

Kansas Corporation Commission Oil & Gas Conservation Division

1161962

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 #	API No. 15
Name:	Spot Description:
Address 1:	SecTwpS. R
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	Producing Formation:
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
New Well Re-Entry Workover	Total Depth: Plug Back Total Depth:
Oil WSW SWD SIOW Gas D&A ENHR SIGW OG GSW Temp. Abd. CM (Coal Bed Methane) Cathodic Other (Core, Expl., etc.):	Amount of Surface Pipe Set and Cemented at: Feet Multiple Stage Cementing Collar Used? Yes No If yes, show depth set: Feet If Alternate II completion, cement circulated from: sx cmt
Operator:	
Well Name:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Original Comp. Date: Original Total Depth: Original Total Depth: Conv. to ENHR	Chloride content: ppm Fluid volume: bbls Dewatering method used:
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Permit #:	Operator Name:
Dual Completion Permit #:	Lease Name: License #:
SWD Permit #:	QuarterSec TwpS. R East West
ENHR Permit #:	County: Permit #:
GSW Permit #:	
Spud Date or Date Reached TD Completion Date or Recompletion Date Recompletion Date	

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY
Letter of Confidentiality Received
Date:
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I II III Approved by: Date:

Side Two



Operator Name:			Lease Nam	ie:			Well #:		
Sec Twp	S. R	East West	County:						
time tool open and clos	sed, flowing and shut- s if gas to surface tes	base of formations per in pressures, whether s t, along with final chart well site report.	shut-in pressure	reached s	tatic level,	hydrostatic pres	ssures, bottom h	ole temp	erature, fluid
Drill Stem Tests Taken (Attach Additional S	theets)	Yes No	[Log	Formation	n (Top), Depth a	nd Datum		Sample
Samples Sent to Geole	•	Yes No	1	Name			Тор	I	Datum
Cores Taken Electric Log Run Electric Log Submitted (If no, Submit Copy)	l Electronically	Yes No Yes No Yes No							
List All E. Logs Run:									
		CASING Report all strings set-	RECORD		Used	on, etc.			
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	5	Setting Depth	Type of Cement	# Sacks Used	, ,,	and Percent dditives
	263	331 (3.3.)	2001711		<u> </u>		0000		
		ADDITIONA	L OFMENTING /	00115575	DECORD				
Purpose:	Depth		L CEMENTING /		RECORD	Time and	Darsont Additives		
Perforate	Top Bottom	Type of Cement	# Sacks Use	d		Type and	Percent Additives		
Protect Casing Plug Back TD									
Plug Off Zone									
	PERFORATIO	N RECORD - Bridge Plu	as Set/Tyne		Acid Fra	ture Shot Ceme	nt Squeeze Record	Н	
Shots Per Foot	Specify Fo	ootage of Each Interval Pe	rforated			nount and Kind of N		u	Depth
TUBING RECORD:	Size:	Set At:	Packer At:	Line	r Run:	Yes N	0		
Date of First, Resumed I	Production, SWD or ENH	R. Producing Me	thod:	Gas Li	ft C	ther <i>(Explain)</i>			
Estimated Production Per 24 Hours	Oil B	bls. Gas	Mcf	Water	Bł	ols.	Gas-Oil Ratio		Gravity
DISPOSITIO	ON OF GAS:		METHOD OF COI	MPLETION:			PRODUCTIO	ON INTER	VAL:
Vented Sold	Used on Lease	Open Hole		Dually Comp		nmingled			
(If vented, Sub	mit ACO-18.)	Other (Specify)	(Su	bmit ACO-5)	(Subi	nit ACO-4) —			

Form	ACO1 - Well Completion
Operator	Hess Oil Company
Well Name	JJ 1-33
Doc ID	1161962

Tops

Name	Тор	Datum
Anhydrite	1369	+698
Base Anhydrite	1408	+659
Topeka	3073	-1006
Heebner	3303	-1236
Toronto	3330	-1263
Lansing	3351	-1284
Stark	3537	-1470
Swope	3546	-1479
Base Kansas City	3586	-1519
Cherty Conglomerate	3649	-1582
LTD	3718	-1651

ROGER L. MARTIN

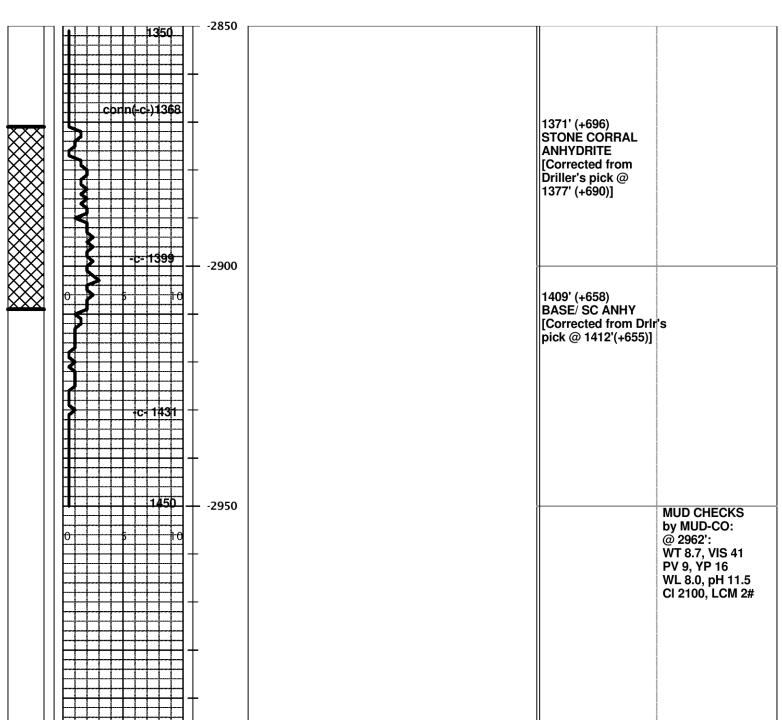
INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

GEOLOGIST'S REPORT

	DRILLING T	IME AND SAMPLE	LOG	
COMPANY HESS OIL COLL LEASE JJ #1-33 FIELD LOCATION 1148' FSL & 4: SECTION 33 TOWNSH COUNTY ELLIS	34' FWL	RANGE 18W	ELEVATIONS KB 2067' GL 2062' Measurements Are All From KB 15-051-26569-00-00	
CONTRACTOR MALLARD DRILLING SPUD 07/19/2013 COMP 07/28/2013 RTD 3717' (-1650) LTD 3718' (-1651) ELECTRICAL SURVEYS Pioneer Energy Services: DIL, CNL/CDL			CASING SURFACE 8&5/8" set @ 218' w/150 sx Class A, 2% gel, 3% cc PRODUCTION N/A- P&A	
CNL/CDL	<u> </u>			
FORMATION TOPS	LOG	SAMPLES	CHRONOLOGY	
	LOG 1369' (+698) 1408' (+659) 3073' (-1006) 3303' (-1236) 3351' (-1263) 3351' (-1284) 3537' (-1470) 3546' (-1479) 3649' (-1582) 3718' (-1651)	SAMPLES 1371' (+696) 1409' (+658) 3073' (-1006) 3305' (-1238) 3330' (-1263) 3351' (-1284) 3537' (-1470) 3547' (-1480) 3585' (-1518) 3648' (-1581) 3717' (-1650)	CHRONOLOGY 07/19/2013- Moved in Mallard Drilling rig. Spudded @ 10:00 PM. 07/20/2013- Drilled to 218' and ran 5 jts 8-5/8"x 20# x 211' surface casing. Set @ 218' and cemented w/150 sx class A, 2% gel, 3%cc. CDC. PD @ 10:00 AM 07/20/13. 07/21/2013- Drilling ahead @ 1130'. 07/22/2013- Drilling @ 2215'. 07/23/2013- Drilling @ 2905'. 07/24/2013- Drilled to 3435'. Ran DST #1. 07/25/2013- Drilled to 3592'. DST #2. 07/26/2013- Drilled to 3592'. DST #2. 07/27/2013- Drilled to 3717' RTD. No Arbuckle found. Decided to stop and recheck Lansing to see exactly where the oil came from. Ran electric logs to determine where to straddle test in Lansing. Ran DST #3. Ran DST #4. Recoveries not sufficient for a commercial well. Decided to Plug. Plugged hole w/205 sx 60/40 pozmix, 4% gel, 1/4 floseal per sack as follows: 25 sx @ 1400', 100 sx @ 775', 40 sx @ 250', 10 sx @ 40', 30 sx RH. No MN. PD @ 12:30 AM 07/28/2013.	

