Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1215149

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 # 5663
Name: Hess Oil Company
Address 1: PO BOX 1009
Address 2:
City: MCPHERSON State: KS Zip: 67460 + 1009
Contact Person: Bryan Hess
Phone: (620) 241-4640
CONTRACTOR: License # 4958
Name: Mallard, J. V., Inc.
Wellsite Geologist: David Gould
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 #:

4/21/2014	4/30/2014	5/28/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-051-26686-00-00
Spot Description:
NE - SW - NE - SE Sec. 27 Twp. 13 S. R. 19 ☐ East ☑ West
1705 Feet from ☐ North / ☑ South Line of Section
810 Feet from ☑ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Ellis
Lease Name: Sack Well #: 1
Field Name:
Producing Formation: Lansing
Elevation: Ground: 2096 Kelly Bushing: 2101
Total Vertical Depth: 3795 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 218 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 1351 Feet
If Alternate II completion, cement circulated from: 1351
feet depth to: 0 w/ 200 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 0 ppm Fluid volume: 0 bbls
Dewatering method used: Evaporated

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: 07/21/2014
☑ **Confidential Release Date:** 07/20/2016
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 07/22/2014

[redacted] 1215149

Operator Name: Hess Oil Company Lease Name: Sack Well #: 1

Sec. 27 Twp. 13 S. R. 19 ☐ East ☑ West County: Ellis

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual Induction
Dual Compensated Porosity

☐ Log Formation (Top), Depth and Datum ☑ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	20	218	Common	150	2% gel, 3% cc
Production	7.875	5.5	15.5	3793	EA-2	150	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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
	3549-54,3573-77, 3592-96	500 gal 15% MCA	
		2000 gal. 15% NE FE	same

TUBING RECORD: Size: 2.875 Set At: 3717 Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 5/28/2014

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	5		3		

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL: 3549'-3596'

Form	ACO1 - Well Completion
Operator	Hess Oil Company
Well Name	Sack 1
Doc ID	1215149

Tops

Name	Top	Datum
Anhydrite	1391	+700
Base Anhydrite	1441	+660
Topeka	3127	-1026
Heebner	3365	-1264
Toronto	3382	-1281
Lansing	3414	-1313
Base Kansas City	3662	-1561
Marmaton	3696	-1595
Conglomerate	3723	-1622
RTD & LTD	3795	-1694

Form	ACO1 - Well Completion
Operator	Hess Oil Company
Well Name	Sack 1
Doc ID	1215149

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	20	218	Common	150	2% gel, 3% cc
Production	7.875	5.5	15.5	3793	EA-2	150	

ALLIED OIL & GAS SERVICES, LLC 055049

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Russell

DATE 4-21-14	SEC. 27	TWP. 13	RANGE 19	CALLED OUT 6:00 pm	ON LOCATION 8:00 pm	JOB START 8:00	JOB FINISH 8:30 pm
LEASE Sack	WELL # 1		LOCATION Hays 3-West on Old 40			COUNTY Ellis	STATE KS
OLD OR (NEW) (Circle one)			1 South - South-West to E. Into				

CONTRACTOR Mallard
TYPE OF JOB 8 5/8 Surface
HOLE SIZE 12¼ T.D. 218
CASING SIZE DEPTH 218
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 10'
PERFS.
DISPLACEMENT 13bbl

OWNER

CEMENT
AMOUNT ORDERED 150sks Common
2% Gel - 3% CC

EQUIPMENT

PUMP TRUCK CEMENTER Steve D.
417 HELPER Danny S.
BULK TRUCK
DRIVER Kevin Rupp
BULK TRUCK
DRIVER Tracy Jordan

COMMON	150	@ 17.90	2685.00
POZMIX		@	
GEL	282	@ .24	67.68
CHLORIDE	423	@ .80	338.40
ASC		@	
		@	
		@	
Material		@	309.08
		@	
Misc		@ 122.78	
		@	
		@	
		@	
HANDLING	150 sks	@ 2.48	372.00
MILEAGE	70 Tm	2.60	183.30
		TOTAL	~~3646.38~~

REMARKS:
Cement Circulated
See Job Log

SERVICE

DEPTH OF JOB	218		
PUMP TRUCK CHARGE			1512.25
EXTRA FOOTAGE		@	
MILEAGE	1 um 10	@ 4.40	44.00
MANIFOLD		@	
	1 Vm 20	@ 7.70	154.00
		@	
Disc. 566.38		TOTAL	2265.55 ~~1710.25~~

CHARGE TO: Hess Oil Co. Inc
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

		@	
		@	
		@	
		@	
		@	
		TOTAL	

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.

SALES TAX (If Any)
TOTAL CHARGES 5356.63
DISCOUNT 1339.16 (25% IF PAID IN 30 DAYS)
4017.47

PRINTED NAME Frank D'Mont
SIGNATURE Frank D'Mont

JOB LOG

SWIFT Services, Inc.

DATE 4-30-14 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
Hess Oil Co.	#1	Sack	2-Stage	25485

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	2240							on loc w/ FE
								RTD 3795'
								5½" X 15.5# X 3794' X 21'
								Turbo 1, 2, 4, 5, 6, 7, cent 57
								Bask 58
								DV 58 @ 1380'
	2245							Start FE
	0030							Break Circ
	0110	5	0				200	Start Pref. 500 gal Mud flush
		5	32/0				200	Start EA-2 Cement 155 sks
	0125		36					End Cement
								Wash Pt
								Drop L.D. Plug
	0130	6	0				200	Start Displacement water
	0140	5	60				250	Mud
	0145		90				700/1200	Land Plug
								Release Pressure / Float Held
								Drop Opening Plug
							1400	Open D.V. & Circ. 4 hrs
	0555	2	7/4					Plug RH & MH .30/15 sks EA-2
	0605	5	0				200	Start KCL Flush
	0610	5	20/0				200	Start SMD Cement circ cmt @ 95 bbl
	0635		110					End Cement
								Drop Closing Plug
	0646	5	0				200	Start Displacement
		4	10				250	Catch Cement
	0650		33				400/1400	Land Plug
								Release Pressure / DV Closed
								circ 50 sks to pit
								Thank you
								Nick, Dale E. & Rob

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name:	SACK #1		
API:	15-051-26686-00-00		
Location:	NE SW NE SE SECTION 27 13S 19W		
License Number:	5663	**Region:**	ELLIS CO. KS.
Spud Date:	4/21/2014	**Drilling Completed:**	5/1/2014
Surface Coordinates:	1705' FROM SOUTH LINE OF SECTION 810' FROM EAST LINE OF SECTION		
Bottom Hole Coordinates:	1705' FROM SOUTH LINE OF SECTION 810' FROM EAST LINE OF SECTION		
Ground Elevation (ft):	2096'	**K.B. Elevation (ft):**	2101'
Logged Interval (ft):	2900' **To:** 3795'	**Total Depth (ft):**	3795'
Formation:	ARBUCKLE		
Type of Drilling Fluid:	CHEMICAL, MUD-CO		

OPERATOR

Company: HESS OIL COMPANY
Address: P.O. BOX 1009
MCPHERSON, KANSAS 67460-1009
(620) 241-4640

GEOLOGIST

Name: DAVID GOULD (LOGGER)
Company: DMT COMPANY
Address: 532 SUNRISE
PRATT, KANSAS 67124
(620) 388-2847

Comments

CCONTRACTOR:
MALLARD, J. V., INC #2

BIT RECORD:
A, 12 1/4", RT, RR, 0-218
1, 7 7/8", F27, RR, 218-3795

SURVEYS:
218 1 DEGREE
3340 1 DEGREE

DAILY STATUS: (7:00 AM)
4/21/14Moved in Mallard Drilling rig. Spudded @ 3:50 pm. Drilled to 218' and ran 5 jts. 8-5/8" x 20# x 211' surface casing. Set @ 218' and cemented w/150 sx Common, 2% gel, 3% cc. CDC. PD @ 8:30 pm

4/22/14Rig work @ 218'

4/23/14Drilling @ 1560'

4/24/14Drilling @ 2528'

4/25/14CFS @ 3162'. Drilled to 3340'. DST #1: 3322'-3340'. 30-30-30-30. Rec 3' M w/oil spots.

4/26/14CFS @ 3392'. Drilled to 3475'. DST #2: 3409'-3475'. 30-30-pulled tool. Rec 5' M.

4/27/14Drilled to 3520'. DST #3: 3474'-3520'. 45-45-45-45. Rec 5' M. Drilled to 3604'.

4/28/14DST #4: 3539'-3604'. 45-45-45-45. Rec 300' MCO (70% O, 30% M). Drilled to 3710'. DST #5: 3698'-3710'. Missrun - packer failure.

4/29/04DST #7: 5' mud

Well Name & No.: Sack #1 **Company:** Hess Oil Company **Test No.:** 1 **Interval Tested:** 3322 – 3340

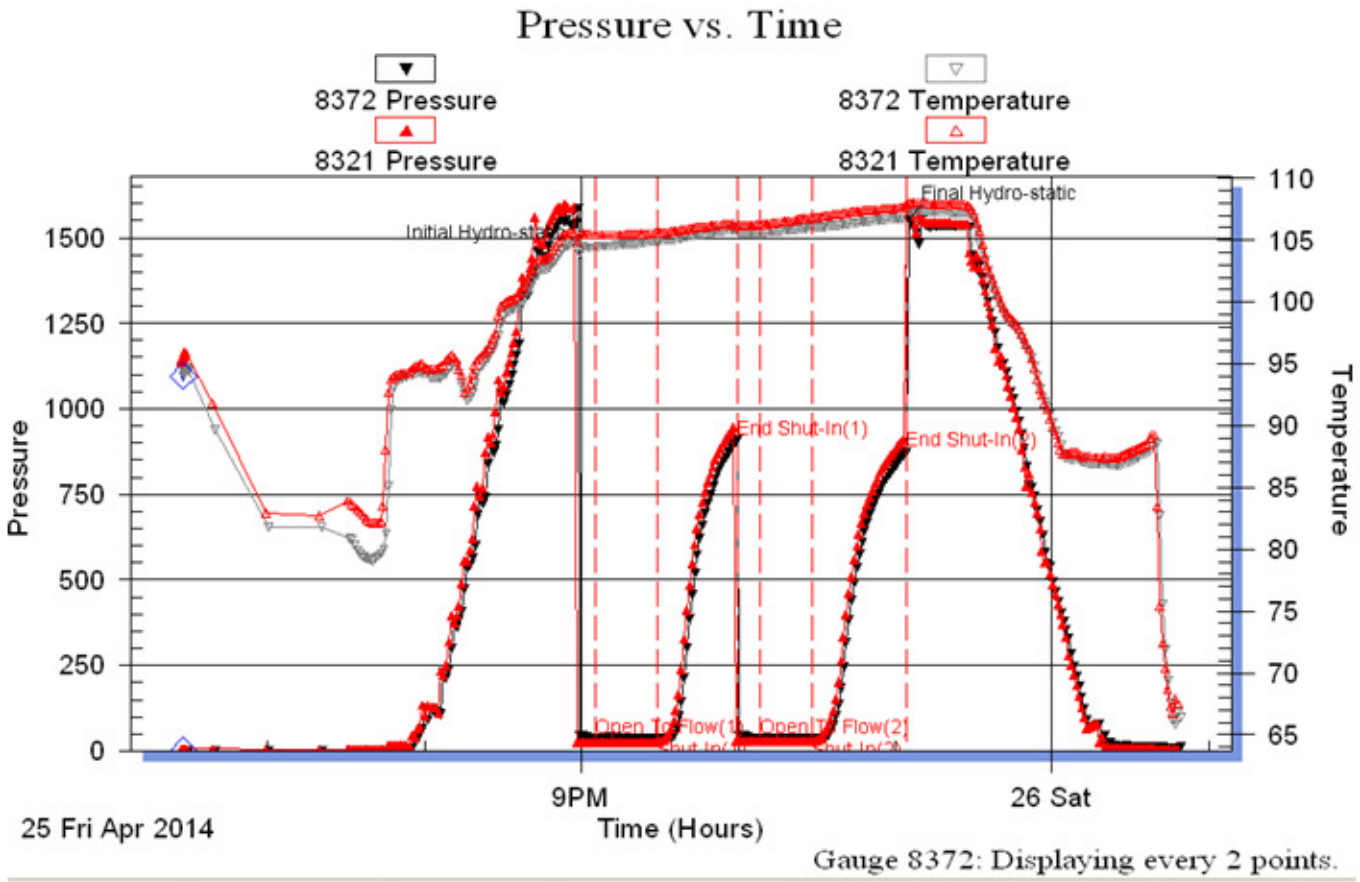
Zone Tested: LaCompton **Times:** 30-30-30-30

Blow Description: IFP: No Blow **ISI:** No Blow **FFP:** No Blow **FSI:** No Blow

Rec: 3 Feet of M with oil spots **Rec. Total:** 3', **BHT:** 107 **Gravity:** N/C

Initial Hydrostatic: 1585 **First Initial Flow:** 38 **First Final Flow:** 38 **Initial Shut-In:** 910

Second Initial Flow: 36 **Second Final Flow:** 38 **Final Shut-In:** 874 **Final Hydrostatic:** 1556



Gauge 8372: Displaying every 2 points.

