[redacted]

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1242695

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 5004
Name: Vincent Oil Corporation
Address 1: 155 N MARKET STE 700
Address 2:
City: WICHITA State: KS Zip: 67202 + 1821
Contact Person: M.L. Korphage
Phone: (316) 262-3573
CONTRACTOR: License # 5822
Name: Val Energy, Inc.
Wellsite Geologist: Tom Dudgeon
Purchaser: MV Purchasing LLC

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

10/16/2014	10/28/2014	1/2/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-057-20944-00-00
Spot Description: NE - NW -SW - NW
NE - NW - SW - NW Sec. 34 Twp. 28 S. R. 23 ☐ East ☑ West
1340 Feet from ☑ North / ☐ South Line of Section
343 Feet from ☐ East / ☑ West Line of Section

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

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*

Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84

County: Ford
Lease Name: Keough Well #: 2-34
Field Name: Mulberry Creek
Producing Formation: Mississippian
Elevation: Ground: 2505 Kelly Bushing: 2515
Total Vertical Depth: 5320 Plug Back Total Depth: 5317
Amount of Surface Pipe Set and Cemented at: 644 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: 17800 ppm Fluid volume: 1000 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 02/13/2015
☑ **Confidential Release Date:** 02/12/2017
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 02/16/2015

[redacted]

1242695

Operator Name: Vincent Oil Corporation Lease Name: Keough Well #: 2-34

Sec. 34 Twp. 28 S. R. 23 ☐ East ☑ West County: Ford

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☑ 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	8.6250	23	644	MDC & Common	250	0-2% Gel, 3% CC & 1/4# Flo-seal/sx
Production	7.8750	4.5	11	5317	ASC	170	5# Kol-seal/sx

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	5235' to 5239'	Ran tubing to perfs, acidized with 750 gal (15% MCA);	
		Swabbed 4hrs, final rate 25 bbls/ hr 67% Oil; FL at 2500'; SDFN;	
		Swabbed 4 hrs, final rate 20 bbls/ hr, 80% Oil, FL at 2400', SDFN;	
		Set tubing at 5265', ran rods & BHP, set prod equip.	

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:
	2.3750	5265		☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR.	Producing Method:
1/2/2015	☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio	Gravity
	45							

DISPOSITION OF GAS:

☐ Vented ☐ Sold ☐ Used on Lease

(If vented, Submit ACO-18.)

METHOD OF COMPLETION:

☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*

☐ Other *(Specify)* _____

PRODUCTION INTERVAL:

5235' to 5239

Form	ACO1 - Well Completion
Operator	Vincent Oil Corporation
Well Name	Keough 2-34
Doc ID	1242695

All Electric Logs Run

Dual Induction
Density - Neutron
Micro-log
Sonic

Form	ACO1 - Well Completion
Operator	Vincent Oil Corporation
Well Name	Keough 2-34
Doc ID	1242695

Tops

Name	Top	Datum
Heebner Shale	4322	(-1807)
Brown Limestone	4459	(-1944)
Lansing	4470	(-1955)
Stark Shale	4805	(-2290)
Pawnee	5026	(-2511)
Cherokee Shale	5072	(-2557)
Base Penn Limestone	5172	(-2657)
Mississippian	5193	(-2678)
RTD	5320	(-2805)

Form	ACO1 - Well Completion
Operator	Vincent Oil Corporation
Well Name	Keough 2-34
Doc ID	1242695

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.6250	23	644	MDC & Common	250	0-2% Gel, 3% CC & 1/4# Flo-seal/sx
Production	7.8750	4.5	11	5317	ASC	170	5# Kol-seal/sx

QUALITY WELL SERVICE, INC.

6249

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10/7/14	34	28s	23w	Ford	KS	2:00Am	5:00Am

Lease Keough | Well No. 2-34 | Location Kingsdown KS, 2W, 4W, 1N, E/into

Contractor Val #

Type Job Surface

Hole Size 12¼ | T.D. 650'

Csg. 8⅝ 23.75# | Depth 650'

Tbg. Size | Depth

Tool | Depth

Cement Left in Csg. 42' | Shoe Joint 42.16

Meas Line | Displace 39 BBls Fresh

Owner Vincent

To Quality Well Service, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Vincent

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 125sx MDC + ¼# Floseal & 125sx class A + 2% gel + 3% cc + ¼# Floseal

EQUIPMENT

Pumptrk 8	No.	Mike B
Bulktrk 10	No.	David B
Bulktrk 9	No.	David F
Pickup	No.	

