



KANSAS CORPORATION COMMISSION 1053884  
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     SLOW
- 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 #: \_\_\_\_\_

<u>3/9/2011</u>	<u>3/15/2011</u>	<u>3/16/2011</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-165-21918-00-00

Spot Description: \_\_\_\_\_  
SW SW SW SE Sec. 13 Twp. 17 S. R. 20  East  West

145 Feet from  North /  South Line of Section

2,600 Feet from  East /  West Line of Section

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

County: Rush

Lease Name: VELMA UNIT Well #: 1

Field Name: \_\_\_\_\_

Producing Formation: na

Elevation: Ground: 2177 Kelly Bushing: 2182

Total Depth: 4100 Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: 225 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: 04/13/2011



1053884

Operator Name: Hess Oil Company Lease Name: VELMA UNIT Well #: 1  
 Sec. 13 Twp. 17 S. R. 20  East  West County: Rush

**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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:  <small>Dual Compensated Porosity Dual Induction Borehole Compensated Sonic</small>	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Attached Top Attached Datum Attached
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CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	20	225	Class A	150	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 <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. _____		Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Hess Oil Company
Well Name	VELMA UNIT 1
Doc ID	1053884

Tops

Anhydrite	1414	+768
Base Anhydrite	1449	+733
Heebner	3549	-1367
Lansing	3587	-1405
Base Kansas City	3861	-1679
Pawnee	3946	-1764
Fort Scott	3992	-1810
Arbuckle	4057	-1875
RTD	4100	-1918

# ALLIED CEMENTING CO., LLC. 038722

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

SERVICE POINT:  
Great Bend

DATE <u>3-9-11</u>	SEC. <u>13</u>	TWP. <u>17</u>	RANGE <u>20</u>	CALLED OUT	ON LOCATION	JOB START <u>8:50 PM</u>	JOB FINISH <u>9:00 PM</u>
LEASE <u>ueing</u>	WELL # <u>1</u>	LOCATION <u>Horseshoe 2 1/2 west TO 150 RD</u>			COUNTY <u>Ruby</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (Circle one)		North TO J RD East INTO					

CONTRACTOR Mallard  
 TYPE OF JOB Surface  
 HOLE SIZE 12 1/4 T.D. 225  
 CASING SIZE 8 7/8 24# DEPTH 225  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG.  
 PERFS.  
 DISPLACEMENT 13.25 BBls

EQUIPMENT

PUMP TRUCK CEMENTER Wayne  
 # 360 HELPER Bill  
 BULK TRUCK  
 # 341 DRIVER TWS  
 BULK TRUCK  
 # DRIVER

REMARKS:  
Pipe on Bottom Beck  
Circulate with Rim mud  
Run 10 BBLS spacer  
Mix 150 SX CLASS A 3% + 2% Gel  
Displace 13.25 BBLS fresh water  
Shut in  
Cement did circulate

CHARGE TO: Hess Oil Company  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

To Allied Cementing Co., LLC.  
 You are hereby requested to rent cementing equipment  
 and furnish cement and helper(s) to assist owner or

OWNER Hess  
 CEMENT  
 AMOUNT ORDERED 150 SX CLASS A 3% + 2% Gel

COMMON	<u>150</u>	@	<u>16.25</u>	<u>2,437.50</u>
POZMIX		@		
GEL	<u>3</u>	@	<u>21.25</u>	<u>63.75</u>
CHLORIDE	<u>5</u>	@	<u>58.20</u>	<u>291.00</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>158</u>	@	<u>2.25</u>	<u>355.50</u>
MILEAGE	<u>158 x 40 x .11</u>			<u>695.20</u>
TOTAL				<u>3,842.95</u>

SERVICE

DEPTH OF JOB	<u>225</u>			
PUMP TRUCK CHARGE			<u>1125.00</u>	
EXTRA FOOTAGE		@		
MILEAGE Heavy 80		@	<u>7.00</u> <u>560.00</u>	
MANIFOLD		@		
Miscellaneous light 80		@	<u>4.00</u> <u>320.00</u>	
		@		
TOTAL				<u>2005.00</u>

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_

# ALLIED CEMENTING CO., LLC. 038777

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

SERVICE POINT:  
Great Bend KS

DATE <u>3-16-11</u>	SEC. <u>13</u>	TWP. <u>17</u>	RANGE <u>20</u>	CALLED OUT	ON LOCATION	JOB START <u>2:00 AM</u>	JOB FINISH <u>3:00 AM</u>
LEASE <u>Velma</u>	WELL# <u>1</u>	LOCATION <u>Handsome 3 west to RD 150</u>			COUNTY <u>Rush</u>	STATE <u>KS</u>	
OLD OR <u>(NEW)</u> (Circle one)		<u>1 North to J RD East - 70</u>					