Well Name & No.: Sack #1 **Company:** Hess Oil Company **Test No.:** 2 **Interval Tested:** 3409 – 3475

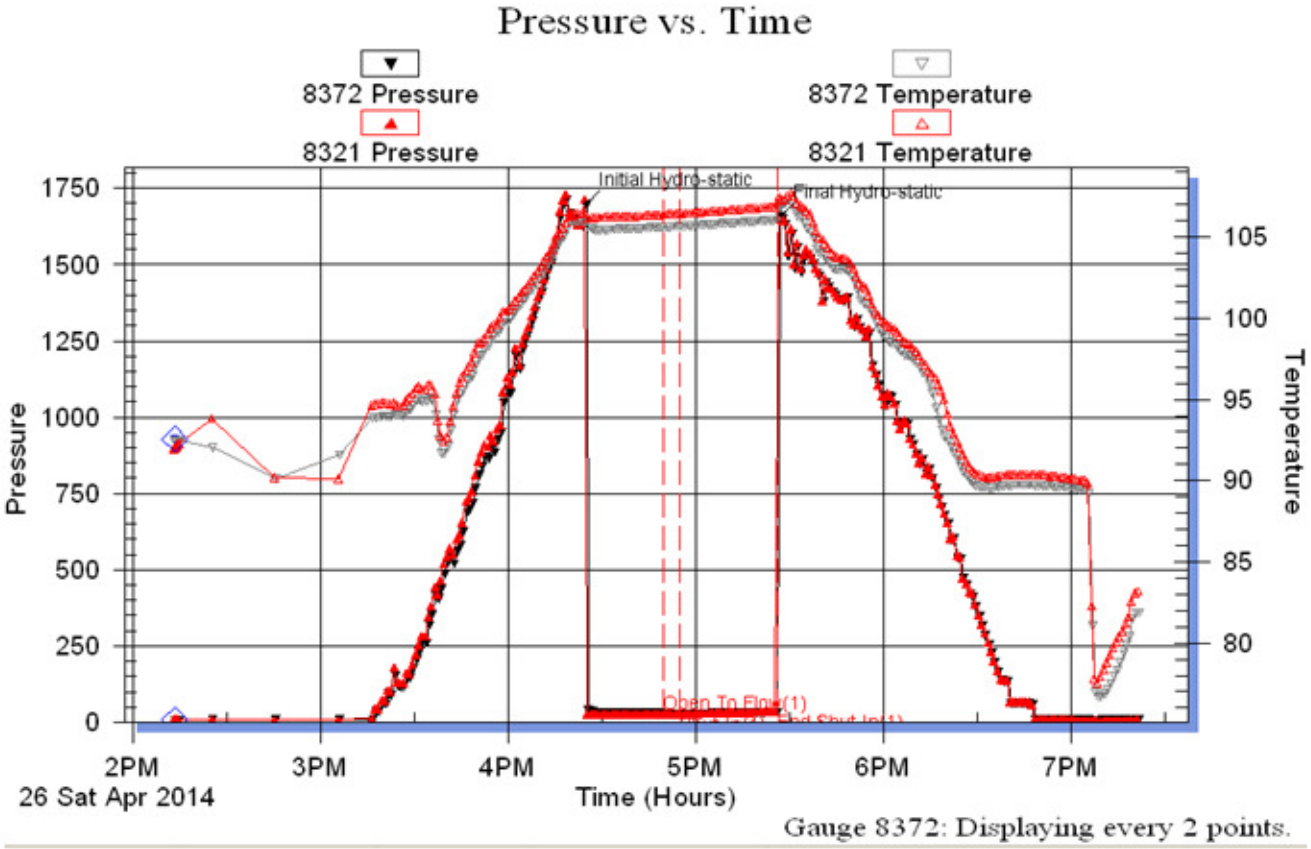
Zone Tested: Lansing **Times:** 30-30 Pulled Tool

Blow Description: IFP: Weak surface blow dead in 15 min. **ISI:** No Blow **FFP:** Pulled Tool **FSI:** Pulled Tool

Rec: 5 Feet of M **Rec. Total:** 3', **BHT:** 106 **Gravity:** N/C

Initial Hydrostatic: 1200 **First Initial Flow:** 26 **First Final Flow:** 29 **Initial Shut-In:** 34

Second Initial Flow: Pulled **Second Final Flow:** Pulled **Final Shut-In:** Pulled **Final Hydrostatic:** Pulled



Well Name & No.: Sack #1 **Company:** Hess Oil Company **Test No.:** 3 **Interval Tested:** 3474 – 3520

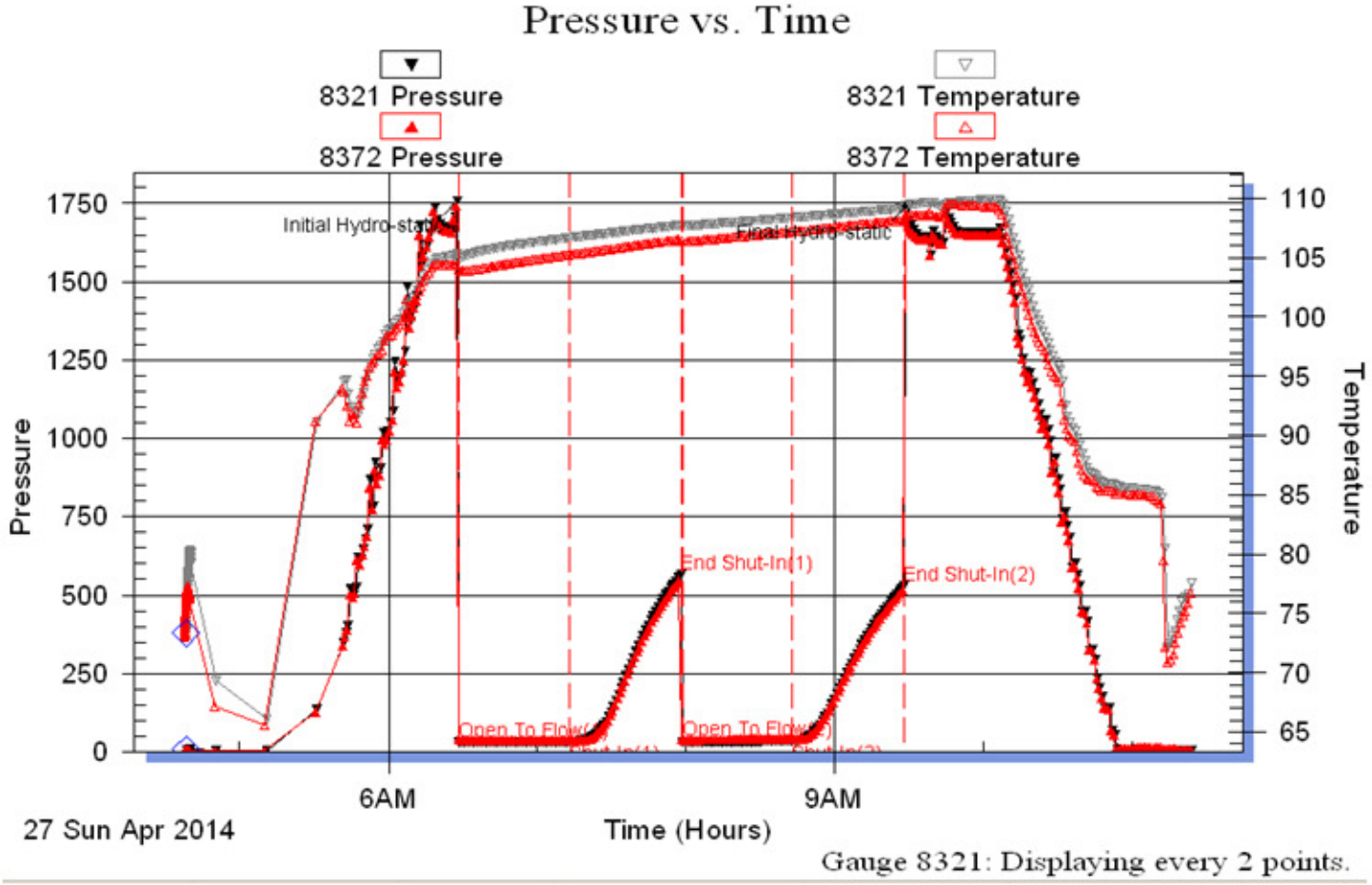
Zone Tested: LKC **Times:** 45-45-45-45

Blow Description: IFP: Surface Blow **ISI:** No Blow **FFP:** No Blow **FSI:** No Blow

Rec: 5 Feet of M **Rec. Total:** 5', **BHT:** 109 **Gravity:** N/C

Initial Hydrostatic: 1759 **First Initial Flow:** 31 **First Final Flow:** 33 **Initial Shut-In:** 567

Second Initial Flow: 33 **Second Final Flow:** 34 **Final Shut-In:** 529 **Final Hydrostatic:** 1738



Well Name & No.: Sack #1 **Company:** Hess Oil Company **Test No.:** 4 **Interval Tested:** 3539 – 3604

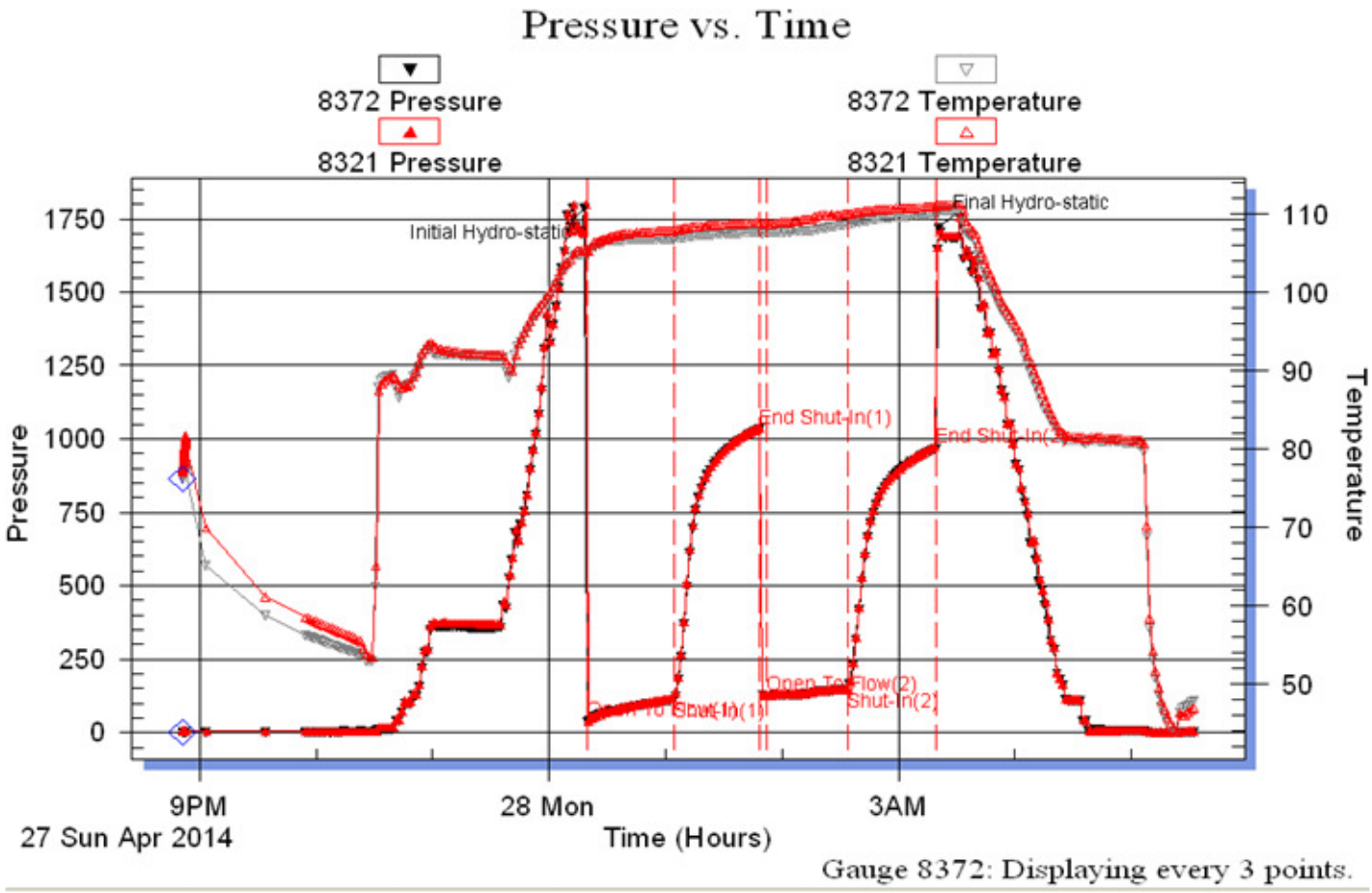
Zone Tested: LKC **Times:** 45-45-45-45

Blow Description: IFP: BOB in 20 min. **ISI:** No Blow **FFP:** BOB in min. **FSI:** No Blow

Rec: 300 Feet of MCO, 70% Oil, 30% Mud **Rec. Total:** 300', **BHT:** 110 **Gravity:** N/C

Initial Hydrostatic: 1787 **First Initial Flow:** 38 **First Final Flow:** 112 **Initial Shut-In:** 1034

Second Initial Flow: 124 **Second Final Flow:** 146 **Final Shut-In:** 967 **Final Hydrostatic:** 1718



Gauge 8372: Displaying every 3 points.

Well Name & No.: Sack #1 **Company:** Hess Oil Company **Test No.:** 5 **Interval Tested:** 3698 – 3710

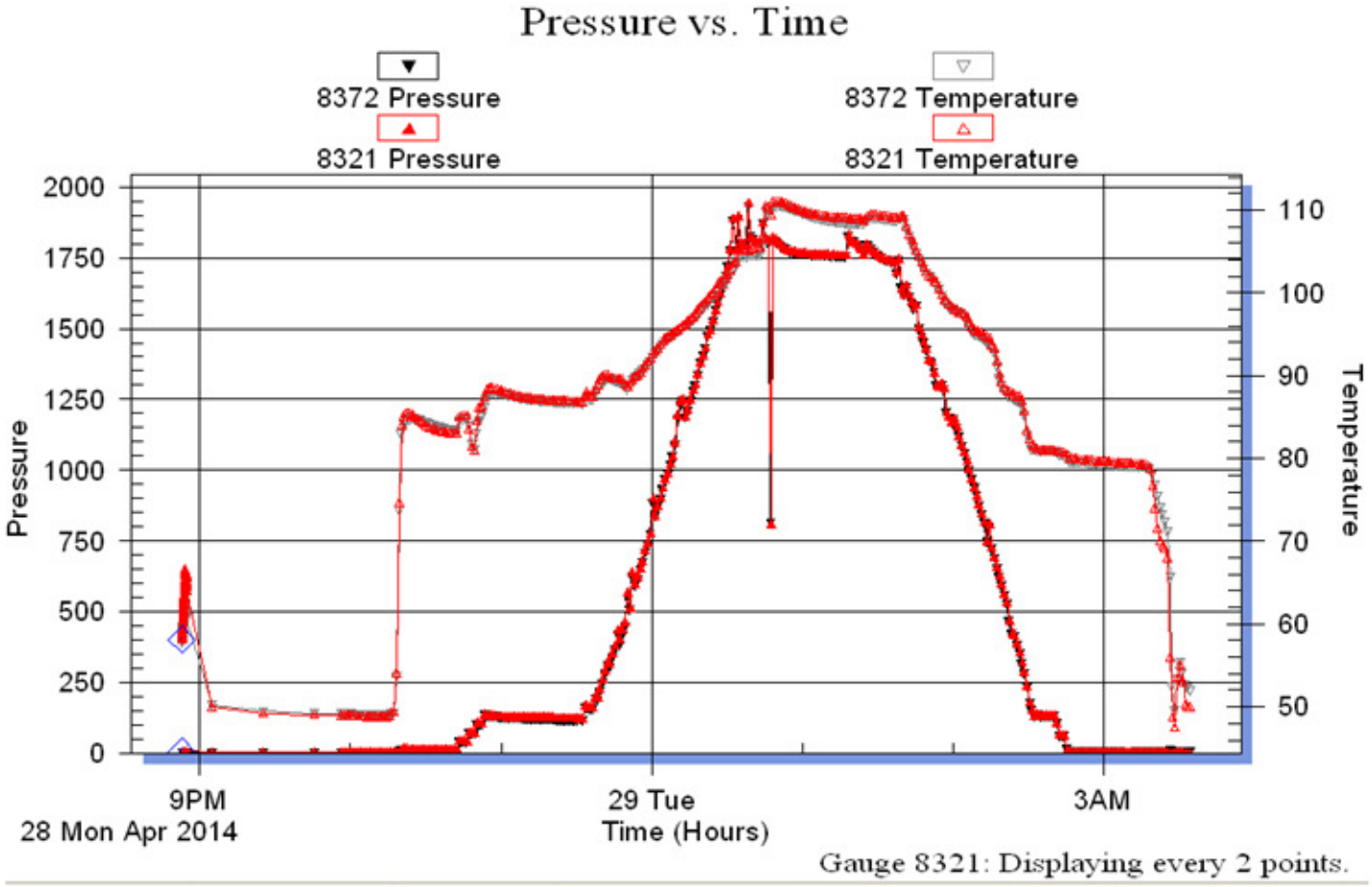
Zone Tested: Marmaton **Times:** Miss Run (Packer Failure)

Blow Description: IFP: ISI: FFP: FSI:

Rec: 200 Feet of M, 1000% Mud **Rec. Total:** 200', **BHT:** N/C **Gravity:** N/C

Initial Hydrostatic: First Initial Flow: First Final Flow: Initial Shut-In:

Second Initial Flow: Second Final Flow: Final Shut-In: Final Hydrostatic:



Gauge 8321: Displaying every 2 points.

