

KANSAS CORPORATION COMMISSION 1055090
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
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: James C. Hess
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 #:

3/31/2011 4/8/2011 4/9/2011

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No. 15 - 15-083-21697-00-00

Spot Description:

NE SW NW NE Sec. 25 Twp. 23 S. R. 24 ☐ East ☒ West

700 Feet from ☒ North / ☐ South Line of Section

2,035 Feet from ☒ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:

☒ NE ☐ NW ☐ SE ☐ SW

County: Hodgeman

Lease Name: Angela Well #: 1

Field Name:

Producing Formation: na

Elevation: Ground: 2416 Kelly Bushing: 2420

Total Depth: 4706 Plug Back Total Depth:

Amount of Surface Pipe Set and Cemented at: 233 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: 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

- ☐ Letter of Confidentiality Received
Date:
☐ Confidential Release Date:
☐ Wireline Log Received
☒ Geologist Report Received
☐ UIC Distribution
ALT ☐ I ☒ II ☐ III Approved by: Deanna Garrison Date: 05/05/2011



1055090

Operator Name: Hess Oil Company Lease Name: Angela Well #: 1
 Sec. 25 Twp. 23 S. R. 24 ☐ East ☒ West County: Hodgeman

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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

Electric Log Submitted Electronically ☐ Yes ☐ No
 (If no, Submit Copy)

List All E. Logs Run:

☐ Log Formation (Top), Depth and Datum ☒ Sample
 Name Top Datum
 Attached Attached 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	233	Class A	160	2% gel, 3% cc

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				

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: ☐ Yes ☐ No
Date of First, Resumed Production, SWD or ENHR.		Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease (If vented, Submit ACO-18.)	METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled (Submit ACO-5) (Submit ACO-4) ☐ Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Hess Oil Company
Well Name	Angela 1
Doc ID	1055090

Tops

Name	Top	Datum
Anhydrite	1578	+842
Base Anhydrite	1603	+817
Heebner	3954	-1534
Lansing	4003	-1583
Stark Shale	4306	-1886
Base Kansas City	4418	-1998
Pawnee	4468	-2048
Fort Scott	4535	-2115
Cherokee Shale	4566	-2146
Cherokee Sand	4665	-2245
Mississippi	4697	-2277
RTD	4706	-2286

ALLIED CEMENTING CO., LLC. 037180

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

SERVICE POINT:

Great Bend KS

DATE <u>4-8-2011</u>	SEC. <u>25</u>	TWP. <u>23S</u>	RANGE <u>24W</u>	CALLED OUT	ON LOCATION	JOB START <u>11:00AM</u>	JOB FINISH <u>11:30AM</u>
LEASE <u>Angela</u>	WELL # <u>1</u>	LOCATION <u>Jetmore KS, 3S, 1/4W</u>			COUNTY <u>Hodgeman</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)			<u>Sinto</u>				

CONTRACTOR Mallard
TYPE OF JOB Plug Job
HOLE SIZE 778 T.D. 1640 FT
CASING SIZE DEPTH
TUBING SIZE DEPTH
DRILL PIPE 4 1/2 DEPTH 1640 FT
TOOL DEPTH
PRES. MAX 200 PSI MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. —
PERFS.
DISPLACEMENT Freshwater + Mud
EQUIPMENT

OWNER Hess Oil

CEMENT
AMOUNT ORDERED 230 SX 160:40:490
Gel + 1/4 # Flo-seal

COMMON	<u>138</u>	@	<u>16.25</u>	<u>2,242.50</u>
POZMIX	<u>92</u>	@	<u>8.50</u>	<u>782.00</u>
GEL	<u>8</u>	@	<u>21.25</u>	<u>170.00</u>
CHLORIDE		@		
ASC		@		
<u>Flo seal</u>	<u>57</u>	@	<u>2.70</u>	<u>153.90</u>
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>240</u>	@	<u>2.25</u>	<u>540.00</u>
MILEAGE	<u>240 x 312.11</u>			<u>818.90</u>
				TOTAL <u>4,706.80</u>

REMARKS:

1-Plug at 1640 FT 50 SX
2-Plug at 750 FT 80 SX
3-Plug at 270 FT 50 SX
4-Plug at 160 FT 20 SX
20 in Mouse 30 in Rat

SERVICE

DEPTH OF JOB	<u>1640 FT</u>		
PUMP TRUCK CHARGE			<u>1250.00</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>62</u>	@	<u>7.00</u>
MANIFOLD		@	
<u>Light Tower</u>	<u>62 #</u>	@	<u>4.00</u>
		@	
TOTAL <u>1932.00</u>			

CHARGE TO: Hess Oil
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY HESS OIL COMPANY
 LEASE ANGELA #1
 FIELD - WILDCAT -
 LOCATION 700' FNL, 2035' FEL
 SEC 25 TWSP 23 S RGE 24 W
 COUNTY HODGEMAN STATE KANSAS

ELEVATIONS
 KB 2420'
 DF 2418'
 GL 2415'
 Measurements Are All
 From KB

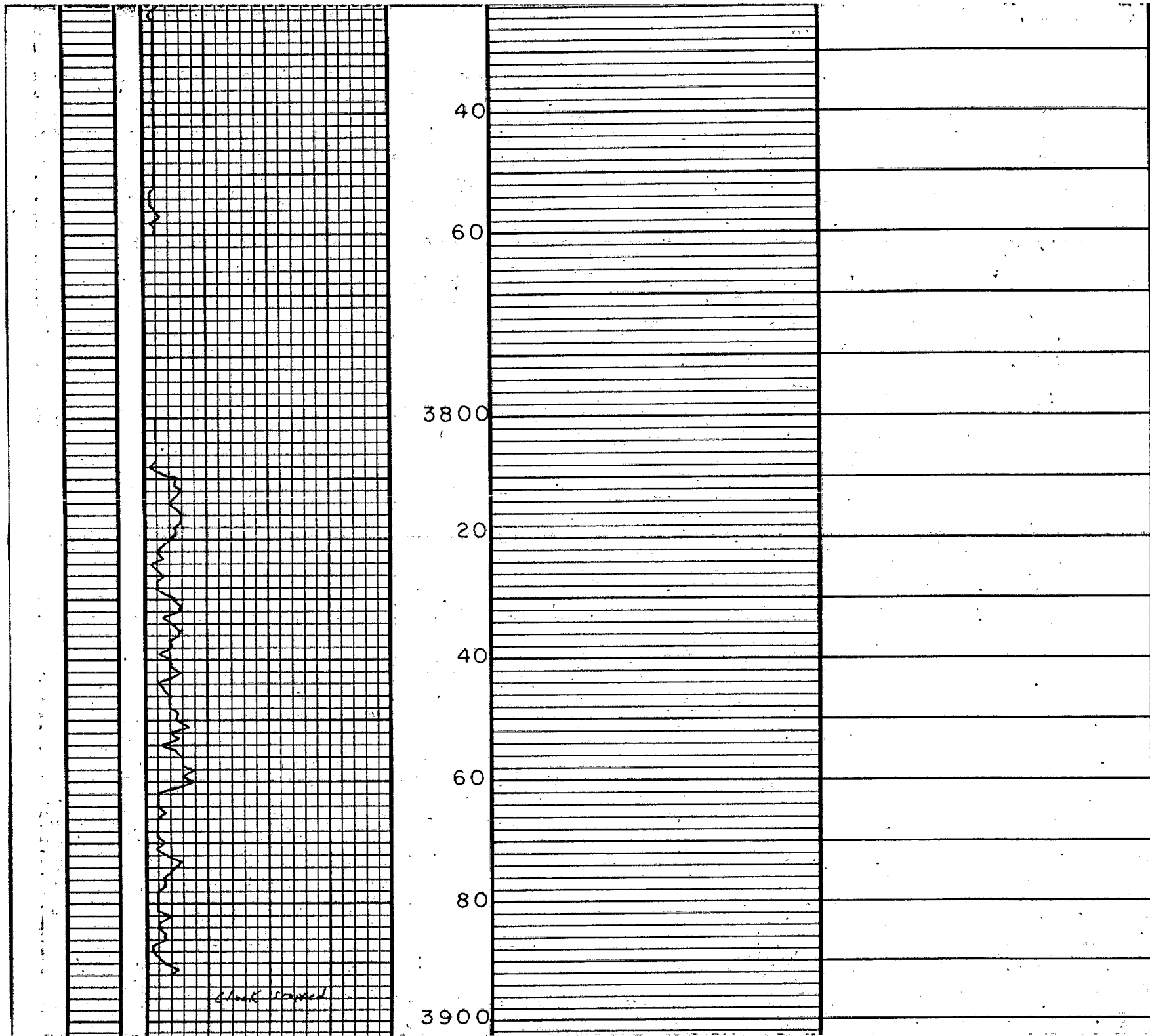
CONTRACTOR MALLARD J.V.
 SPUD 3-31-11 COMP 4-8-11
 RTD 4706' LTD none
 MUD UP 3750' TYPE MUD CHEMICAL

