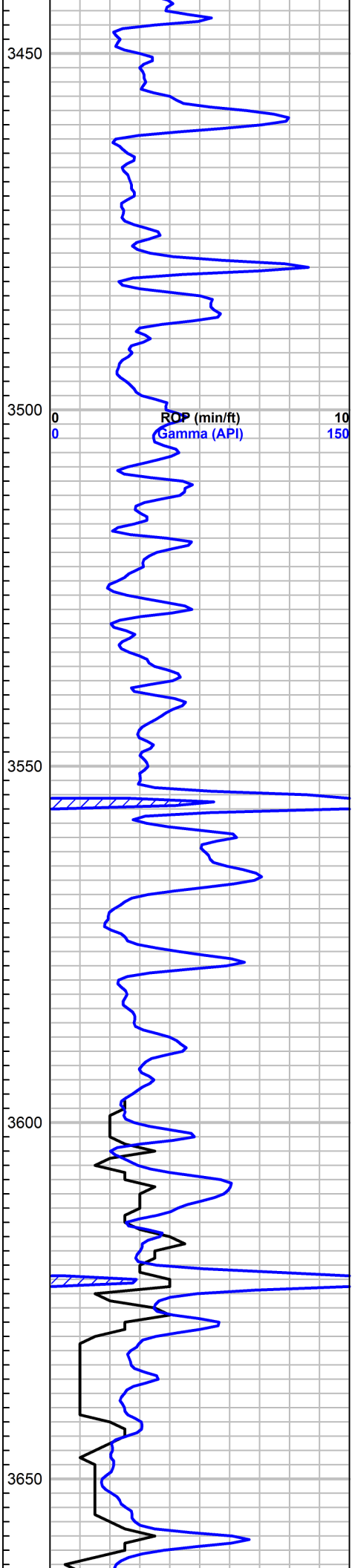
0 10
0 150



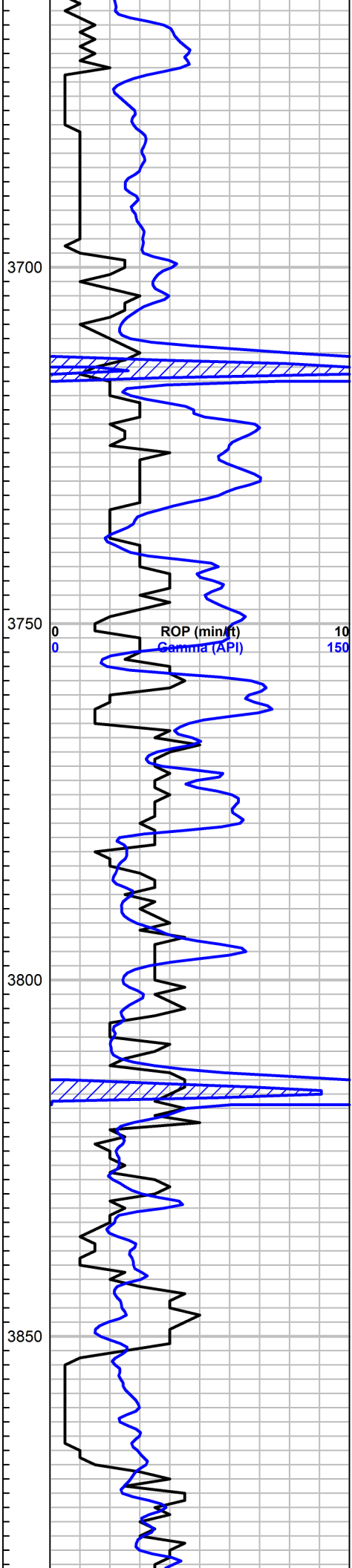








Oread 3630' (-1329)

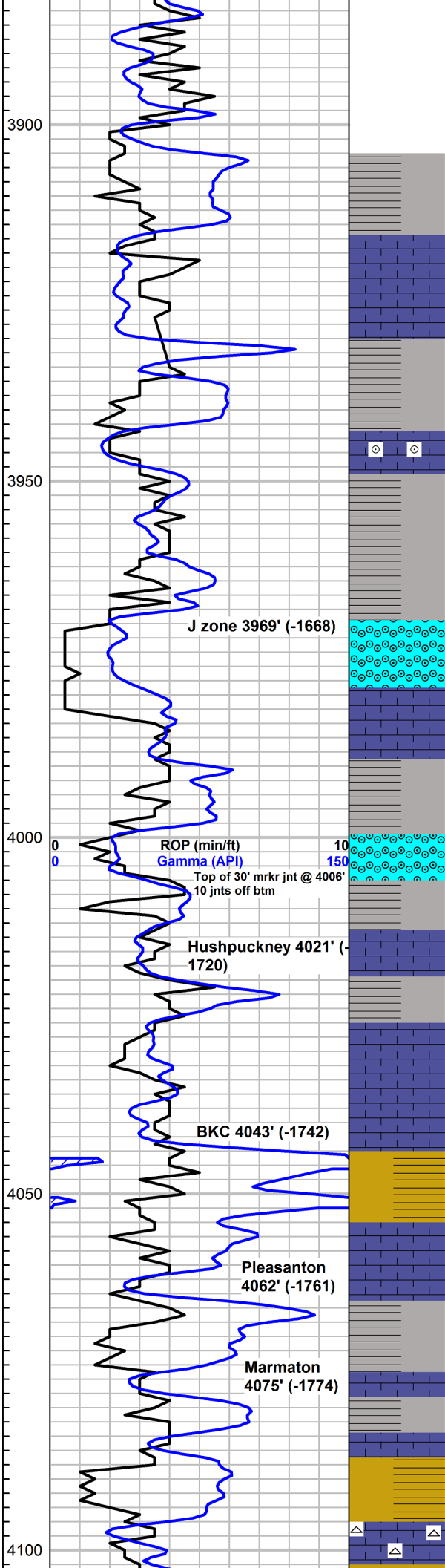


Heebner 3711' (-1410)

Toronto 3735' (-1434)

Lansing 3754' (-1453)

G zone porosity 3852' (-1551)



3900'-10': Lms, crm-lt gry, micro-vfn xtln, med res, no vis por.