REMARKS: The decision was made to plug and abandon the JJ #1-33.

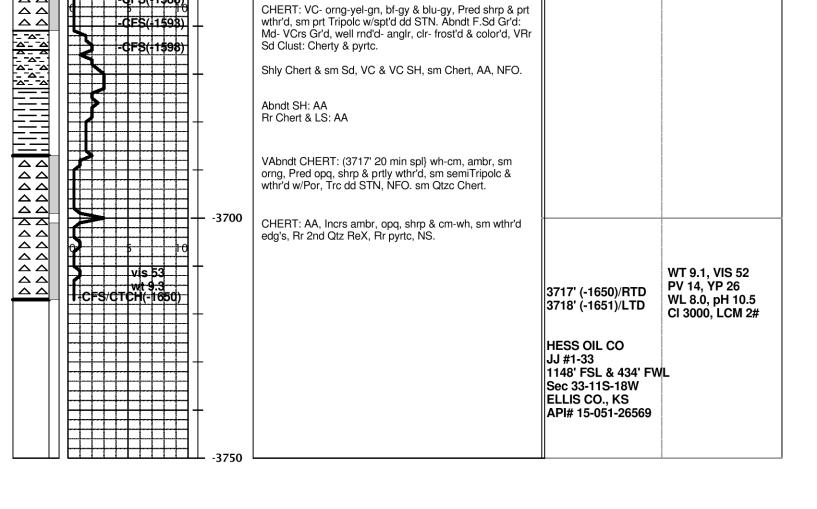
Respectfully su Roger L. Martir	omitted, Geologist	
LITH POROSITY DRILLINGTIME DE	SAMPLE DESCRIPTION	REMARKS
1350	2850	



	3000	LS: gy-tn-cm, dn & Pkst w/Pr- NVP, NS & argil- shly.		
0.5 5 10	_			
	_	SH: gy- blk, sm carb. (LS: AA)		
+C-	_			
	_			
0 3 3 10	3050	LS: tn-gy, dn- fnx, VPr- NVP, argil, NS. SH: AA.		
	_			
	-	{TOPEKA} LS: cm-tn-gy, mx- fnxln, VRr prt Mdxln- sm 2nd ReX, Pr- NVP w/NS. sm wh-chlky, VRr fn oomldc w/Fr- Gd Por w/ NS.	3073' (-1006) TOPEKA	
	-	LS: AA, Pred dn & argil- shly & SH: AA.		
	3100	LS: gy-tn-wh, mx- Vfnxln, sm Sl dolomc, sm grnlr Pkst, Pr- Fr IX Por, IGr Por, Trc OSTN, NFO. sm chlky, Abndt	* 10' DRILLING SAM	PLES*
-CFS(+1048)	-	dn- VPr- NVP & argil. SH: AA & blk carb.		
-c-	_	LS: dn & argil & chlky & grnlr Pkst, Pred Pr- NVP, NS. SH: AA.		
	_	LS: dn & argil & chlky w/Pred VPr- NVP, NS. LS: cm-tn-gy, mx- Vfnxln, sm fos Pkst, Sl Cherty, sm dn,		
3	- 3150	Rr chlky, Pr- NVP, NS.		
0 5 10	-	LS: AA, sm mot- Pkst & mx- fnxln w/Fr Por: IGr Por, IX Por, NS, Cherty.		
	_	DOLO LS: bf-tn, mx- fnxln- sucro & grnlr w/Fr- Gd IX Por, NFO, NC, NS.		
	-	sm argil DLS & LS. SH: blk carb & LS: dn Mdst.		
	-	SH: gn-gy-rd.		
	3200	LS: Pred dn- lithogr & mx, sm chlky & sm DLS AA, Pred Pr- NVP, Trc STN, Trc SFO, VRr pp- vug Por, Pred barren w/Pr- NVP, sm chlky, Sl Cherty.	(Trc SFO)	DST#4; OREAD Straddle Test:
	_			28' of Anchor; & 440' of Tail Pipe E-Log:3250'3278'

	LS: gy argil. LS: tn-wh, Pred dn & mx- Vfnxln w/Pr Por: pp Por, mIX Por, NS. SI Cherty. SH: blk carb. LS: dn & argil Mdst & SH: AA. LS: tn-gy-wh, sm mot Pkst, Trc Fr Por: pp- vug Por, lool Por, Trc SFO- STN- Cut, sm chlky, Abndt dn, Cherty. LS: AA, Pred dn Mdst, sm argil. SH: blk carb & VC. LS: tn-gy-wh, fos & ool Pkst & mx- fnxln, Pr- Fr Por, Rr spt'd STN, VSI SFO, Trc Gd Por w/subsat STN & SI SFO, VSI Odor, Trc Grst- ool & fos w/VGd Por, sat STN-SFO-	{Trc SFO)	(LTD: 3718') Rotary:3249'3277' (RTD: 3717') 45-60-45-60 min IF: BOB in 24 min. ISI:Wk surf Blow Back built to 3/4" FF: BOB in 34 min. FSI: Wk surf. BB blt to 3/4" Rec: 160' GIP 40' Cln Oil (38 gravity) 40' MCW (60%W, 40%M) 240' MCW (70%W, 30%M) 320' Total Fluid Rw:0.102@70deg.F CI: 78,000 ppm
	Cut. LS: tn-gy-wh, mx- fnxln- sm 2nd ReX, sm fos Pkst, prt chlky, VRr Pr- Fr Por: IX Por, IGr Por, pp- vug Por, ~5% w/spt'd- subsat STN, VSI SFO & Cut. Cherty: It-dk blu-gy, tn-cm, sm fos, shrp. LS: cm-tn, Pred dn- mx- Vfnx, Pr- NVP w/NS. Cherty: blu-gy & tn, shrp.	{VSI SFO)	IHP:1622 IFP: 27-119 ISIP: 723 FFP: 135-166 FSIP: 706 FHP: 1512 Temp:108deg.F
vis 47 wt 9.0 0 c-	{HEEBNER} SH: blk carb. LS: tn-gy, dn- mx, VPr- NVP w/NS. SH: gy & blk & gn-gy & rd, sm calc & lmy.	3305' (-1238) HEEBNER SH	DST#1 OREAD- Thru LKC 'G' Zn 3259'3450' 45-45-45-45 min 1st Op: BOB in 12 min, dead, No BB 2nd Op: BOB in
C C	{TORONTO} LS: tn-gy-wh, dn- mx- fnx, sm Sl 2nd ReX, Pred VPr- NVP w/ NS. sm chlky LS, AA, Pred dn- chlky.	3330' (-1263) TORONTO	21 min, dead, No BB Rec: 70'GIP 236' HOCWM (30%O; 30%W; 40%M) 310' HOCWM (25%O; 15%W; 60%M)
0 5 10	{LANSING} LS: tn-gy-wh, mot ool & fos Pkst, mx- fxln, Pr IX & IGr Por, <5% w/VSISFO- STN, VRr (<5%) w/dd STN, Rr chlky, VSI Cherty. LS: Pred dn & argil, sm chlky, Pred barren. Incrs SH: blk	3351' (-1284) LANSING {VSI SFO)	546' Total Fluid TOOL SPL: 5%Gas, 10%Oil 10%Wtr, 75%Mud Rw:0.121@75deg.F CI: 60,000 ppm IHP: 1652 IFP: 98-264
- C	carb & gy-gn & rd. LS: tn-gy-wh, mx- Vfnx, >5% <10% w/Pr- Fr Por: pp- vug Por w/spt'd STN, VSI SFO, VRr ool Pkst w/Fr- Gd lool Por w/subsat- sat STN, SI SFO & VSI Odor, Trc prt oomldc. Prt dn to chlky, SI Cherty, AA. sm SH, AA.	{VSI SFO)	ISIP: 841 FFP: 282-332 FSIP: 818 FHP: 1543 Temp: 109deg. F
-3400 0 5 C 10 DST#3	W/sptd STN, VSI Odor & Trc sat STN, VSI Odor, SI Cherty: Pred dn- chlky LS w/VPr- NVP. LS: dn & argil & sm SH.	{SI SFO) WT 9.1, VIS 57	DST#3; LKC: Fzn & G zn Straddle test: (43'anchor; 265'tail) E-Log: 3410'-3453'
-dES(11358) - vis 46 - wit 9.1	LS: tn-gy-wh, Pred dn- mx- fnx, sm mot Pkst, VPr Por	PV 15, YP 27 WL 7.6, pH 11.0 CI 2100, LCM 2#	(LTD: 3718') Rotary:3409'-3452' (RTD: 3717') 45-45-45-45 min 1st Op: Fr surf blow, blt to