CONTRACTOR Mallard  
 TYPE OF JOB Rotary Plug  
 HOLE SIZE 7 3/4 T.D. 4100  
 CASING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 DRILL PIPE 4 1/2 DEPTH 1450  
 TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_  
 PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_  
 MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_  
 CEMENT LEFT IN CSG. \_\_\_\_\_  
 PERFS. \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_

OWNER Hess  
 CEMENT  
 AMOUNT ORDERED 2505x 60/40 490 1/4 10

COMMON	<u>150</u>	@	<u>16.25</u>	<u>2,437.50</u>
POZMIX	<u>100</u>	@	<u>8.50</u>	<u>850.00</u>
GEL	<u>9</u>	@	<u>21.25</u>	<u>191.25</u>
CHLORIDE		@		
ASC		@		
<u>Plaster</u>	<u>62</u>	@	<u>2.70</u>	<u>167.40</u>
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>261</u>	@	<u>2.25</u>	<u>587.25</u>
MILEAGE	<u>261x40x.11</u>			<u>1148.00</u>
TOTAL				<u>5,381.80</u>

**EQUIPMENT**

PUMP TRUCK CEMENTER Wayne  
 # 366 HELPER Greg  
 BULK TRUCK  
 # 344 DRIVER Kevin  
 BULK TRUCK  
 # \_\_\_\_\_ DRIVER \_\_\_\_\_

**REMARKS:**

1st plug 1450 mix 505x  
2nd plug 1000 mix 805x  
3rd plug 260 mix 505x  
4th plug 60 mix 205x  
5th plug Rot mix 305x  
6th plug mabe mix 205x

**SERVICE**

DEPTH OF JOB	<u>1450</u>			
PUMP TRUCK CHARGE				<u>1250.00</u>
EXTRA FOOTAGE		@		
MILEAGE	<u>80</u>	@	<u>7.00</u>	<u>560.00</u>
MANIFOLD		@		
<u>Light Tower mile</u>	<u>80</u>	@	<u>4.00</u>	<u>320.00</u>
		@		
TOTAL				<u>2130.00</u>

CHARGE TO: Hess oil company  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

	@		
	@		
	@		
	@		
	@		

To Allied Cementing Co., LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to work as listed. The above work was

# HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

## GEOLOGICAL REPORT

### VELMA #1

145' FSL, 2600' FEL of

SECTION 13 - 17S - 20W

RUSH COUNTY, KANSAS

Commenced: 3-9-11

Surface Pipe: 8-5/8" @ 225' KB

Completed: 3-15-11

Production Pipe: none

Contractor: Mallard J.V.

Elevations: 2177' GR, 2182' KB

One foot drilling time was kept from 1400 to 1480' KB and from 3400' to rotary total depth. Ten foot drilling samples (wet & dry) were kept from 3500' to RTD.

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

<u>ANHYDRITE</u>	<u>1414</u>	<u>( +768)</u>
<u>BASE ANHYDRITE</u>	<u>1449</u>	<u>( +733)</u>
<u>HEEBNER</u>	<u>3549</u>	<u>(-1367)</u>
<u>LANSING</u>	<u>3587</u>	<u>(-1405)</u>
<u>BASE KANSAS CITY</u>	<u>3861</u>	<u>(-1679)</u>

# HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

Velma #1  
Page 2

PAWNEE 3946 (-1764)

FORT SCOTT 3992 (-1810)

4012-14' KB Clear, medium to large grained, poorly sorted,  
poorly rounded, sandstone clusters and loose  
and 4016-19' KB grains. Fair show of free oil in poor to  
fair porosity, no odor, good stain and a  
strong cut.

DRILL STEM TEST #1 3990 to 4020' KB 30' Anchor

Blow: slow build to 5". 2nd - very slow build to 2".

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

Recovered: 360' Mud Cut SW (chlorides 50,000ppm)

Pressures: IH 2157# IF 44 - 149# ISIP 1150#  
FH 1901# FF 160 - 209# FSIP 1111#

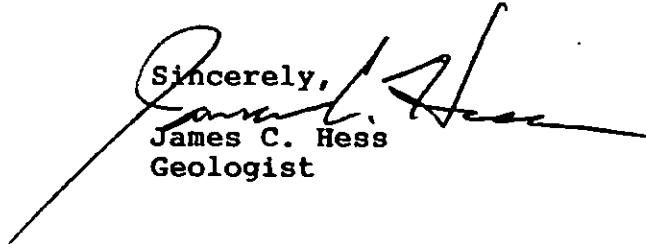
4021-26' KB Clear, medium grained, fairly sorted, fairly  
rounded, sandstone clusters & loose grains.  
Weak show of free oil in fair intergranular  
porosity, no odor, fair stain, and a weak  
cut. (some barren porosity)

ARBUCKLE 4057 (-1875)

ROTARY TOTAL DEPTH 4100 (-1918)

A full set of logs were run on the Velma #1 including, Dual Induction, Dual Compensated Porosity, and Sonic. Since the only untested oil shows occurred within 6' below DST #1 -- it was decided to plug the Velma #1.