3910'-20': Lms, gry, vfn xtln, med res, no vis por.

3920'-30': Lms, mstly gry as abv, some crm, chlky, sft, all no vis porosity.

3930'-40': Lms, crm, vfn xtln, med res, pr-no vis porosity.

3940'-50': Lms, crm-tan-lt gry, vfn xtln, med res, no vis por. Also some colored shales.

3950'-60': Shale, drk gry, gry, gry/grn, maroon, trc brwn, mstly tite lms as abv. Trc tan ool lms w/vry pr porosity. NS.

3960'-70': Shale, vry drk gry, gry, blu/grn & maroon. Mstly lms, crm-tan, vfn xtln, some sli ool, trc foss, all pr-no vis por. NS.

3970'-80': Shale, drk gry, gry, maroon, grn & red/orng.

3980'-90': Shale, as abv.

3990'-4000': Lms, tan, micro xtln, oomoldic vuggular, abndt rnd, med-lrg vugs, med res, fr-gd vuggular porosity, NS.

4000'-10': Lms, crm-gry, off-wht, sft & chlky; mstly gry micro-vfn xtln, med res, no vis porosity.

4010'-20': Lms, crm, micro xtln, brtl-med res, sprsly-abndtly ool, vry small ooids, trc vugs only, some vry sli chlky, pr-no vis por.

4020'-30': Lms, lt gry, micro-vfn xtln, med res, non-allochemical, no vis porosity.

4030'-40': Lms, lt gry, micro-vfn xtln, med-hrd res, no vis porosity, some chert, gry, shrp & frsh.

4040'-50': Lms, crm-lt gry, micro-vfn xtln, some sli chlky, all pr-no visible porosity. Also some shale.

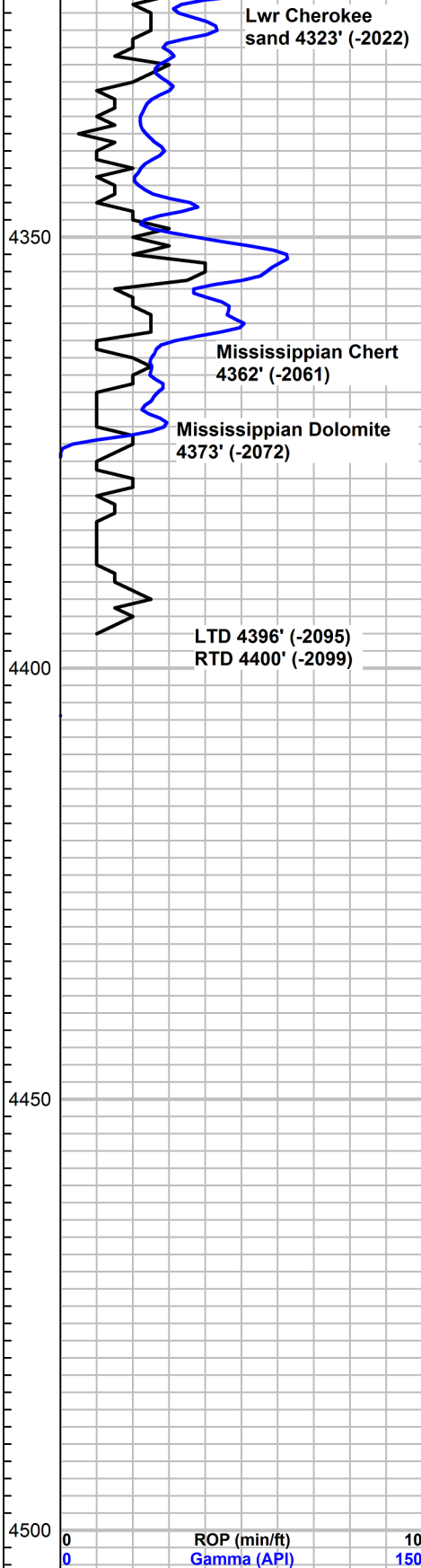
4050'-60': Lms, crm, micro xtln, brtl-med res, some sli chlky, all no vis por. Some shale, drk gry-gry, maroon, & trc grn.

4060'-70': Lms, gry-drk brwn, micro-vfn xtln, hrd-vry hrd res, no vis porosity. Trc blk carb shale.

4070'-80': Lms, tan-lt gry, vfn xtln, med res, no vis porosity. Some shale, gry, maroon, trc blk carb, red & grn.

4080'-90': Lms gry-lt gry, micro-vfn xtln, med-hrd res, vry sli shaley, no vis porosity. Some shale, gry, maroon, prpl & grn.

4090'-4100': Shaley lms, mottled, lt gry/maroon, tan/maroon, gry/yell, micro-vfn xtln, med-hrd res, no vis por. Much shale, gry, maroon, lt gry/grn, red/orng, some mottled, trc lmy shale.



4318'-30': Shale, vari-colored, gry, drk gry, prpl, maroon, prpl, gry/yellow, red. Also, vari-colored sli shaley lms, no vis por.

4330'-40': Shale, vari-colored as abv. Many pcs mottled. Also vari-colored shaley lms/lmy shale, no vis por. Trc chrt, drk tan, red-orng, off-wht, shrp & frsh.