	-015((1909)	fos, SI Cherty, Pr- Fr Por, Trc Gd Por, spt'd- sat STN, SI SFO, ~5% <10% Incrs Fr- Gd Por: lool Por, IGr Por & STN- SFO, VSI- SI Cut, VSI Odor, sm barren Por.	(SI- Fr SFO)	7 in, aa, no BB 2nd Op: Fr surf blow, bit to
	- GFS(-1373) -3450	LS: AA, ool & fos Pkst w/Pr- Fr Por, Rr STN- SFO & Cut. Pred dn- chlky & barren.	(VSI SFO)	7 in, dd, No BB Rec: 320' TF: 140' MCW
	0 Uts 53 0 Wt 8.8 0 DST#2	LS: tn-wh, dn- chlky & VC SH: AA, Pred Pr visbl Por- NVP w/NS.		(60%W; 40%M) 180' SIMCW (95%W; 5%M) Tool Sample:
	-c-	LS: gy-tn-wh, sm Pkst, Pr- NVP w/NS, sm chlky LS.		VSIMCW (98%W; 2%M) Rw:0.705@60deg.F
	vis 51 wit 8.8	20. gy, and a argina or it girl gy a or it bill oarb.	WT 9.1, VIS 53 PV 12, YP 25 WL 7.6, pH 10.5	CI: 148,000 ppm IHP: 1691 IFP: 27-120
幫			Cl 2100, LCM 2#	ISIP: 832 FFP: 136-169
		LS: wh-gy-tn, sm mot Pkst & prt chlky & mx- fnx, Pr visbl Por: IGr Por, IX Por, pp Por w/5% w/Por & spt'd Lt STN & VSI SFO & Cut, SI Cherty: cm-blu-gy-tn, shrp.	(VSI SFO)	FSIP: 808 FHP: 1613 Temp:109 deg. F
	-3500	SH:L Incrs in 3520' spl.		
		LS: dn Mdst & chlky LS: AA & SH: AA, mrn-rd & gn-gy.		DST#2;LKC:H-Lzns 3455'3592'
	5 10	LS: tn-gy-wh, mx- fnx, sm mot Pkst, grnlr & fos w/Pr- Fr Por: pp Por, IGr Por, IX Por, ~5% spt'd- subsat STN, VSI SFO, sm chlky, Abndt dn & SH, AA.	(VSI SFO)	45-45-30-30 min. 1st Op: Wk surf blow, blt to 1 in, dd, No BB
		LS: tn-wh, Pred dn- mx, sm fnX's- VRr Md- CrsX's- 2nd ReX, <5% w/Pr- Fr visbl Por: IGr Por, pp Por, IX Por, spt'd- sat STN, VSI SFO & Cut.	{VSI SFO)	2nd Op: Dead, NB, No BB, Rec: 11' TF: 1' Free Oil 10' SIOCM
		{STARK} SH: sm blk carb (Incrs in 3550' spl)	3537' (-1470) STARK SH	(5%O; 95%M) IHP: 1750 IFP: 71-74 ISIP: 725 FFP: 79-86
	-3550	{SWOPE} LS: tn-wh, mx- fnxln, Rr prt Mdx- 2nd ReX, >5% <10% w/Pr- Fr Por: pp- vug Por & IX Por, Trc Gd	3547' (-1480) SWOPE {SI SFO)	FSIP: 304 FHP: 1638 Temp: 108 deg.F
	0	Por, spt'd- subsat STN, Si SFO, SI Odor, Rr grnlr Pkst w/Pr- Fr Por, spt'd STN & SI SFO.		
		LS: Pred dn to chiky LS w/NS.		
		LS: AA & gy-bn, dn- mx- fnxln, Pred Pr- NVP w/ NS. (Trc STN- SFO- Cut, AA), sm chlky & dn. {HUSHPUCKNEY} SH: (Incrs in 3590' spl) blk carb., gy- an & rd.		
		w/VPr- NVP, prt chlky, VSI Cherty.	(Trc SFO)	
			3585' (-1518) BASE KANSAS CITY	,
	-¢F\$(+1\$25)	{BASE KANSAS CITY} SH: blk carb & gn-gy & mrn-rd & LS: AA, dn- Vfnx & chlky.		
	-3600	Abndt SH: VC, AA. (LS: AA, Pred dn- chlky w/VPr- NVP)		
	0-1-1-5-1-1-0	sm LS: wh-tn-gy, sm mot, mx- fnx & dn- chlky, Pred VPr- NVP.		
		SH: Abndt gy-blk, mrn-rd & gn-gy.		
		SH: AA & LS: AA, Incrs mrn-rd SH.		
		Pred SH: VC, dk mrn-rd, gn-gy, gy-blk.		
	c-CFS (-1556)	SH: VC, gy & gn & Incrs mrn-rd.		
	-GES(-1568) SI RI -GFS(-1568) -GES(-1573)	LS: wh-tn, mx- fnxln, sm sdy: Vfn- fn Gr'd, sm Pkst, VPr- Pr Por: IX Por, IGr Por, pp- vug Por, Trc STN, Trc SFO, Trc dd STN, sm argil- shly, Pred dn.	{Trc SFO)	WT 9.0, VIS 40 PV 12, YP 19 WL 7.8, pH 10.5 CI 2400, LCM 1#
	CFS(-1578)		3648' (-1581)	
	-0FS(-1588) -3650	{CHERTY CONGLOMERATE} CHERT: cm-bf-gy-tn, orng, dn, shrp- wthr'd, sm sndy, Trc Pr- Gd Por, dd STN.	CHERTY CONGLOM	ERATE





DRILL STEM TEST REPORT

Hess Oil Company 33-11s-18w-Ness Co KS

PO Box 1009 JJ #1-33

McPherson KS, 67460 Job Ticket: 54324 **DST#:1**

ATTN: Roger Martin Test Start: 2013.07.24 @ 15:29:31

GENERAL INFORMATION:

Formation: Oread-LKC G

Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)

Time Tool Opened: 18:05:21 Tester: Tate Lang
Time Test Ended: 23:41:01 Unit No: 41

 Interval:
 3259.00 ft (KB) To
 3450.00 ft (KB) (TVD)
 Reference ⊟evations:
 2067.00 ft (KB)