Sincerely,

  
James C. Hess  
Geologist

# GEOLOGIST'S REPORT

## DRILLING TIME AND SAMPLE LOG

COMPANY HESS OIL COMPANY  
 LEASE VELMA \* 1  
 FIELD - WILDCAT -  
 LOCATION 145' FSL, 2600' FEL  
 SEC 13 TWP 17 S RGE 20 W  
 COUNTY RUSH STATE KANSAS

ELEVATIONS

KB 2182'  
 DF 2180'  
 GL 2177'  
 Measurements Are All  
 From KB

CONTRACTOR MALLARD J.V.  
 SPUD 3-9-11 COMP 3-15-11  
 RTD 4100' LTD 4098'  
 MUD UP 3450' TYPE MUD CHEMICAL

CASING

SURFACE 8-5/8" at 225'  
 PRODUCTION none  
 ELECTRICAL SURVEYS  
 DUAL INDUCTION  
 NEUTRON & SONIC

SAMPLES SAVED FROM 3500' TO T D  
 DRILLING TIME KEPT FROM 3400' TO T D  
 SAMPLES EXAMINED FROM 3500' TO T D  
 GEOLOGICAL SUPERVISION FROM 3700' TO T D  
 GEOLOGIST ON WELL JAMES C. HESS

FORMATION TOPS	LOG	SAMPLES																				
ANHYDRITE		1414 (+768)	<div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 10px;">20 W</div> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td>13</td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table> <div style="text-align: center; margin-left: 10px;">17 S</div> </div>													13						
	13																					
BASE ANHYDRITE		1449 (+733)																				
HEEBNER		3549 (-1367)																				
LANSING		3587 (-1405)																				
BASE KANSAS CITY		3861 (-1679)																				
PAWNEE		3946 (-1764)																				
FORT SCOTT		3992 (-1810)																				
ARBUCKLE		4057 (-1875)																				
R T D		4100 (-1918)																				