4340'-50': Much trip trash shale. Some chrt, sli tripolitic, off-wht to yell/tan as abv. Med-hrd res. Trc pcs w/scat blk sptd edge stn, trc small vry sprs vugs. Vry pr vis por, wk-fr dull yell/grn fluor. Fr strming cut on brk only. Trc sndy chrt, NS.

4350'-60': Chrt & sale, vari-colored. Chrt, off-wht, tan, yell, red/orng. Shrp & frsh, NS. trc ool colored chrt. Shale, gry, maroon, prpl, red, grn, some mottled. Likely conglomeritic section.

4360'-70': Vari-colored shale & chrt as abv. Poss trc dead spty stn in some pcs ool chrt, NSFO. Otherwise NS.

4370'-78': Vari-colored shale as abv. Much shrp & frsh chrt, mstly off-wht, tan & yellowish. NS.

4378'-90': Dolomite, tan-lt gry, vfn xtlm, med res, no vis por. Chrt, mstly off-wht, also tan to yellowish, shrp & frsh no vis por.

4390'-4400': Dolomite, crm-tan vfn xtlm, no vis por, as abv. Also chrt, increase in sli tripolitic, off-wht, crm, yellowish. 1 small pc trip chrt w/FSFO on brk, brtl, likely from uphole. Rest no show.

4400' CFS 20 min: Dolomite, crm, fn xtlm, med res, pr-no vis por. NS. Much chrt off-wht to vry lt gry & semi trans lscent, shrp & frsh.

4400' CFS 40 min: Dolomite crm-tan sft-med res, some drk brwn hrd res. vfn xtlm, pr-fr intr xtlm por. pr-no vis por in hrd brwn pcs. NS. Much chrt, off-wht, crm- tan, mst shrp & frsh some sli weathered, NS.

4400' CFS 60 min: Dolomite, tan-drk brwn, fn-med xtlm, hrd res, sli silicaceos, pr vis por. A few pcs tan dolo w/scat med sized vugs. NS. Much chert, off-wht, tan, lt gry, shrp & frsh as abv.

grains, trc tiny clst. NS. Some silty shale.

4280' CFS 60 min: Shale, maroon, gry, gry/grn & prpl. ,

4290' CFS 20 min: Lms crm, micro-vfn xtlm, med res, pr-no vis por.

4290' CFS 40 min: Lms, crm, micro-vfn xtlm, med-hrd res, some sli chiky, all no vis por.

4300' CFS 20 min: Lms, off-wht to crm, micro-vfn xtlm, some sli chiky, med res, all no vis por. A few pcs lt gry micro xtlm, sli shaley lms w/smooth texture, no vis por.

4300' CFS 40 min: Lms, mstly crm as abv, much lt gry & brwn, micro-vfn xtlm, med-hrd res, sli shaley, gry pcs often sli glauc, no vis por.

4300' CFS 60 min: Lms gry, brwn, trc prpl & yell/grn, sli shaley lms, micro-vfn xtlm, hrd res, no vis por. Increase in shales, gry, maroon, prpl, grn, blk.

4315': Mix of vari-colored shales, & shaley lms as abv. Also much crm colored lms as abv, all no vis por.

4315' CFS 20 min: Mix of shale & tite lms as abv, NS.

4315' CFS 40 min: Lms, sli shaley, gry, tan, brwn, lt grnish/sli glauc, yellowish. Micro-vfn xtlm, hrd res, no vis por. Also shale as abv.

4315' CFS 60 min: Shale, gry, maroon, grn, some blk carb, brtl. Trc vivid yellow conglomeritic looking shale.

4318' CFS 40 min: Shale, vari-colored, gry, maroon, prpl, blk, grn, blu/grn, yellow.

4318' CFS 60 min: Vari-colored shales, great increase in grn, prpl, & turquoise shales. Some mottled shale. Trc vari-colored shaley lms.

4341' CFS 20 min: SS, off-wht/cht, fn grained, sub ang, well strtd, fr well cmntd many pcs friable, gd overall intr gran por. Fr even lv brwn stn & sat, gd dull yell/grn even fluor. Gd shw film rainbow oil on brk, some scat flky drk brwn stn on brk, fr-gd strming cut on brk, gd bloom. 1 pc trip chrt, med res w/ gd lv oil stn in intrnal pinpnt vugs. No odr.

4341' CFS 40 min: SS, clr fn-med grained, cln, fr-well strtd. Med-hrd res firm, but many pcs sli friable to vry easily friable fr-gd intr granular por. Fr, vry even lt stn & sat mst pcs. FSFO, brwn free oil on brk. Some gassy free oil, occ flky stn. Gd vry even dull yell fluor. Gd-vgd strming cut on brk, Fr-excln bloom, vry sli odr in cup. Sample mstly chrt, off-wht to wht tripolitic, med res, pr-no vis por. Trc pcs trip chrt w/uneven blk dead stn on edges. Mstly no show in chrt. Also much shrp & frsh chrt, tan to off-wht/yellowish tint to lt yellow. A few pcs w/SS & chrt attached.

4341' CFS 60 min: SS & chrt as abv. SS is hrd, more tightly cmntd & trc-SSFO only in mst sat pcs. Still well sat mst pcs. fluor as abv, Sli to gd strming cut. Instant cut & vry thick nlm on brk. Mst hrd pcs appear to have vry good internal sat. Much chrt as abv, no shw in chrt. Vry sli odor in cup.

4355': Vry much vari-colored shale & ss w/shw from abv. A few pcs hrd res trip chrt w/scat lv to dead stn. 1 pc w/FSFO, unable to brk, vry hrd, vry pr vis por. Mst chrt NS. trc sndy chrt as abv..