Well Name & No.: Sack #1 **Company:** Hess Oil Company **Test No.:** 6 **Interval Tested:** 3655 – 3710

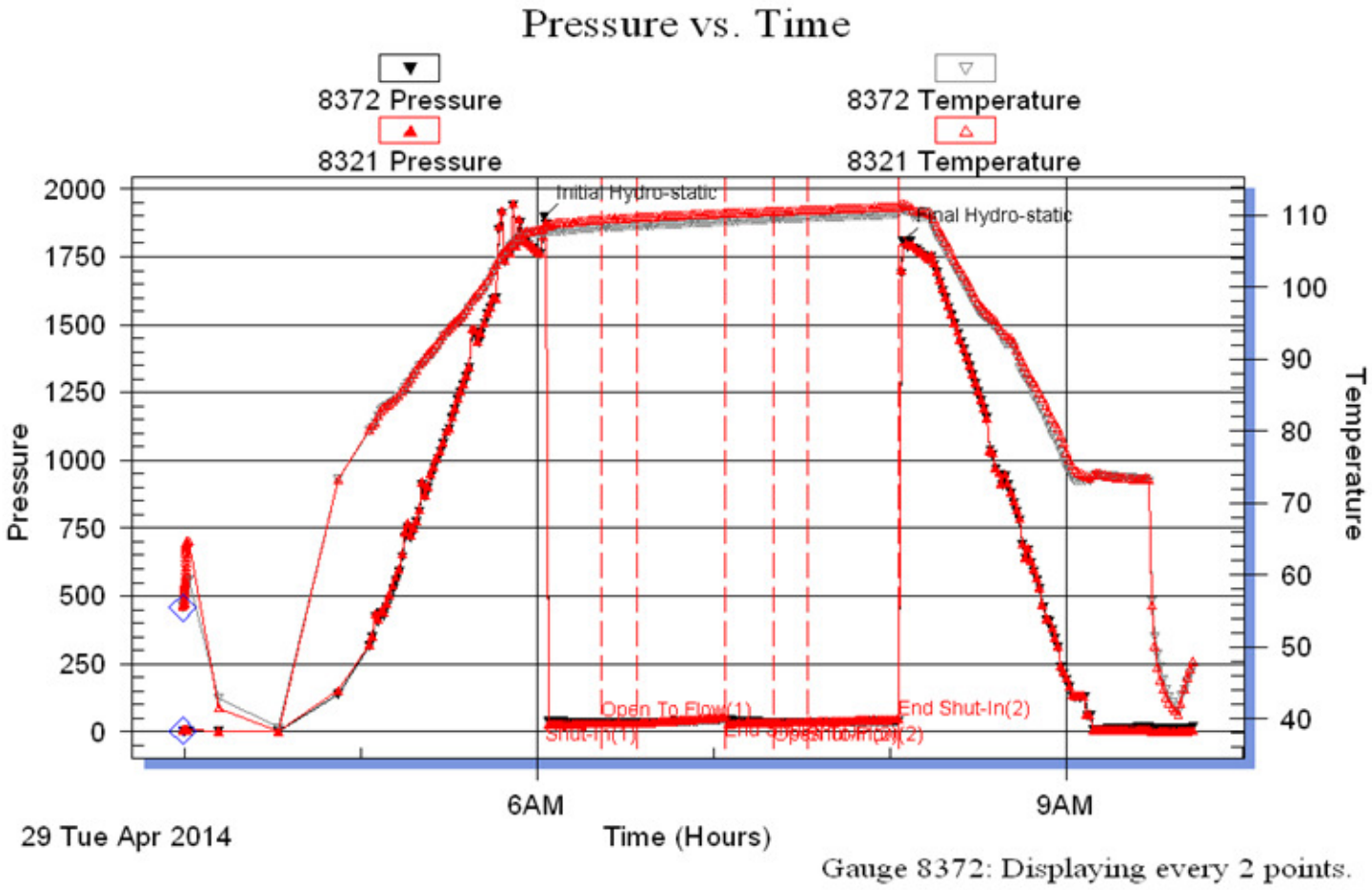
Zone Tested: Marmaton **Times:** 30-30-30-30

Blow Description: IFP: Surface Blow **ISI:** No Blow **FFP:** BOB in min. **FSI:** No Blow

Rec: 5 Feet of M, 100% Mud **Rec. Total:** 5', **BHT:** 110 **Gravity:** N/C

Initial Hydrostatic: 1896 **First Initial Flow:** 34 **First Final Flow:** 34 **Initial Shut-In:** 47

Second Initial Flow: 35 **Second Final Flow:** 35 **Final Shut-In:** 41 **Final Hydrostatic:** 1808



Gauge 8372: Displaying every 2 points.

Well Name & No.: Sack #1 **Company:** Hess Oil Company **Test No.:** 7 **Interval Tested:** 3722 – 3760

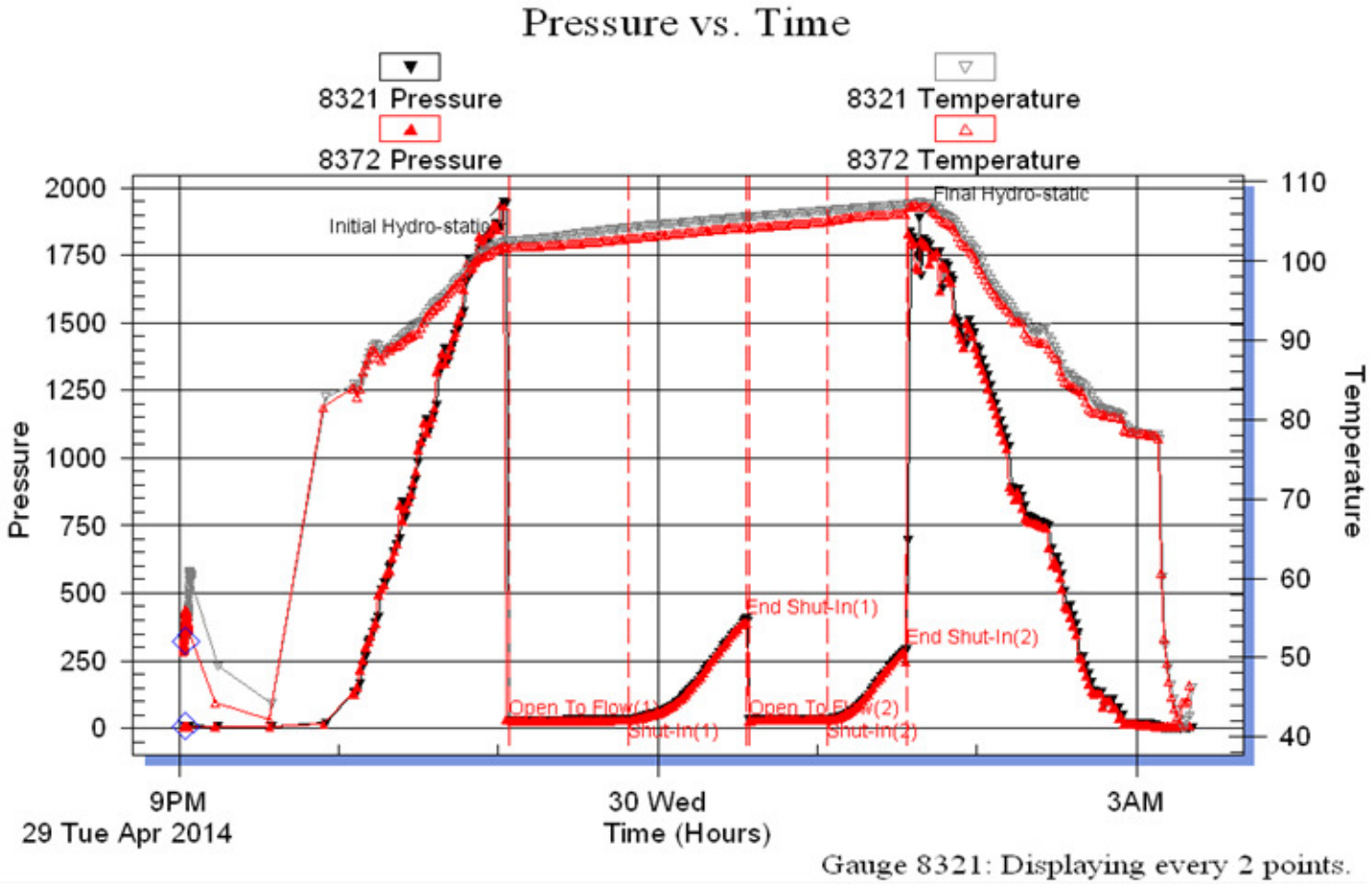
Zone Tested: Cong. **Times:** 45-45-30-30

Blow Description: IFP: Surface Blow **ISI:** No Blow **FFP:** BOB in min. **FSI:** No Blow

Rec: 5 Feet of MCO, 100% Mud **Rec. Total:** 5', **BHT:** 107 **Gravity:** N/C

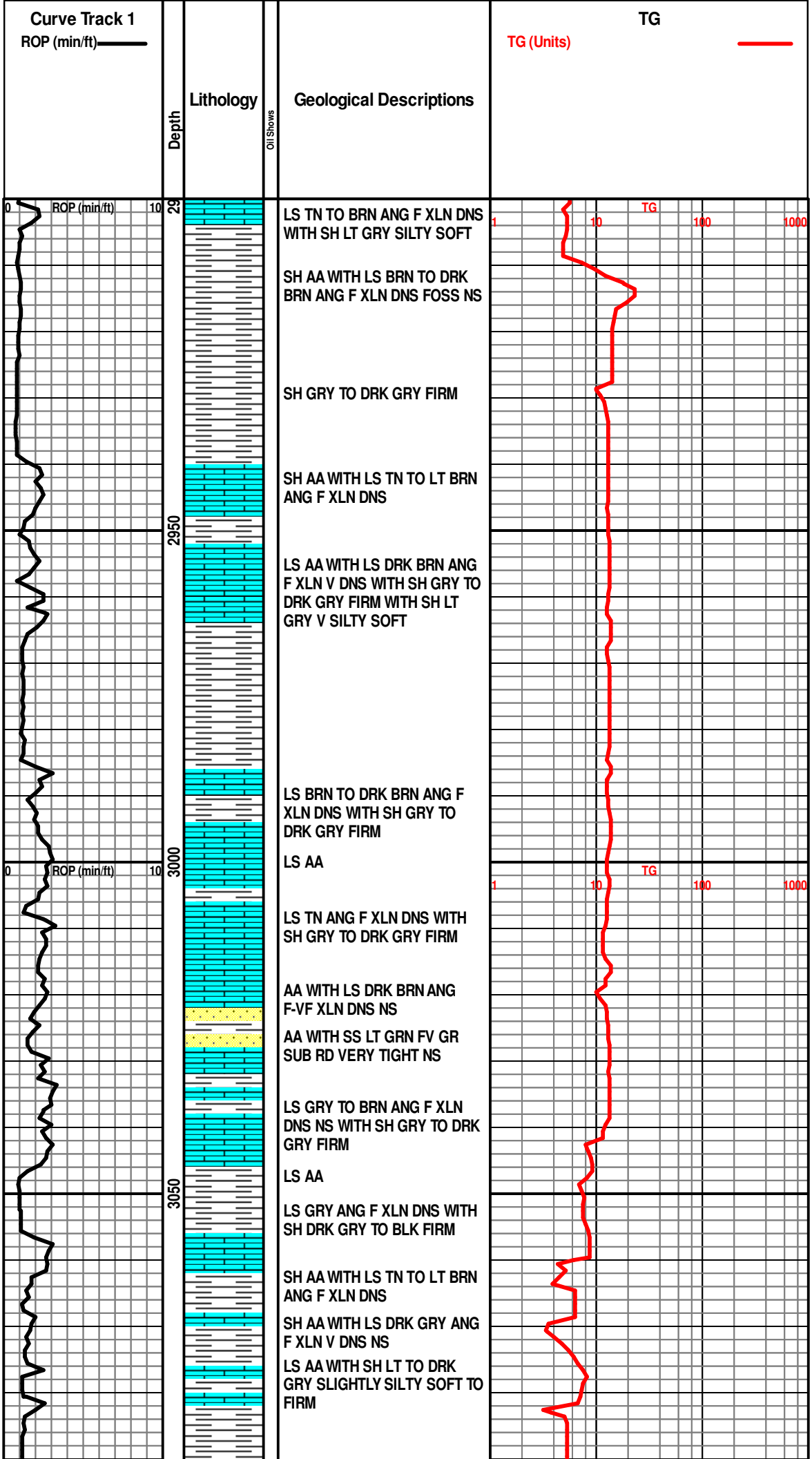
Initial Hydrostatic: 1947 **First Initial Flow:** 30 **First Final Flow:** 33 **Initial Shut-In:** 405