Total Depth: 3450.00 ft (KB) (TVD) 2062.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press@RunDepth: 331.53 psig @ 3266.00 ft (KB) Capacity: 8000.00 psig

 Start Date:
 2013.07.24
 End Date:
 2013.07.24
 Last Calib.:
 2013.07.24

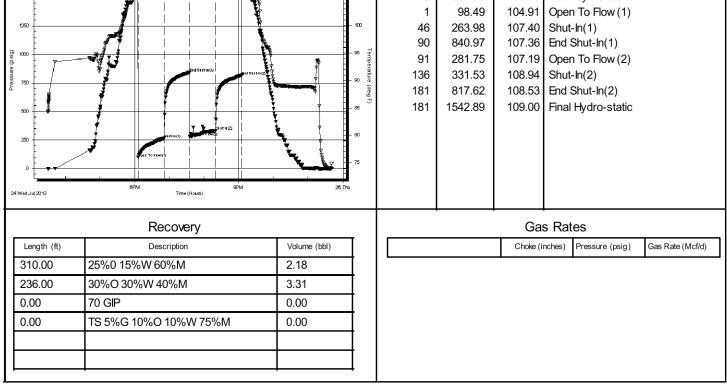
 Start Time:
 15:29:32
 End Time:
 23:41:01
 Time On Btm:
 2013.07.24 @ 18:05:01

 Time Off Btm:
 2013.07.24 @ 21:05:31

TEST COMMENT: B.O.B. In 12 mins.

Dead no blow back B.O.B. In 21 mins. Dead no blolw back

Pressure vs. Time				Pl	RESSUR	RE SUMMARY
1750	8322 Pressure	8322 Temperature	Time	Pressure	Temp	Annotation
1733	In that Hydro-drafe:	110	(Min.)	(psig)	(deg F)	
1500	N. A.	105	0	1652.38	105.39	Initial Hvdro-static



Ref. No: 54324 Printed: 2013.07.25 @ 07:44:42 Trilobite Testing, Inc



DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

JJ #1-33

PO Box 1009 McPherson KS, 67460

Job Ticket: 54324

DST#: 1

Test Start: 2013.07.24 @ 15:29:31

33-11s-18w-Ness Co KS

ATTN: Roger Martin

Mud and Cushion Information

Cushion Type: Oil API: Mud Type: Gel Chem deg API Mud Weight: 9.00 lb/gal Cushion Length: ft Water Salinity: 60000 ppm

57.00 sec/qt Cushion Volume: Viscosity: bbl

Water Loss: 7.60 in³ Gas Cushion Type:

Gas Cushion Pressure: Resistivity: ohm.m psig

Salinity: 2100.00 ppm Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
310.00	25%0 15%W 60%M	2.180
236.00	30%O 30%W 40%M	3.310
0.00	70 GIP	0.000
0.00	TS 5%G 10%O 10%W 75%M	0.000

546.00 ft Total Volume: 5.490 bbl Total Length:

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

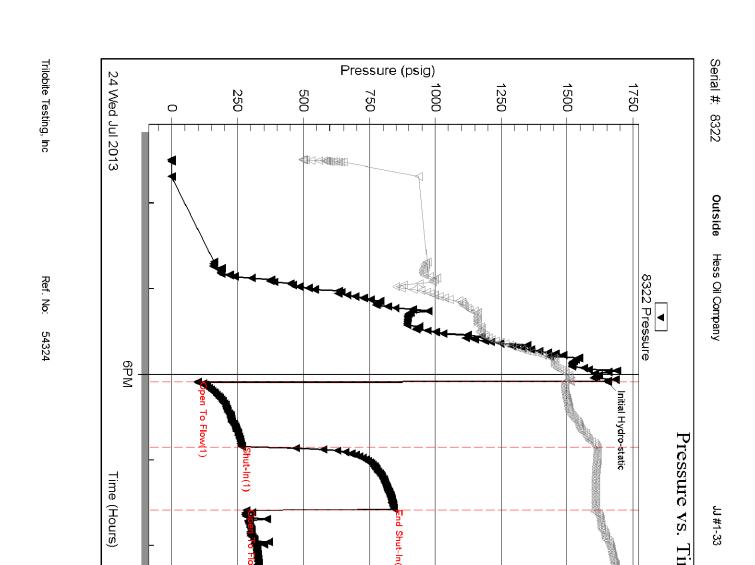
Laboratory Name: Laboratory Location:

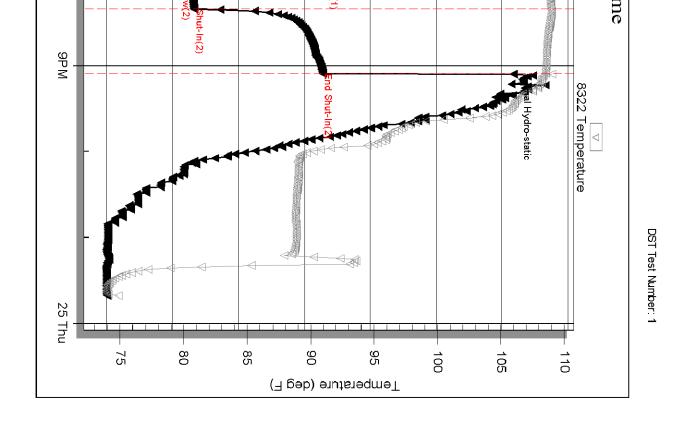
Recovery Comments: .121 @ 75F = 60,000



Ref. No: 54324

Printed: 2013.07.25 @ 07:44:43







DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009

McPherson KS, 67460

ATTN: Roger Martin

33-11s-18w-Ness Co KS

JJ #1-33

Test Type:

Tester:

Unit No:

Job Ticket: 54325 **DST#: 2**

Tate Lang

41

Test Start: 2013.07.25 @ 14:40:00

GENERAL INFORMATION:

Formation: LKC H-L

Printed: 2013.07.25 @ 07:44:44

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:41:50
Time Test Ended: 20:58:39

Interval: 3455.00 ft (KB) To 3592.00 ft (KB) (TVD)

Total Depth: 3599.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Bevations: 2067.00 ft (KB)

2062.00 ft (CF)

Conventional Bottom Hole (Reset)

KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

 Press@RunDepth:
 86.01 psig @
 3462.00 ft (KB)
 Capacity:
 8000.00 psig

 Start Date:
 2013.07.25
 End Date:
 2013.07.25
 Last Calib.:
 2013.07.25

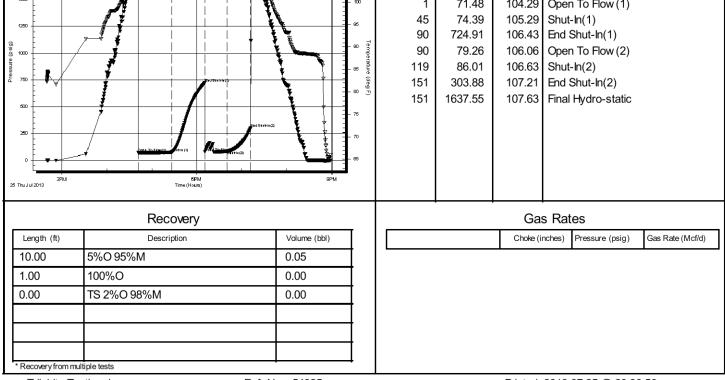
Start Time: 14:40:01 End Time: 20:58:40 Time On Btm: 2013.07.25 @ 16:41:40

Time Off Btm: 2013.07.25 @ 19:12:30

TEST COMMENT: Weak surface blow built to 1 in

Dead no blow back
Dead no blow
Dead no blow back

	Pressure vs.		•	PRESSURE SUMMARY Time Pressure Temp Annotation		RE SUMMARY	
1750	8322 Pressure	8322 Temperature	105	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
1500			Ī "	0	1750.35	105.11	Initial Hydro-static