4355' CFS 20 min: Chrt, vry sli tripolitic. Off-wht, bone, scat vry lt yell spts to lt yellowish/tan. Shrp, hrd res, mst no vis por & no shw. A few pcs w/pr vry sprs dead stn.

4550

4600

4355' CFS 40 min: Chrt, mstly, off-wht, tan, yellow, trc red/orng. Shrp & frsh. several pcs w/vry scat sprs, dead blk edge stn, NSF0. Trc ool chrt w/med-lrg rnd vugs, fr blk stn, fr strming cut. Much ss, cir, fn-med grnd, med-hrd res, fr-gd even blk stn, FR-GSFO on brk some pcs, much more blk flaky stn than abv. Lacking even brwn sat & stn.

4355' CFS 60 min: Chrt & shale, vari-colored. Chrt, off-wht, tan, yellow & trc lt grn, also red/orng ool. Several clst lt gry ss, fn grained well srtd, hrd res, tite clst w/pr-fr por. Scat pinpnt blk stn in intr gran por to gd friy even gry-blk stn. GSFO on brk. SS differs from that at top of porosity, especially in stn and free oil show. Trc gd scat blk stn & fr strming cut in chrt.

4378' CFS 20 min: Chrt, off-wht, crm, tan, sli yellow. Mstly shrp & frsh. Some sli tripolitic.

4378' CFS 40 min: Dolo & chrt. Dolo, crm, vfn xtn, med-hrd res, pr-no vis por. NS. Chrt, wht, off-wht, tan, mstly shrp & frsh. Some sli tripolitic weathered chert.



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hess Oil Comp
 p.o. box 1009
 McPherson, Ks
 67460-1009
 ATTN: Seth Evenson

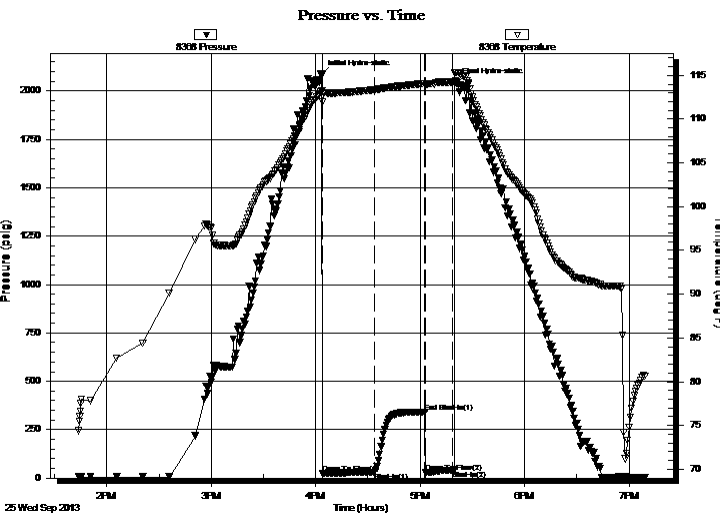
16-17s-22w Ness, Ks
McCurdy #1
 Job Ticket: 54635 **DST#: 1**
 Test Start: 2013.09.25 @ 13:43:48

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 16:03:43
 Time Test Ended: 19:20:57
 Interval: **4202.00 ft (KB) To 4265.00 ft (KB) (TVD)**
 Total Depth: 4265.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 2301.00 ft (KB)
 2296.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8368 Outside
 Press @ Run Depth: 29.27 psig @ 4203.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.25 End Date: 2013.09.25 Last Calib.: 2013.09.25
 Start Time: 13:43:48 End Time: 19:08:57 Time On Btm: 2013.09.25 @ 16:03:28
 Time Off Btm: 2013.09.25 @ 17:19:58

TEST COMMENT: 3/4" in blow
 No return
 No blow, Flush tool after 5 min. 1/4" in surge, died in 7 min.
 Pull tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2082.24	113.25	Initial Hydro-static
1	23.52	111.92	Open To Flow (1)
31	29.27	113.35	Shut-In(1)
60	341.28	114.08	End Shut-In(1)
60	29.02	113.85	Open To Flow (2)
76	38.72	114.25	Shut-In(2)
77	2042.63	115.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	mud 100% m	0.27

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Comp

16-17s-22w Ness, Ks

p.o. box 1009
McPherson, Ks
67460-1009

McCurdy #1

Job Ticket: 54635

DST#: 1

ATTN: Seth Evenson

Test Start: 2013.09.25 @ 13:43:48

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:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
55.00	mud 100%m	0.270

Total Length: 55.00 ft Total Volume: 0.270 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