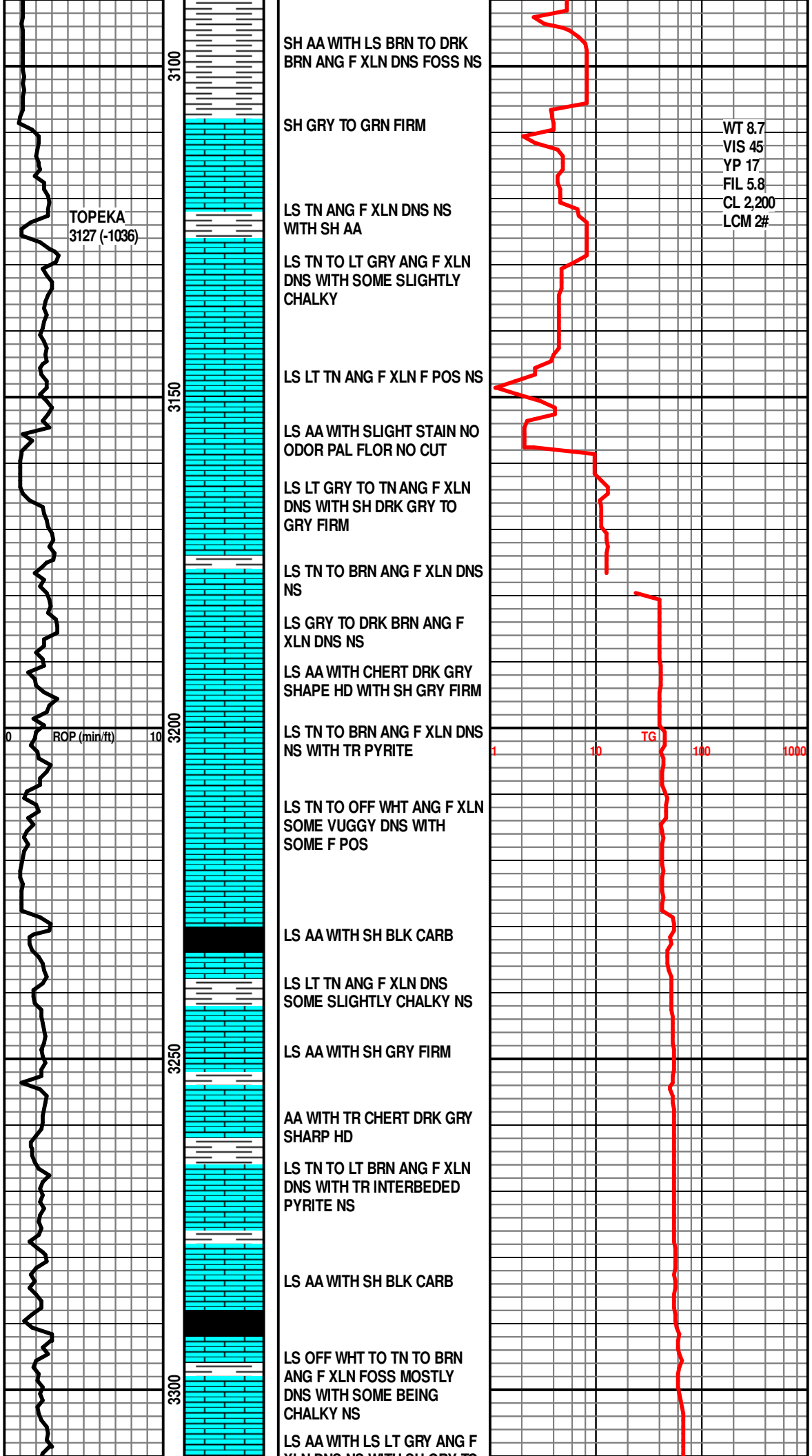
Second Initial Flow: 33 **Second Final Flow:** 33 **Final Shut-In:** 293 **Final Hydrostatic:** 1886

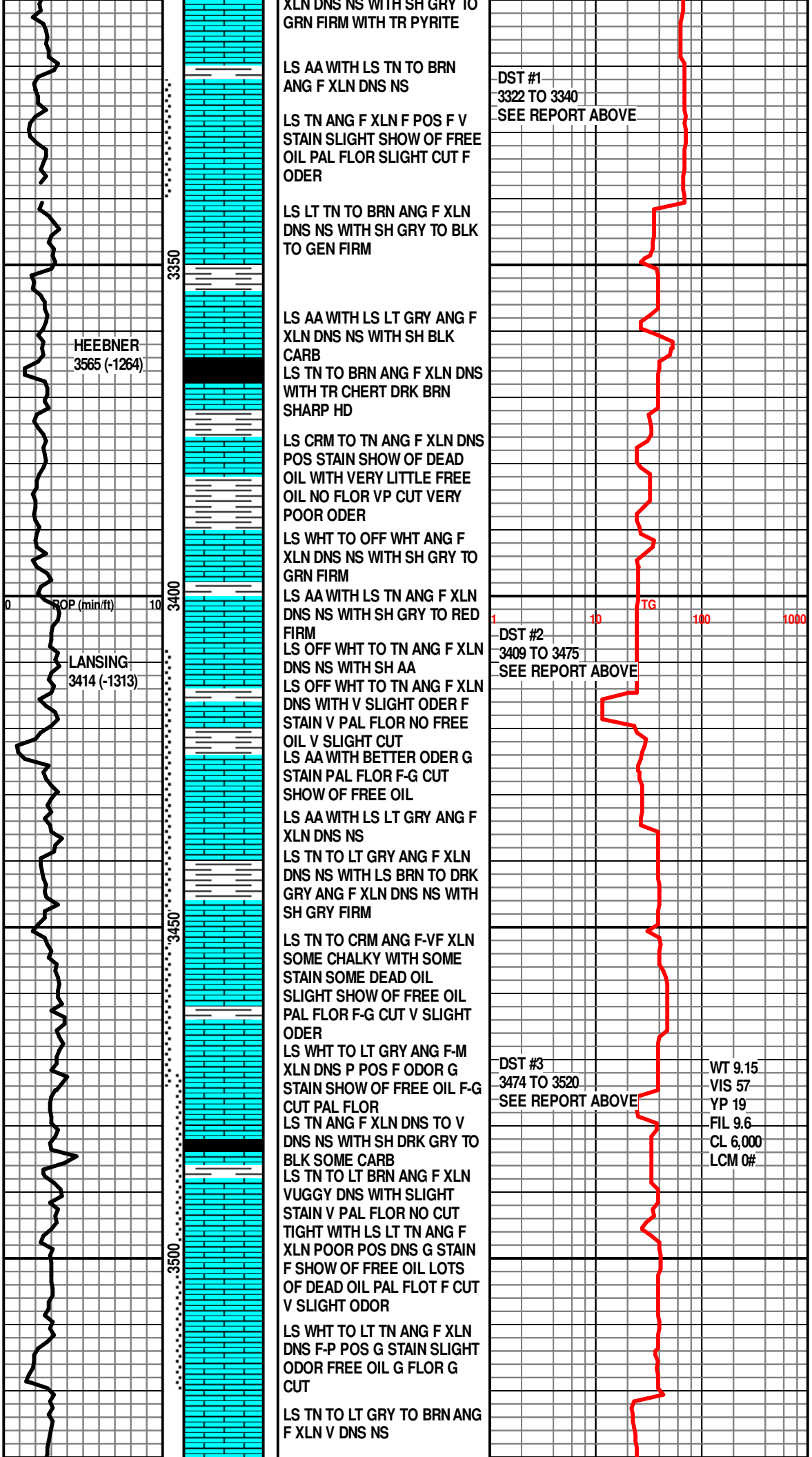


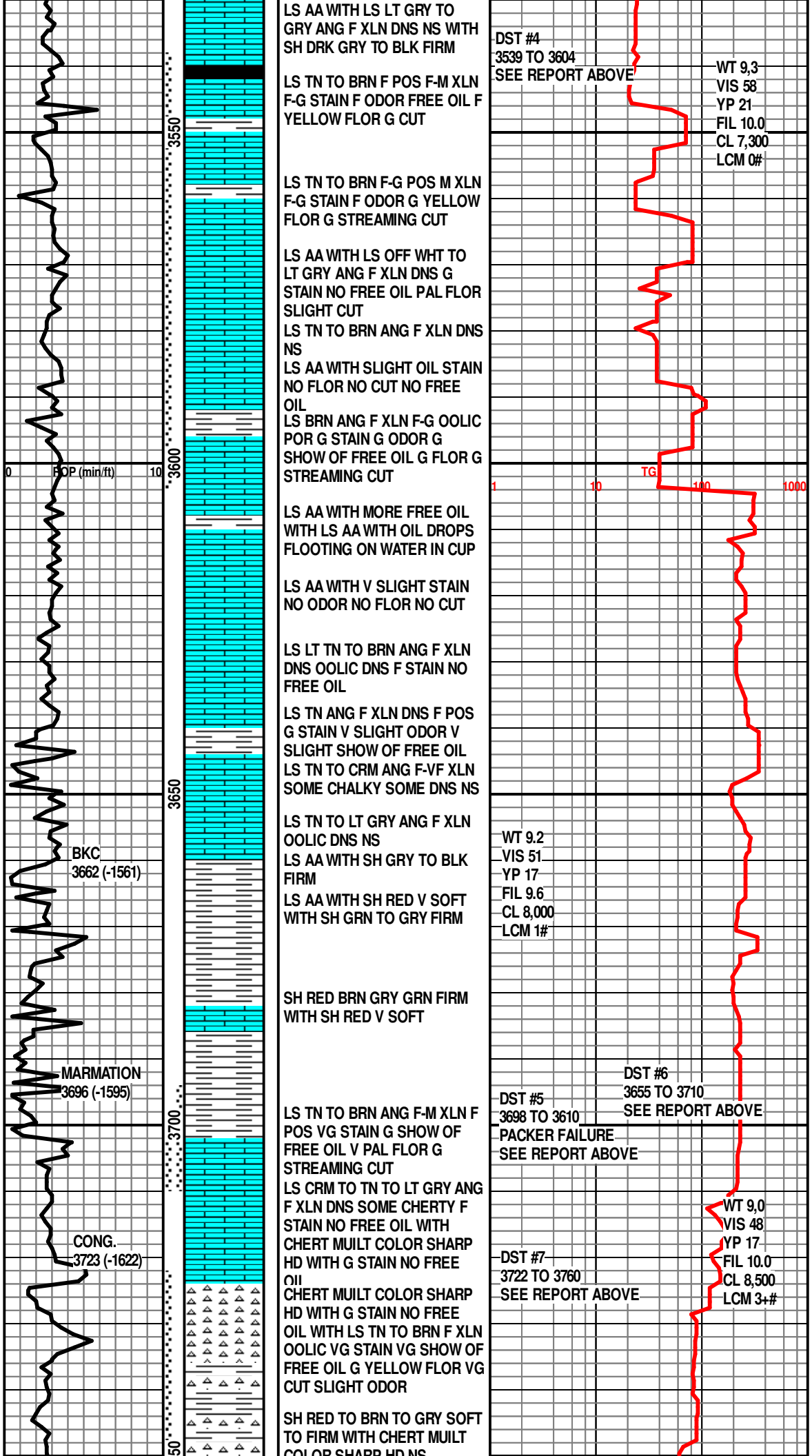
ROCK TYPES

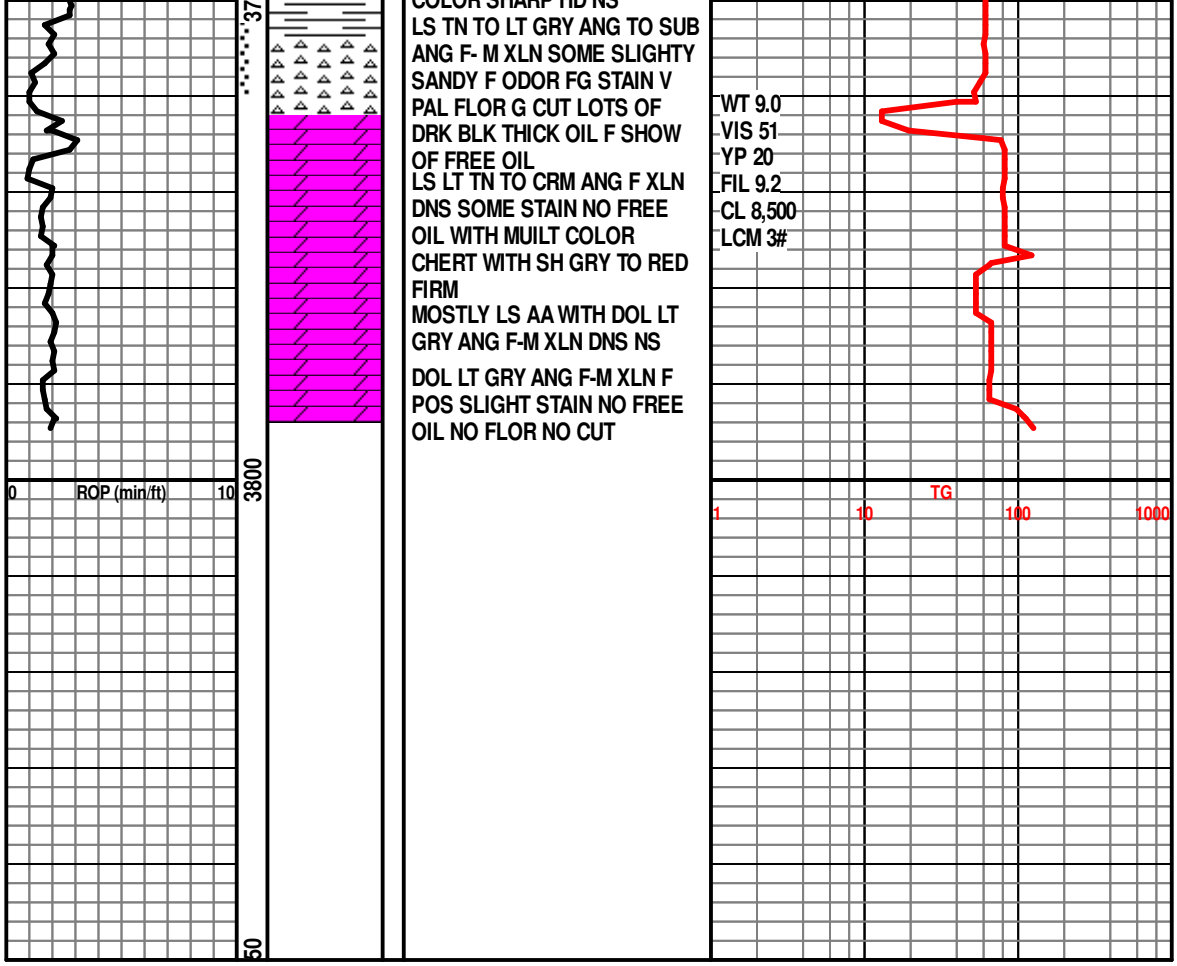
Anhy	Clyst	Gyp	Mrlst	Shgy
Bent	Coal	Igne	Salt	Sltst
Brec	Congl	Lmst	Shale	Ss
Cht	Dol	Meta	Shcol	Till


Curve Track 1
ROP (min/ft)
Depth
Lithology
Oil Shows
Geological Descriptions
TG
TG (Units)
0
ROP (min/ft)
10
2950
3000
3050
1
10
100
1000
LS TN TO BRN ANG F XLN DNS WITH SH LT GRY SILTY SOFT
SH AA WITH LS BRN TO DRK BRN ANG F XLN DNS FOSS NS
SH GRY TO DRK GRY FIRM
SH AA WITH LS TN TO LT BRN ANG F XLN DNS
LS AA WITH LS DRK BRN ANG F XLN V DNS WITH SH GRY TO DRK GRY FIRM WITH SH LT GRY V SILTY SOFT
LS BRN TO DRK BRN ANG F XLN DNS WITH SH GRY TO DRK GRY FIRM
LS AA
LS TN ANG F XLN DNS WITH SH GRY TO DRK GRY FIRM
AA WITH LS DRK BRN ANG F-VF XLN DNS NS
AA WITH SS LT GRN FV GR SUB RD VERY TIGHT NS
LS GRY TO BRN ANG F XLN DNS NS WITH SH GRY TO DRK GRY FIRM
LS AA
LS GRY ANG F XLN DNS WITH SH DRK GRY TO BLK FIRM
SH AA WITH LS TN TO LT BRN ANG F XLN DNS
SH AA WITH LS DRK GRY ANG F XLN V DNS NS
LS AA WITH SH LT TO DRK GRY SLIGHTLY SILTY SOFT TO FIRM