Printed: 2013.07.25 @ 23:30:56 Trilobite Testing, Inc. Ref. No: 54325



DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

33-11s-18w-Ness Co KS

PO Box 1009

JJ #1-33

ft

bbl

psig

McPherson KS, 67460

Job Ticket: 54325

DST#: 2

ATTN: Roger Martin

Test Start: 2013.07.25 @ 14:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal 57.00 sec/qt Viscosity:

Cushion Length: Cushion Volume:

Gas Cushion Pressure:

Water Salinity:

ppm

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m Salinity: 2100.00 ppm Filter Cake:

1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	5%O 95%M	0.049
1.00	100%O	0.005
0.00	TS 2%O 98%M	0.000

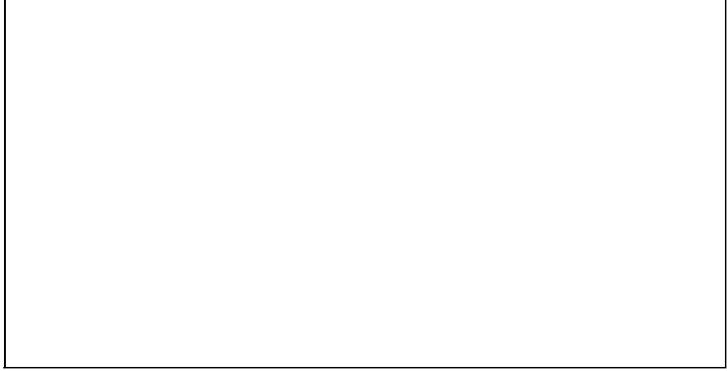
Total Length: 11.00 ft Total Volume: 0.054 bbl

0 Num Fluid Samples: 0 Num Gas Bombs: Laboratory Name:

Recovery Comments:

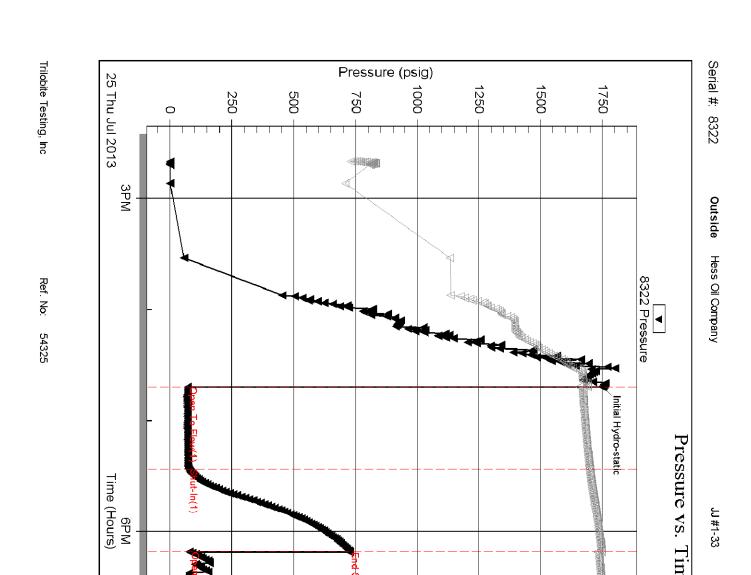
Laboratory Location:

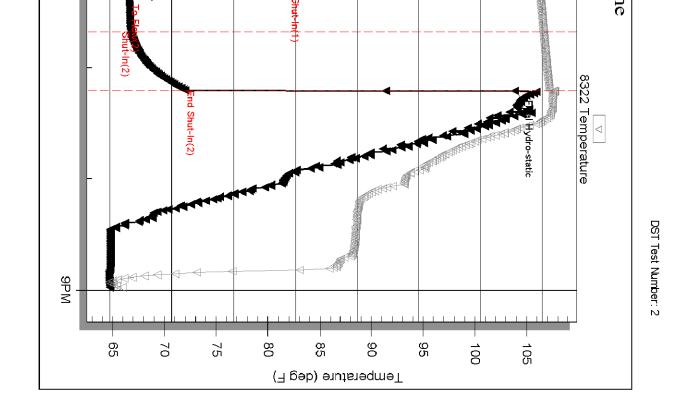
Serial #:

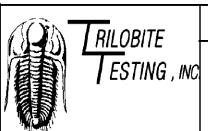


Ref. No: 54325

Printed: 2013.07.25 @ 23:30:57







DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009

McPherson KS, 67460

ATTN: Roger Martin

33-11s-18w-Ness Co KS

JJ #1-33

Job Ticket: 54376 DST#: 3

Test Start: 2013.07.26 @ 23:05:42

GENERAL INFORMATION:

Formation: F-G

Printed: 2013.07.25 @ 23:30:58

Deviated: No Whipstock: ft (KB) Test Type:

Conventional Straddle (Reset) Time Tool Opened: 01:05:22 Tester: Tate Lang Time Test Ended: 06:10:42 Unit No: 41

Interval: 3410.00 ft (KB) To 3452.00 ft (KB) (TVD)

Total Depth: 3717.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good Reference Elevations: 2067.00 ft (KB)

2062.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press@RunDepth: 168.82 psig @ 3411.00 ft (KB) Capacity: 8000.00 psig Start Date: 2013.07.26 Last Calib.: End Date: 2013.07.27 2013.07.27 Start Time: 23:05:43 End Time: 06:10:42 Time On Btm: 2013.07.27 @ 01:05:02

> Time Off Btm: 2013.07.27 @ 04:06:51

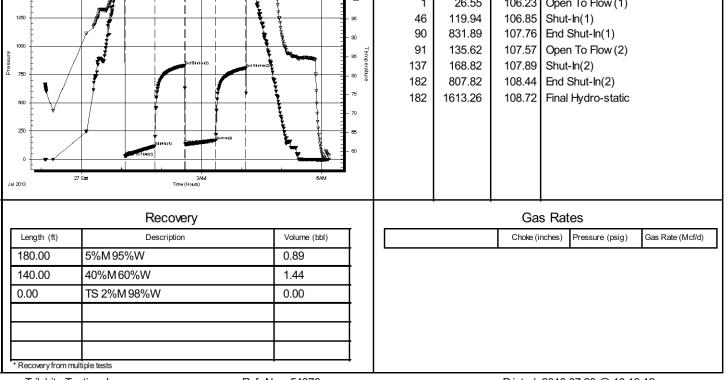
TEST COMMENT: Fair surface blow built to 7 in.

Dead no blow back

Fair surface blow built to 7 in.

Dead no blow back

	Pressure vs	Time	PRESSURE SUMMARY		RE SUMMARY		
175	8322 Pressure	Fit and rosteric	110	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
150	» - 		105	0	1690.74	106.71	Initial Hydro-static



Trilobite Testing, Inc Ref. No: 54376 Printed: 2013.07.29 @ 10:19:12



DRILL STEM TEST REPORT

Hess Oil Company

JJ #1-33

PO Box 1009 McPherson KS, 67460

Job Ticket: 54376

DST#: 3

ATTN: Roger Martin

Test Start: 2013.07.26 @ 23:05:42

33-11s-18w-Ness Co KS

GENERAL INFORMATION:

Formation: F-G

Deviated: ft (KB) Test Type: Conventional Straddle (Reset) No Whipstock:

Time Tool Opened: 01:05:22 Tester: Tate Lang Time Test Ended: 06:10:42 Unit No: 41

3410.00 ft (KB) To 3452.00 ft (KB) (TVD) Reference Elevations: Interval: 3717.00 ft (KB) (TVD) Total Depth:

2067.00 ft (KB)

2062.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8734 Below (Straddle)

Press@RunDepth: psig @ 3719.00 ft (KB) Capacity: 8000.00 psig Start Date: 2013.07.27 Last Calib.: 2013.07.27 2013.07.26 End Date:

Start Time: 23:05:12 Time On Btm: End Time: 06:10:11

Time Off Btm:

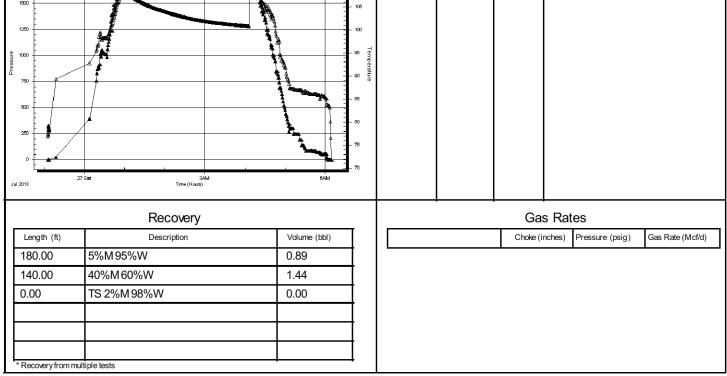
TEST COMMENT: Fair surface blow built to 7 in.