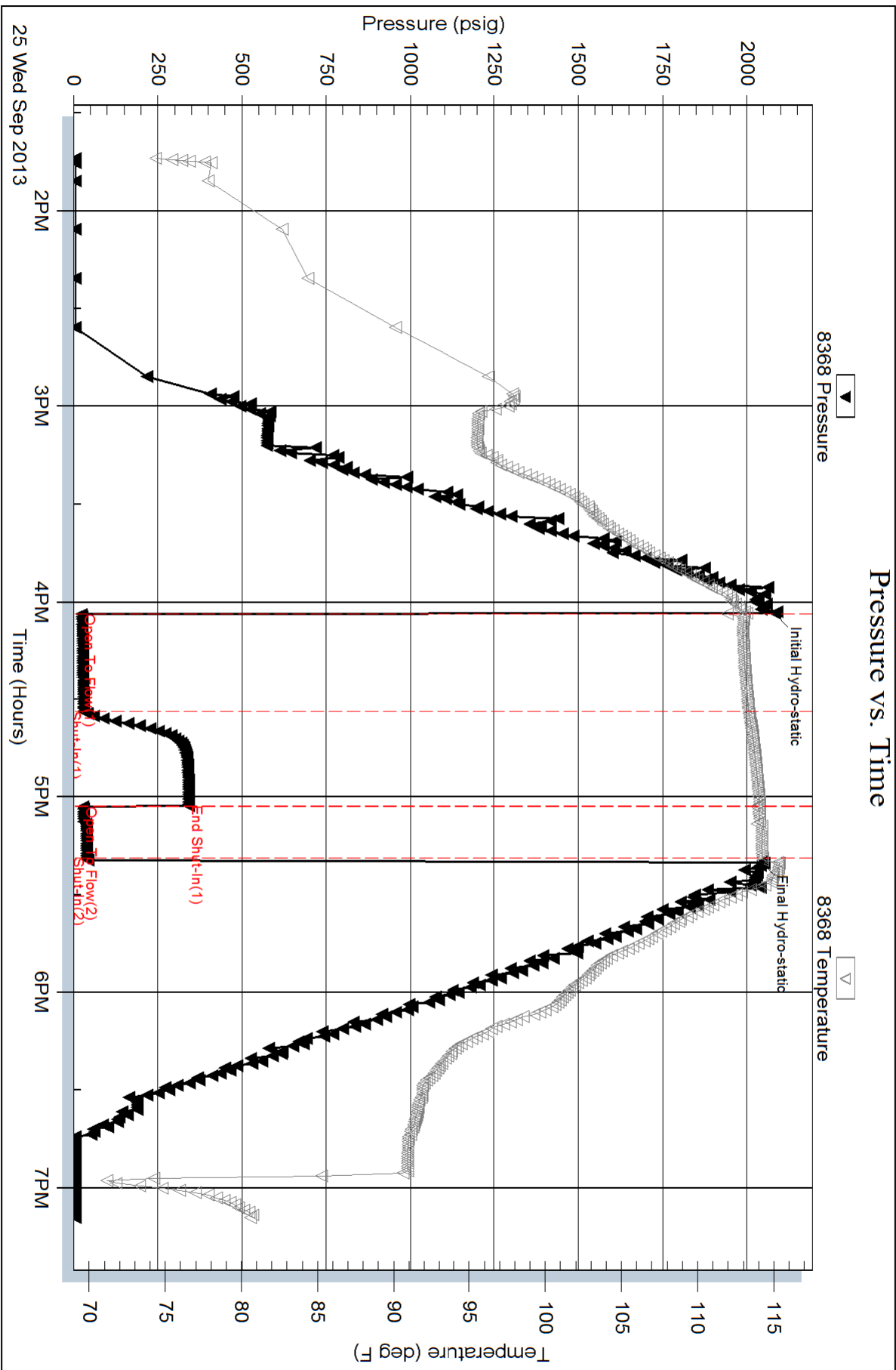
Recovery Comments:

Serial #: 8368

Outside Hess Oil Comp

McCurdy #1

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hess Oil Comp
 p.o. box 1009
 McPherson, Ks
 67460-1009
 ATTN: Seth Evenson

16-17s-22w Ness, Ks
McCurdy #1
 Job Ticket: 54636 **DST#: 2**
 Test Start: 2013.09.26 @ 10:55:54

GENERAL INFORMATION:

Formation: **Lower Cherokee**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 13:17:34
 Time Test Ended: 18:55:03
 Interval: **4264.00 ft (KB) To 4318.00 ft (KB) (TVD)**
 Total Depth: 4318.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 2301.00 ft (KB)
 2296.00 ft (CF)
 KB to GR/CF: 5.00 ft

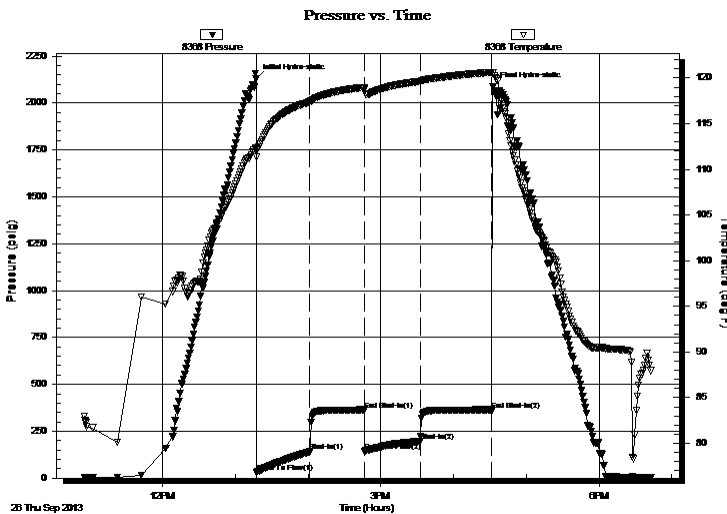
Serial #: 8368

Outside

Press @ Run Depth: 196.82 psig @ 4265.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.26 End Date: 2013.09.26 Last Calib.: 2013.09.26
 Start Time: 10:55:54 End Time: 18:43:03 Time On Btm: 2013.09.26 @ 13:17:19
 Time Off Btm: 2013.09.26 @ 16:32:33

TEST COMMENT: 11 1/2" in blow
 No return
 5 1/4" in blow
 No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2129.76	112.36	Initial Hydro-static
1	29.93	111.31	Open To Flow (1)
45	141.08	117.39	Shut-In(1)
89	364.05	118.99	End Shut-In(1)
90	143.43	118.81	Open To Flow (2)
135	196.82	119.64	Shut-In(2)
194	364.43	120.62	End Shut-In(2)
196	2087.15	120.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	water 100%w	1.48
70.00	m c w 15%m 85%w	0.46