JOB SERVICES & REMARKS

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar Ran 15 jts 8⅝ Csg - Pipe on Bttm, Break Circ. Pump Spacer 5 BBls Fresh, Mix 125sx Lite weight, Mix 125sx tail cement, Stop, Release Plug, Start Disp w/ Fresh H2O, Wash up truck See Steady increase in PSI, Slow Rate Bump Plug at 39 BBls total Disp., Shut in, Cement Did Circ.

Common	125 sx
~~Poz. Mix~~	125sx MDC
Gel.	11
Calcium	10
Hulls	
Salt	
Flowseal	66.25
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	271
Mileage	50

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	4
Baskets	
AFU Inserts	-8⅝-1 Baffle Plate
Float Shoe	
Latch Down	-8⅝-1-Wooden Cup Plug
LMU	50
Service Supervisior	
Pumptrk Charge	Surface.
Mileage	50 x 2
Tax	
Discount	
Total Charge	

X Signature Rick Smith

Taylor Printing, Inc.

ALLIED OIL & GAS SERVICES, LLC 063942

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Great Bend

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
10-28-14	34	28	23		2:00am	7:00am	8:00am
LEASE Keough	WELL # 2-34	LOCATION Kingsdown 2N ½ on wilburn				COUNTY Ford	STATE Ks
OLD OR NEW (Circle one)		N on 121 Rd 1E					

CONTRACTOR Val #2
TYPE OF JOB pipe
HOLE SIZE 7⅞ T.D. 5320
CASING SIZE 4½ 11.6# DEPTH 5320
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 44.41
CEMENT LEFT IN CSG. 44.41
PERFS.
DISPLACEMENT H2O 81.77 BBl

OWNER same

CEMENT

AMOUNT ORDERED 50 sx 60/40 4% gel
175 sx ASC 5# Kolseal .5% Fl-160
+ gas block

		@	
COMMON		@	
POZMIX		@	
GEL		@	
CHLORIDE		@	
ASC	175	@ 23.50	4.112.50
DV 1100	500	@ 1.35	675.00
Kcl 10 gal		@ 34.40	344.00
50 sx 60/40 + 4%		@ 18.92	946.00
Kolseal	875	@ .98	857.50
Fl-160	82	@ 18.90	1.549.80
Gas Block	25	@ 23.50	587.50
		Material Total	9.072.30
		Disc 28%	2.540.24
HANDLING 279.03		Service @ 2.48	691.99
MILEAGE 12.05 x 35 x		2.75	1159.81

EQUIPMENT

PUMP TRUCK # 517	CEMENTER Charles Kinger
	HELPER Ben Newell
BULK TRUCK # 819-823	DRIVER Wayne Rucker
BULK TRUCK #	DRIVER

REMARKS:

Rig ran 5320' 4½ csg Broke circ w/ Rig mud drop ball pump through @ psi pump 5BBl H2O 10BBl dv 1100 5BBl H2O plug rat hole 30 sx plug mouse hole 20 sx mix 175 sx ASC shut down wash pump + line Release plug displace 81.77 BBl H2O w/ KCl plug did land float did hold

DEPTH OF JOB 5320
PUMP TRUCK CHARGE 3099.25
EXTRA FOOTAGE @
MILEAGE Hvm 35 @ 7.70 269.50
MANIFOLD @
Lvm 35 @ 4.40 154.00
@

TOTAL 5.374.55
Disc 28% 1504.88

CHARGE TO: Vincent oil corp
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

	@	
Guide shoe		225.00
AFU Insert	@ 291.00	291.00
6- centralizers	@ 57.00	342.00
Rubber plug	@ 83.00	83.00
	@	
	@	

TOTAL 941.00
Disc 28% 263.48

Thank you!