3100
3150
3200
3250
3300
TOPEKA
3127 (-1036)
0
ROP (min/ft)
10
SH AA WITH LS BRN TO DRK BRN ANG F XLN DNS FOSS NS
SH GRY TO GRN FIRM
LS TN ANG F XLN DNS NS WITH SH AA
LS TN TO LT GRY ANG F XLN DNS WITH SOME SLIGHTLY CHALKY
LS LT TN ANG F XLN F POS NS
LS AA WITH SLIGHT STAIN NO ODOR PAL FLOR NO CUT
LS LT GRY TO TN ANG F XLN DNS WITH SH DRK GRY TO GRY FIRM
LS TN TO BRN ANG F XLN DNS NS
LS GRY TO DRK BRN ANG F XLN DNS NS
LS AA WITH CHERT DRK GRY SHAPE HD WITH SH GRY FIRM
LS TN TO BRN ANG F XLN DNS NS WITH TR PYRITE
LS TN TO OFF WHT ANG F XLN SOME VUGGY DNS WITH SOME F POS
LS AA WITH SH BLK CARB
LS LT TN ANG F XLN DNS SOME SLIGHTLY CHALKY NS
LS AA WITH SH GRY FIRM
AA WITH TR CHERT DRK GRY SHARP HD
LS TN TO LT BRN ANG F XLN DNS WITH TR INTERBEDED PYRITE NS
LS AA WITH SH BLK CARB
LS OFF WHT TO TN TO BRN ANG F XLN FOSS MOSTLY DNS WITH SOME BEING CHALKY NS
LS AA WITH LS LT GRY ANG F
WT 8.7
VIS 45
YP 17
FIL 5.8
CL 2,200
LCM 2#
TG
1
10
100
1000


XLN DNS NS WITH SH GRY TO GRN FIRM WITH TR PYRITE
LS AA WITH LS TN TO BRN ANG F XLN DNS NS
LS TN ANG F XLN F POS F V STAIN SLIGHT SHOW OF FREE OIL PAL FLOR SLIGHT CUT F ODER
LS LT TN TO BRN ANG F XLN DNS NS WITH SH GRY TO BLK TO GEN FIRM
3350
HEEBNER
3565 (-1264)
LS AA WITH LS LT GRY ANG F XLN DNS NS WITH SH BLK CARB
LS TN TO BRN ANG F XLN DNS WITH TR CHERT DRK BRN SHARP HD
LS CRM TO TN ANG F XLN DNS POS STAIN SHOW OF DEAD OIL WITH VERY LITTLE FREE OIL NO FLOR VP CUT VERY POOR ODER
LS WHT TO OFF WHT ANG F XLN DNS NS WITH SH GRY TO GRN FIRM
LS AA WITH LS TN ANG F XLN DNS NS WITH SH GRY TO RED FIRM
3400
0
ROP (min/ft)
10
LANSING
3414 (-1313)
LS OFF WHT TO TN ANG F XLN DNS NS WITH SH AA
LS OFF WHT TO TN ANG F XLN DNS WITH V SLIGHT ODER F STAIN V PAL FLOR NO FREE OIL V SLIGHT CUT
LS AA WITH BETTER ODER G STAIN PAL FLOR F-G CUT SHOW OF FREE OIL
LS AA WITH LS LT GRY ANG F XLN DNS NS
LS TN TO LT GRY ANG F XLN DNS NS WITH LS BRN TO DRK GRY ANG F XLN DNS NS WITH SH GRY FIRM
3450
LS TN TO CRM ANG F-VF XLN SOME CHALKY WITH SOME STAIN SOME DEAD OIL SLIGHT SHOW OF FREE OIL PAL FLOR F-G CUT V SLIGHT ODER
LS WHT TO LT GRY ANG F-M XLN DNS P POS F ODOR G STAIN SHOW OF FREE OIL F-G CUT PAL FLOR
LS TN ANG F XLN DNS TO V DNS NS WITH SH DRK GRY TO BLK SOME CARB
LS TN TO LT BRN ANG F XLN VUGGY DNS WITH SLIGHT STAIN V PAL FLOR NO CUT TIGHT WITH LS LT TN ANG F XLN POOR POS DNS G STAIN F SHOW OF FREE OIL LOTS OF DEAD OIL PAL FLOT F CUT V SLIGHT ODOR
3500
LS WHT TO LT TN ANG F XLN DNS F-P POS G STAIN SLIGHT ODOR FREE OIL G FLOR G CUT
LS TN TO LT GRY TO BRN ANG F XLN V DNS NS
DST #1
3322 TO 3340
SEE REPORT ABOVE
TG
1
10
100
1000
DST #2
3409 TO 3475
SEE REPORT ABOVE
DST #3
3474 TO 3520
SEE REPORT ABOVE
WT 9.15
VIS 57
YP 19
FIL 9.6
CL 6,000
LCM 0#


LS AA WITH LS LT GRY TO GRY ANG F XLN DNS NS WITH SH DRK GRY TO BLK FIRM
LS TN TO BRN F POS F-M XLN F-G STAIN F ODOR FREE OIL F YELLOW FLOR G CUT
LS TN TO BRN F-G POS M XLN F-G STAIN F ODOR G YELLOW FLOR G STREAMING CUT
LS AA WITH LS OFF WHT TO LT GRY ANG F XLN DNS G STAIN NO FREE OIL PAL FLOR SLIGHT CUT
LS TN TO BRN ANG F XLN DNS NS
LS AA WITH SLIGHT OIL STAIN NO FLOR NO CUT NO FREE OIL
LS BRN ANG F XLN F-G OOLIC POR G STAIN G ODOR G SHOW OF FREE OIL G FLOR G STREAMING CUT
LS AA WITH MORE FREE OIL WITH LS AA WITH OIL DROPS FLOOTING ON WATER IN CUP
LS AA WITH V SLIGHT STAIN NO ODOR NO FLOR NO CUT
LS LT TN TO BRN ANG F XLN DNS OOLIC DNS F STAIN NO FREE OIL
LS TN ANG F XLN DNS F POS G STAIN V SLIGHT ODOR V SLIGHT SHOW OF FREE OIL
LS TN TO CRM ANG F-VF XLN SOME CHALKY SOME DNS NS
LS TN TO LT GRY ANG F XLN OOLIC DNS NS
LS AA WITH SH GRY TO BLK FIRM
LS AA WITH SH RED V SOFT WITH SH GRN TO GRY FIRM
SH RED BRN GRY GRN FIRM WITH SH RED V SOFT
LS TN TO BRN ANG F-M XLN F POS VG STAIN G SHOW OF FREE OIL V PAL FLOR G STREAMING CUT
LS CRM TO TN TO LT GRY ANG F XLN DNS SOME CHERTY F STAIN NO FREE OIL WITH CHERT MUILT COLOR SHARP HD WITH G STAIN NO FREE OIL
CHERT MUILT COLOR SHARP HD WITH G STAIN NO FREE OIL WITH LS TN TO BRN F XLN OOLIC VG STAIN VG SHOW OF FREE OIL G YELLOW FLOR VG CUT SLIGHT ODOR
SH RED TO BRN TO GRY SOFT TO FIRM WITH CHERT MUILT
0
ROP (min/ft)
10
3550
3600
3650
3700
BKC
3662 (-1561)
MARMATION
3696 (-1595)
CONG.
3723 (-1622)
DST #4
3539 TO 3604
SEE REPORT ABOVE
WT 9,3
VIS 58
YP 21
FIL 10.0
CL 7,300
LCM 0#
TG
1
10
100
1000
WT 9.2
VIS 51
YP 17
FIL 9.6
CL 8,000
LCM 1#
DST #6
3655 TO 3710
SEE REPORT ABOVE
DST #5
3698 TO 3610
PACKER FAILURE
SEE REPORT ABOVE
WT 9,0
VIS 48
YP 17
FIL 10.0
CL 8,500
LCM 3+#
DST #7
3722 TO 3760
SEE REPORT ABOVE


0
ROP (min/ft)
10
3800
50
COLOR SHARP TID NS
LS TN TO LT GRY ANG TO SUB ANG F- M XLN SOME SLIGHTY SANDY F ODOR FG STAIN V PAL FLOR G CUT LOTS OF DRK BLK THICK OIL F SHOW OF FREE OIL
LS LT TN TO CRM ANG F XLN DNS SOME STAIN NO FREE OIL WITH MUILT COLOR CHERT WITH SH GRY TO RED FIRM
MOSTLY LS AA WITH DOL LT GRY ANG F-M XLN DNS NS
DOL LT GRY ANG F-M XLN F POS SLIGHT STAIN NO FREE OIL NO FLOR NO CUT
WT 9.0
VIS 51
YP 20
FIL 9.2
CL 8,500
LCM 3#
TG
1
10
100
1000

DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58763 **DST#: 1**

Test Start: 2014.04.25 @ 18:27:51

GENERAL INFORMATION:

Formation: **LaCompton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:05:21
Time Test Ended: 00:49:51

Test Type: Conventional Bottom Hole (Initial)
Tester: Brannan L
Unit No: 48

Interval: 3322.00 ft (KB) To 3340.00 ft (KB) (TVD)
Total Depth: 3340.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

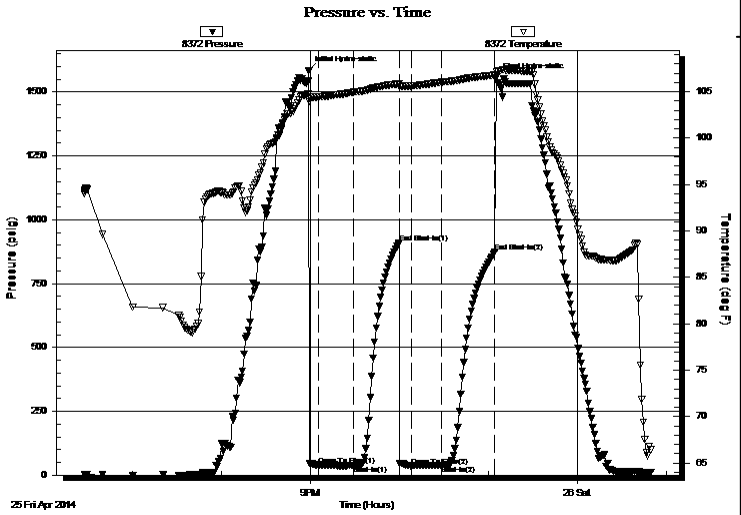
Reference Elevations: 2101.00 ft (KB)
2096.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: 37.79 psig @ 3323.00 ft (KB)
Start Date: 2014.04.25 End Date: 2014.04.26
Start Time: 18:27:52 End Time: 00:49:51

Capacity: 8000.00 psig
Last Calib.: 2014.04.26
Time On Btm: 2014.04.25 @ 20:58:51
Time Off Btm: 2014.04.25 @ 23:05:21

TEST COMMENT: 30- IF- No blow
30- ISI- No blow
30- FF- No blow
30- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1584.92	104.79	Initial Hydro-static
7	37.91	104.42	Open To Flow (1)
30	38.04	104.94	Shut-In(1)
61	909.89	105.86	End Shut-In(1)
70	36.17	105.61	Open To Flow (2)
90	37.79	106.02	Shut-In(2)
126	873.52	106.79	End Shut-In(2)
127	1556.48	107.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	M w / oil spots	0.01

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58763 **DST#: 1**

Test Start: 2014.04.25 @ 18:27:51

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.80 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2200.00 ppm				
Filter Cake:	inches				

Recovery Information

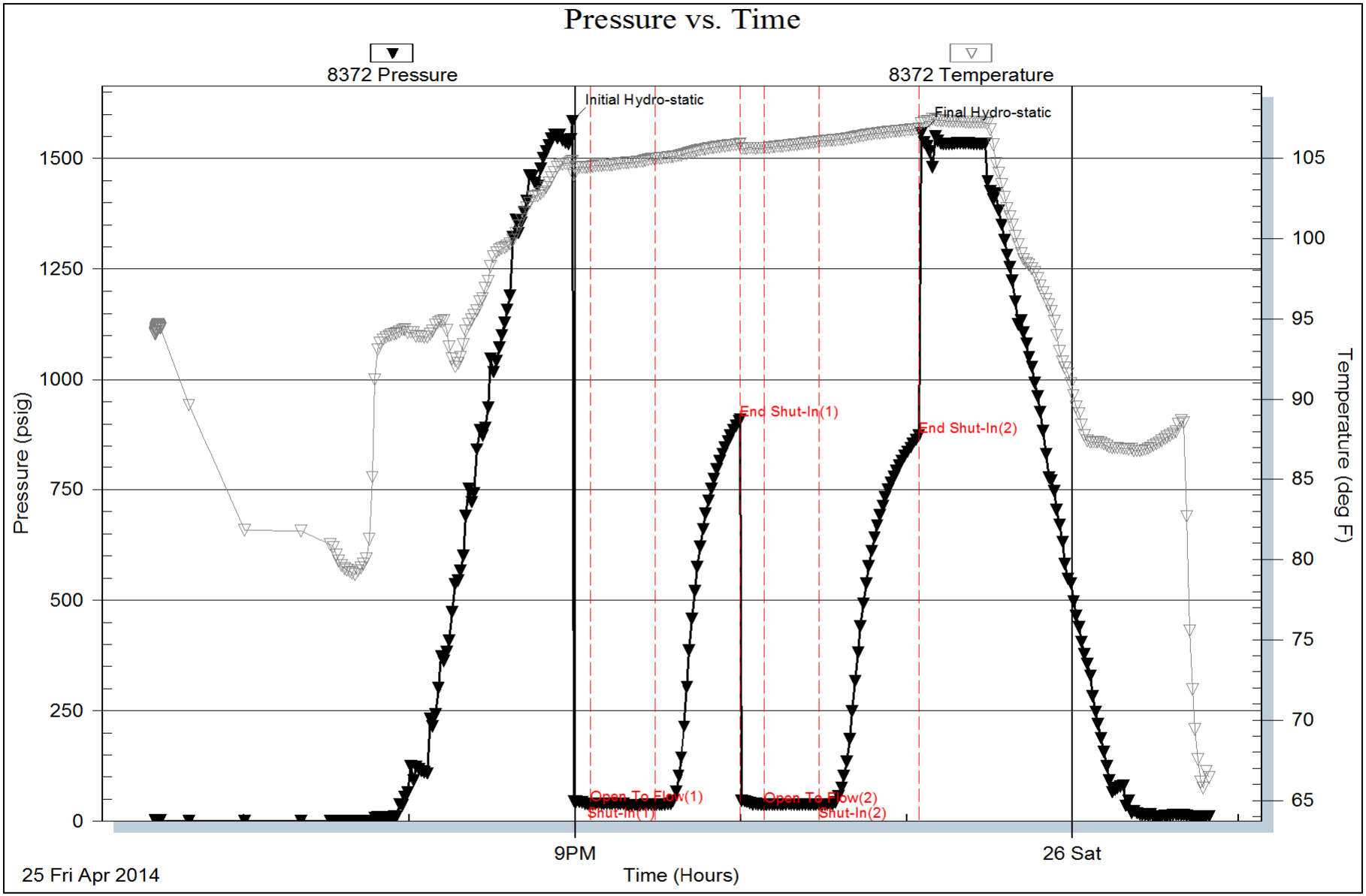
Recovery Table

Length ft	Description	Volume bbl
3.00	M w / oil spots	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8372 **Inside** Hess Oil Company Sack #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 58763 Printed: 2014.04.26 @ 06:46:08

DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58764 **DST#: 2**

Test Start: 2014.04.26 @ 14:13:22

GENERAL INFORMATION:

Formation: **Lansing**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:49:52
Time Test Ended: 19:21:52

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan L
Unit No: 48

Interval: 3409.00 ft (KB) To 3475.00 ft (KB) (TVD)
Total Depth: 3475.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

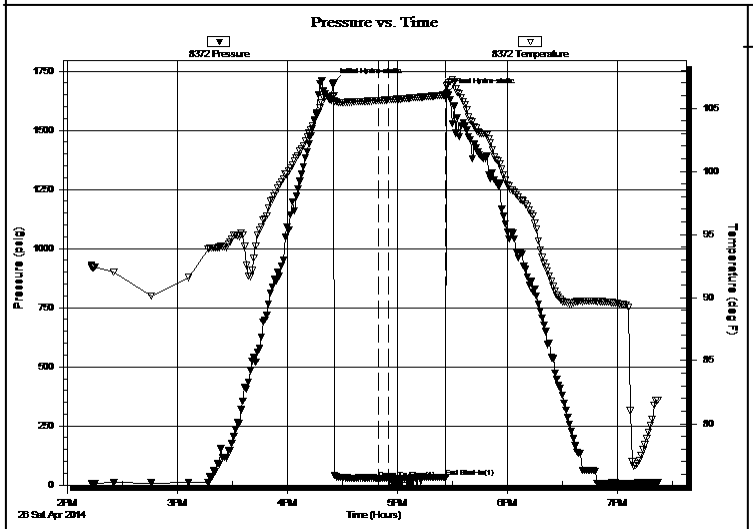
Reference Elevations: 2101.00 ft (KB)
2096.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: 29.14 psig @ 3410.00 ft (KB)
Start Date: 2014.04.26 End Date: 2014.04.26
Start Time: 14:13:23 End Time: 19:21:52

Capacity: 8000.00 psig
Last Calib.: 2014.04.26
Time On Btm: 2014.04.26 @ 16:25:22
Time Off Btm: 2014.04.26 @ 17:27:22

TEST COMMENT: 30- IF- Weak surface blow Died in 15mins
30- ISI- No blow
Pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1699.70	105.98	Initial Hydro-static
25	25.77	105.60	Open To Flow (1)
30	29.14	105.66	Shut-In(1)
61	33.93	106.05	End Shut-In(1)
62	1660.16	106.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.02

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58764 **DST#: 2**

Test Start: 2014.04.26 @ 14:13:22

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	inches				

Recovery Information

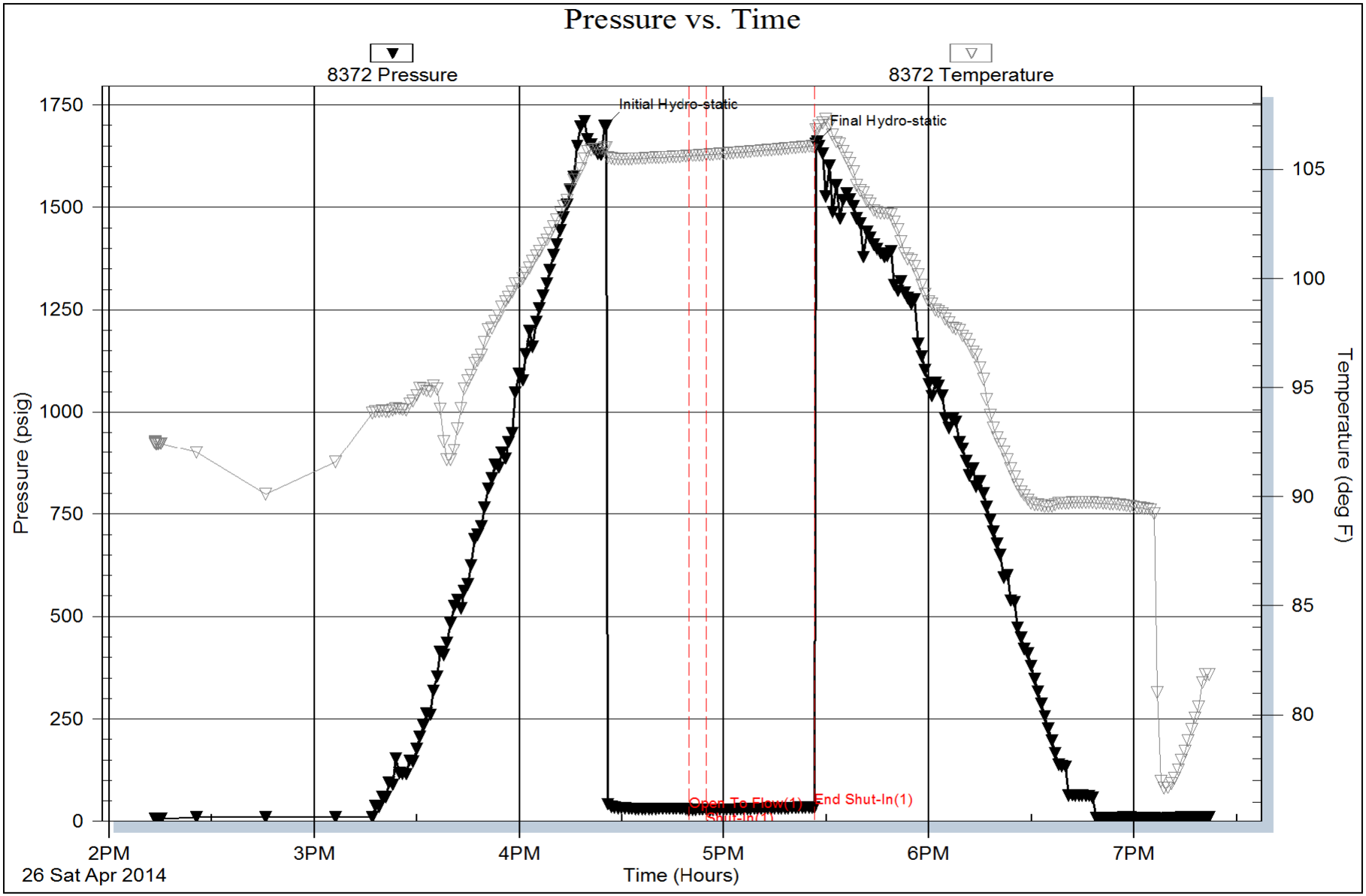
Recovery Table

Length ft	Description	Volume bbl
5.00	M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8372 **Inside** Hess Oil Company Sack #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 58764 Printed: 2014.04.26 @ 22:40:25

DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58765 **DST#: 3**

Test Start: 2014.04.27 @ 04:38:21

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:28:21
Time Test Ended: 11:24:21

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan L
Unit No: 48

Interval: 3474.00 ft (KB) To 3520.00 ft (KB) (TVD)
Total Depth: 3520.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

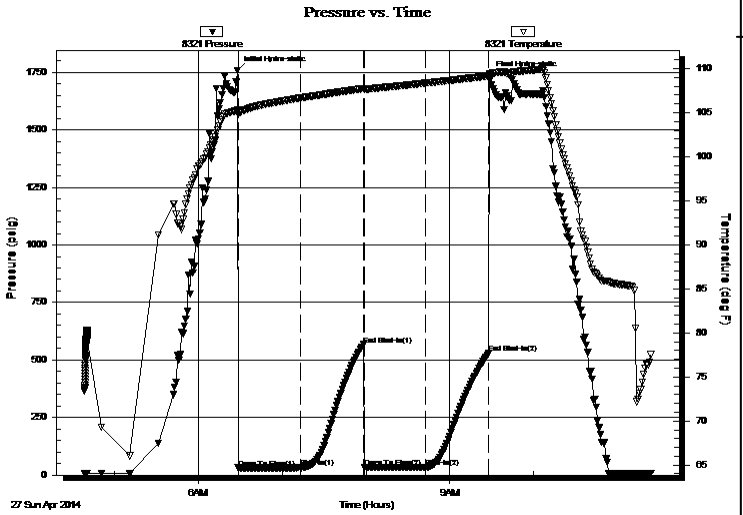
Reference Elevations: 2101.00 ft (KB)
2096.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8321 **Outside**

Press@RunDepth: 33.97 psig @ 3475.00 ft (KB)
Start Date: 2014.04.27 End Date: 2014.04.27
Start Time: 04:38:22 End Time: 11:24:21

Capacity: 8000.00 psig
Last Calib.: 2014.04.27
Time On Btm: 2014.04.27 @ 06:27:51
Time Off Btm: 2014.04.27 @ 09:28:21

TEST COMMENT: 45- IF- Maintained surface blow throughout
45- ISI- No blow
45- FF- No blow
45- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1759.06	105.29	Initial Hydro-static
1	31.17	104.78	Open To Flow (1)
45	32.51	106.67	Shut-In(1)
90	566.66	107.72	End Shut-In(1)
91	33.31	107.61	Open To Flow (2)
135	33.97	108.36	Shut-In(2)
180	528.85	109.14	End Shut-In(2)
181	1737.73	109.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.02

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58765 **DST#: 3**

Test Start: 2014.04.27 @ 04:38:21

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:28:21
Time Test Ended: 11:24:21

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan L
Unit No: 48

Interval: 3474.00 ft (KB) To 3520.00 ft (KB) (TVD)
Total Depth: 3520.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

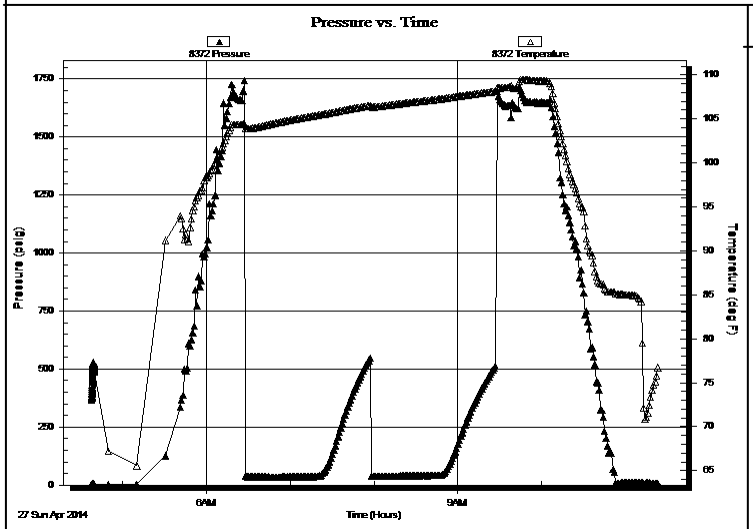
Reference Elevations: 2101.00 ft (KB)
2096.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: psig @ 3475.00 ft (KB)
Start Date: 2014.04.27 End Date: 2014.04.27
Start Time: 04:37:43 End Time: 11:23:42

Capacity: 8000.00 psig
Last Calib.: 2014.04.27
Time On Btm:
Time Off Btm:

TEST COMMENT: 45- IF- Maintained surface blow throughout
45- ISI- No blow
45- FF- No blow
45- FSI- No blow



PRESSURE SUMMARY

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

Recovery

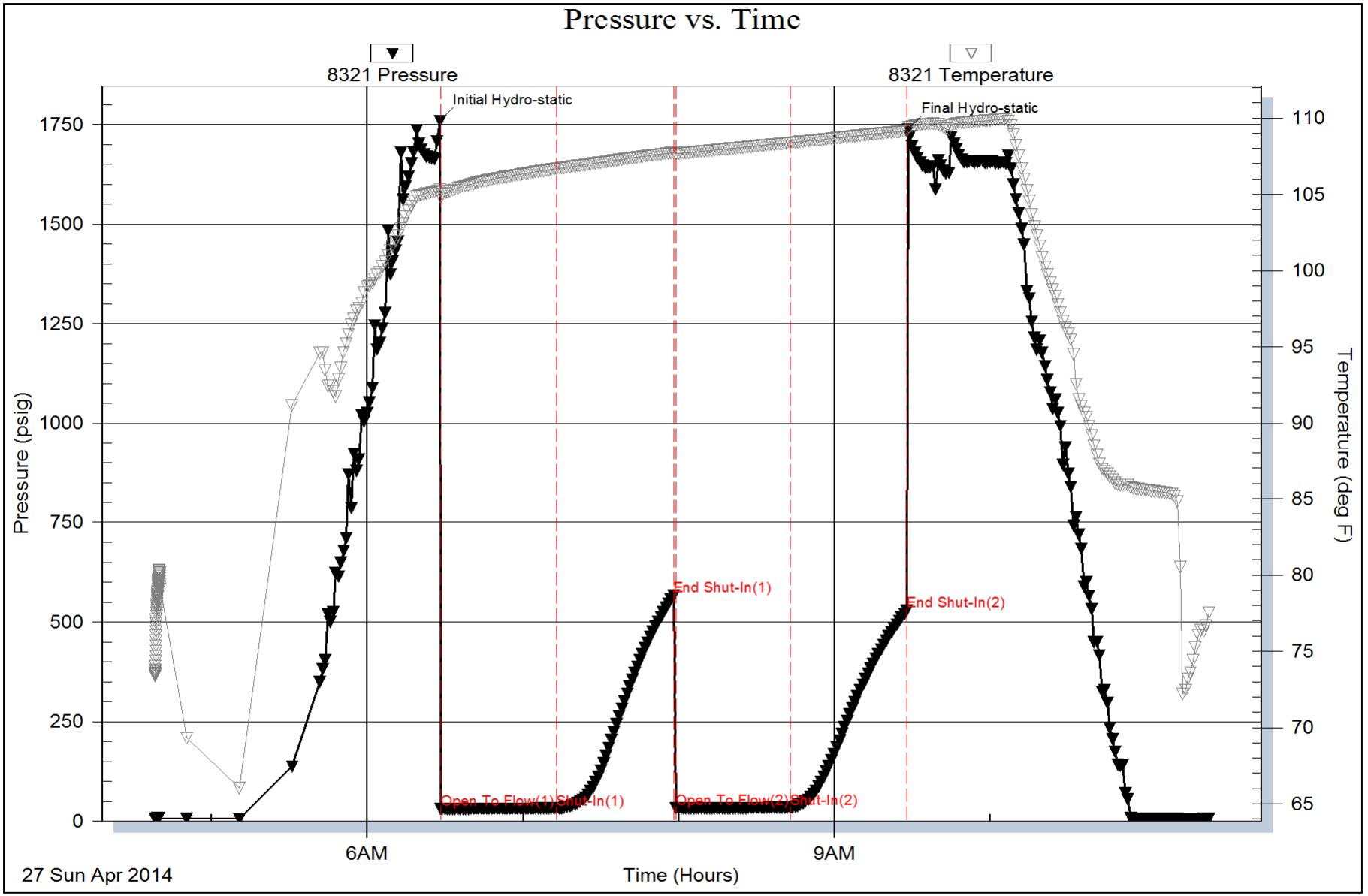
Length (ft)	Description	Volume (bbl)
5.00	M	0.02

