



KANSAS CORPORATION COMMISSION 1052959
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 # 30717
Name: Downing-Nelson Oil Co Inc
Address 1: PO BOX 372
Address 2: _____
City: HAYS State: KS Zip: 67601 + 0372
Contact Person: Ron Nelson
Phone: (785) 621-2610
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Marc Downing
Purchaser: Coffeyville Resources

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>12/16/2010</u>	<u>01/09/2011</u>	<u>01/10/2011</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-051-26067-00-00

Spot Description: _____

N2 SW SE SE Sec. 12 Twp. 14 S. R. 19 East West

350 Feet from North / South Line of Section

990 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Ellis

Lease Name: Verna Herl Well #: 1-12

Field Name: Ridge Hill

Producing Formation: LKC

Elevation: Ground: 2179 Kelly Bushing: 2187

Total Depth: 3880 Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: 224 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: 1406 Feet

If Alternate II completion, cement circulated from: 1406

feet depth to: 0 w/ 150 sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 16000 ppm Fluid volume: 240 bbls

Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Gene Karlin Company

Lease Name: Ness 1 SWD License #: 3444

Quarter NE Sec. 5 Twp. 13 S. R. 17 East West

County: Ellis Permit #: D25588

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: 04/04/2011



1052959

Operator Name: Downing-Nelson Oil Co Inc Lease Name: Verna Herl Well #: 1-12
 Sec. 12 Twp. 14 S. R. 19 East West County: Ellis

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: Attached	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum Attached Attached 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 Pipe	12.25	8.625	23	223.68	Common	150	2% Gel & 3% CC
Production String	7.875	5.5	14	3877.32	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				

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
4	3181' - 3822'		

TUBING RECORD: Size: <u>2.375</u> Set At: <u>3815.96</u> Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. <u>02/08/2011</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls. <u>50</u>	Gas Mcf <u>0</u>	Water Bbls. <u>0</u> 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 checked="" 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	Downing-Nelson Oil Co Inc
Well Name	Verna Herl 1-12
Doc ID	1052959

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated Density Neutron

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Verna Herl 1-12
Doc ID	1052959

Tops

Name	Top	Datum
Top Anhydrite	1432	+755
Base Anhydrite	1478	+709
Topeka	3183	-996
Heebner	3430	-1243
Toronto	3448	-1261
LKC	3477	-1290
BKC	3704	-1517
Arbuckle	3780	-1593

ALLIED CEMENTING CO., LLC. 034049

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

SERVICE POINT:

Russell

DATE <u>12-16-10</u>	SEC. <u>12</u>	TWP. <u>14</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START <u>6:30pm</u>	JOB FINISH <u>7:00pm</u>
LEASE <u>Vegan Hed</u>		WELL # <u>1-12</u>	LOCATION <u>Hays + 183 Hwy 15</u>		COUNTY <u>Ellis</u>	STATE <u>Ks</u>	
<input checked="" type="radio"/> OLD OR NEW (Circle one)			<u>2 1/2 mi Ninto</u>				

CONTRACTOR Discovery Drilling Rig #3

TYPE OF JOB Surface Sol

HOLE SIZE 12 1/4 T.D. 225

CASING SIZE 8 7/8 DEPTH 223.68

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15.

PERFS. _____

DISPLACEMENT 13.29 661

OWNER _____

CEMENT AMOUNT ORDERED 150 Con 32.00

22.66

EQUIPMENT

PUMP TRUCK # 917 CEMENTER Shane Heath HELPER Ron

BULK TRUCK # 410 DRIVER Kevin

BULK TRUCK # _____ DRIVER _____

COMMON	<u>150</u>	@	<u>13.50</u>	<u>2025.00</u>
POZMIX		@		
GEL	<u>3</u>	@	<u>20.25</u>	<u>60.75</u>
CHLORIDE	<u>5</u>	@	<u>57.50</u>	<u>287.50</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>150</u>	@	<u>2.25</u>	<u>337.50</u>
MILEAGE	<u>10.56/mile</u>			<u>300.00</u>
TOTAL				<u>2980.25</u>

REMARKS:

Ran 5 jts + Landig jt.
Est Circulation
Mixed 150 jts

Cement Circulated!

SERVICE

DEPTH OF JOB				
PUMP TRUCK CHARGE				<u>991.00</u>
EXTRA FOOTAGE		@		
MILEAGE	<u>3</u>	@	<u>7.00</u>	<u>21.00</u>
MANIFOLD		@		
		@		
		@		

TOTAL 1,012.00

CHARGE TO: Roaring Nelson

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

	@		
	@		
	@		
	@		

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment.

Shane Heath

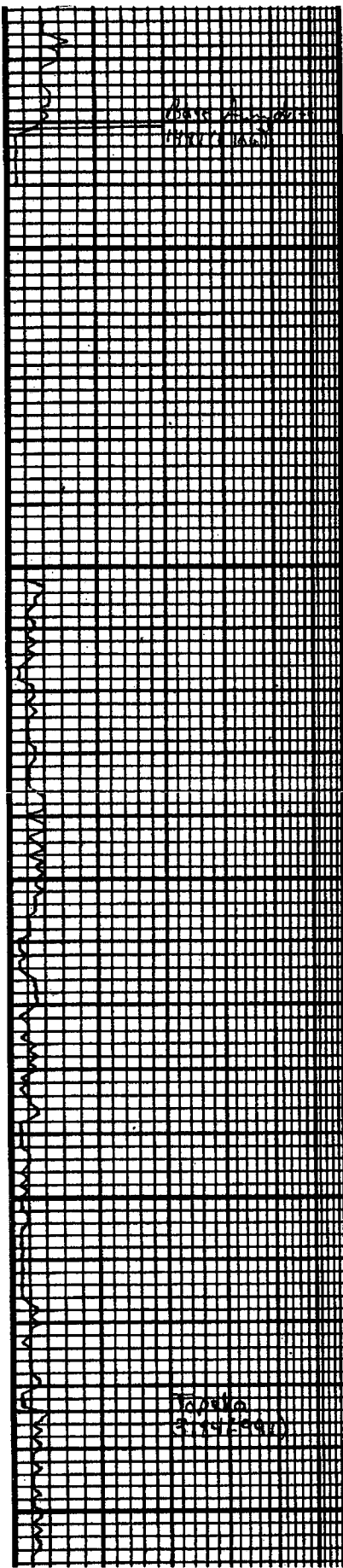
JOB LOG

SWIFT Services, Inc.