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)
TOTAL CHARGES 15.387.85
DISCOUNT 28% 4.308.60 28/28/28 IF PAID IN 30 DAYS
11.079.25

PRINTED NAME X Pat Livingston

SIGNATURE X Pat Livingston

DRILL STEM TEST REPORT

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59914 **DST#: 1**

Test Start: 2014.10.23 @ 04:21:43

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 06:54:28
Time Test Ended: 12:14:43

Test Type: Conventional Bottom Hole (Initial)
Tester: Ryan Reynolds
Unit No: 68

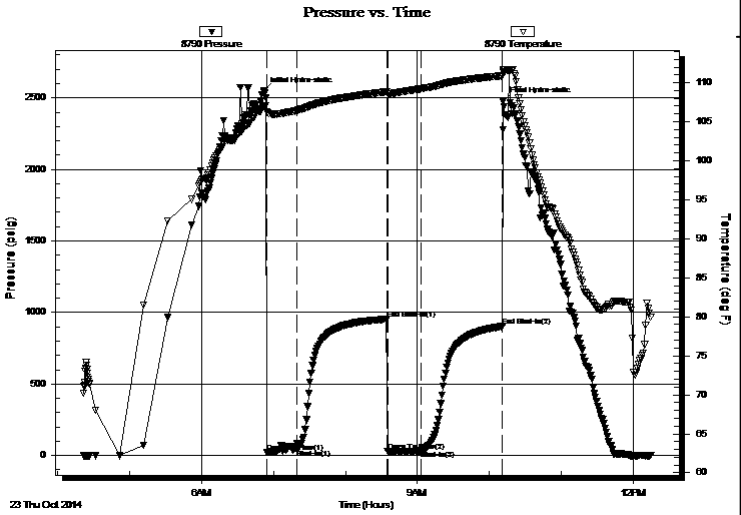
Interval: 5011.00 ft (KB) To 5050.00 ft (KB) (TVD)
Total Depth: 5050.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2514.00 ft (KB)
2505.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8790 **Inside**
Press@RunDepth: 32.90 psig @ 5012.00 ft (KB)
Start Date: 2014.10.23 End Date: 2014.10.23
Start Time: 04:21:48 End Time: 12:14:42

Capacity: 8000.00 psig
Last Calib.: 2014.10.23
Time On Btm: 2014.10.23 @ 06:52:13
Time Off Btm: 2014.10.23 @ 10:11:43

TEST COMMENT: IF: Weak blow . surf. -1"
ISI: No blow
FF: Weak blow . surf. - 1"
FSI: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2547.96	106.98	Initial Hydro-static
3	21.16	106.29	Open To Flow (1)
28	44.58	106.43	Shut-In(1)
102	953.47	108.84	End Shut-In(1)
103	27.87	108.61	Open To Flow (2)
132	32.90	109.22	Shut-In(2)
199	902.87	110.90	End Shut-In(2)
200	2473.95	111.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OWGCM 1%o, 4%w , 7%g, 88%m	0.49

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59914 **DST#: 1**

Test Start: 2014.10.23 @ 04:21:43

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:	5600 ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	11.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5600.00 ppm				
Filter Cake:	0.05 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	OWGCM 1%o, 4%w, 7%g, 88%m	0.491