Dead no blow back

Fair surface blow built to 7 in.

Dead no blow back

	Pressure vs. Time				Pl	RESSUF	RE SUMMARY
1750	8734 Pressure	8734 Temperature	115	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
		1	- 110 -				



Printed: 2013.07.29 @ 10:19:13 Trilobite Testing, Inc Ref. No: 54376



DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

33-11s-18w-Ness Co KS

PO Box 1009

JJ #1-33

McPherson KS, 67460

Job Ticket: 54376

DST#: 3

ATTN: Roger Martin

Test Start: 2013.07.26 @ 23:05:42

Oil API:

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type: **Cushion Length:** ft deg API

Mud Weight: 9.00 lb/gal Viscosity:

Cushion Volume:

Water Salinity: ppm

57.00 sec/at

Gas Cushion Type:

Water Loss: 7.59 in³ Resistivity: ohm.m

Gas Cushion Pressure:

psig

bbl

Salinity: 2100.00 ppm Filter Cake:

1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	5%M 95%W	0.885
140.00	40%M 60%W	1.435
0.00	TS 2%M 98%W	0.000

320.00 ft 2.320 bbl Total Length: Total Volume:

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

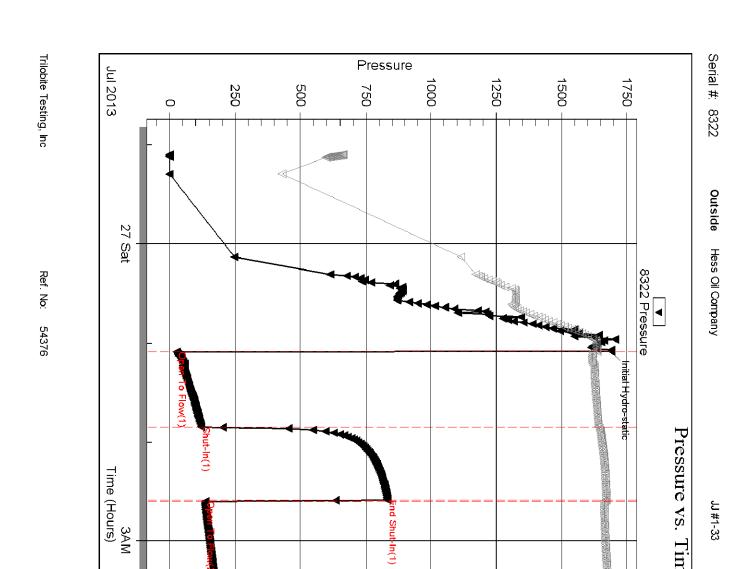
Recovery Comments:

Laboratory Location:



Ref. No: 54376

Printed: 2013.07.29 @ 10:19:14



ē Shut-In(2) □ ▽ □ 8322 Temperature ind Shut-In Hydro-static 6AM 110 60 65 70 75 80 85 90 95 100 <u>1</u>85 Temperature

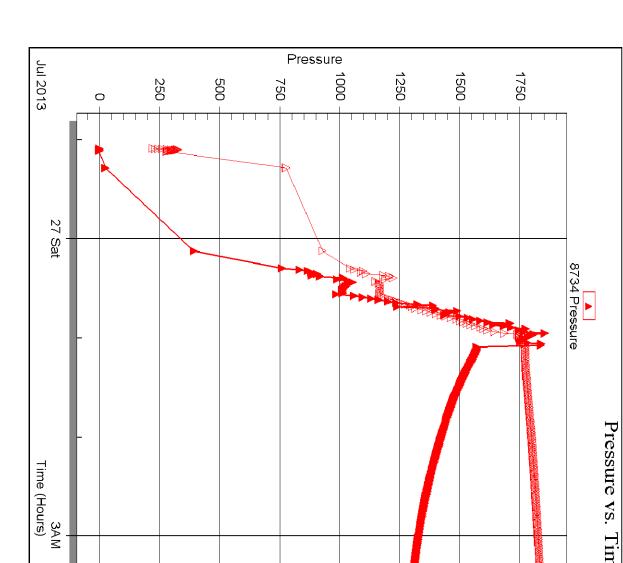
Printed: 2013.07.29 @ 10:19:14

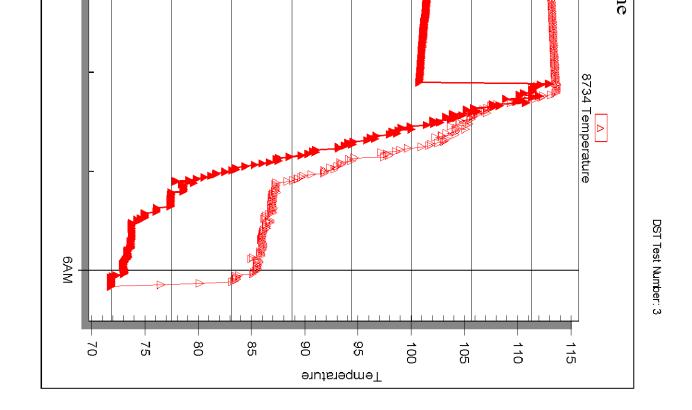
Ref. No: 54376

Serial #: 8734 Below (Strattstep)il Company

JJ #1-33

DST Test Number: 3







DRILL STEM TEST REPORT

Hess Oil Company

PO Box 1009

McPherson KS, 67460

ATTN: Roger Martin

33-11s-18w-Ness Co KS

JJ #1-33

Job Ticket: 54377 DST#: 4

Test Start: 2013.07.27 @ 07:26:26

GENERAL INFORMATION:

Formation: Oread

Printed: 2013.07.29 @ 10:19:14

Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Reset)

Time Tool Opened: 10:07:06 Tester: Tate Lang Time Test Ended: 15:45:05 Unit No: 41

3250.00 ft (KB) To 3278.00 ft (KB) (TVD) Interval: Reference Elevations: 2067.00 ft (KB)

Total Depth: 3717.00 ft (KB) (TVD)

2062.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

165.68 psig @ Press@RunDepth: 3251.00 ft (KB) Capacity: 8000.00 psig

Start Date: 2013.07.27 End Date: 2013.07.27 Last Calib.: 2013.07.27 Start Time: 07:26:27 End Time: 15:45:06 Time On Btm: 2013.07.27 @ 10:06:56 Time Off Btm: 2013.07.27 @ 13:36:35

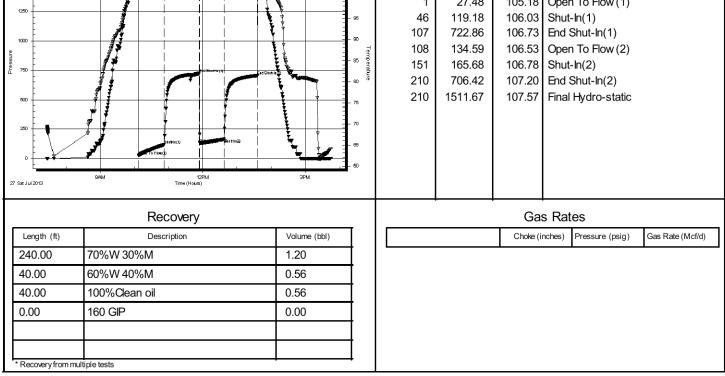
TEST COMMENT: B.O.B. In 24 mins

Weak surface blow back built to 3/4 in.