DATE 01-10-11 PAGE NO. 1

CUSTOMER DOWNING NELSON WELL NO. 1-12 LEASE VERVA HELL JOB TYPE 2-STAGE TICKET NO. 19278

CHART NO.	TIME	RATE (BPM)	VOLUME (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0230							ONLOCATION
								CMT: BOTTOM 150S&S STD EA 2
								TOP 18050 SMD
								RTO3880 SETP. PEE3877 SJ 41-03 INSECT 3834
								5/8 1 1/2 D.V. D.TOP 59, 1406 FT
								CENT: 1,3,5,7,9,11,58 BAYS: 59
								JOB OUT: 78, 92, 94, 95, 97
	0500							START CSUB FLOATER
								TAG BITTENT DROP BALL
	0645							BREAKING 1/2 RIG
	0715	5.0	12				300	MUD FLUSH 500 GALS
			20					MCL "
			36.5					STD EA 2 CMT
								DROP PLUG, WASHOUT PL
			0				300	START DDP 1/2 H 20
			60.0				300	" " 1/2 MUD
			79.0				450	" " 1/2 MCL
			85.0				500	
			90.0				600	
	0800		93.5				1400	LAND PLUG - RELEASES; - JET
								DROP D.V. ^{OPENING PART} CLOSING PART
			7					PLUG RH 1/2 30S&S SMD
								OPEN D.V.
	0810	7.0	0				300	START CMT SMD
			82				5	
								DROP CLOSING PLUG
			0				300	START DDP
			15					
			25					CIRC CMT TO PT 30S&S
			30				450	
	0830		31.3				1400	CLOSE D.V. - PLUG DOWN
	0830							JOB COMPLETE
								THANK YOU!
								DAVE TOSHI, JENY



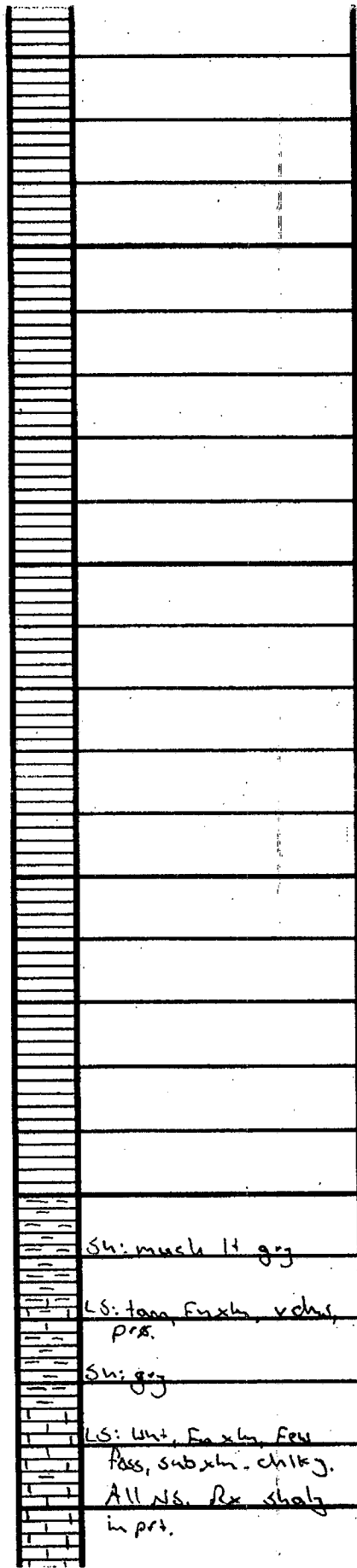
1500

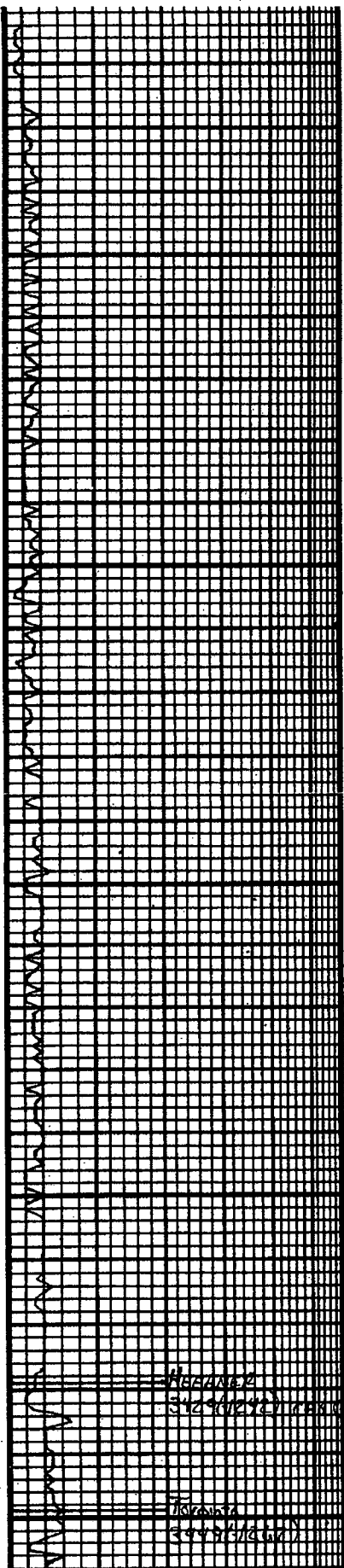
3050

3100

50

3200





50

3300

50

3400

50

	<p>sh, chky in part. succ- dolum ul Fr-gd int xln, a, few smt ooc vx. Totally Barren, No Od.</p>
	Sh: ggy
	LS: tan-unt, fu-und xln, fu a, sub xln. All NS.
	LS: tan, long untd. Fr int xln a, sub xln.
	LS: Mostly AIA.
	Sh: dk ggy
	LS: wht-tan, fu-und xln, mtd, Fr a, sub xln, NS.
	Sh: Black Carb
	Sh: brn ul red t ggy
	LS: lt tan, fu smt xln. Fr- gd int xln a. lt resid str NSFO, Fut Od.
	LS: wht, fu-und xln, stly mtd. sub xln. chky, All NS.
	LS: tan, fu xln, fu int xln, ul resid str, Fut Od. NSFO
	Sh: Black Carb
	Sh: ggy
	LS: wht-lt tan, fu-und xln. Fr omd pass. Fr int pass, sub xln. chky. Tot barren.
	Sh: ggy
	LS: Some AIA, prg ul mdrp pass. All NS ul NA Od.
	LS: tan, fu-und xln, sup ul few smt ooc. Fr-gd int xln t v ggd, few ooc or. gd sat str, sat sfo, lt. Fr Od.
	LS: tan-brn, fu-v fu xln. chky ul pass. All NS.
	Sh: Black Carb
	Sh: lt ggy ul brn
	LS: lt tan, fu smt xln, fu int xln t ppx. Fr-gd sat str, spttd sfo, Fr Od. Fo an sup. Fr omd chky or.