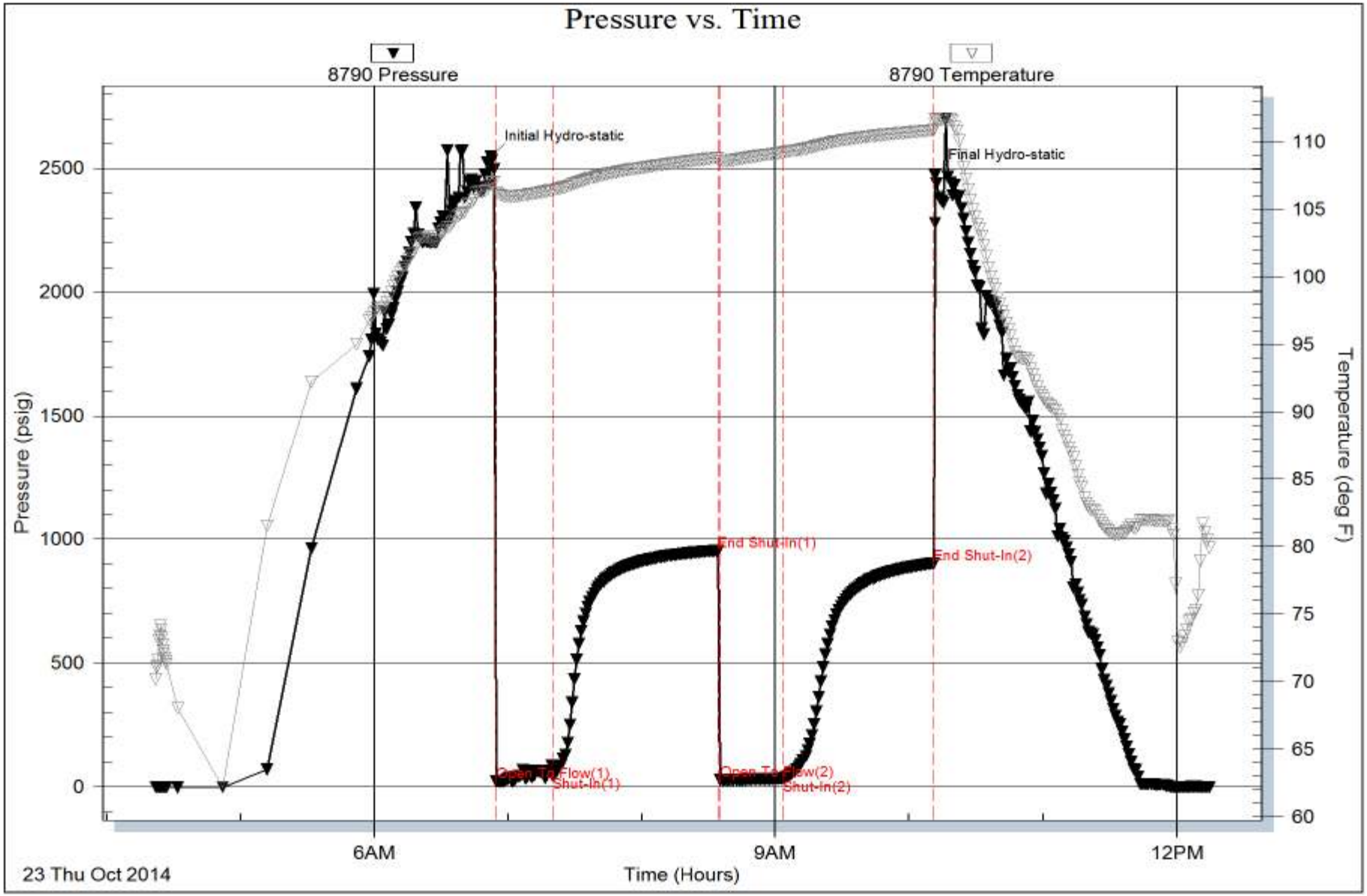
Total Length: 35.00 ft Total Volume: 0.491 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 59914 Printed: 2014.10.23 @ 13:23:27

DRILL STEM TEST REPORT

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59915 **DST#: 2**

Test Start: 2014.10.24 @ 03:57:20

GENERAL INFORMATION:

Formation: **B. Penn**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 05:58:50
Time Test Ended: 11:54:35

Test Type: Conventional Bottom Hole (Reset)
Tester: Ryan Reynolds
Unit No: 68

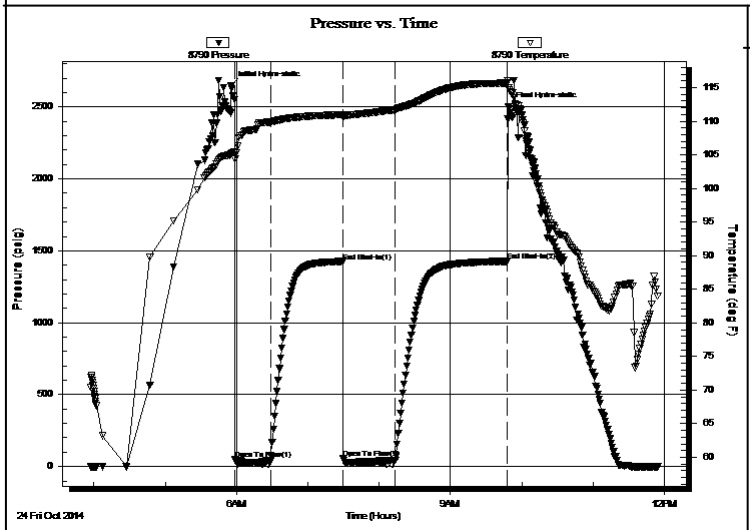
Interval: 5110.00 ft (KB) To 5170.00 ft (KB) (TVD)
Total Depth: 5170.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2514.00 ft (KB)
2505.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8790 **Inside**
Press@RunDepth: 43.38 psig @ 5117.00 ft (KB)
Start Date: 2014.10.24 End Date: 2014.10.24
Start Time: 03:57:25 End Time: 11:54:34