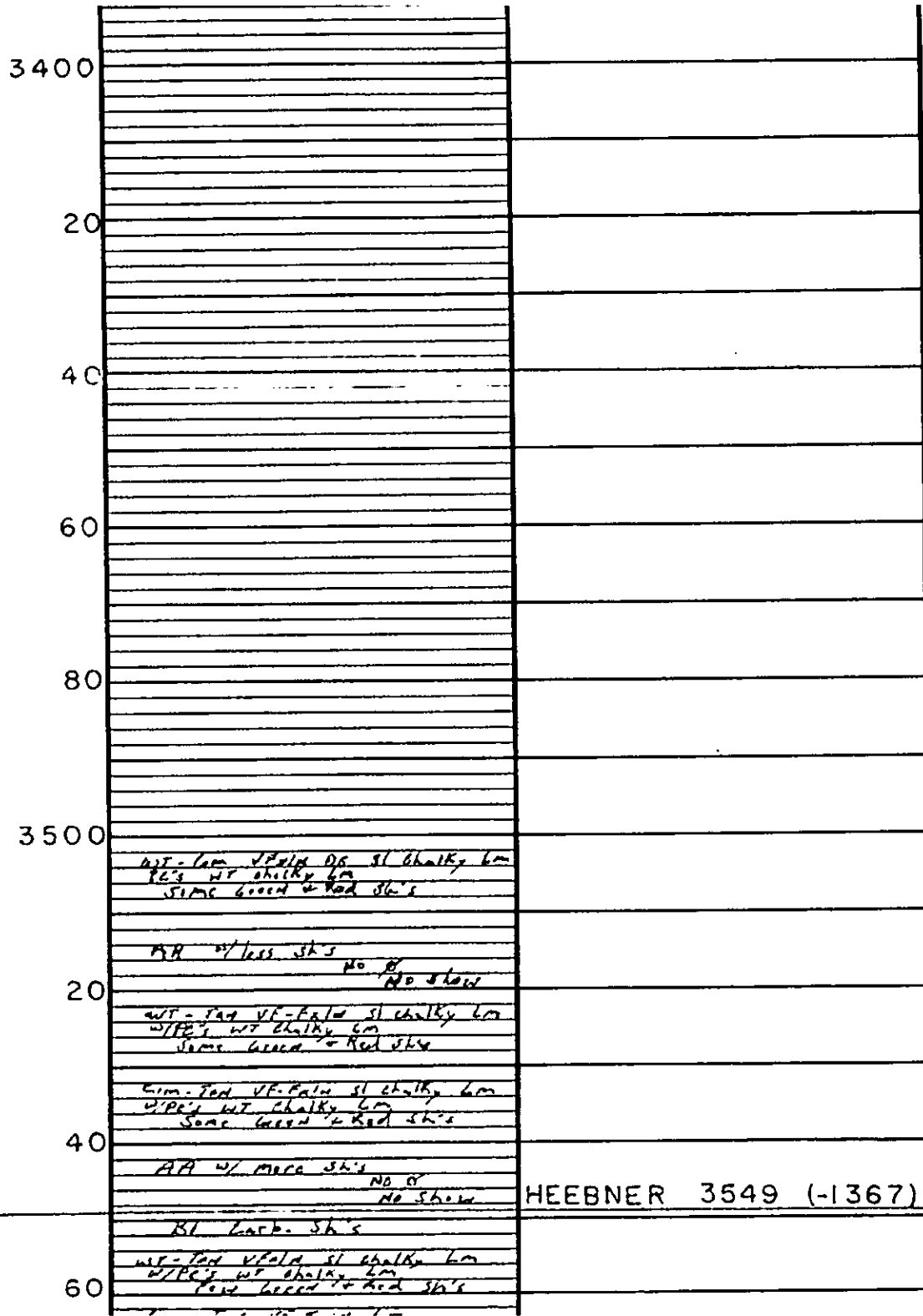
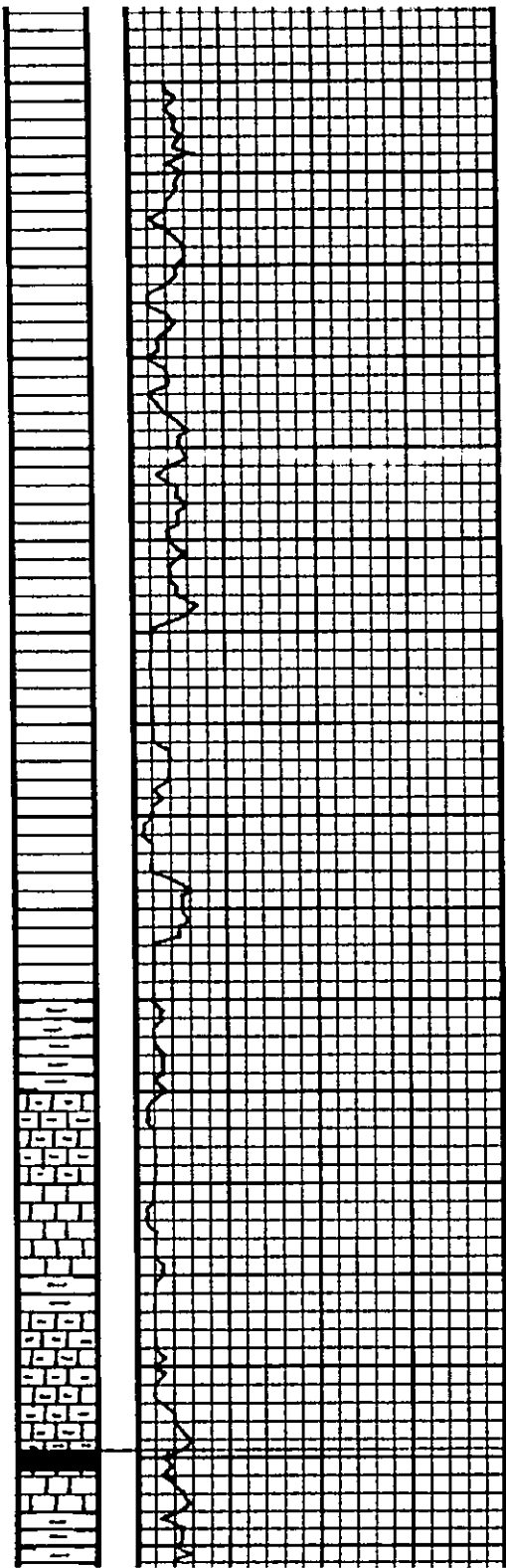