DST #1
#1
DST #2
#2

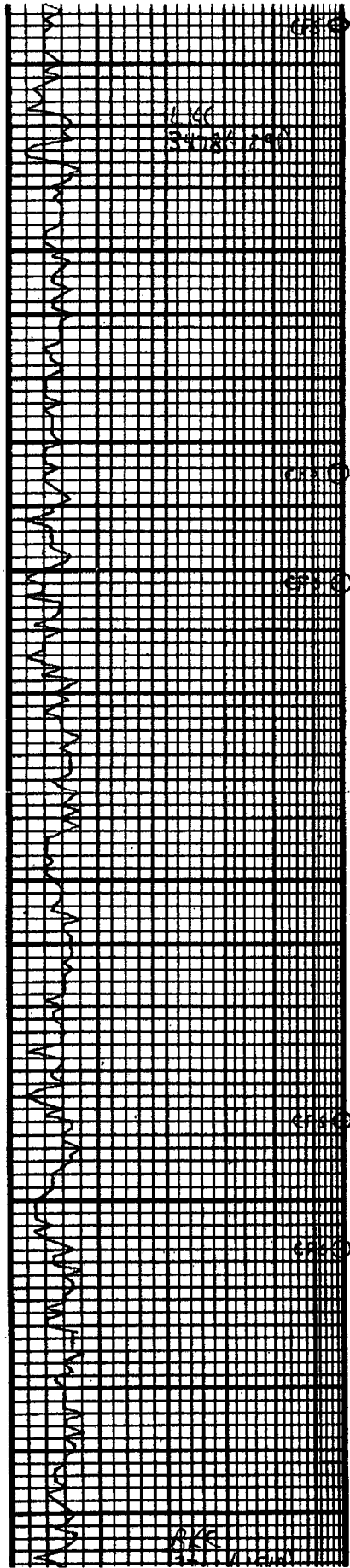
Vis: 73 Wt: 8.7

DST #1
3391-3433
45-45-45-45
I.F.-808 13 min. 1/2" SIB
F.F.-808 6 min. 1/4" SIB
IFF: 21-32
FFP: 29-45
SIP: 1128-1110
HP: 1629-1580

Rec:
530' GIP
30' FO
60' 10'g, 55%
BHT: 184' G=39

Vis: 53 Wt: 9.8

DST #2
3424-3464
45-45-45-45
I.F.- 2 1/4" blan
F.F.- 4 1/2" blan
IFF: 19-24
FFP: 30-31
SIP: 629-264



Sh: grg
LS: tan-wht, fm-mid xln, dms
LS: AIA
Sh: grg
LS: tan-wht, fm-mid xln, few sub xln ex, mostly dms w/ prg, ns.
Sh: grg
LS: tan, fm-mid xln, Pass. dolom in prt, fr int xln, scat vugs, sltly bit. Fe sat str, spotted SFO, it Od.
Sh: grg
LS: wnt-tan, fm-mid xln, dolom. Fe int xln & emb vugs, sltly bit chky in prt. Fr-gd sat, spotted SFO, fr Od.
LS: wnt, fm-v fm xln, sub xln-chky, mostly bovrn. 1-2 pcs w/ resid str.
LS: wnt, v fm xln, v dms w/ Navis s. wnt-grg gal chky
Sh: grg
Sh: grg-drk grg
LS: tan, fm-mid xln, ool. Fr int xln & sec in prt fr-gd sat-str, slt SFO, it Od.
LS: tan v dms w/ prg.
Sh: grg
LS: tan, md xln, few Pass. Fr int xln & emb vugs, Fe brn sat. Tan ool w/ fr conc. gd brn sat str, spotted SFO, it-fr Od.
Sh: grg
LS: tan, lat ool, gd conc. Friable. scat chky rx. gd sat w/ v gd grg SFO when broken. Fr-gd Od. Prg chl on cup.
Sh: grg
LS: wnt-fm xln, Fe int xln, few emb vugs, spotted SFO, few sat pes. for sub xln; no Od. Tan v dms w/ prg.
Sh: grg
LS: wnt-crm, fm-mid xln, sltly mtd, sub xln, scat fr int xln, 2-3 pcs w/ Fe str, rare SFO, fr Od.

Rec:
50' GIP
20' SACM 10% 20' OCM 20% BHT: 90°
Vis: 55 Wt: 8.9
OST # 3 3512-3552 30-45-45-60 I.F.-B&B 7min / Surf SIB F.F.-B&B 30sec / Surf SIB IFP: 22-38 FFP: 38-58 SIP: 618-644 HP: 1699-1671 Rec:
1120' GIP 55' GACM 5% 20' GMS 55% 40' GCMO 30% BHT: 104°
Vis: 55 Wt: 8.9
OST # 4 3591-3638 45-45-45-45 I.F.-B&B 17min / 1/2" SIB F.F.-B&B 10min / 2 1/2" SIB IFP: 41-95 FFP: 87-114 SIP: 810-794 HP: 1764-1694 Rec:
375' GIP 5' FO 70' GACM 10% 40' GACM 40% 60' GACM 27% G=31 Chlor: 42K BHT: 109°
OST # 5 3642-3689 15-30-45-60 I.F.-B&B 3min / 1" SIB F.F.-B&B 20sec / 200 10 min SIB IFA: 31-37 FFP: 42-90 SIP: 978-951 HP: 1774-1729 Rec:
1460' GIP 60' FO 120' GCMO 30% G=35 BHT: 116°



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

DNOC
PO Box 372
Hays, Ks
67601
ATTN: Marc Downing

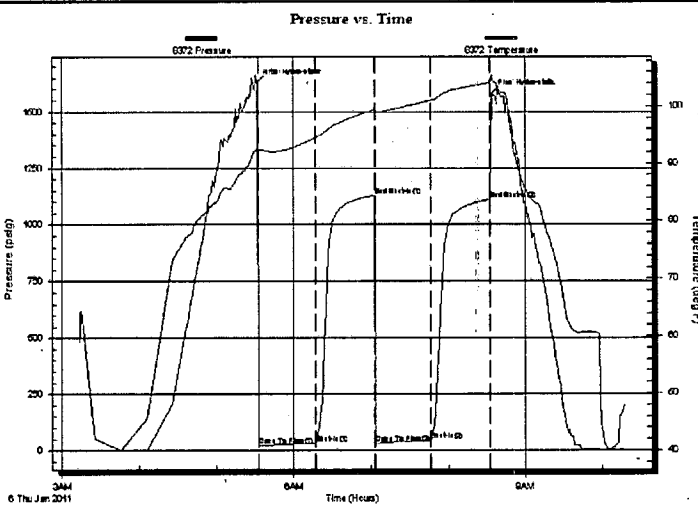
Verna Herl 1-12
12-14-19/ELLIS KS
Job Ticket: 41407 **DST#: 1**
Test Start: 2011.01.06 @ 03:13:16