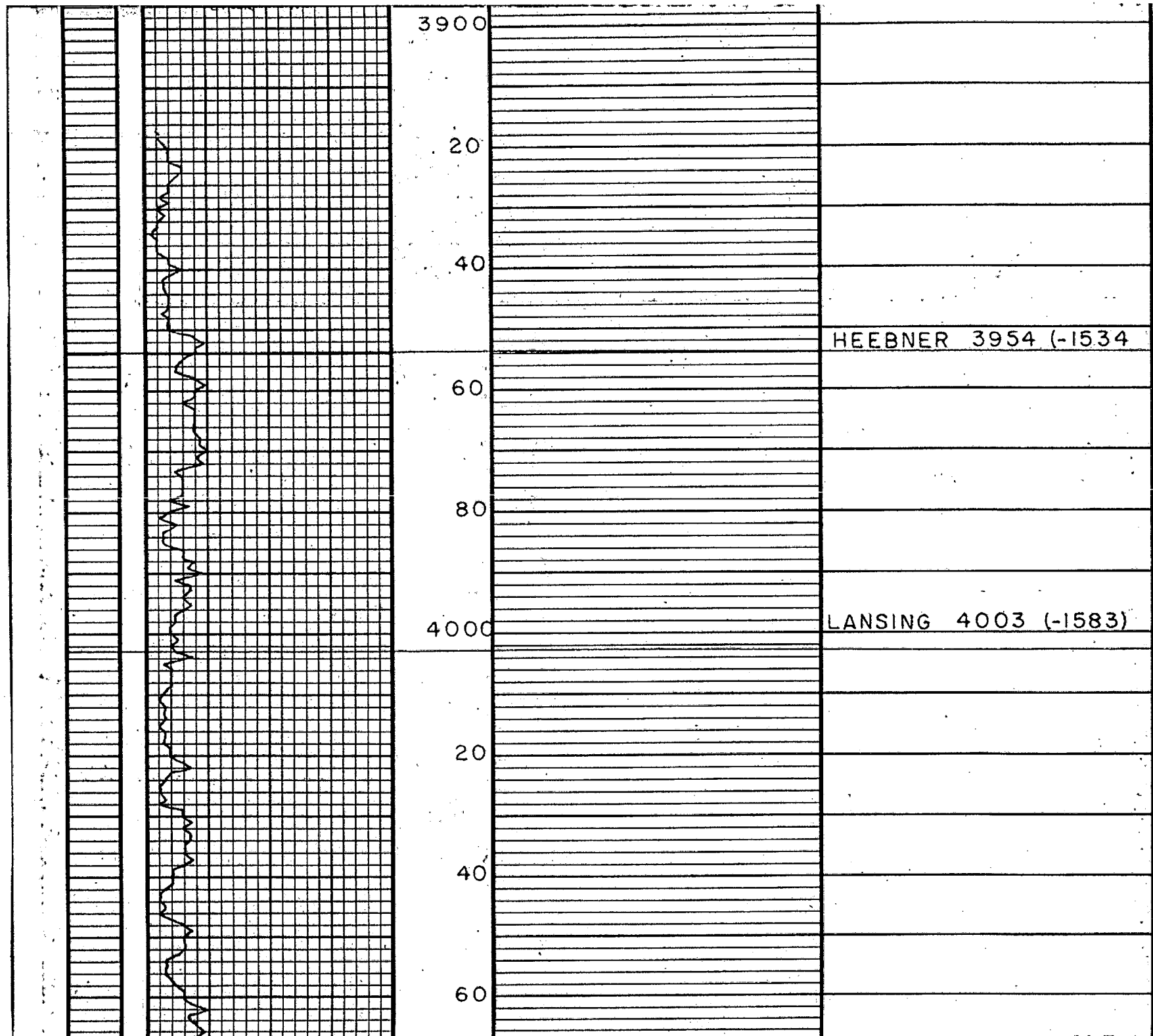
CASING
 SURFACE 8-5/8 at 233'
 PRODUCTION none
 ELECTRICAL SURVEYS
none

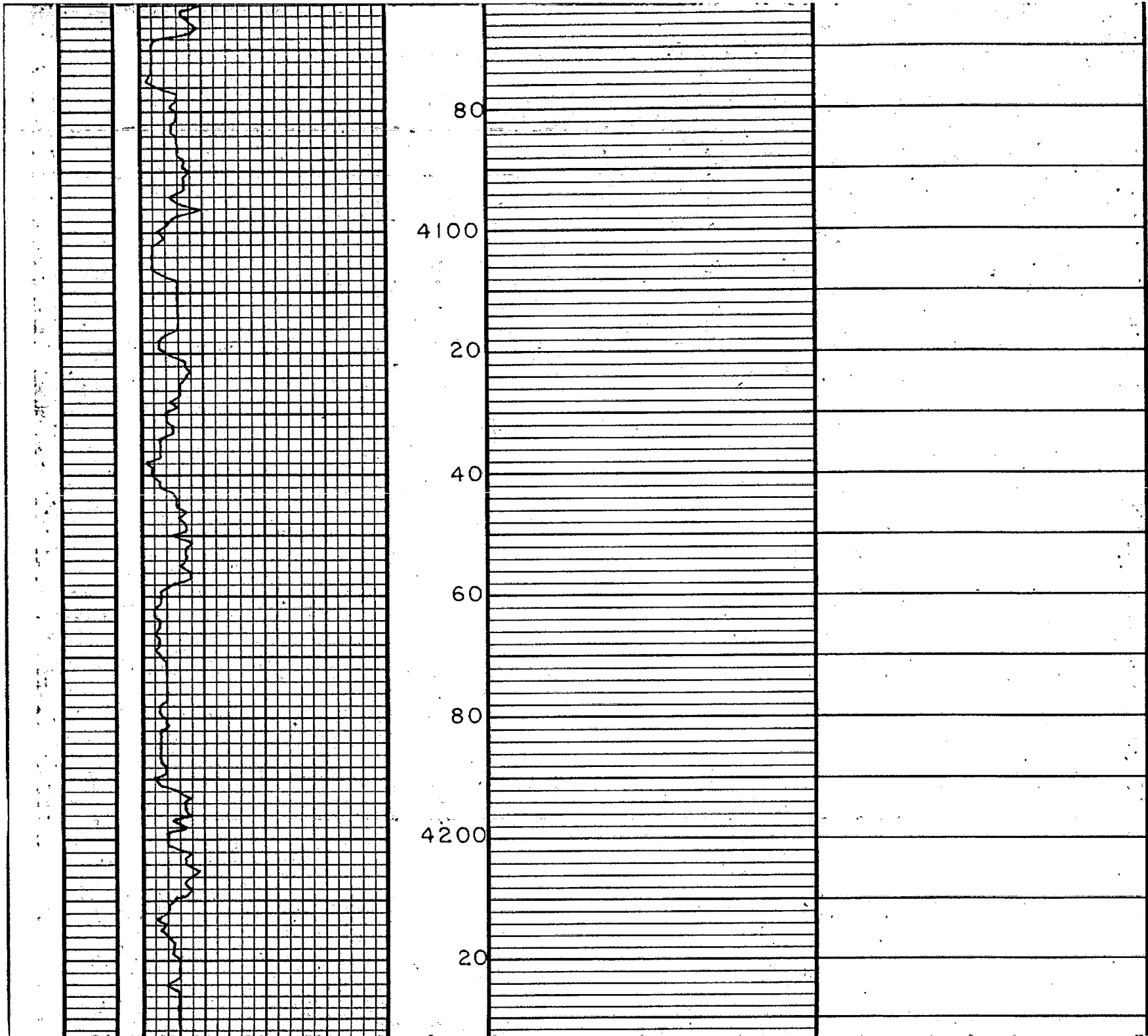
SAMPLES SAVED FROM 4400' TO TD
 DRILLING TIME KEPT FROM 3800' TO TD
 SAMPLES EXAMINED FROM 4400' TO TD
 GEOLOGICAL SUPERVISION FROM 3800' TO TD
 GEOLOGIST ON WELL JAMES C. HESS