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Comp

16-17s-22w Ness, Ks

p.o. box 1009
McPherson, Ks
67460-1009

McCurdy #1

Job Ticket: 54636

DST#: 2

ATTN: Seth Evenson

Test Start: 2013.09.26 @ 10:55:54

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:

28000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 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
300.00	water 100%w	1.475
70.00	m c w 15% m 85% w	0.463

Total Length: 370.00 ft Total Volume: 1.938 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .225 @ 77*f = 28,000 chlor

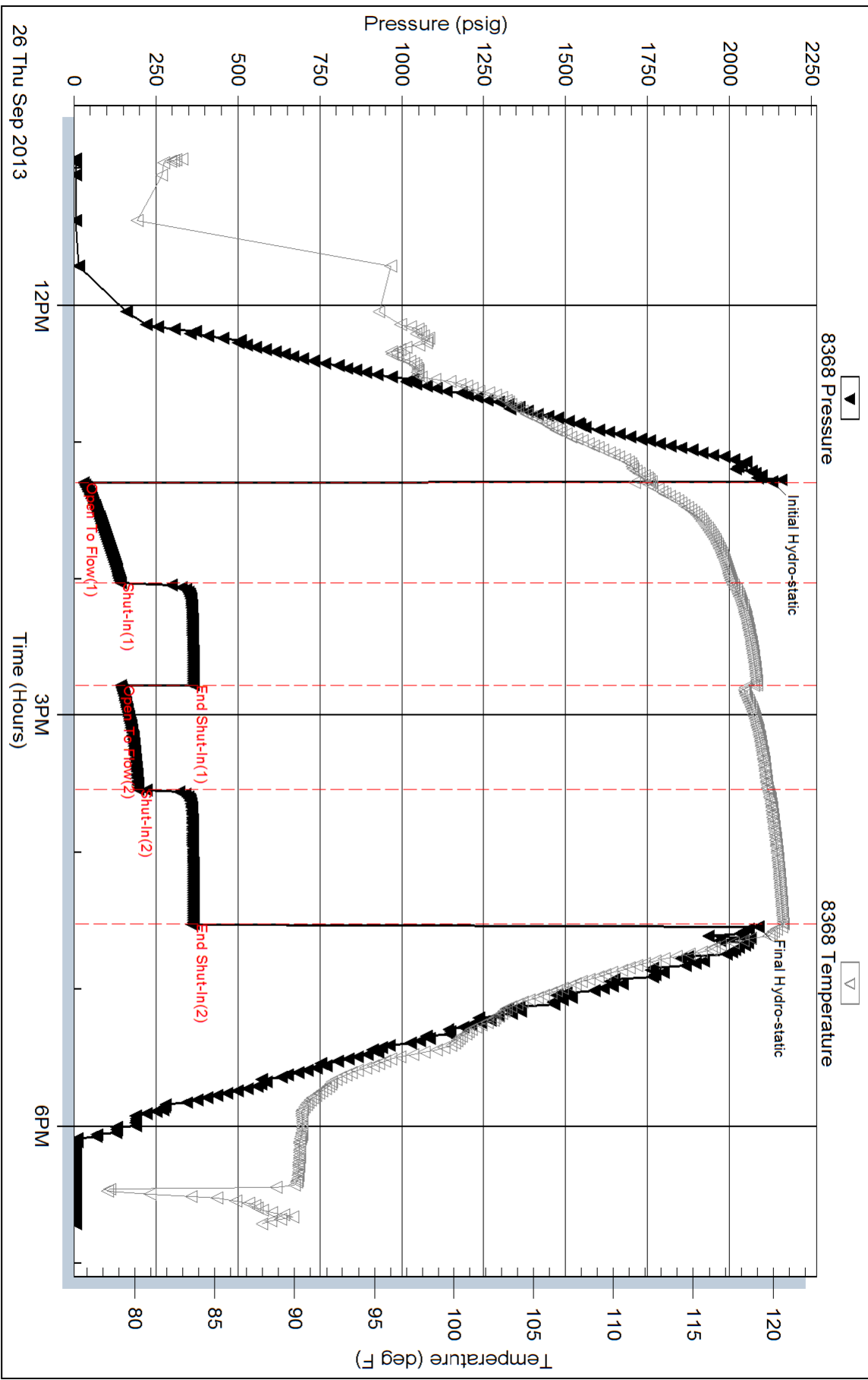
Serial #: 8368

Outside Hess Oil Comp

McCurdy #1

DST Test Number: 2

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 54636

Printed: 2013.09.26 @ 23:18:28



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hess Oil Co.
PO Box 1009
McPherson Ks 67460+1009
ATTN: Seth Evanson

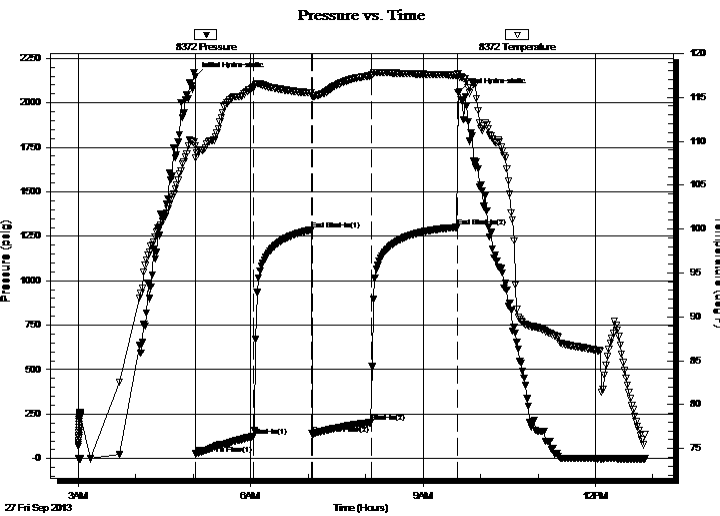
16-17s-22w Ness
McCurdy #1
Job Ticket: 53628 **DST#: 3**
Test Start: 2013.09.27 @ 03:00:01