GENERAL INFORMATION:

Formation: **Plattsmouth**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:32:45
Time Test Ended: 10:17:45
Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41
Interval: **3391.00 ft (KB) To 3433.00 ft (KB) (TVD)**
Reference Elevations: 2187.00 ft (KB)
Total Depth: 3433.00 ft (KB) (TVD) 2180.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 7.00 ft

Serial #: 8372 Inside
Press@RunDepth: 45.38 psig @ 3394.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.06 End Date: 2011.01.06 Last Calib.: 2011.01.06
Start Time: 03:13:16 End Time: 10:17:45 Time On Btm: 2011.01.06 @ 05:31:15
Time Off Btm: 2011.01.06 @ 08:34:15

TEST COMMENT: IFP - BOB 13 min
ISI - 1/2" blow back - died 15 min
FFP - BOB 6 min
FSI - 1/4" blow back - died 14 min



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.10	92.48	Initial Hydro-static
2	21.00	92.33	Open To Flow (1)
46	31.64	94.46	Shut-In(1)
92	1128.37	99.32	End Shut-In(1)
92	28.99	98.91	Open To Flow (2)
135	45.38	100.97	Shut-In(2)
182	1110.10	104.04	End Shut-In(2)
183	1580.11	104.69	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	GMCO 10%G, 55%O, 35%M	0.55
30.00	FREE OIL 95%O, 5%M	0.42
0.00	530' GIP	0.00

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOC
PO Box 372
Hays, Ks
67601
ATTN: Marc Dow ning

Verna Herl 1-12
12-14-19/Ellis KS
Job Ticket: 41407 **DST#: 1**
Test Start: 2011.01.06 @ 03:13:16

Mud and Cushion Information

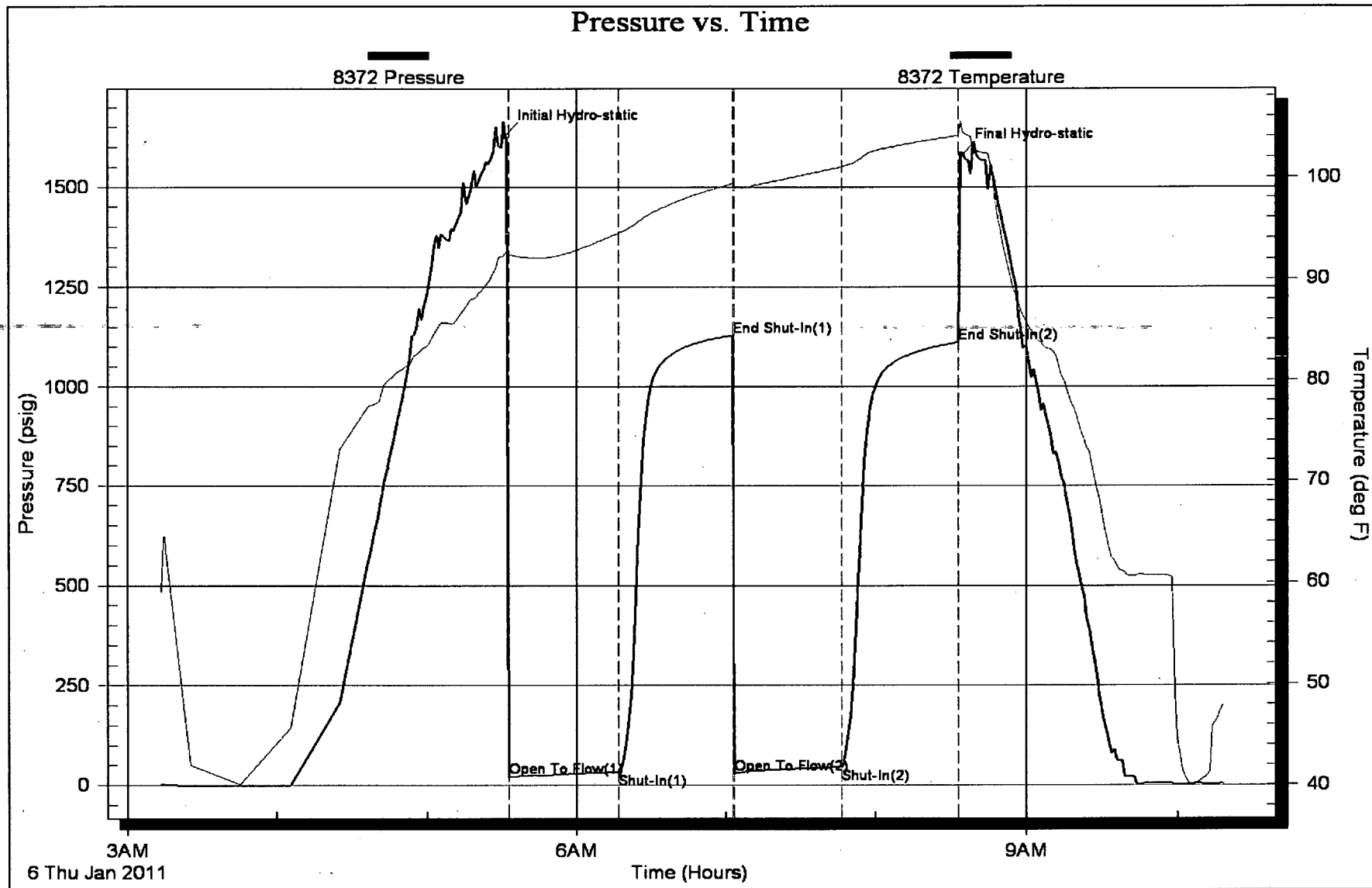
Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 73.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.77 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: inches		

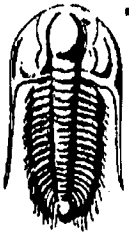
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GMCO 10%G, 55%O, 35%M	0.550
30.00	FREE OIL 95%O, 5%M	0.421
0.00	530' GIP	0.000

Total Length: 90.00 ft Total Volume: 0.971 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