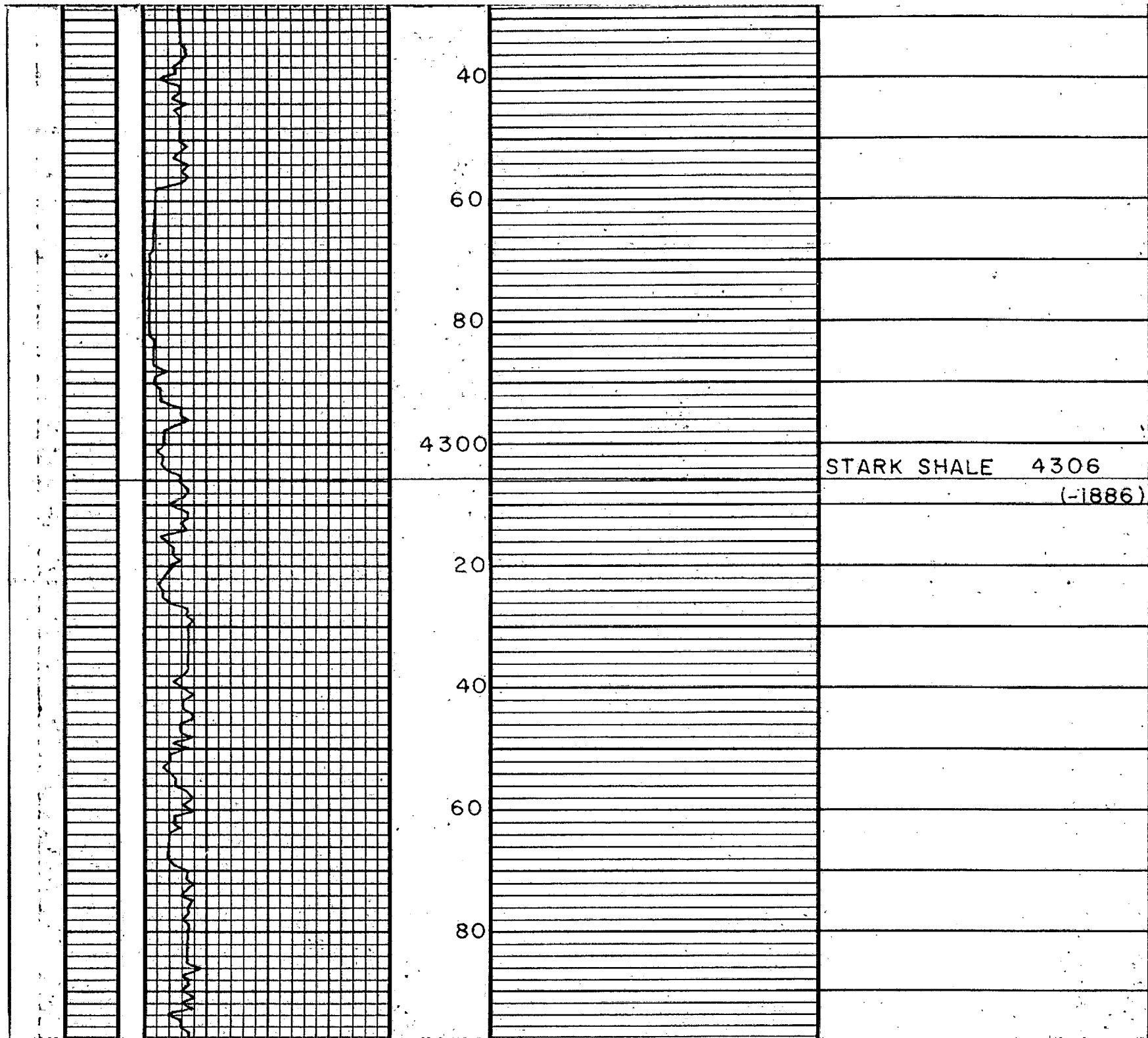
FORMATION TOPS	LOG	SAMPLES				
ANHYDRITE		1578 (+842)	24 W			
BASE ANHYDRITE		1603 (+817)				
HEEBNER		3954 (-1534)			+	
LANSING		4003 (-1583)				
STARK SHALE		4306 (-1886)				
BASE KANSAS CITY		4418 (-1998)				
PAWNEE		4468 (-2048)				
FORT SCOTT		4535 (-2115)				
CHEROKEE SHALE		4566 (-2146)				
MISSISSIPPI		4697 (-2277)				
R T D		4706 (-2286)				

23
S









			4400	Grm - Tan VF-Fair Ds Lm w/ Pe's w/ Chalky Lm Some Red + Green Sh's AA w/ more sh's No show	BASE KANSAS CITY 4418
			20	Mostly Green Sh's Some Lm - Gray VF-Fair Lm w/ Pe's w/ Chalky Lm AA w/ mostly Green Sh's No P No show	(-1998)
			40	Lm - Gray VF-Fair Chalky Lm w/ Pe's w/ Chalky Lm Some Green Sh's AA w/ more Chalky Lm No P No show	
			60	Bl Carb. Sh's Some Green Sh's - Gray VF-Fair Ds Lm w/ Pe's w/ Chalky Lm AA w/ less Sh's No P No show	PAWNEE 4468 (-2048)
			80	Gray VF-Fair Ds Lm w/ Pe's w/ Chalky Lm Lm - Gray VF-Fair Ds Lm w/ Pe's w/ Chalky Lm Pe's w/ Gray Chalky Lm AA w/ less Sh's No P No show	
			4500	Some Bl Carb. Sh's Gray VF-Fair Ds Lm Some Green Sh's Lm - Gray VF-Fair Sl Chalky Lm Some w/ Gray Chalky Lm Some Green Sh's Bl Carb. Sh's	FORT SCOTT 4535 (-2115)
			20	Lm - Tan VF-Fair Sl Foss. Lm w/ Pe's w/ Chalky Lm Some Green Sh's Lm - Bl Fair Sl Foss. Lm w/ Pe's w/ Chalky Lm Some Green Sh's AA w/ more sh's No P No show	
			40	Lm - Tan VF-Fair Sl Foss. Lm w/ Pe's w/ Chalky Lm Some Green Sh's Lm - Bl Fair Sl Foss. Lm w/ Pe's w/ Chalky Lm Some Green Sh's AA w/ more sh's No P No show	CHEROKEE SHALE 4566
			60		