# LEGEND



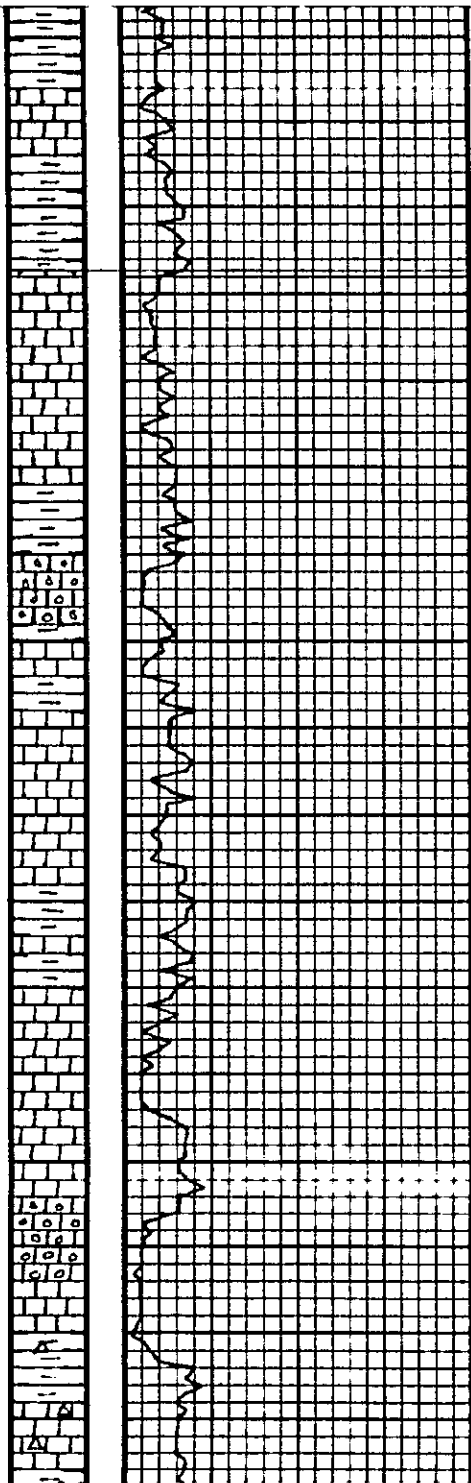
SCALE      " = 100'