DNOC
 PO Box 372
 Hays, Ks
 67601
 ATTN: Marc Downing

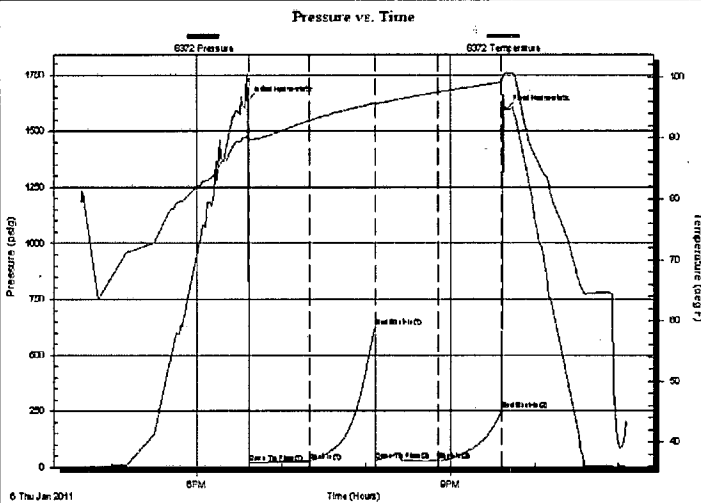
Verna Herl 1-12
12-14-19/ELLIS
 Job Ticket: 41408 **DST#: 2**
 Test Start: 2011.01.06 @ 16:37:55

GENERAL INFORMATION:

Formation: **Toronto**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:36:54
 Time Test Ended: 23:05:24
 Interval: **3426.00 ft (KB) To 3464.00 ft (KB) (TVD)**
 Total Depth: 3464.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition:
 Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 2187.00 ft (KB)
 2180.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8372 Inside
 Press@RunDepth: 30.57 psig @ 3429.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.01.06 End Date: 2011.01.06 Last Calib.: 2011.01.06
 Start Time: 16:37:55 End Time: 23:05:24 Time On Btm: 2011.01.06 @ 18:35:54
 Time Off Btm: 2011.01.06 @ 21:39:24

TEST COMMENT: IFP - weak blow throughout 1/4" - 2 1/4"
 ISI - no blow back
 FFP - weak to fair blow 1" - 4 1/2"
 FSI - no blow back



PRESSURE SUMMARY

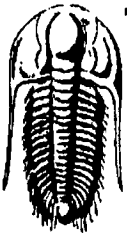
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1638.17	90.10	Initial Hydro-static
1	18.70	89.69	Open To Flow (1)
44	26.03	92.86	Shut-In(1)
91	627.78	95.74	End Shut-In(1)
91	30.01	95.58	Open To Flow (2)
135	30.57	97.54	Shut-In(2)
181	253.51	99.14	End Shut-In(2)
184	1598.26	100.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 20%O, 80%M	0.10
20.00	SOCM 10%O, 90%M	0.17
0.00	50' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOC

Verna Herl 1-12

PO Box 372
Hays, Ks
67601

12-14-19/Ellis

Job Ticket: 41408

DST#: 2

ATTN: Marc Downing

Test Start: 2011.01.06 @ 16:37:55

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 7.98 in³
Resistivity: ohm.m
Salinity: 2000.00 ppm
Filter Cake: inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM 20%O, 80%M	0.098
20.00	SOCM 10%O, 90%M	0.171
0.00	50' GIP	0.000

Total Length: 40.00 ft Total Volume: 0.269 bbl

Num Fluid Samples: 0

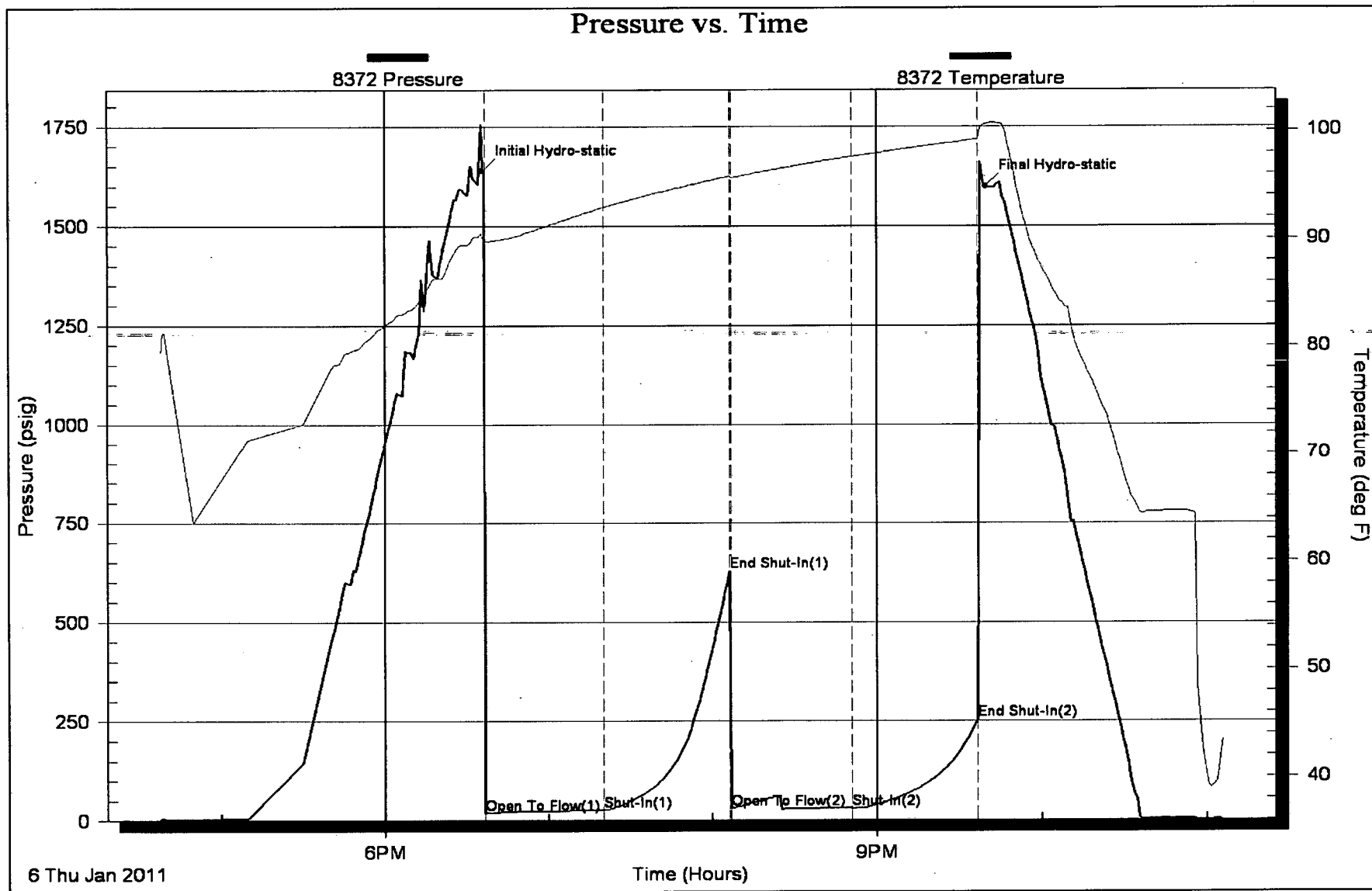
Num Gas Bombs: 0

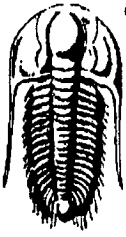
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