* Recovery from multiple tests

Gas Rates

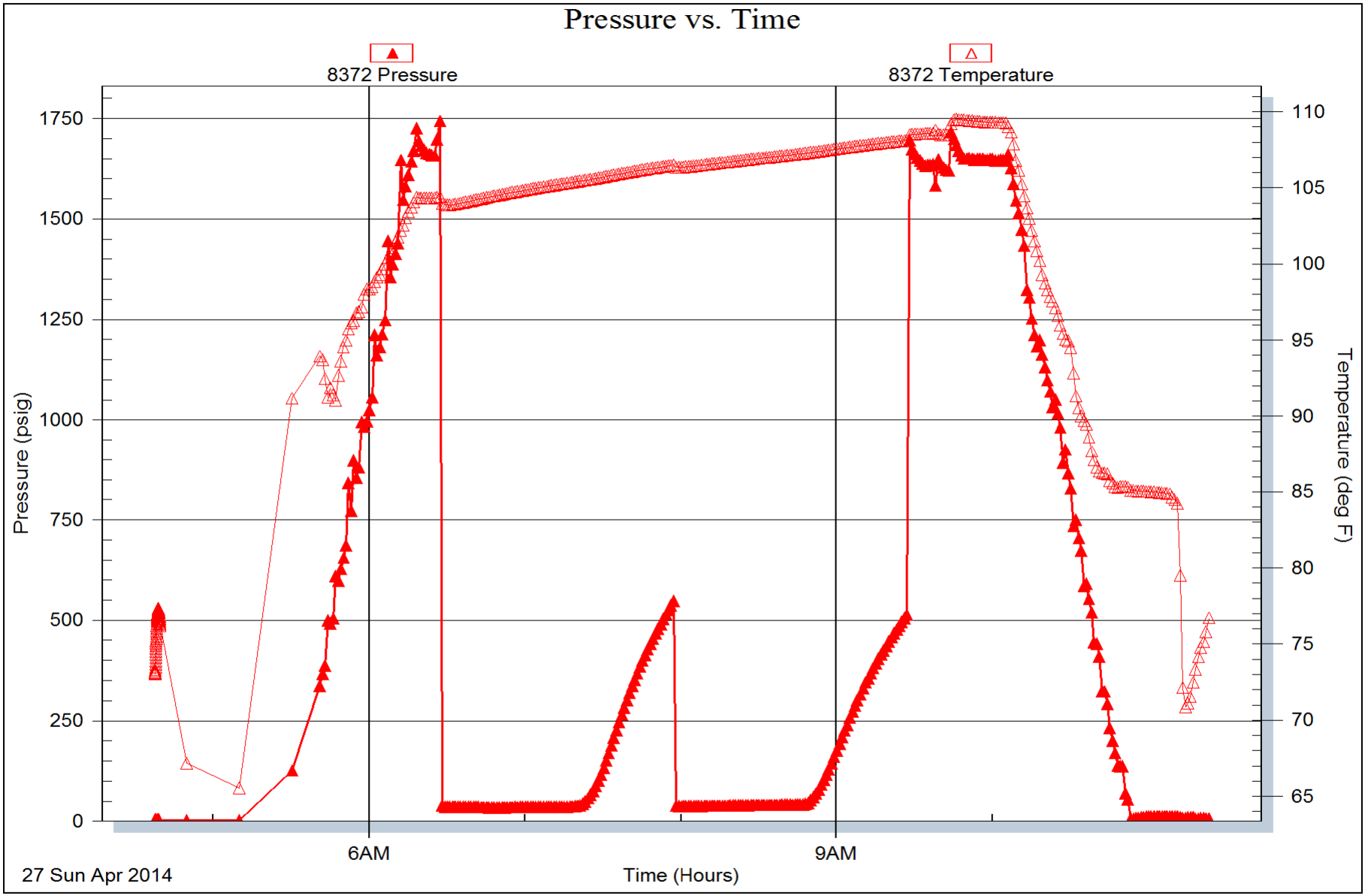
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Serial #: 8321 **Outside** Hess Oil Company Sack #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 58765 Printed: 2014.04.27 @ 12:32:19

Serial #: 8372 **Inside** Hess Oil Company Sack #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 58765 Printed: 2014.04.27 @ 12:32:19

DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58766 **DST#: 4**

Test Start: 2014.04.27 @ 20:51:00

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:19:30
Time Test Ended: 05:32:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan L
Unit No: 48

Interval: 3539.00 ft (KB) To 3604.00 ft (KB) (TVD)
Total Depth: 3604.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

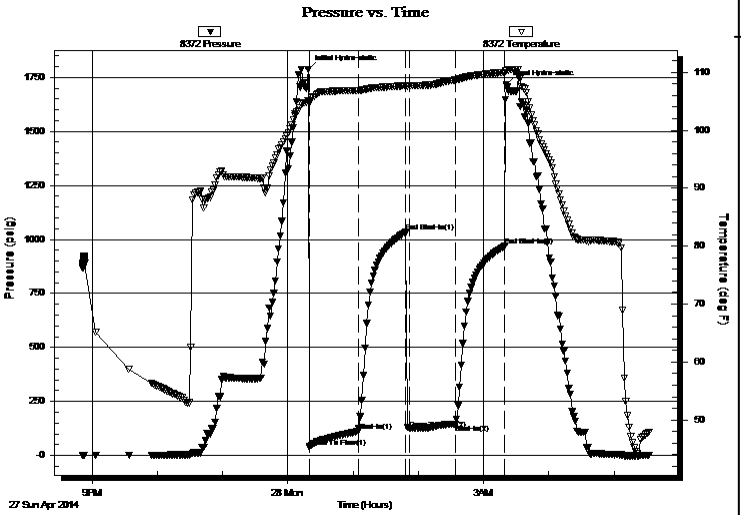
Reference Elevations: 2101.00 ft (KB)
2096.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: 145.72 psig @ 3540.00 ft (KB)
Start Date: 2014.04.27 End Date: 2014.04.28
Start Time: 20:51:01 End Time: 05:32:00

Capacity: 8000.00 psig
Last Calib.: 2014.04.28
Time On Btm: 2014.04.28 @ 00:18:30
Time Off Btm: 2014.04.28 @ 03:21:00

TEST COMMENT: 45- IF- BOB 20mins
45- ISI- No blow
45- FF- BOB 20mins
45- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1787.28	105.09	Initial Hydro-static
1	37.72	104.56	Open To Flow (1)
46	112.09	106.85	Shut-In(1)
90	1033.58	107.69	End Shut-In(1)
94	123.76	107.65	Open To Flow (2)
136	145.72	108.68	Shut-In(2)
181	969.37	109.98	End Shut-In(2)
183	1718.29	110.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	MCO, 30%M 70%O	1.93

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58766 **DST#: 4**

Test Start: 2014.04.27 @ 20:51:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7300.00 ppm				
Filter Cake:	inches				

Recovery Information

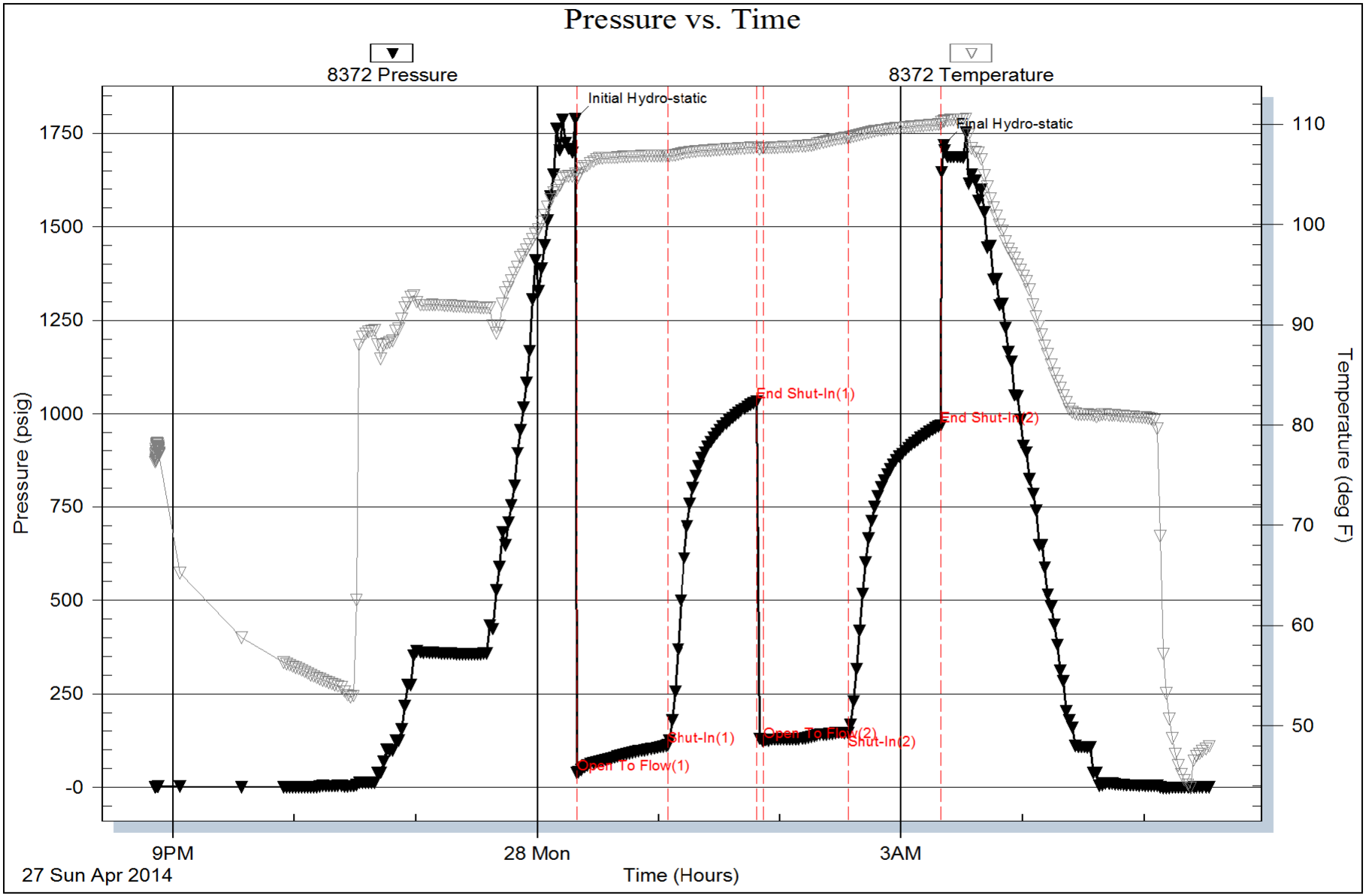
Recovery Table

Length ft	Description	Volume bbl
300.00	MCO, 30%M 70%O	1.930

Total Length: 300.00 ft Total Volume: 1.930 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8372 **Inside** Hess Oil Company Sack #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 58766 Printed: 2014.04.28 @ 06:52:38

DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58767 **DST#: 5**

Test Start: 2014.04.25 @ 18:27:51

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened:
Time Test Ended:

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan L
Unit No: 48

Interval: 3698.00 ft (KB) To 3710.00 ft (KB) (TVD)
Total Depth: 3710.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

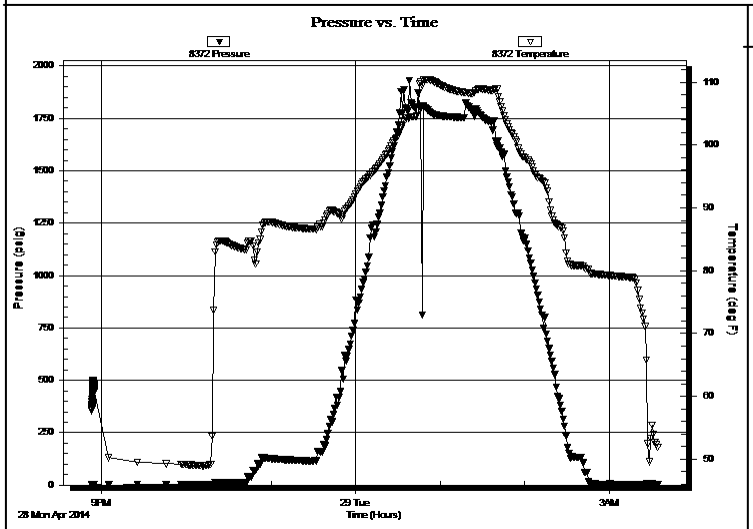
Reference Elevations: 2101.00 ft (KB)
2096.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: psig @ 3699.00 ft (KB)
Start Date: 2014.04.28 End Date: 2014.04.29
Start Time: 20:52:45 End Time: 03:34:44

Capacity: 8000.00 psig
Last Calib.: 2014.04.29
Time On Btm:
Time Off Btm:

TEST COMMENT: Packer Failure



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
200.00	M	0.98

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58767 **DST#: 5**

Test Start: 2014.04.25 @ 18:27:51

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8000.00 ppm				
Filter Cake:	inches				

Recovery Information

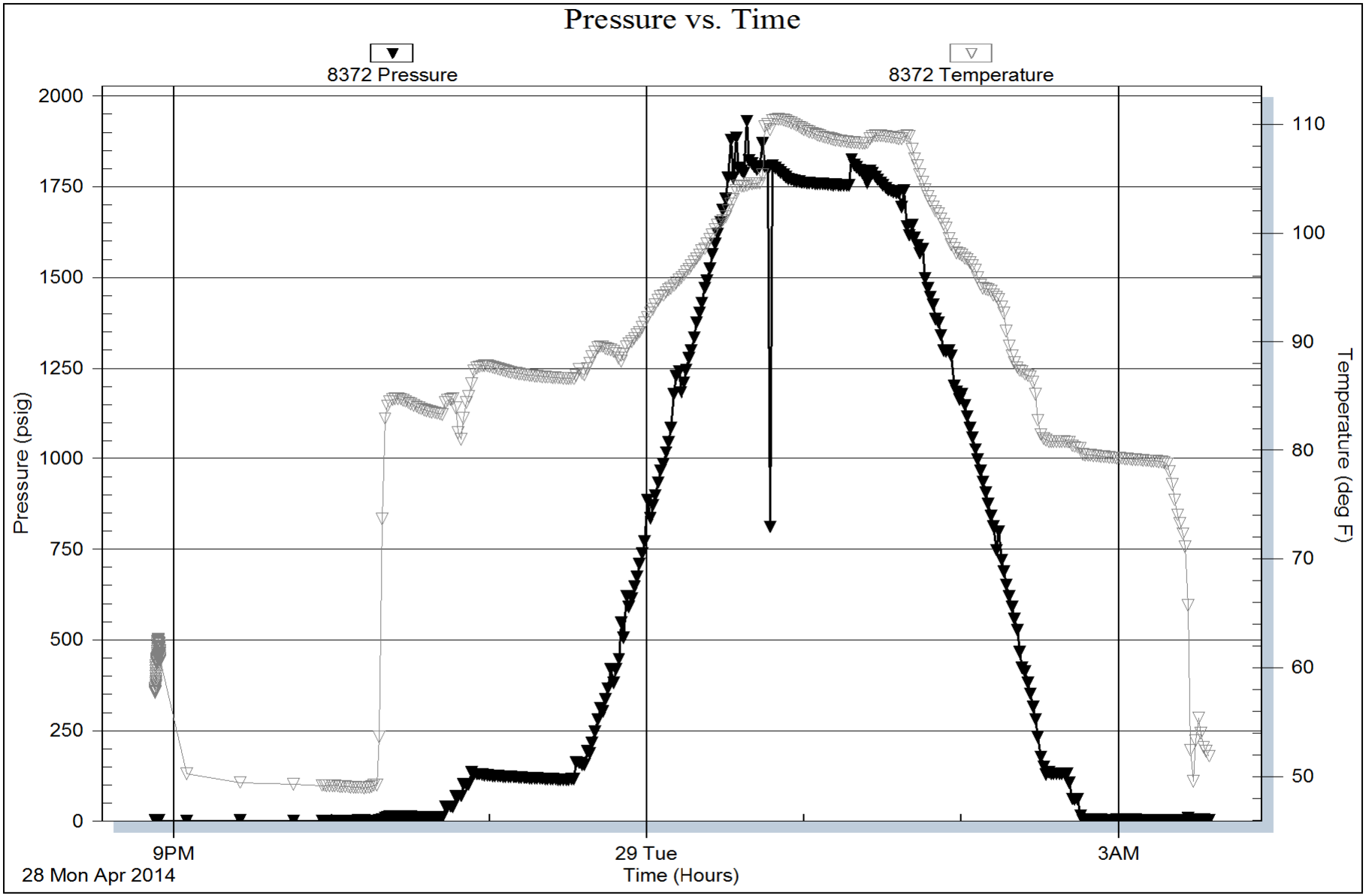
Recovery Table

Length ft	Description	Volume bbl
200.00	M	0.984

Total Length: 200.00 ft Total Volume: 0.984 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8372 **Inside** Hess Oil Company Sack #1 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 58767 Printed: 2014.04.29 @ 07:01:33

DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58768 **DST#: 6**

Test Start: 2014.04.29 @ 03:59:26

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:21:56
Time Test Ended: 09:43:26

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan L
Unit No: 48

Interval: 3655.00 ft (KB) To 3710.00 ft (KB) (TVD)
Total Depth: 3710.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

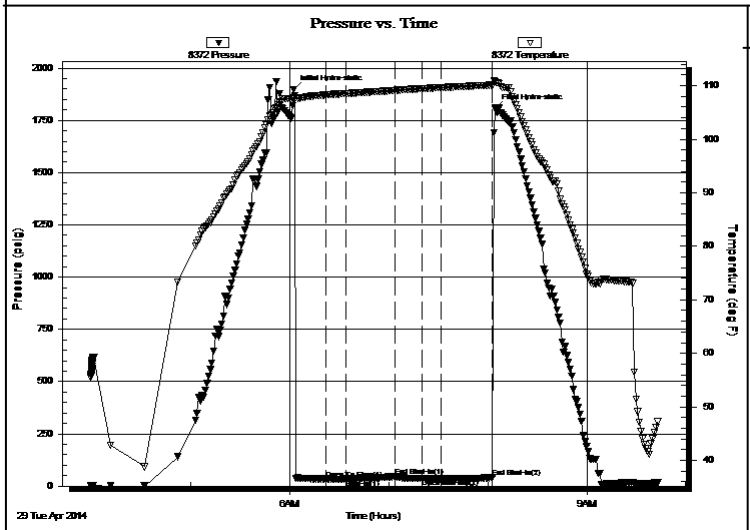
Reference Elevations: 2101.00 ft (KB)
2096.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: 35.45 psig @ 3656.00 ft (KB)
Start Date: 2014.04.29 End Date: 2014.04.29
Start Time: 03:59:27 End Time: 09:43:26

Capacity: 8000.00 psig
Last Calib.: 2014.04.29
Time On Btm: 2014.04.29 @ 06:02:26
Time Off Btm: 2014.04.29 @ 08:04:26

TEST COMMENT: 30- IF- Surface blow
30- ISI- No blow
30- FF- No blow
30- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1896.36	107.61	Initial Hydro-static
20	34.49	108.30	Open To Flow (1)
32	34.08	108.52	Shut-In(1)
62	46.89	109.13	End Shut-In(1)
78	35.45	109.46	Open To Flow (2)
90	35.45	109.65	Shut-In(2)
121	40.84	110.14	End Shut-In(2)
122	1807.89	110.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.02

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58768 **DST#: 6**

Test Start: 2014.04.29 @ 03:59:26

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8000.00 ppm				
Filter Cake:	inches				

Recovery Information

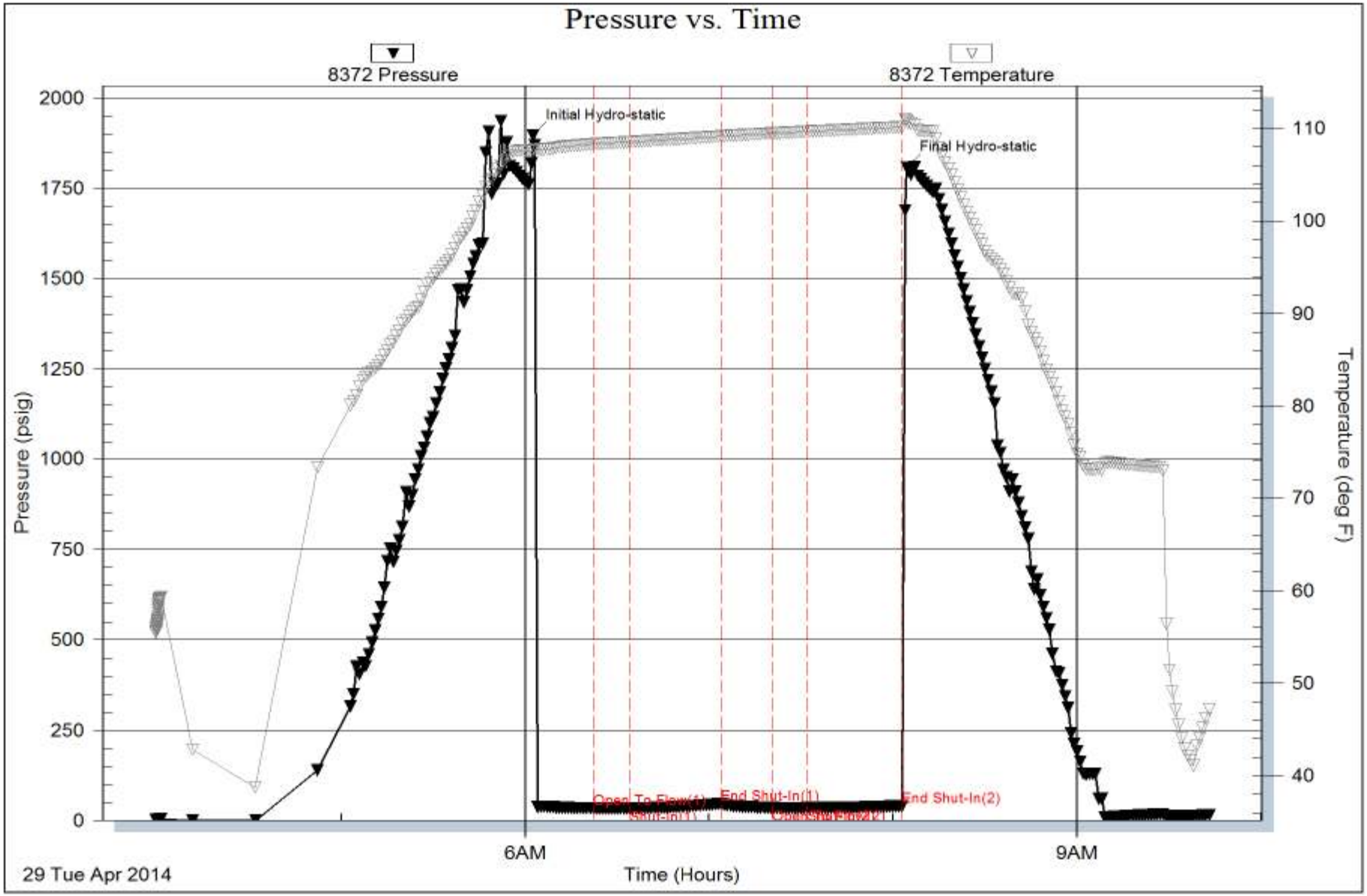
Recovery Table

Length ft	Description	Volume bbl
5.00	M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8372 **Inside** Hess Oil Company Sack #1 DST Test Number: 6



Trilobite Testing, Inc Ref. No: 58768 Printed: 2014.04.29 @ 10:12:01

DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58769 **DST#: 7**

Test Start: 2014.04.29 @ 21:02:26

GENERAL INFORMATION:

Formation: **Cong.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:03:56
Time Test Ended: 03:20:56

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan L
Unit No: 48

Interval: 3722.00 ft (KB) To 3760.00 ft (KB) (TVD)
Total Depth: 3760.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

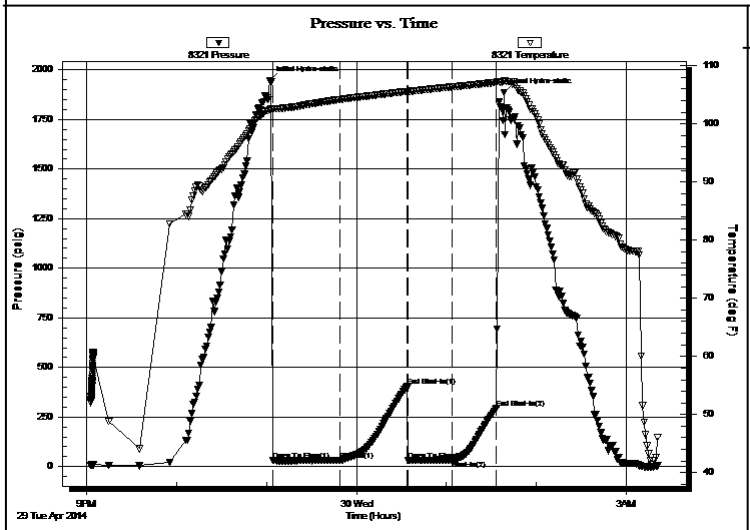
Reference Elevations: 2101.00 ft (KB)
2096.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8321 **Outside**

Press@RunDepth: 33.21 psig @ 3723.00 ft (KB)
Start Date: 2014.04.29 End Date: 2014.04.30
Start Time: 21:02:27 End Time: 03:20:56

Capacity: 8000.00 psig
Last Calib.: 2014.04.30
Time On Btm: 2014.04.29 @ 23:01:56
Time Off Btm: 2014.04.30 @ 01:38:26

TEST COMMENT: 45- IF- Surface blow
45- ISI- No blow
30- FF- No blow
30- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1947.32	102.44	Initial Hydro-static
2	30.32	102.48	Open To Flow (1)
47	32.61	104.19	Shut-In(1)
92	405.07	105.57	End Shut-In(1)
93	32.79	105.52	Open To Flow (2)
122	33.21	106.35	Shut-In(2)
152	293.08	107.12	End Shut-In(2)
157	1886.21	107.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.02

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

PO Box 1009
McPherson, KS 67460

ATTN: David Gould

27-13S-19W Ellis, KS

Sack #1

Job Ticket: 58769 **DST#: 7**

Test Start: 2014.04.29 @ 21:02:26

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8500.00 ppm				
Filter Cake:	inches				

Recovery Information

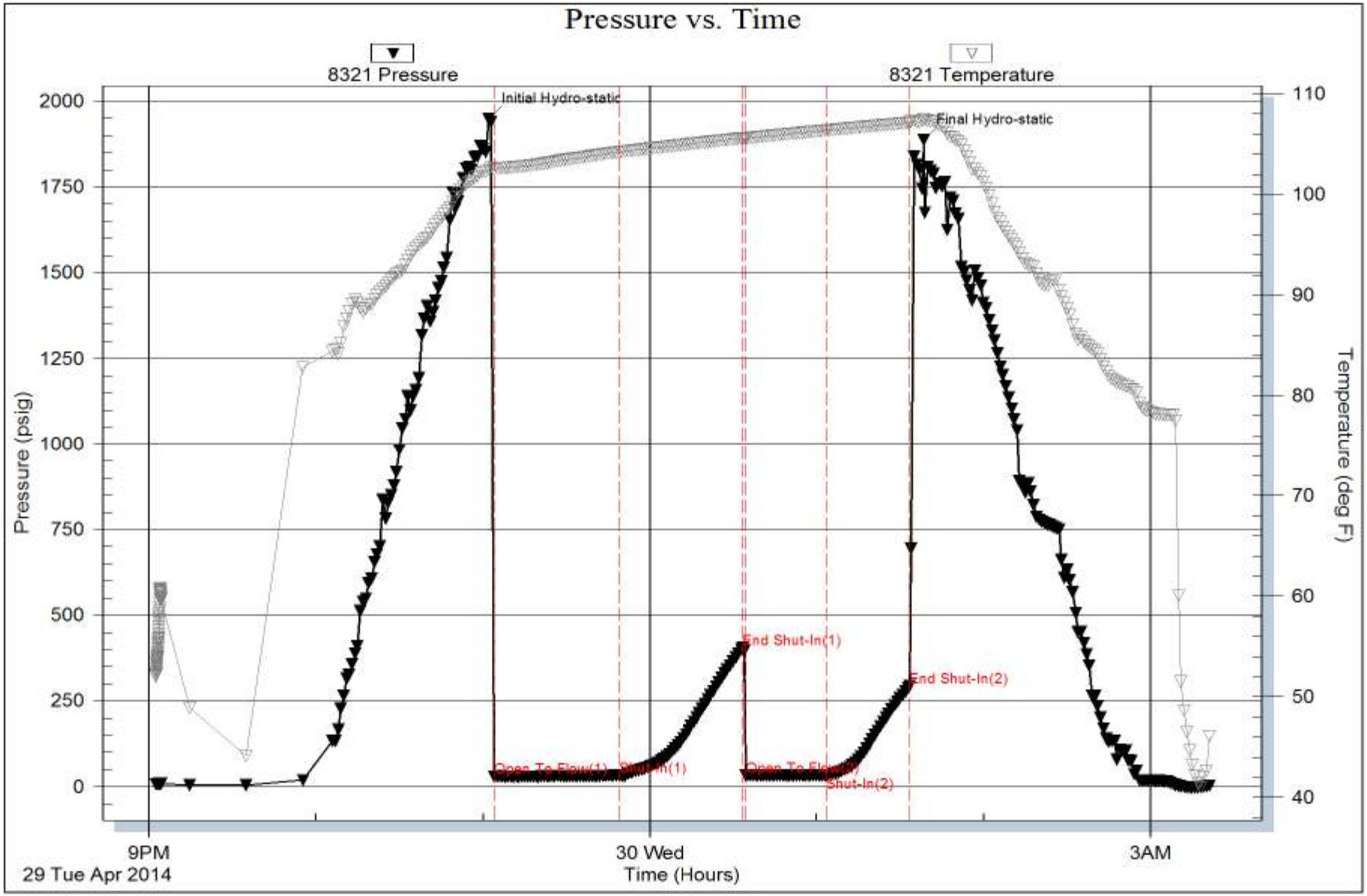
Recovery Table

Length ft	Description	Volume bbl
5.00	M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8321 **Outside** Hess Oil Company Sack #1 DST Test Number: 7



Trilobite Testing, Inc Ref. No: 58769 Printed: 2014.04.30 @ 07:56:05