60	HA w/ more sh's NO B NO SHOW	CHEROKEE SHALE 4566 (-2146)	DST #1
80	BI Lark sh's Mostly green & red sh's Some tan VF-Falm Lm Some sharp sh's	4640-4669' KB 29' ANCHOR	TIMES: 45-45-45-45
4600	HA w/ more sh's NO B NO SHOW	RECOVERED: 30' OCM	PRESSURES: SH 2354* FH 2288* IF 35-38* FA 41-40* ISIP 109* FSIP 52*
20	V.SI show of Free oil in V. Falm B NO odor. Tan VF-Falm OS Lm (1 lb in tray)	Cim-Tan VF-Falm Foss. Lm w/ some V.G. sharp sh's Some green & red sh's	Short Trip
40	HA w/ more sh's NO B NO SHOW	WT-Tan VF-Falm OS Lm w/ PC's V.G. sharp sh's Some green & red sh's	DST #1 DST #2
60	HA w/ more sh's NO B NO SHOW	CHEROKEE SAND 4665 (-2045)	DST #2
80	Great show of Free oil in clear Falm ss clusters + some grains Great show of oil in Tan Tripartite sh's some ss clusters No odor (Congl.?) Gas bubbles	4640-4675' KB 35' ANCHOR	TIMES: 30-30-0-0
4700	Cim-Tan Shale & Tripartite A Good show of Free oil Falm B NO odor	MISS.	RECOVERED: 10' mud w/ oil spots
20	Good show in WT-Tan Shale & Tripartite sh's Some loose sand grains NO odor. Few Gas Bubbles Fair show w/ heavy Tan Spines	RTD 4706 (-2286)	PRESSURES: IN 2398* FH 2295* IF 31-31* FA 35-35
40	Cim-Tan F-Falm OS Below w/ PC's sharp sh's NO SHOW		

20	40	60	80	4800	IN 2398*
					FN 2295*
					IF 31-31*
					FF 38-35
					ISIP 75*
					FSIP ---
					DST # 3
					4660-4692' KB
					32' ANCHOR
					MISS RUN
20	40	60	80	4800	DST # 4
					4638-4692' KB
					54' ANCHOR
					TIMES:
					45-45-45-45
					RECOVERED:
					20' Mud
					PRESSURES:
					IN 2501*
					FN 238-3*
IF 30-42*					
FF 36-56*					
ISIP 137*					
FSIP 92*					

HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

GEOLOGICAL REPORT

ANGELA #1

700' FNL, 2035' FEL of

SECTION 25 - 23S - 24W

HODGEMAN COUNTY, KANSAS

Commenced: 3-31-11

Elevations: 2415' GR, 2420' KB

Completed: 4-8-11

Surface Pipe: 8-5/8" @ 233' KB

Contractor: Mallard J.V.

Production Pipe: none

One foot drilling time was kept from 1560 to 1660' KB and from 3800' to RTD. Ten foot drilling samples were kept (wet & dry) from 4400' to rotary total depth.

Following are sample tops, descriptions of zones of interest (including all shows of oil & gas), and the results of all drill stem tests.

ANHYDRITE

1578 (+842)

BASE ANHYDRITE

1603 (+817)

HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

Angela #1

Page 2

<u>HEEBNER</u>	3954	(-1534)
<u>LANSING</u>	4003	(-1583)
<u>STARK SHALE</u>	4306	(-1886)
<u>BASE KANSAS CITY</u>	4418	(-1998)
<u>PAWNEE</u>	4468	(-2048)
<u>FORT SCOTT</u>	4535	(-2115)
<u>CHEROKEE SHALE</u>	4566	(-2146)
<u>CHEROKEE SAND</u>	4665	(-2145)

4665-69' KB

Clear, fine to medium grained, fairly sorted, poorly rounded, sandstone clusters & loose grains. Great show of free oil in poor intergranular porosity, no odor, strong stain, and a very strong cut.

DRILL STEM TEST #1

4640 to 4669' KB

29' Anchor

Blow: Slow build to $1\frac{1}{4}$ " in 45 min.. 2nd -- no blow.

Times: Open 45, Closed 45, Open 45, Closed 45.

Recovered: 30' Oil Cut Mud (5% oil)

Pressures:	IH 2354#	IF 35 - 38#	ISIP 109#
	FH 2288#	FF 41 - 40#	FSIP 52#

4670-75' KB

Tan, tripolitic, chert. Few sands as above. Great show of free oil in fair "on edge" porosity. No odor, Good stain, strong cut, and a few gas bubbles!! (congl. ?)

DRILL STEM TEST #2

4640 to 4675' KB

35' Anchor

Blow: $\frac{1}{4}$ " -- died back to weak surface blow in 30min.
2nd -- no blow.

Times: Open 30, Closed 30, Open 5, Closed 0.

HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

Angela #1

Page 3

DRILL STEM TEST #2 (cont.)

Recovered: 10' Mud w/oil spots

Pressures:	IH 2398#	IF 31 - 31#	ISIP 75#
	FH 2295#	FF 35 - 35#	FSIP ---

4676-92' KB Cream to tan, tripolitic, cherts. (some sharp PCs)
Few sand grains. Good show of free oil in fair
"on edge" porosity, no odor, strong stain, and a
strong cut. (some gas bubbles)

DRILL STEM TEST #3 4660 to 4692' KB 32' Anchor

----- Miss Run, Packer Failed -----

DRILL STEM TEST #4 4638 to 4692' KB 54' Anchor

Blow: slow build to 1". 2nd -- no blow.

Times: Open 45, Closed 45, Open 45, Closed 45.

Recovered: 20' Mud

Pressures:	IH 2501#	IF 30 - 42#	ISIP 137#
	FH 2383#	FF 36-56#	FSIP 92#

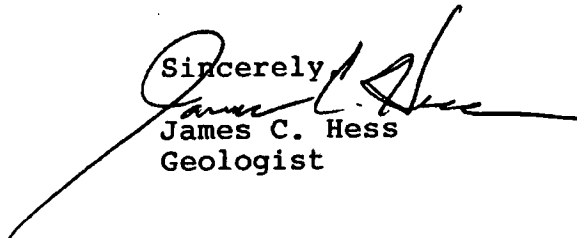
4693-97' KB White to tan sharp & tripolitic, cherts. Fair show
of free oil in fair "on edge" porosity, no odor,
fair stain, and a fair cut. Some heavy tar Stain !!

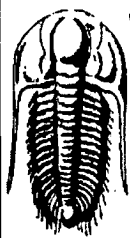
MISSISSIPPI 4697 (-2277)

ROTARY TOTAL DEPTH 4706 (-2286)

No logs were run as all shows were tested, except for 4693-97' KB (this showed heavy tar stain = water). It was decided to plug the Angela #1 on 4-8-11.