DNOC

Verna Herl 1-12

PO Box 372
Hays, Ks
67601

12-14-19/Ellis

Job Ticket: 41409

DST#: 3

ATTN: Marc Downing

Test Start: 2011.01.07 @ 09:52:54

GENERAL INFORMATION:

Formation: **LKC "D-E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:37:53

Time Test Ended: 16:26:23

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Interval: **3512.00 ft (KB) To 3552.00 ft (KB) (TVD)**

Total Depth: 3552.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 2187.00 ft (KB)

2180.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8372 Inside

Press@RunDepth: 58.11 psig @ 3515.00 ft (KB)

Start Date: 2011.01.07

End Date: 2011.01.07

Capacity: 8000.00 psig

Last Calib.: 2011.01.07

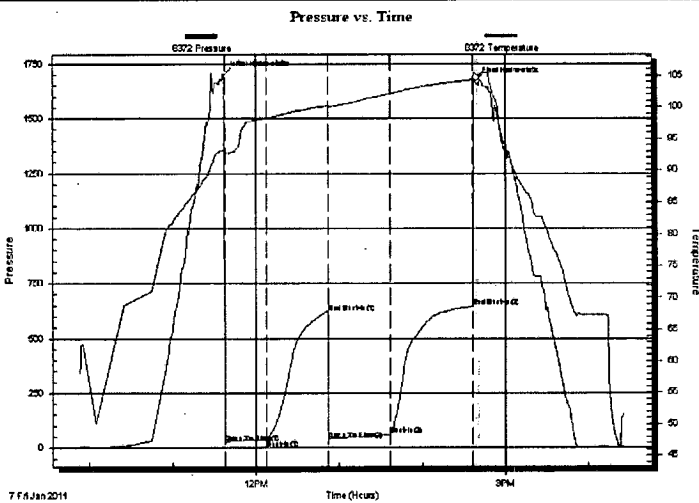
Start Time: 09:52:54

End Time: 16:26:23

Time On Btm: 2011.01.07 @ 11:36:53

Time Off Btm: 2011.01.07 @ 14:38:23

TEST COMMENT: IFP - BOB 7 min
ISI - sur blow back - died 12 min
FFP - BOB 30 sec
FSI - sur blow back - died 9 min



PRESSURE SUMMARY

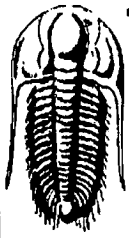
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.82	93.26	Initial Hydro-static
1	21.92	92.28	Open To Flow (1)
31	38.03	98.23	Shut-In(1)
75	618.26	100.24	End Shut-In(1)
76	38.16	100.08	Open To Flow (2)
120	58.11	102.10	Shut-In(2)
180	643.95	104.34	End Shut-In(2)
182	1671.31	105.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	GMCO 30%G, 40%O, 30%M	0.27
20.00	GMO 55%G, 30%O, 15%M	0.28
55.00	GHOCM 5%G, 30%O, 65%M	0.77
0.00	1120' GIP	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOC

Verna Herl 1-12

PO Box 372

12-14-19/Ellis

Hays, Ks

Job Ticket: 41409

DST#: 3

67601

ATTN: Marc Downing

Test Start: 2011.01.07 @ 09:52:54

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.74 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	GMCO 30%G, 40%O, 30%M	0.270
20.00	GMO 55%G, 30%O, 15%M	0.281
55.00	GHOCM 5%G, 30%O, 65%M	0.772
0.00	1120' GIP	0.000