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:02:30
Time Test Ended: 12:51:30
Interval: **4290.00 ft (KB) To 4341.00 ft (KB) (TVD)**
Total Depth: 4341.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole (Initial)
Tester: Andy Carreira
Unit No: 68
Reference Elevations: 2301.00 ft (KB)
2296.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8372 Inside
Press @ Run Depth: 201.96 psig @ 4295.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.09.27 End Date: 2013.09.27 Last Calib.: 2013.09.27
Start Time: 03:00:01 End Time: 12:51:30 Time On Btm: 2013.09.27 @ 05:02:00
Time Off Btm: 2013.09.27 @ 09:36:30

TEST COMMENT: IF:(60min) 2" blow in 6 min. 6" in 23 min. 8" in 33 min. BOB in 51 min.
IS:(60min) No Return
FF:(60min) 2" blow in 15 min. 6" in 34 min. 8" in 46 min. 11" in 60 min.
FS:(120min) Intermittent return surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2146.76	109.47	Initial Hydro-static
1	26.76	108.13	Open To Flow (1)
61	126.04	116.17	Shut-In(1)
122	1285.69	115.50	End Shut-In(1)
122	139.28	115.12	Open To Flow (2)
184	201.96	117.47	Shut-In(2)
274	1300.43	117.54	End Shut-In(2)
275	2057.27	117.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCWM o=5% w =30% m=65%	0.30
60.00	OCWM o=10% w =30% m=60%	0.30
120.00	OCM o=10% m=90%	0.59
200.00	GO g=10% o=90%	1.18

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Co.
PO Box 1009
McPherson Ks 67460+1009
ATTN: Seth Evanson

16-17s-22w Ness
McCurdy #1
Job Ticket: 53628 **DST#: 3**
Test Start: 2013.09.27 @ 03:00:01

Mud and Cushion Information

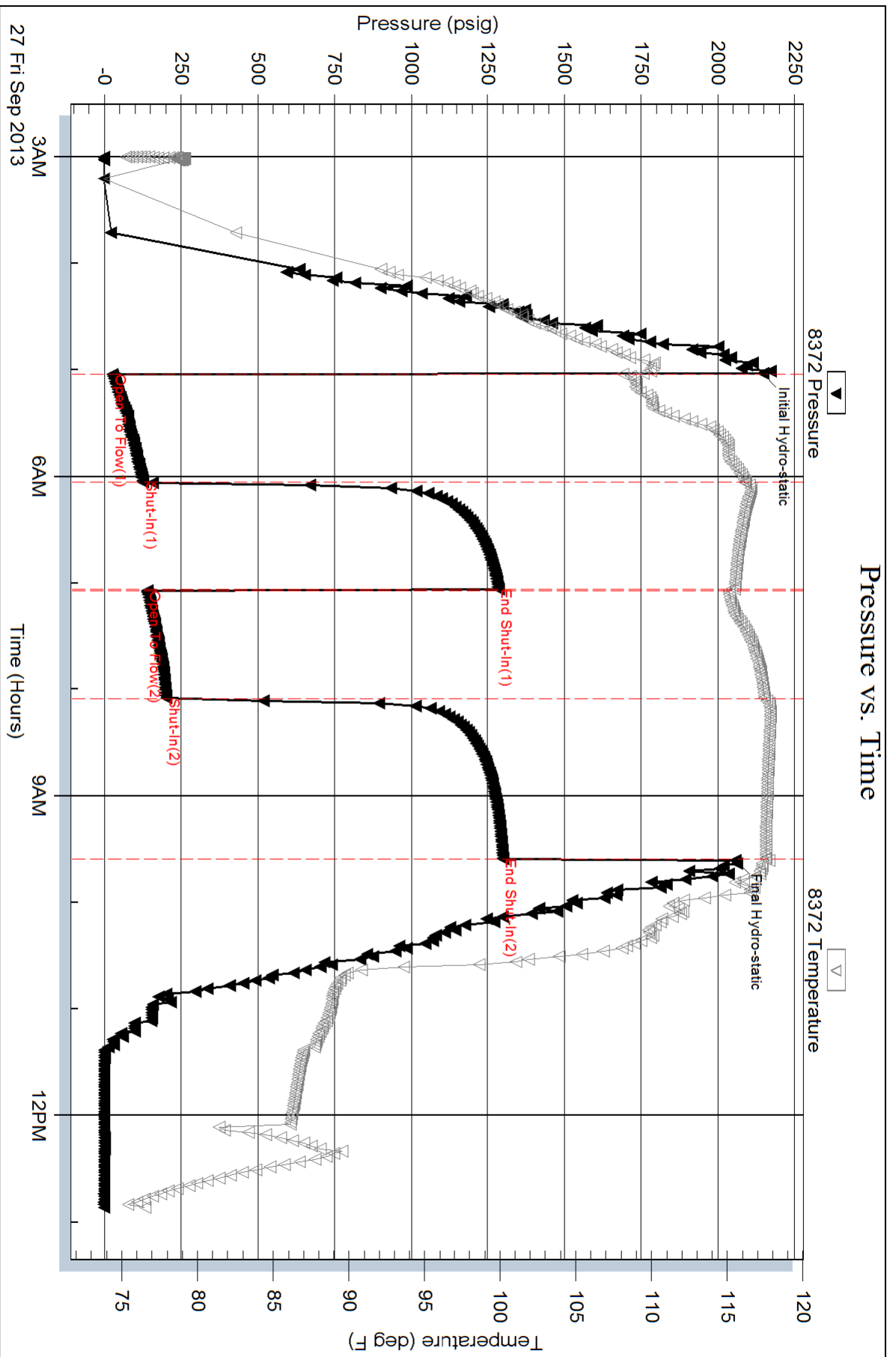
Mud Type: Gel Chem	Cushion Type:	Oil API: 41 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 12000 ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl	
Water Loss: 15.99 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 9000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OCWM o=5% w =30% m=65%	0.295
60.00	OCWM o=10% w =30% m=60%	0.295
120.00	OCM o=10% m=90%	0.590
200.00	GO g=10% o=90%	1.184