Sincerely


James C. Hess
Geologist



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hess Oil Company
P.O. Box 1009
Mcpherson, KS 67460
ATTN: Jamie Hess

Angela #1
25-23-24 Hodgeman, KS
Job Ticket: 042076 **DST#: 1**
Test Start: 2011.04.07 @ 02:46:53

GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:46:48
Time Test Ended: 09:37:02
Interval: **4640.00 ft (KB) To 4669.00 ft (KB) (TVD)**
Total Depth: 4669.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole
Tester: Brandon Turley
Unit No: 35
Reference Elevations: 2418.00 ft (KB)
2413.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8373

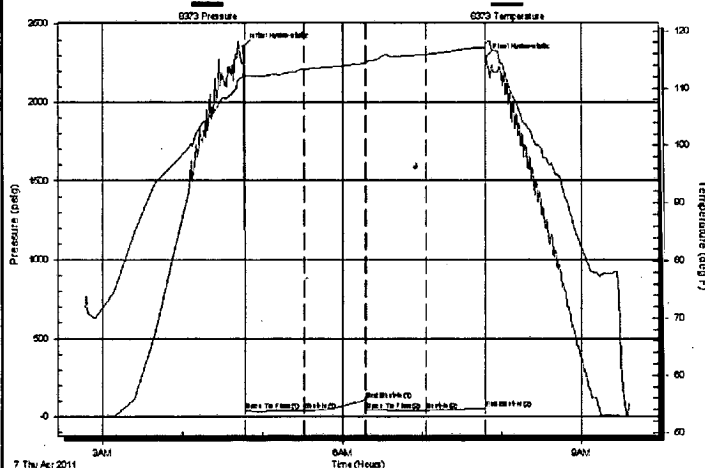
Inside

Press@RunDepth: 40.17 psig @ 4641.00 ft (KB)
Start Date: 2011.04.07 End Date: 2011.04.07
Start Time: 02:46:53 End Time: 09:37:02

Capacity: 8000.00 psig
Last Calib.: 2011.04.07
Time On Btm: 2011.04.07 @ 04:45:48
Time Off Btm: 2011.04.07 @ 07:48:17

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

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2354.87	112.64	Initial Hydro-static
1	35.93	111.75	Open To Flow (1)
46	38.86	113.31	Shut-In(1)
92	109.54	114.35	End Shut-In(1)
92	41.01	114.40	Open To Flow (2)
137	40.17	115.92	Shut-In(2)
182	52.48	117.13	End Shut-In(2)
183	2288.07	117.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	ocm 5%o 95% m	0.15

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

Angela #1

P.O. Box 1009
Mcpherson, KS 67460

25-23-24 Hodgeman, KS

Job Ticket: 042076

DST#: 1

ATTN: Jamie Hess

Test Start: 2011.04.07 @ 02:46:53

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:

bbl

Water Loss: 14.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	ocm 5% o 95% m	0.148

Total Length:

30.00 ft

Total Volume:

0.148 bbl

Num Fluid Samples: 0

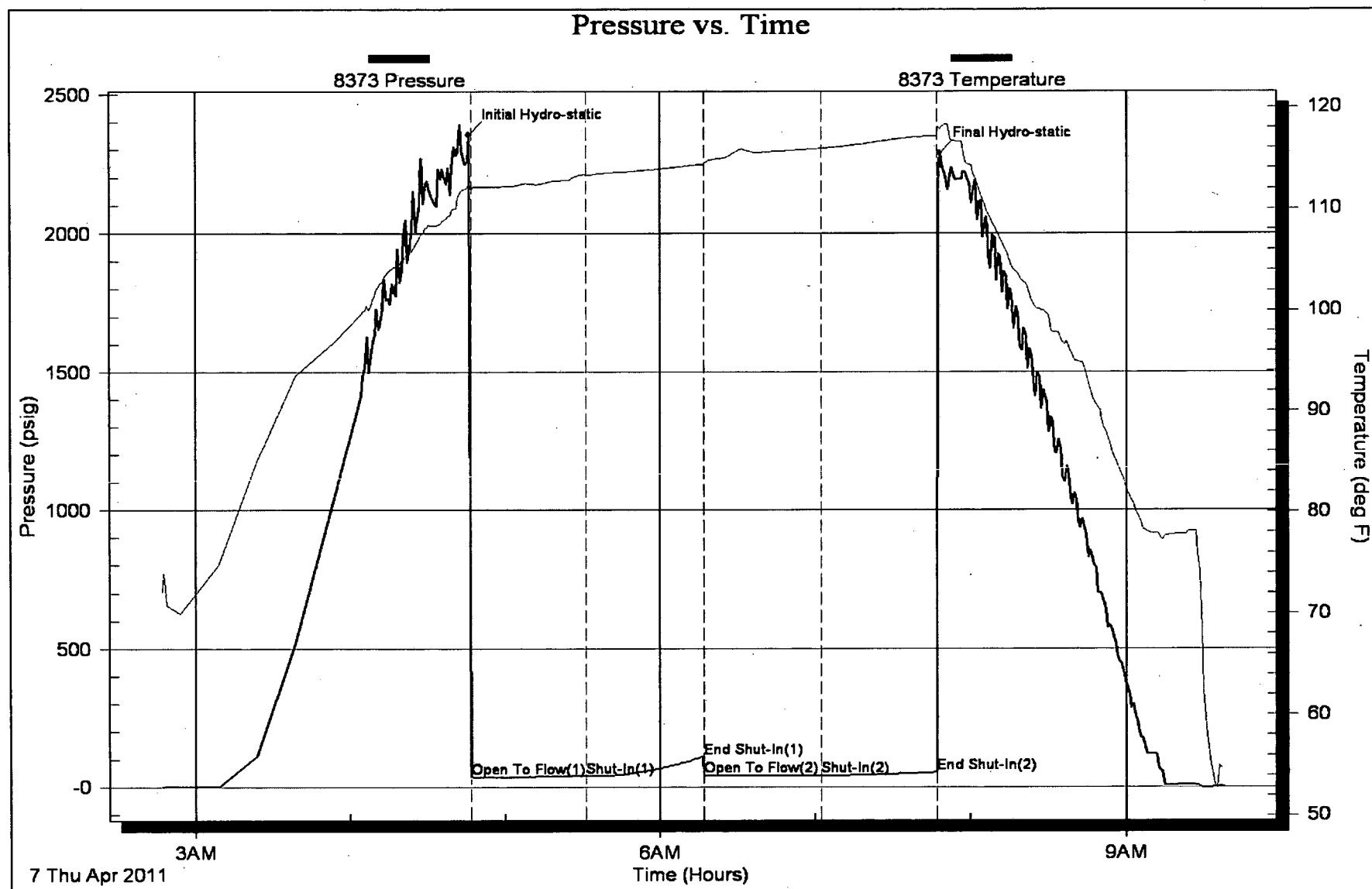
Num Gas Bombs: 0

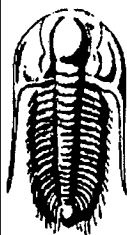
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hess Oil Company
P.O. Box 1009
Mcpherson, KS 67460
ATTN: Jamie Hess

Angela #1
25-23-24 Hodgeman, KS
Job Ticket: 042077 **DST#: 2**
Test Start: 2011.04.07 @ 14:52:34

GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:37:44
Time Test Ended: 19:37:13

Test Type: Conventional Bottom Hole
Tester: Brandon Turley
Unit No: 35

Interval: **4640.00 ft (KB) To 4675.00 ft (KB) (TVD)**
Total Depth: 4675.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2418.00 ft (KB)
2413.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8373

Inside

Press@RunDepth: 31.67 psig @ 4641.00 ft (KB)

Start Date: 2011.04.07

End Date:

2011.04.07

Start Time: 14:52:34

End Time:

19:37:13

Capacity: 8000.00 psig

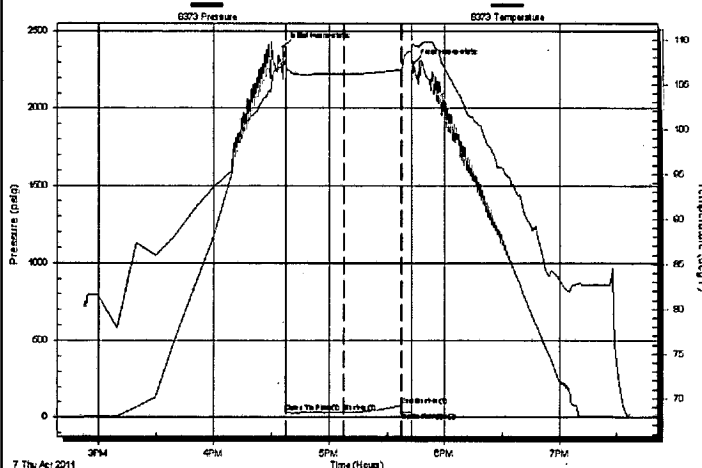
Last Calib.: 2011.04.07

Time On Btm: 2011.04.07 @ 16:36:14

Time Off Btm: 2011.04.07 @ 17:43:44

TEST COMMENT: IF: 1/4 blow died back to a surface blow in 30 min.
IS: No reutrn.
FF: No blow. Pulled the tool.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2398.64	107.07	Initial Hydro-static
2	31.19	107.01	Open To Flow (1)
32	31.67	106.14	Shut-In(1)
62	75.07	106.65	End Shut-In(1)
62	35.76	106.82	Open To Flow (2)
67	35.14	108.72	Shut-In(2)
68	2295.52	109.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud oil spots 100%rm	0.05

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

Angela #1

P.O. Box 1009
Mcpherson, KS 67460

25-23-24 Hodgeman, KS

Job Ticket: 042077

DST#: 2

ATTN: Jamie Hess

Test Start: 2011.04.07 @ 14:52:34

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:

bbl

Water Loss: 14.96 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud oil spots 100%m	0.049

Total Length:

10.00 ft

Total Volume:

0.049 bbl

Num Fluid Samples: 0

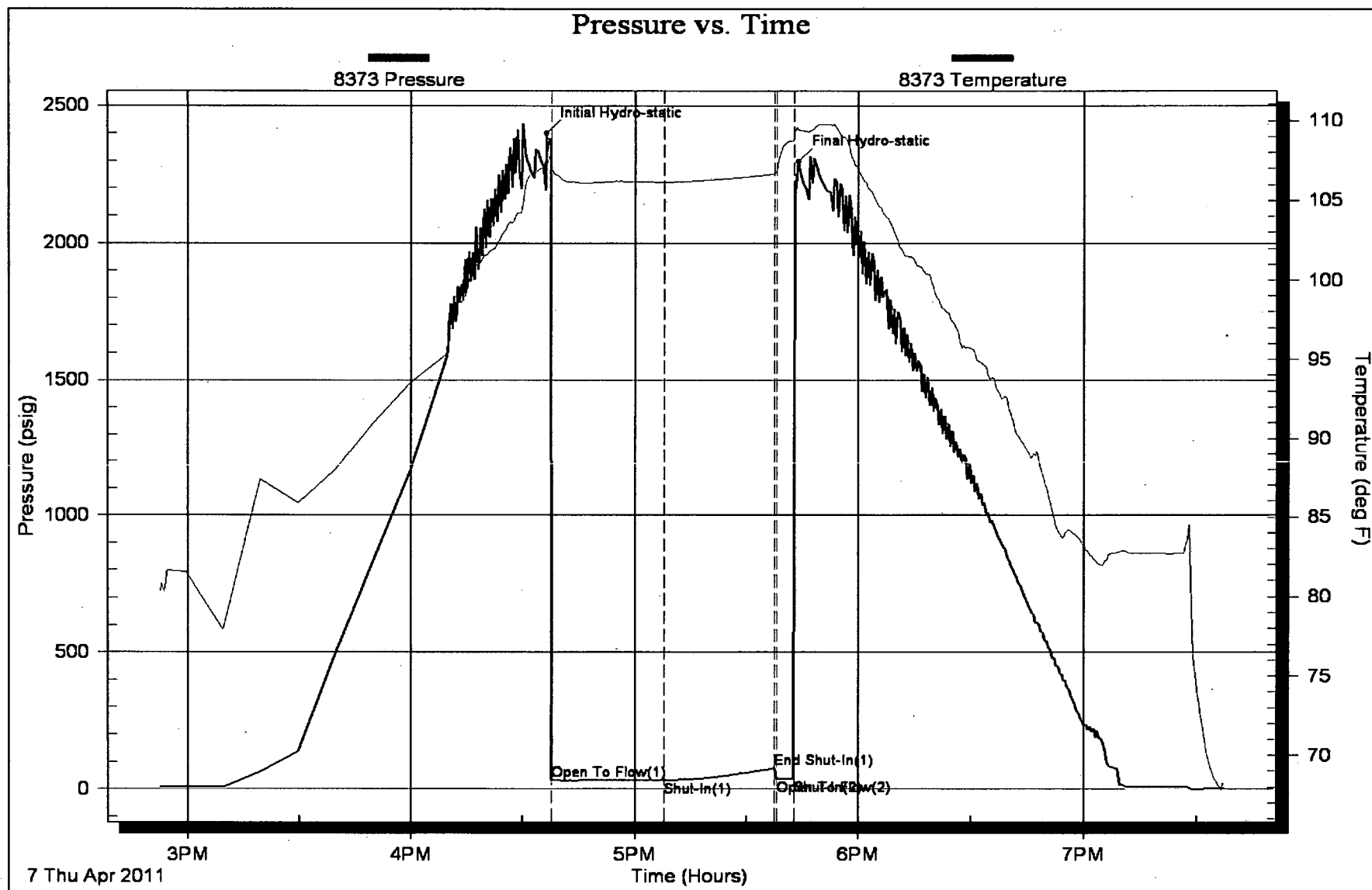
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hess Oil Company
P.O. Box 1009
Mcpherson, KS 67460
ATTN: Jamie Hess

Angela #1
25-23-24 Hodgeman, KS
Job Ticket: 042078 **DST#: 3**
Test Start: 2011.04.08 @ 01:50:30

GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:56:25
Time Test Ended: 06:51:54

Test Type: Conventional Bottom Hole
Tester: Brandon Turley
Unit No: 35

Interval: **4660.00 ft (KB) To 4692.00 ft (KB) (TVD)**
Total Depth: 4692.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2418.00 ft (KB)
2413.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8373

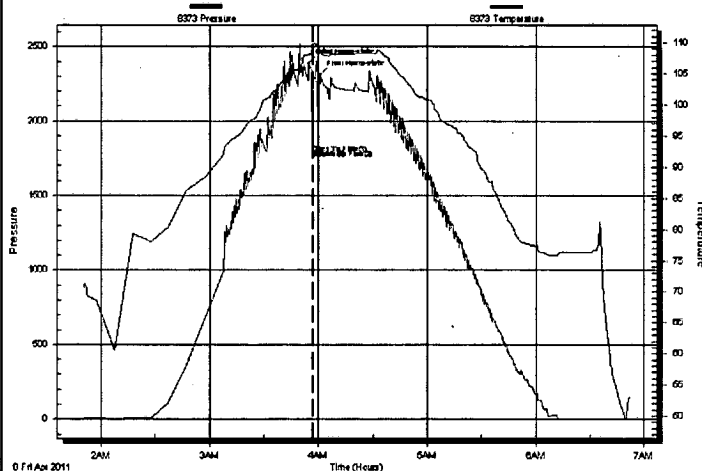
Inside

Press@RunDepth: psig @ 4661.00 ft (KB)
Start Date: 2011.04.08 End Date: 2011.04.08
Start Time: 01:50:30 End Time: 06:51:54

Capacity: 8000.00 psig
Last Calib.: 2011.04.08
Time On Btm: 2011.04.08 @ 03:54:40
Time Off Btm: 2011.04.08 @ 04:00:55

TEST COMMENT: Packer failed at open.