LOG 7703

	Uthology	Drilling time in minutes 0    5    10    15    20	DEPTH	Sample Description	Remarks, drill stem tests, etc.
	Anhydrite		1400		
	Dolomite		20		ANHYDRITE 1414 (+768)
	Anhydrite		40		
	Anhydrite		60		BASE ANHYDRITE 1449 (+733)
	Anhydrite		80		
	Anhydrite		3400		

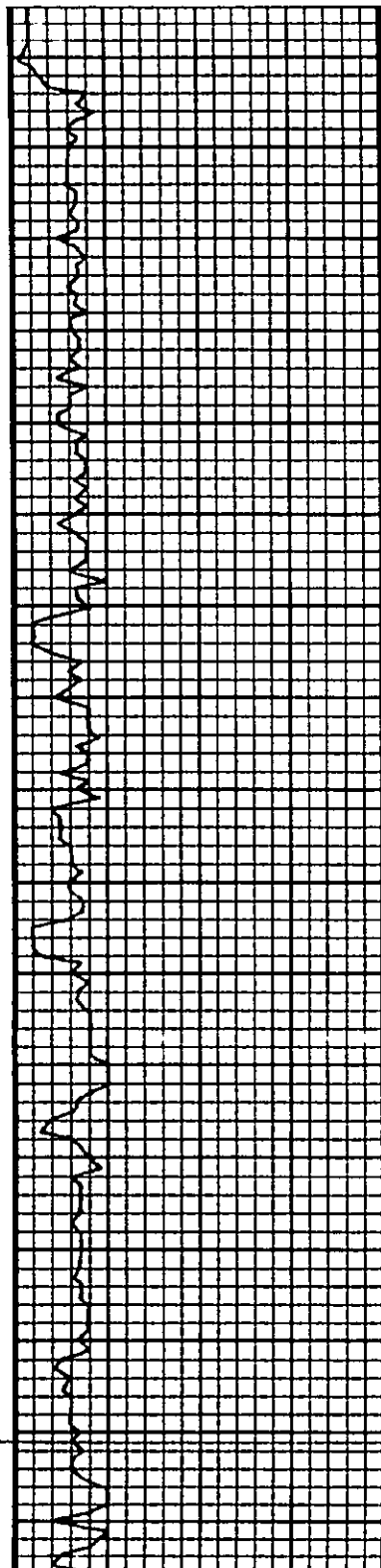
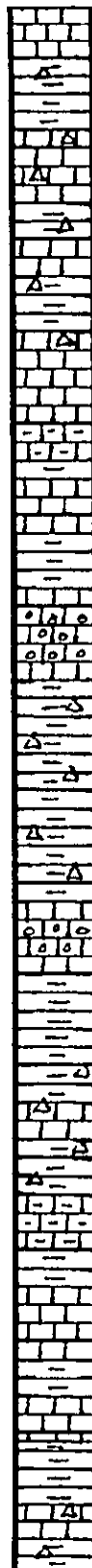


HEEBNER 3549 (-1367)



60	WT-12 Grey VP-Fair DS Lm w/PE's w/ chalky Lm Some green + Red sh's	
	Com-You VP-Fair Lm w/PE's w/ chalky Lm Some green + Red sh's	
	WT-12 Grey VP-Fair DS Lm w/PE's w/ chalky Lm Some green + Red sh's	
80	AA w/ more sh's No B No show	LANSING 3587 (-1405)
	WT-12 Grey VP-Fair DS Lm w/PE's w/ chalky Lm Some green + Red sh's	
3600	AA w/ less sh's Some barrel B No show	
	Com-12 Grey VP-Fair Lm w/PE's w/ chalky Lm Some green + Red sh's	
20	Tan dolitic oolitic F-main Lm Fair B No show	
	WT-12 Grey VP-Fair DS Lm w/PE's w/ chalky Lm Some green + Red sh's	
40	AA w/ less sh's No show	
	Com-12 Grey VP-Fair DS Lm w/ some w/ chalky Lm Few green + Red sh's	
60	AA w/ more sh's No B No show	
	WT-12 Grey VP-Fair DS Lm w/ some w/ chalky Lm Few green + Red sh's	
80	WT-12 Grey VP-Fair DS Lm w/PE's w/ chalky Lm Some green + Red sh's	
	Tan oolitic F-main Lm Good B No show	
3700	Com-You F-main oolitic Lm Good B No show	
	WT-12 Grey VP-Fair DS Lm w/PE's w/ chalky Lm Some green + Red sh's	
20	AA w/ more sh's No B	