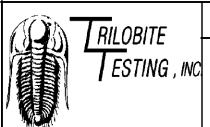
B.O.B. In 34 min.

Weak surface blow back built to 3/4 in.

Pressure vs. Time PRESSURE SUMMAR'		RE SUMMARY				
	SS22 Pressure	8322 Temperature	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
	1500		0	1622.63		Initial Hydro-static



Printed: 2013.07.29 @ 10:18:21 Trilobite Testing, Inc Ref. No: 54377



DRILL STEM TEST REPORT

Hess Oil Company

JJ #1-33

PO Box 1009

McPherson KS, 67460

Job Ticket: 54377

33-11s-18w-Ness Co KS

DST#: 4

ATTN: Roger Martin Test Start: 2013.07.27 @ 07:26:26

GENERAL INFORMATION:

Formation: Oread

Total Depth:

Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Reset)

Time Tool Opened: 10:07:06 Tester: Tate Lang Time Test Ended: 15:45:05 Unit No: 41

Interval: 3250.00 ft (KB) To 3278.00 ft (KB) (TVD) Reference Elevations: 2067.00 ft (KB) 2062.00 ft (CF)

7.88 inches Hole Condition: Good KB to GR/CF: Hole Diameter:

5.00 ft

Serial #: 8734 Below (Straddle)

3717.00 ft (KB) (TVD)

Press@RunDepth: psig @ 3694.00 ft (KB) Capacity: 8000.00 psig

Start Date: 2013.07.27 End Date: 2013.07.27 Last Calib.: 2013.07.27

Start Time: 07:26:54 End Time: 15:45:33 Time On Btm:

Time Off Btm:

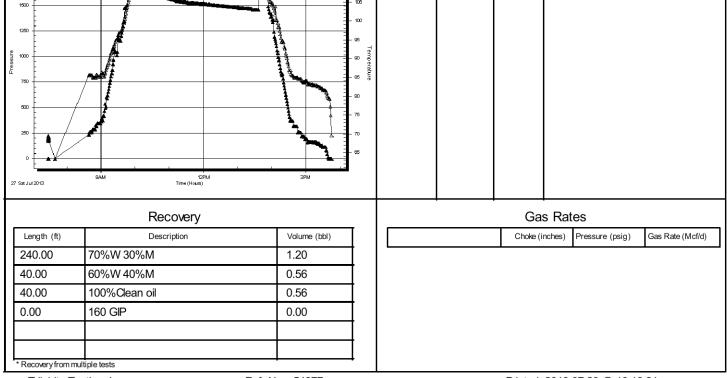
TEST COMMENT: B.O.B. In 24 mins

Weak surface blow back built to 3/4 in.

B.O.B. In 34 min.

Weak surface blow back built to 3/4 in.

	Pressure vs. Time PRESSURE SUMMARY						
9734 Pressure	8734 Temperature	- 115 - 110	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	



Ref. No: 54377 Printed: 2013.07.29 @ 10:18:21 Trilobite Testing, Inc



DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

PO Box 1009

JJ #1-33

McPherson KS, 67460

Job Ticket: 54377

DST#: 4

ATTN: Roger Martin

Test Start: 2013.07.27 @ 07:26:26

33-11s-18w-Ness Co KS

Mud and Cushion Information

Mud Type: Gel Chem Cushion Type: Oil API: 38 deg API Mud Weight: 9.00 lb/gal **Cushion Length:** ft Water Salinity: ppm

Viscosity: 53.00 sec/qt Cushion Volume: bbl

Gas Cushion Type: Water Loss: 7.50 in³

Resistivity: Gas Cushion Pressure: ohm.m psig

Salinity: 2100.00 ppm Filter Cake: 1.00 inches

Recovery Information

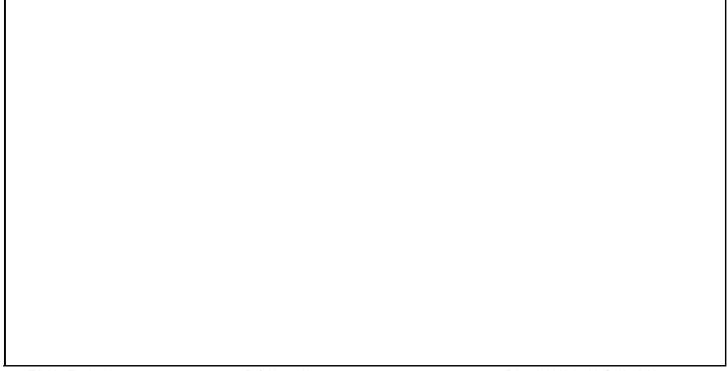
Recovery Table

Length ft	Description	Volume bbl
240.00	70%W 30%M	1.198
40.00	60%W 40%M	0.561
40.00	100%Clean oil	0.561
0.00	160 GIP	0.000

Total Length: 320.00 ft Total Volume: 2.320 bbl

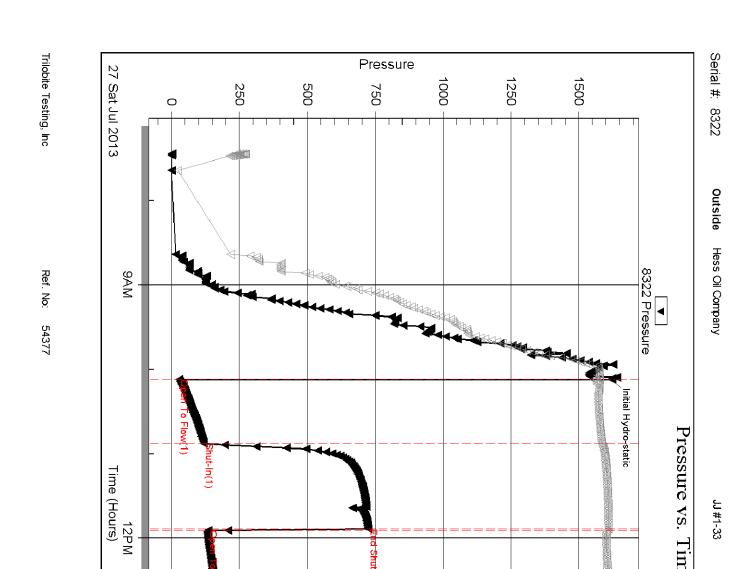
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: Laboratory Name: Laboratory Location:

Recovery Comments:



Ref. No: 54377

Printed: 2013.07.29 @ 10:18:22



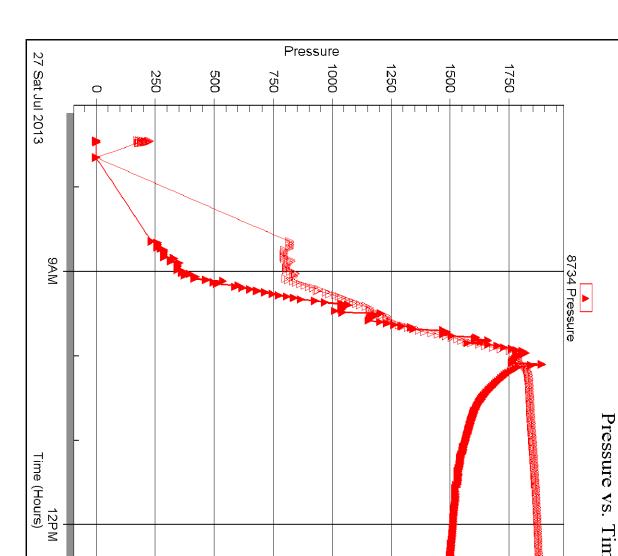
Printed: 2013.07.29 @ 10:18:22

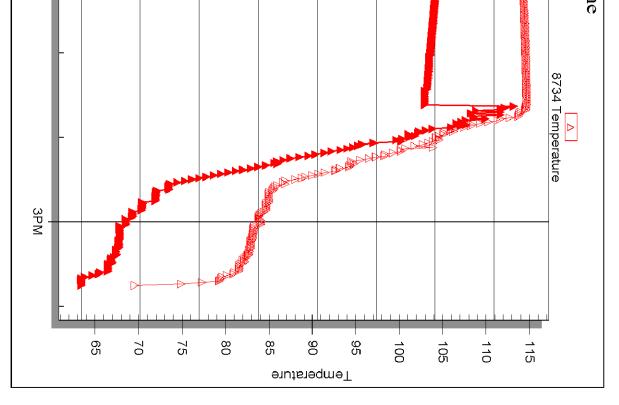
Ref. No: 54377



JJ #1-33

DST Test Number: 4





Printed: 2013.07.29 @ 10:18:23

ALLIED OIL & GAS SERVICES, LLC 060587 Federal Tax I.D. #20-8651475

REMIT TO P.O. BOX 93999 SOUTHLAKE, TEXAS 76092		SERV	VICE POINT:	Bend
DATE 7-20-13 SEG 3 TWP RANGE 18 C	ALLED OUT	ON LOCATION	JOB START 4:30 An	JOB FINISH
LEASE UJ WELL # 1-33 LOCATION Have A	V to Dean H	ill ed	COUNTY	STATE
OLD OR NEW (Circle one) W SW has				
CONTRACTOR Matland TYPE OF JOB Surface	OWNER			
HOLE SIZE 12 T.D.	CEMENT			
CASING SIZE & SC. DEPTH 218	AMOUNT OR	DERED 150	sks de	105 A-38 CC
TUBING SIZE DEPTH	ZV/ogu			
DRILL PIPE 4/2 DEPTH TOOL DEPTH				
PRES. MAX MINIMUM	COMMON	150	@ 17.90	2.685.00
MEAS, LINE SHOE JOINT	POZMIX		- @ 	2.000
CEMENT LEFT IN CSG. 15F+	GEL	3	@ 23.40	70.20
PERFS.	CHLORIDE _	5	@ <u>64.00</u>	320.00
DISPLACEMENT	ASC		_@	
EQUIPMENT			_ @	
DIVIDED TO LOCAL TO L			_@	
# 39% HELPER Keven Weighous			- @	
# 29% HELPER Kenen Weighnes BULKTRUCK				
# 344 DRIVER			@	
BULK TRUCK			_@	
# DRIVER	HANDLING /	1294	_@ _@ <i>ছ</i> .৸ <i>৪</i>	401.98
	MILEAGE 7		2.60	288.60
REMARKS:				3.745.78
bricking kings-had softwirestry.		•	IOIAL	3.,,
am & casing - Breaklievered his wood		SERVI	CE	
HOUR UP CEMPAR DUMO				
Pump 5 BBIS tach Water Ahead	DEPTH OF JO			
MIX 150 3VS Class A 36 24	PUMP TRUCK		1512.35	
Dispute buis freshwater	EXTRA FOOT		_@	
Comentaid Ciculate	MILEAGE _A	Num 15	_@ <u>7.70</u> _	115.50
Rig down	MANIFOLD_	um 15	_ <u>@ イイ・イ♡</u> 	66.00
,	<u></u>	72		(06
CHARGE TO: Hess oil Co.				1.693-75
STREET			IOIAL	17.6
CITYSTATEZIP	1	PLUG & FLOAT	r equipmen	T
			_@	
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			TOTAL	
contractor. I have read and understand the "GENERAL		16 A		
TERMS AND CONDITIONS" listed on the reverse side.	SALES TAX (It Any)	<u>. 573</u>	_
~ 110 -1	TOTAL CHAR	GES 3, 43	7	
PRINTED NAME X Marke D. E. Secr	DISCOUNT _	(FANY) RGES 5.45 1.36	IF PAI	D IN 30 DAYS
SIGNATURE X JUA'S		4.094	1. 67	
Thank York's				

ALLIED OIL & GAS SERVICES, LLC 054759 Federal Tax 1.D.# 20-5975804

REMIT TO P.O. BOX 31 RUSSELL, KANSAS 67665	SERV	Russe	11 KS
DATE 7-28-13 SEC. TWP. RANGE 8	ALLED OUT ON LOCATION	JOB START	JOB FINISH Z!OO AM
	'S ION Wasinto	COUNTY	STATES
OLD OR NEW (Circle one)	3 1010 00 1210	<u> </u>	100
CONTRACTOR Mallard	OWNER		
TYPE OF JOB PTA			
HOLE SIZE 728 T.D. 37/7	CEMENT	- 401	110 /11
CASING SIZE 85/8 DEPTH 2/8	AMOUNT ORDERED 20	5 740	4 /09cl 19
TUBING SIZE DEPTH			
DRILL PIPE DEPTH			
rool depth			
PRES. MAX MINIMUM	COMMON		22.01.
MEAS. LINE SHOE JOINT	POZMIX 82	<u>دِيبِ</u> @_	766.7
CEMENT LEFT IN CSG.	GEL		164.97
PERFS.	CHLORIDE	@	
DISPLACEMENT	ASC	_@	
EQUIPMENT	Flo scal ! 2		148.5C
•	50t	@	_ ·
PUMPTRUCK CEMENTER Robert Y		@	
PUMP INUCK CEMENTER KANCOTT		_@	
4/7 HELPER Woody O		@	
BULK TRUCK		@	
4/O DRIVER TOC G		_@	
BULK TRUCK		~@ 	
DRIVER			<u>545.8</u> L
	MILEAGE <u>110,31 +//</u>	4 2.60	286.8
REMARKS:	•	TOTA	4114,4
E - V E - 1 1 :	SERV	ICK	
100sk @ 775 40sk @ 250	SERV	ICE	
10sk @ 40	PERFEL OF ION		1400
3-11111	DEPTH OF JOB		2249.8
30st in Kat hole	PUMP TRUCK CHARGE		
	EXTRA FOOTAGE	- [@] -	92.40
	MILEAGE 12 HVMI		72.40
	MANIFOLD 12 LVMI	_@	
	- ICLUMI	•	52,80
		@	
CHARGETO: Hess Oil			
		TOTA	ւ <u>2395.</u> .
STREET			. •
CITYSTATEZIP	by NO A DEC		€. 15.7001
	PLUG & FLOA	T EQUIPME	MI :
r = r + r			
· ·	89/8 Wooden play	_@ <u>64.8</u>	0 64.9C
	, ,		
To: Allied Oil & Gas Services, LLC.			
You are hereby requested to rent cementing equipment		@	
10th are necessity requested to rent cententing equipment			
and furnish cementer and helper(s) to assist owner or			
contractor to do work as is listed. The above work was		TOTA	L 64.80
done to satisfaction and supervision of owner agent or			
contractor. I have read and understand the "GENERAL	SALES TAX (If Any)		
TERMS AND CONDITIONS" listed on the reverse side.			
	TOTAL CHARGES 6574	.36.	
John P. Danker	DISCOUNT 13 14.86	15 D	AID IN 30 DA
PRINTED NAME SOME I LOTT			
	net 5259.4	W	
			•
SIGNATURE >			
SIGNATURE			
SIGNATURE			