Pressure vs. Time



PRESSURE SUMMARY

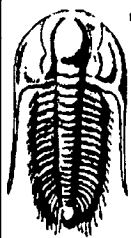
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2388.10	108.13	Initial Hydro-static
2	1779.58	109.51	Open To Flow (1)
3	1809.86	109.80	Shut-In(1)
6	1810.15	109.27	Open To Flow (2)
7	2309.26	108.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
620.00	mud 100% m	6.49

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

Angela #1

P.O. Box 1009
Mcpherson, KS 67460

25-23-24 Hodgeman, KS

Job Ticket: 042078

DST#: 3

ATTN: Jamie Hess

Test Start: 2011.04.08 @ 01:50:30

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:

bbl

Water Loss: 14.92 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
620.00	mud 100%m	6.492

Total Length: 620.00 ft

Total Volume: 6.492 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

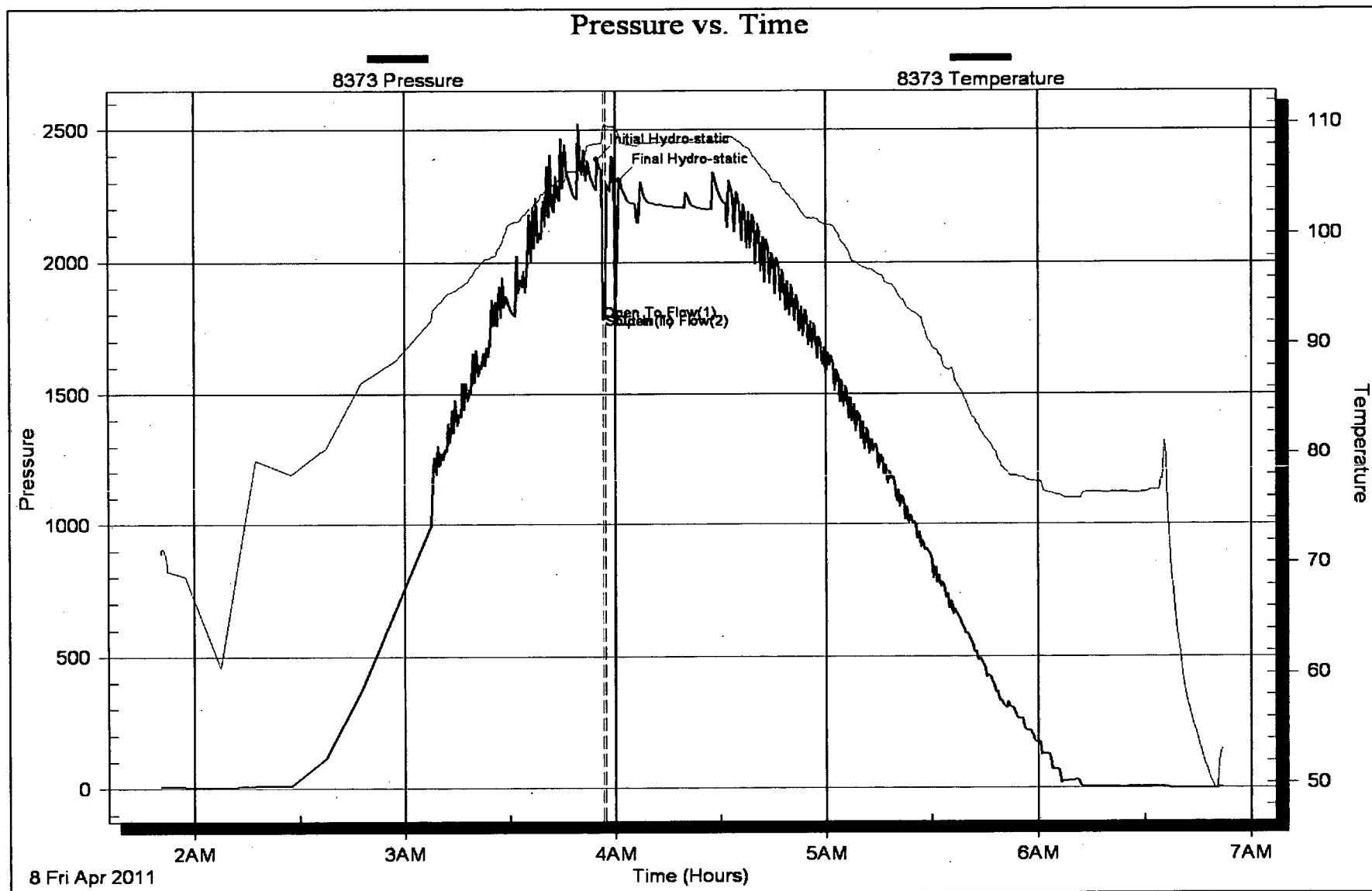
Recovery Comments:

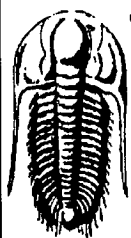
Serial #: 8373

Inside Hess Oil Company

25-23-24 Hodgeman, KS

DST Test Number: 3





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hess Oil Company

P.O. Box 1009
Mcpherson, KS 67460

ATTN: Jamie Hess

Angela #1

25-23-24 Hodgeman, KS

Job Ticket: 042079

DST#: 4

Test Start: 2011.04.08 @ 07:18:30

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:03:10

Time Test Ended: 13:57:39

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4638.00 ft (KB) To 4692.00 ft (KB) (TVD)**

Total Depth: 4692.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2418.00 ft (KB)

2413.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373

Inside

Press@RunDepth: 56.07 psig @ 4639.00 ft (KB)

Start Date: 2011.04.08

End Date:

2011.04.08

Start Time: 07:18:30

End Time:

13:57:39

Capacity: 8000.00 psig

Last Calib.: 2011.04.08

Time On Btm: 2011.04.08 @ 09:02:10

Time Off Btm: 2011.04.08 @ 12:04:54

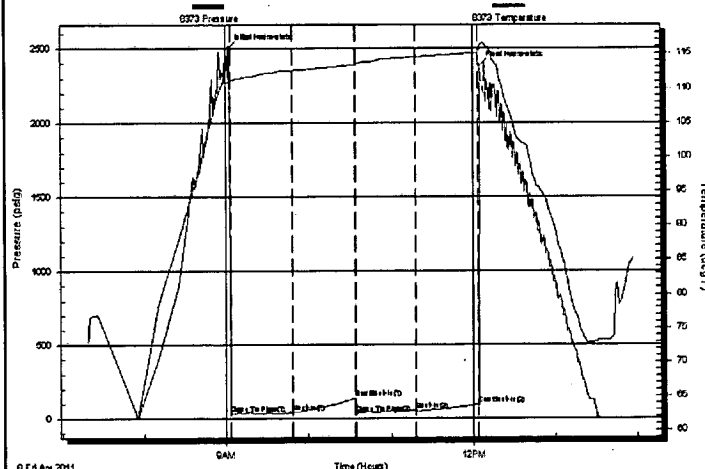
TEST COMMENT: IF: 1/4 blow built to 1 in 45 min.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