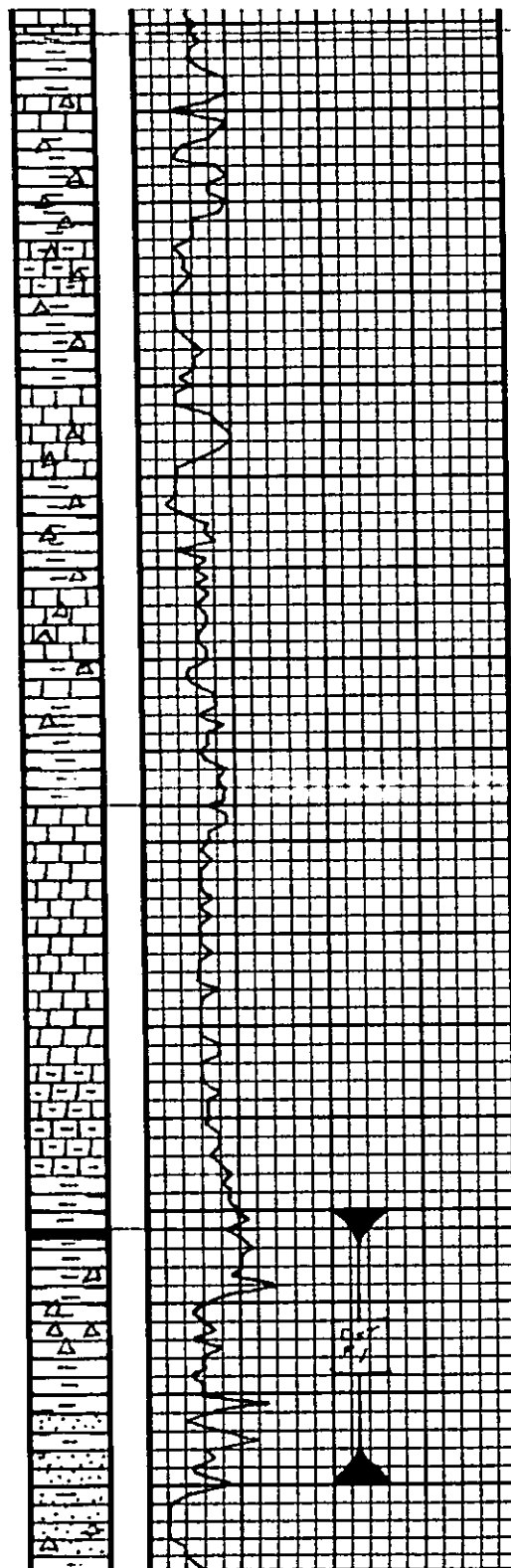
← 3600



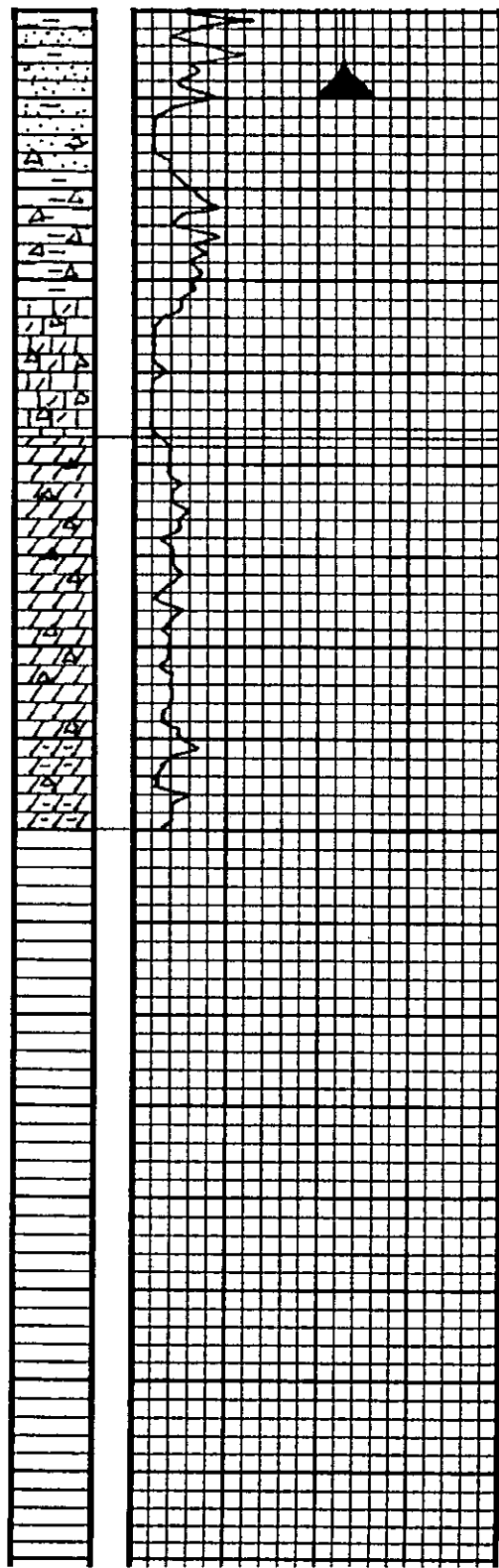
	<p>Com-Tad F-male peliasitic Lm No. 8 NO SHOW</p>
20	<p>WT-Tad VF-Falk DS Lm w/PC's VC sharp Δ Some green + Red sh's</p>
	<p>AA w/ more sh's NO 8 NO SHOW</p>
40	<p>Com-Loc VF-Falk Sl Facs. Lm w/PC's VC sharp Δ Some green + Red sh's</p>
	<p>WT-1p Loc VF-Falk DS Lm w/some WT Chalky Lm Few green + Red sh's</p>
60	<p>AA w/ more sh's NO 8 NO SHOW</p>
	<p>Com-Tad VF-Falk Sl Facs. Lm w/PC's VC sharp Δ Few green + Red sh's</p>
80	<p>Com-Tad peliasitic Lm No. 8 NO SHOW</p>
	<p>WT-Tad VF-Falk DS Lm w/PC's VC sharp Δ Few sh's Some green sh's</p>
3800	<p>AA w/ more sh's NO 8 NO SHOW</p>
	<p>Com-Tad F-male peliasitic Lm No. 8 NO SHOW</p>
20	<p>WT-Loc Falc DS Lm w/PC's WT Chalky Lm Some green + Red sh's</p>
	<p>WT-Tad VF-Falk DS Lm w/PC's VC sharp Δ Some green sh's</p>
40	<p>Com-Tad VF-Falk Lm w/PC's VC sharp Δ Few green + Red sh's</p>
	<p>AA w/ less sh's NO 8 NO SHOW</p>
60	<p>WT-1p Loc VF-Falk DS Lm w/PC's WT Chalky Lm Few green sh's</p>
	<p>Mostly Red + Green sh's Some WT-1p Loc VF-Falk Lm w/PC's WT Chalky Lm</p>
	<p>AA w/ more sh's</p>

BASE KANSAS CITY 3861

(-1679)



60	Mostly Red + Green sh's Some wt. - lt grey VF-Fulm Lm w/ PC's w/ chalky Lm	(-1679)
80	AA w/ more sh's NO P NO SHOW	
3900	Lim - Tan VF-Fulm sl chalky Lm Some v.c. sharp Δ's Some Green + Red sh's	
20	AA w/ more sh's NO P NO SHOW	
40	wt - grey VF-Fulm DS Lm w/ some v.c. sharp Δ's Some Green + Red sh's	
40	AA w/ more sh's NO P NO SHOW	PAWNEE 3946 (-1764)
60	Lim - lt grey VF-Fulm Lm w/ PC's w/ chalky Lm Some Green + Red sh's	
80	AA w/ less sh's	
80	wt - grey VF-Fulm DS Lm w/ some wt. grey chalky Lm few Green sh's	short Trip
4000	wt - grey VF-Fulm sl chalky Lm w/ some wt. chalky Lm Some Green sh's	FORT SCOTT 3992 (-1810)
4000	Bl Carb. sh's	
4000	LORE of V.S. Δ's Some wt. grey VF-Fulm Lm PC's w/ chalky Lm Some Red + Green sh's AA w/ more Δ's NO SHOW	DST #1 3990 - 4020' KB 30' ANCHOR
20	Fail show of Foss oil in Clear M & SS clusters + loose grains NO OIL	TIMES: 45-45-45-45
20	WEAK SHOW of Foss oil in Clear M & SS clusters + loose grains Some v.c. sharp Δ's	RECOVERED: 360' MC SW