Capacity: 8000.00 psig
Last Calib.: 2014.10.24
Time On Btm: 2014.10.24 @ 05:55:35
Time Off Btm: 2014.10.24 @ 09:48:50

TEST COMMENT: IF: Strong blow . BOB @ 4 min.
ISI: No blow .
FF: Strong blow . BOB immed. GTS @ 15 min.
FSI: No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2650.01	105.14	Initial Hydro-static
4	48.51	104.38	Open To Flow (1)
33	40.01	109.86	Shut-In(1)
94	1425.58	111.00	End Shut-In(1)
95	54.47	110.71	Open To Flow (2)
138	43.38	111.69	Shut-In(2)
232	1426.65	115.67	End Shut-In(2)
234	2499.03	114.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Drlg mud	0.42

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	16.00	11.75
Last Gas Rate	0.13	22.00	14.00
Max. Gas Rate	0.13	22.00	14.00

DRILL STEM TEST REPORT

FLUID SUMMARY

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59915 **DST#: 2**

Test Start: 2014.10.24 @ 03:57:20

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:	5600 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5600.00 ppm				
Filter Cake:	0.05 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Drlg mud	0.421

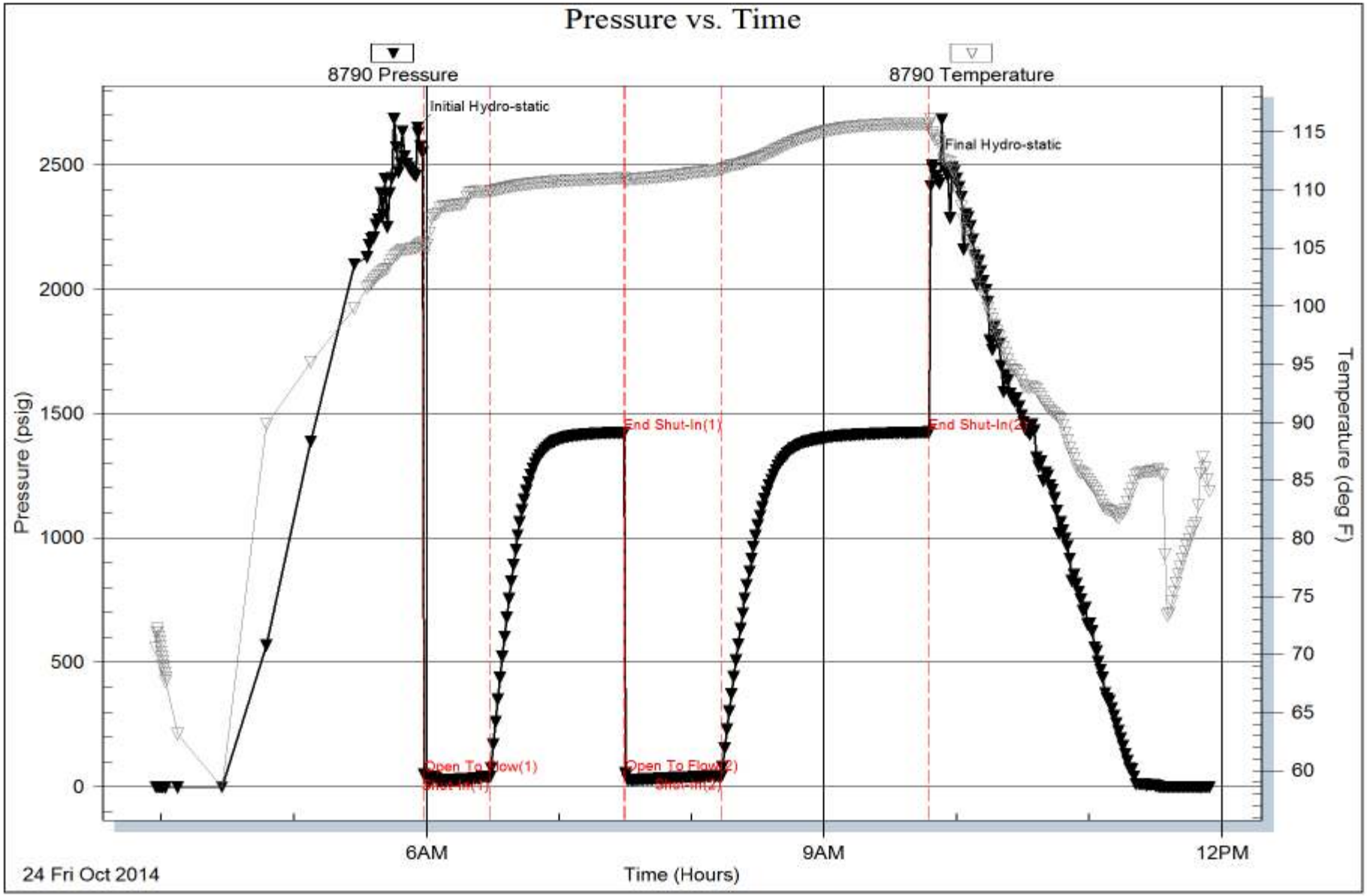
Total Length: 30.00 ft Total Volume: 0.421 bbl