Total Length: 440.00 ft Total Volume: 2.364 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: Resistivity- .38 @ 100deg = 12000



ALLIED OIL & GAS SERVICES, LLC 061888

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
HT Band K

DATE <u>9-28-13</u>	SEC <u>16</u>	TWP <u>17</u>	RANGE <u>22</u>	CALLED OUT <u>12:00 PM</u>	ON LOCATION <u>4:30 PM</u>	JOB START <u>11:00 AM</u>	JOB FINISH <u>12:00 AM</u>
LEASE <u>McCordy</u>		WELL # <u>1</u>		LOCATION <u>Brimwell 1 1/2 W, 4 1/2 S,</u>		COUNTY <u>Now</u>	STATE <u>Ka</u>
OLD OR NEW (Circle one)				<u>4 into</u>			

CONTRACTOR Mallard
 TYPE OF JOB Production Bottom Stage
 HOLE SIZE 7 7/8 T.D. 4400'
 CASING SIZE 5 1/2" DEPTH 4399'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL Stage collar DEPTH 1574'
 PRES. MAX 1500 MINIMUM 550
 MEAS. LINE SHOE JOINT 22.05
 CEMENT LEFT IN CSG 22.05
 PERFS.
 DISPLACEMENT 67 1/2 H₂O - 32.46 Mud

OWNER Samme
 CEMENT
 AMOUNT ORDERED 150 lb Asc, 290 lb 10% Salt, 5# Kalced/ab, 600 lb Super 10/Deframer 500 gal DV 1100
 COMMON @ _____
 POZMIX @ _____
 GEL @ _____
 CHLORIDE @ _____
 ASC 150 @ 20.90 3.135.00
Gilinite 750 @ _____
DF 21 @ 9.80 205.80
DV-1100 500 @ 1.27 635.00
 HANDLING 193.32 @ 2.48 479.35
 MILEAGE 8.38 X 28 X 2.60 610.98
 TOTAL 5065.21

EQUIPMENT
 PUMP TRUCK CEMENTER Tina Anderson
 # 597 HELPER Charles King
 BULK TRUCK
 # 599 DRIVER Kewen Wayhouse
 BULK TRUCK
 # DRIVER Danny Simmer

REMARKS:
Run 4399' of 5 1/2" casing. Break circulation. Pumped 500 gal DV 1100, 3 bbls H₂O. Mixed 150 lb Asc, 290 lb 10% Salt, 5# Kalced/ab, 600 lb Super 10/Deframer. Wanted time down if Release Plug displaced with H₂O & Mud. Handled Plug at 1500'. Released a float held. Drilled Bomb to open DV Tool.

CHARGE TO: Hess Oil
 STREET _____
 CITY _____ STATE _____ ZIP _____

SERVICE
 DEPTH OF JOB 4399'
 PUMP TRUCK CHARGE 2810.27
 EXTRA FOOTAGE @ _____
 MILEAGE 1100 28 @ 7.70 215.60
 MANIFOLD 1000 28 @ 4.70 123.20
Head Rents @ 275.00 275.00
High Connection @ 577.36 577.36
 TOTAL 4002.14

PLUG & FLOAT EQUIPMENT
5 1/2" float shoe 636.48 636.48
Stage collar @ 5.335.26 5.335.26
5-Tubing Centralizer @ 147.72 738.72
2-Centralizers @ 57.33 114.66
2-Barbets @ 394.39 788.78
100% F Release Plug @ 324.09 324.09
 TOTAL 7937.82

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.

Seth Everson
 PRINTED NAME _____
 SIGNATURE [Signature]

SALES TAX (If Any) _____
 TOTAL CHARGES 17,005.17
 DISCOUNT 3,401.03 IF PAID IN 30 DAYS
13,604.13

JOB LOG

SWIFT Services, Inc.

DATE 24 OCT 13 PAGE NO. 7

CUSTOMER Hess Oil WELL NO. 1 LEASE McCurdy JOB TYPE Plug to Abandon TICKET NO. 25681

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								225 sk 60/40 po2 (4% gel)
								18 sk gel 2 sk hulls 2 3/4" 5 1/2"
	1400							packs 4328-38 DV tool - 1490'
								on loc TRK 114
	1430	2	54					pipe @ 4310'
								mix 18 sk gel
								mix 35 sk 60/40 po2 (4% gel) @ 131 ppg
	1450							2 sk cotton seed hulls
								Wash pump & line
								pull tubing to 1500'
	1600	2	46			100		mix 175 sk 60/40 (4% gel) @ 131 ppg
								- cement to surface -
	1635							pull tubing out of hole
	1720	1/2	6				500	mix 25 sk down 80'
								skit in 500psi
	1730		2					top 276 5/2 55 sk
								- cement at surface
								wash tool
								Rack up
	1815							Job complete
								Thanks
								Flint, Blair, & Doug