CIT 147

20  
 Fair show of free oil in  
 clear MG ss clusters  
 + loose grains NO odor

40  
 Weak show of free oil in  
 clear MG ss clusters + loose  
 grains some V.C. sharp Δ's

60  
 Mostly Red sh's (Some Green)  
 Some V.C. sharp + weathered Δ's  
 Some wt. gray V.C. sh's NO show

80  
 Grm-grey Fain Dolomitic Lm  
 w/ PC's V.C. sharp + weathered Δ's  
 few Red + Green sh's NO show

4100  
 AH w/ less sh's NO show

WT - Grey F-Main D3 Dolo.  
 PC's V.C. sharp + weathered Δ  
 few Green + Red sh's  
 "P.P.C." NO show

WT - Grey F-Main D3 Dolo.  
 PC's V.C. sharp + weathered Δ  
 few sh's V. Red sh's  
 NO show

WT - Grey - Tan F-Main D3 Dolo.  
 Some wt - orange sharp Δ  
 few sh's

WT - Tan - Grey F-Main D3 Dolo.  
 PC's WT - orange sharp Δ  
 few Wood sh's

20

40

60

80

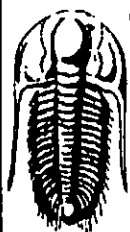
TIMES:  
 45-45-45-45

RECOVERED:  
 360' MCSW

PRESSURES:  
 IH 2157"  
 FH 1901"  
 IF 44-149"  
 FF 160-209"  
 ISXP 1150"  
 FSXP 1111"

ARBUCKLE 4057 (-1875)

RTD 4100 (-1918)



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Hess Oil Co  
Box 1009  
McPherson Ks 67460  
ATTN: Jamie Hess

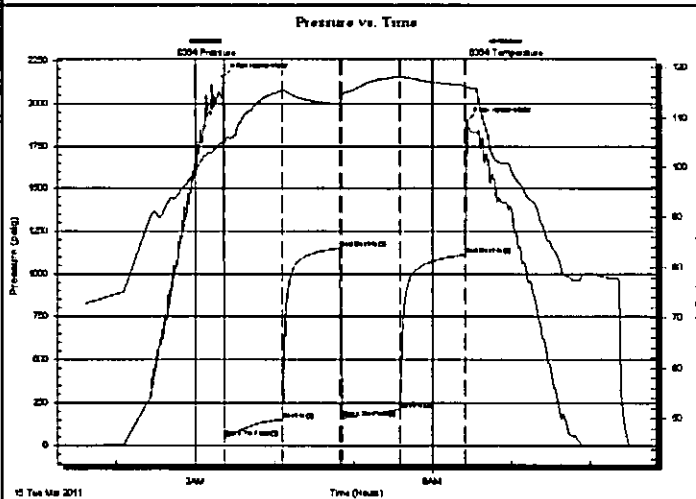
**Velma # 1**  
**13-17-20-Rush-Ks**  
Job Ticket: 041700 **DST#: 1**  
Test Start: 2011.03.15 @ 01:25:39

### GENERAL INFORMATION:

Formation: **Cher**  
Deviated: **No** Whipstock: **ft (KB)**  
Time Tool Opened: 03:22:19  
Time Test Ended: 08:29:39  
Interval: **3990.00 ft (KB) To 4020.00 ft (KB) (TVD)**  
Total Depth: **4020.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Good**  
Test Type: **Conventional Bottom Hole**  
Tester: **Dan Bangle**  
Unit No: **38**  
Reference Elevations: **2185.00 ft (KB)**  
**2180.00 ft (CF)**  
KB to GR/CF: **5.00 ft**

**Serial #: 8354** **Inside**  
Press@RunDepth: **209.32 psig @ 3991.00 ft (KB)**  
Start Date: **2011.03.15** End Date: **2011.03.15** Capacity: **8000.00 psig**  
Start Time: **01:35:39** End Time: **08:29:39** Last Calib.: **2011.03.15**  
Time On Btm: **2011.03.15 @ 03:21:19**  
Time Off Btm: **2011.03.15 @ 06:26:09**

**TEST COMMENT: IF- Weak building to 5"**  
**FF-Weak building to 2"**  
**Times[45-45-45]**



### PRESSURE SUMMARY

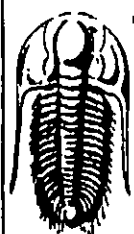
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2157.89	105.18	Initial Hydro-static
1	44.91	104.69	Open To Flow (1)
45	149.64	115.42	Shut-In(1)
89	1150.05	112.69	End Shut-In(1)
91	160.22	114.39	Open To Flow (2)
134	209.32	118.09	Shut-In(2)
184	1111.36	116.43	End Shut-In(2)
185	1901.00	116.05	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
360.00	Mdy Wtr	2.84

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Hess Oil Co  
Box 1009  
McPherson Ks 67460  
ATTN: Jamie Hess

**Velma # 1**  
**13-17-20-Rush-Ks**  
Job Ticket: 041700      **DST#: 1**  
Test Start: 2011.03.15 @ 01:25:39

### 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:	50000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
360.00	Mdy Wtr	2.836

Total Length: 360.00 ft      Total Volume: 2.836 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: Rw .17 @ 60 = 50000ppm