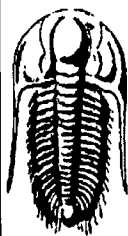
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2501.60	110.82	Initial Hydro-static
1	30.66	110.30	Open To Flow (1)
46	42.00	112.56	Shut-In(1)
92	137.49	113.40	End Shut-In(1)
93	36.26	113.45	Open To Flow (2)
136	56.07	114.51	Shut-In(2)
182	92.63	115.11	End Shut-In(2)
183	2383.07	116.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud 100% m	0.10

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company
P.O. Box 1009
Mcpherson, KS 67460
ATTN: Jamie Hess

Angela #1
25-23-24 Hodgeman, KS
Job Ticket: 042079 **DST#: 4**
Test Start: 2011.04.08 @ 07:18:30

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 52.00 sec/qt
Water Loss: 14.92 in³
Resistivity: 0.00 ohm.m
Salinity: 3500.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 0 deg API
Water Salinity: 0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud 100%m	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

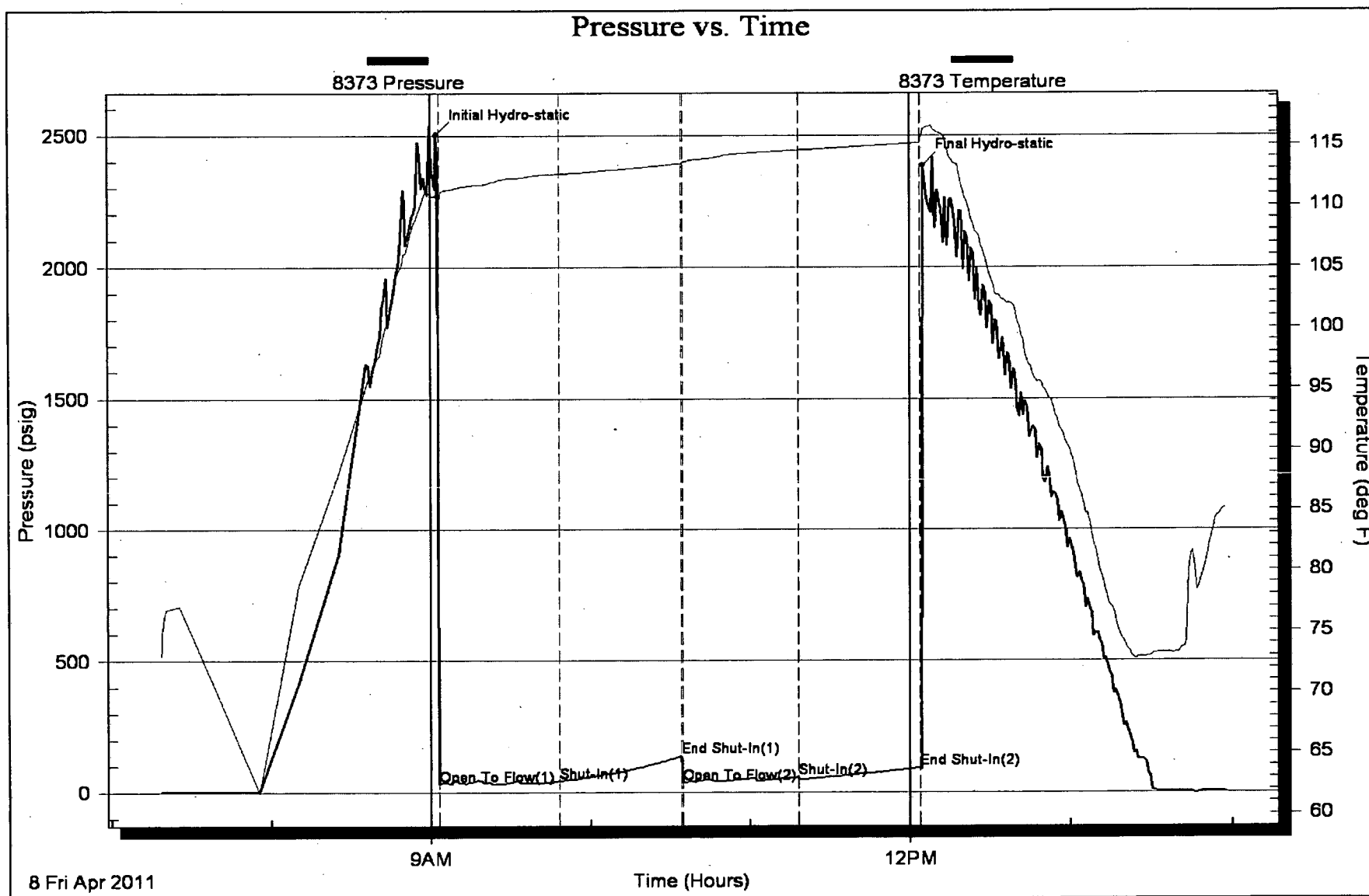
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



ALLIED CEMENTING CO., LLC. 037176

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Great Bend, KS

DATE <u>3-31-2011</u>	SEC. <u>25</u>	TWP. <u>23S</u>	RANGE <u>24W</u>	CALLED OUT <u>6:00 P.M.</u>	ON LOCATION <u>8:00 P.M.</u>	JOB START <u>9:30 P.M.</u>	JOB FINISH <u>10:00 P.M.</u>
LEASE <u>Angel/a</u>		WELL # <u>#1</u>	LOCATION <u>Jetmore KS,</u>			COUNTY <u>Hodgeman KS,</u>	STATE
OLD OR <u>NEW</u> (Circle one)			<u>3.5, 1/4 W 3/4 INTO</u>				

CONTRACTOR Mallard

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 233

CASING SIZE 8 5/8 DEPTH 233

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH 233

TOOL DEPTH

PRES. MAX 250 PSI MINIMUM -

MEAS. LINE SHOE JOINT 15 FT

CEMENT LEFT IN CSG. 15 FT

PERFS.

DISPLACEMENT Fresh Water

EQUIPMENT

PUMP TRUCK CEMENTER David

224 HELPER Bob R.

BULK TRUCK

341 DRIVER Wayne D.

BULK TRUCK

DRIVER

REMARKS:

Pipe on bottom break C.M.
Mix 160 SX A+ 3% CC + 2% Gel
Displace with 14 BBS, Fresh
Water shut in
Cement did C.M.

CHARGE TO: Hess Oil Co.

STREET

CITY STATE ZIP

OWNER Hess Oil Co.

CEMENT

AMOUNT ORDERED 160 SX Class A+
3% CC + 2% Gel

COMMON	<u>160</u>	@	<u>14.25</u>	<u>2,400.00</u>
POZMIX		@		
GEL	<u>3</u>	@	<u>21.25</u>	<u>63.75</u>
CHLORIDE	<u>6</u>	@	<u>58.20</u>	<u>349.20</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>169</u>	@	<u>2.25</u>	<u>380.25</u>
MILEAGE	<u>169 x 31 x .11</u>			<u>576.39</u>
TOTAL				<u>3,969.44</u>

SERVICE

DEPTH OF JOB	<u>233</u>			
PUMP TRUCK CHARGE			<u>1125.00</u>	
EXTRA FOOTAGE		@		
MILEAGE	<u>62</u>	@	<u>7.00</u>	<u>434.00</u>
MANIFOLD		@		
<u>High water truck</u>	<u>62</u>	@	<u>4.00</u>	<u>248.00</u>
		@		

TOTAL 1,807.00

PLUG & FLOAT EQUIPMENT

@