Total Length: 115.00 ft Total Volume: 1.323 bbl

Num Fluid Samples: 0

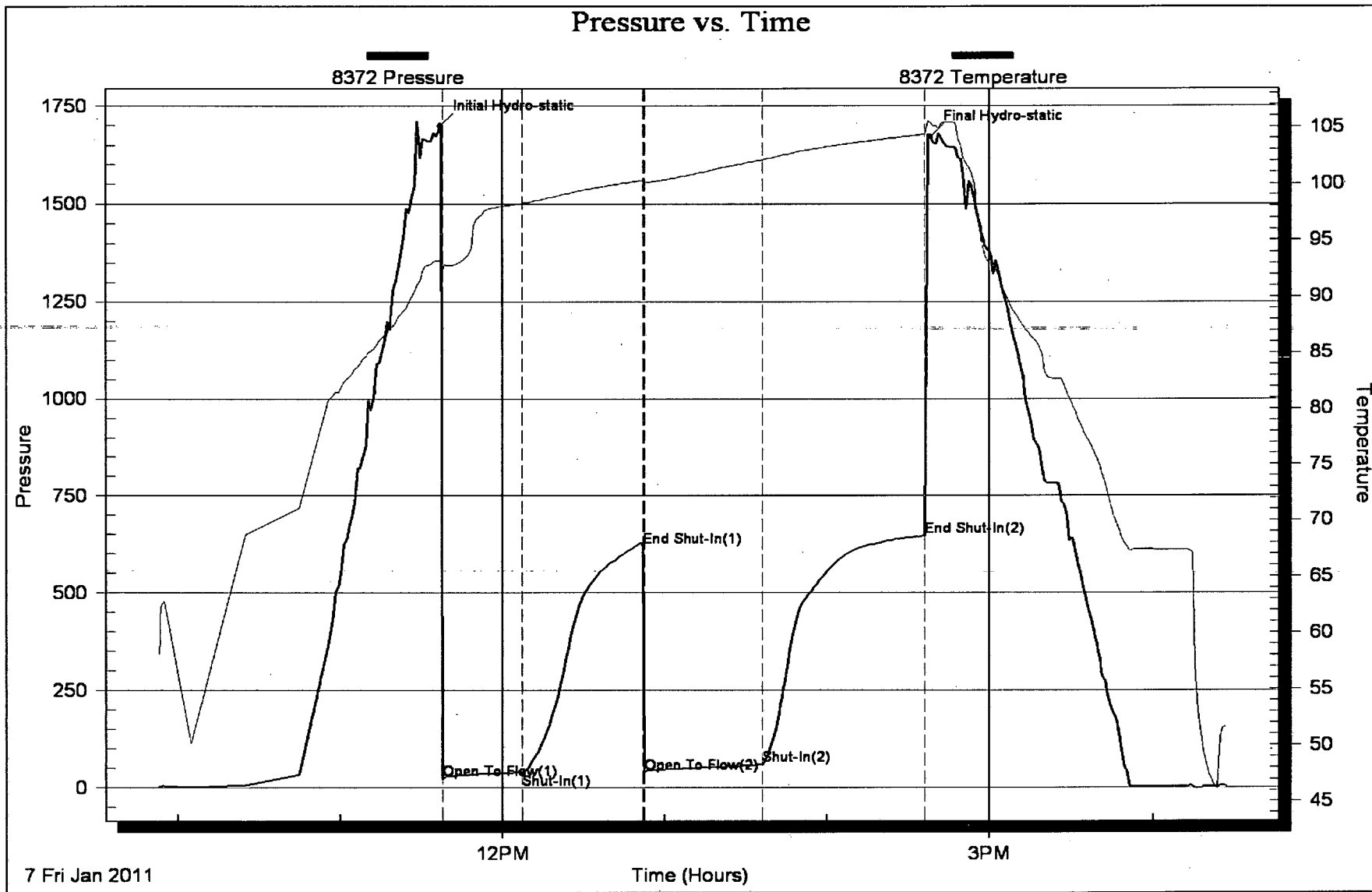
Num Gas Bombs: 0

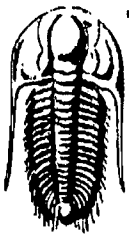
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

DNOC
 PO Box 372
 Hays, Ks
 67601
 ATTN: Marc Downing

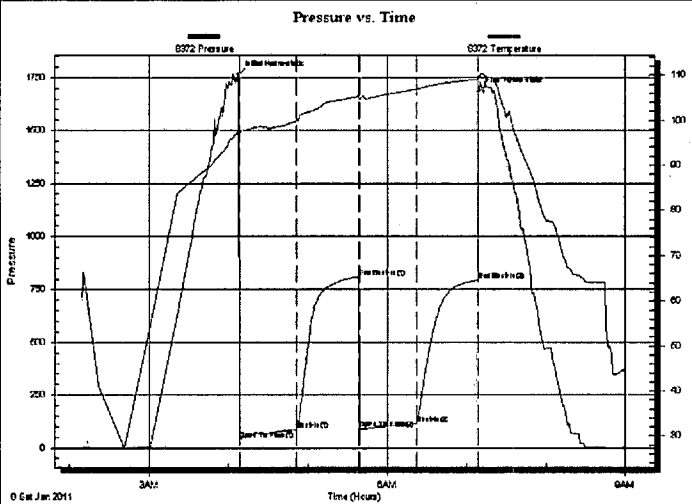
Verna Herl 1-12
12-14-19/ELLIS
 Job Ticket: 41410 **DST#: 4**
 Test Start: 2011.01.08 @ 02:09:11

GENERAL INFORMATION:

Formation: **LKC "H-I"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:08:40
 Time Test Ended: 09:02:10
 Interval: **3581.00 ft (KB) To 3638.00 ft (KB) (TVD)**
 Total Depth: 3638.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:
 Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 2187.00 ft (KB)
 2180.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8372 Inside
 Press@RunDepth: 113.48 psig @ 3587.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.01.08 End Date: 2011.01.08 Last Calib.: 2011.01.08
 Start Time: 02:09:11 End Time: 09:02:10 Time On Btm: 2011.01.08 @ 04:07:40
 Time Off Btm: 2011.01.08 @ 07:09:10

TEST COMMENT: IFP - BOB 17 min
 ISI 1/2" blow back throughout
 FFP - BOB 10 min
 FSI - 2 1/2" blow back throughout



PRESSURE SUMMARY

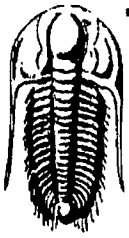
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1763.88	97.83	Initial Hydro-static
1	40.86	97.10	Open To Flow (1)
44	84.98	99.82	Shut-In(1)
91	809.81	105.28	End Shut-In(1)
92	88.75	104.72	Open To Flow (2)
134	113.48	106.93	Shut-In(2)
181	793.61	109.07	End Shut-In(2)
182	1684.32	109.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSO & WCM 27%G, 3%O, 5%W, 65%M	0.55
40.00	GOCM 40%G, 10%O, 50%M	0.56
70.00	VSO CM 10%G, 3%O, 87%M	0.98
5.00	FREE OIL 95%O, 5%M	0.07
0.00	375' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOC

Verna Herl 1-12

PO Box 372

12-14-19/Ellis

Hays, Ks

Job Ticket: 41410

DST#: 4

67601

ATTN: Marc Downing

Test Start: 2011.01.08 @ 02:09:11

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.74 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	VSO & WCM 27%G, 3%O, 5%W, 65%M	0.550
40.00	GOCM 40%G, 10%O, 50%M	0.561
70.00	VSOCM 10%G, 3%O, 87%M	0.982
5.00	FREE OIL 95%O, 5%M	0.070
0.00	375' GIP	0.000

Total Length:

175.00 ft

Total Volume:

2.163 bbl

Num Fluid Samples: 0

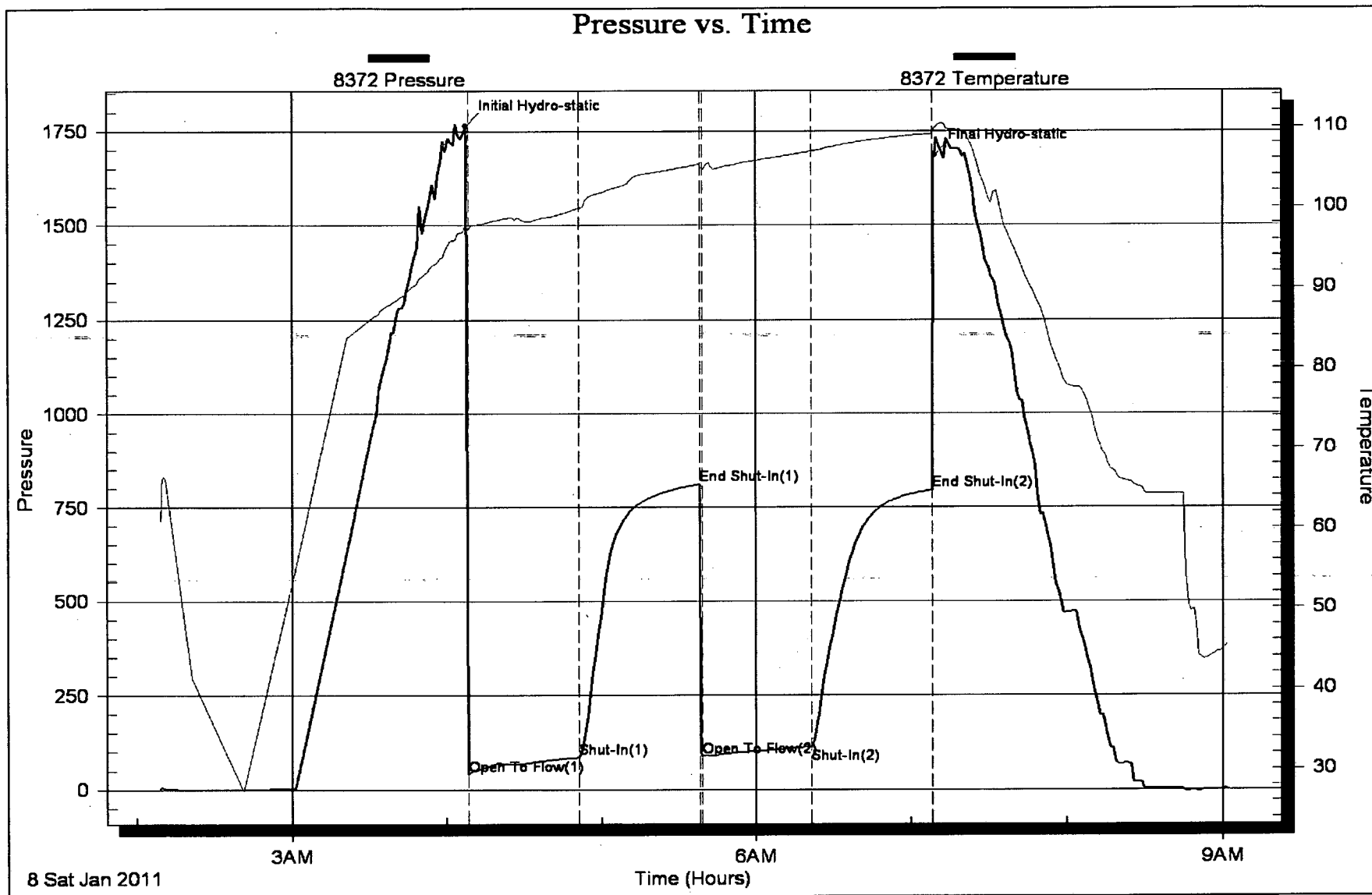
Num Gas Bombs: 0

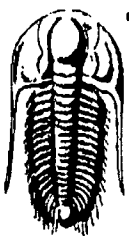
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

DNOOC
PO Box 372
Hays, Ks
67601
ATTN: Marc Downing

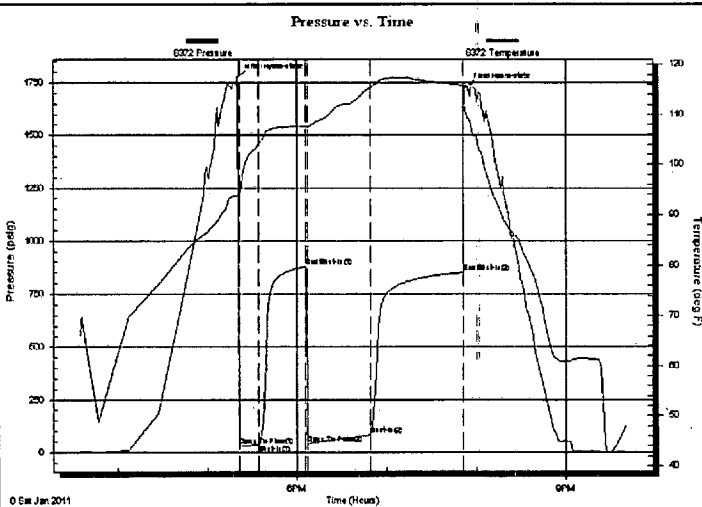
Verna Herl 1-12
12-14-19/Ellis
Job Ticket: 41411 **DST#: 5**
Test Start: 2011.01.08 @ 15:34:50

GENERAL INFORMATION:

Formation: **LKC "J"**
Deviated: No Whipstock: ft (KB)
Test Type: Conventional Bottom Hole
Time Tool Opened: 17:21:19
Tester: Brian Fairbank
Time Test Ended: 21:40:19
Unit No: 41
Interval: **3642.00 ft (KB) To 3658.00 ft (KB) (TVD)**
Reference Elevations: 2187.00 ft (KB)
Total Depth: 3658.00 ft (KB) (TVD) 2180.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 7.00 ft

Serial #: 8372 Inside
Press@RunDepth: 80.14 psig @ 3645.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.08 End Date: 2011.01.08 Last Calib.: 2011.01.08
Start Time: 15:34:50 End Time: 21:40:19 Time On Btm: 2011.01.08 @ 17:20:19
Time Off Btm: 2011.01.08 @ 19:53:19

TEST COMMENT: IFP - BOB 3 min
ISI - 1" blow back
FFP - BOB 30 sec
FSI - BOB 10 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1774.07	93.81	Initial Hydro-static
1	31.16	93.52	Open To Flow (1)
14	36.60	104.21	Shut-In(1)
46	878.36	107.70	End Shut-In(1)
47	41.52	107.42	Open To Flow (2)
89	80.14	115.25	Shut-In(2)
151	850.84	115.80	End Shut-In(2)
153	1729.10	109.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GMCO 30%G, 55%O, 15%M	1.39
60.00	FREE OIL 95%O, 5%M	0.84
0.00	1460' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOG

Verna Herl 1-12

PO Box 372
Hays, Ks
67601

12-14-19/Ellis

Job Ticket: 41411

DST#: 5

ATTN: Marc Downing

Test Start: 2011.01.08 @ 15:34:50

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 88.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	GMCO 30%G, 55%O, 15%M	1.392
60.00	FREE OIL 95%O, 5%M	0.842
0.00	1460' GIP	0.000

Total Length: 180.00 ft Total Volume: 2.234 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