Num Fluid Samples: 1 Num Gas Bombs: 1 Serial #: RR-1

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments:

Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 59915 Printed: 2014.10.24 @ 13:14:14

DRILL STEM TEST REPORT

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59916 **DST#: 3**

Test Start: 2014.10.24 @ 21:37:28

GENERAL INFORMATION:

Formation: **Conglomerate**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 00:17:28
Time Test Ended: 07:11:58

Test Type: Conventional Bottom Hole (Reset)
Tester: Ryan Reynolds
Unit No: 68

Interval: 5168.00 ft (KB) To 5196.00 ft (KB) (TVD)
Total Depth: 5196.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

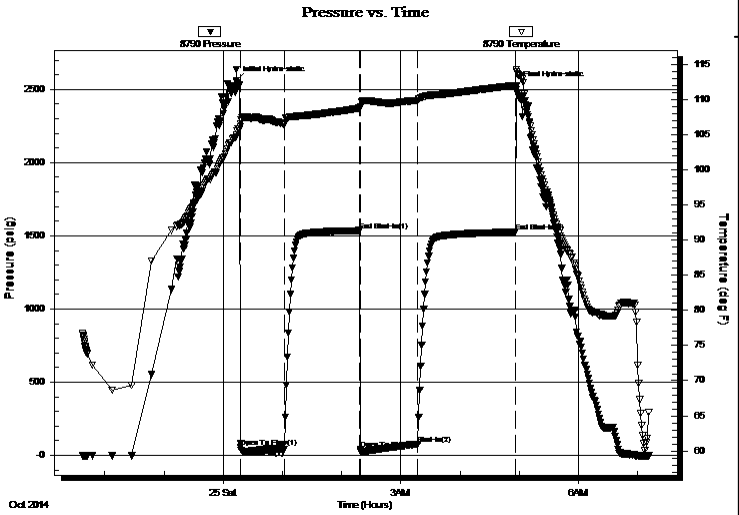
Reference Elevations: 2514.00 ft (KB)
2505.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8790 **Inside**

Press@RunDepth: 77.76 psig @ 5169.00 ft (KB)
Start Date: 2014.10.24 End Date: 2014.10.25
Start Time: 21:37:33 End Time: 07:11:58

Capacity: 8000.00 psig
Last Calib.: 2014.10.25
Time On Btm: 2014.10.25 @ 00:13:28
Time Off Btm: 2014.10.25 @ 04:56:58

TEST COMMENT: IF: Strong blow . BOB @ 30sec. GTS @ 33min.
ISI: No blow
FF: Strong blow . BOB immed. Gauged gas.
FSI: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2562.89	105.01	Initial Hydro-static
4	57.75	106.57	Open To Flow (1)
49	43.41	106.40	Shut-In(1)
125	1536.35	108.77	End Shut-In(1)
126	38.59	108.91	Open To Flow (2)
184	77.76	109.86	Shut-In(2)
283	1525.26	112.00	End Shut-In(2)
284	2523.40	114.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	Drlg mud	0.56

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	26.00	15.50
Last Gas Rate	0.13	52.00	25.23
Max. Gas Rate	0.13	52.00	25.23

DRILL STEM TEST REPORT

FLUID SUMMARY

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59916 **DST#: 3**

Test Start: 2014.10.24 @ 21:37:28

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:	6500 ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6500.00 ppm				
Filter Cake:	0.05 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	Drlg mud	0.561

Total Length: 40.00 ft Total Volume: 0.561 bbl

Num Fluid Samples: 1 Num Gas Bombs: 2 Serial #: RR-2

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments:

DRILL STEM TEST REPORT

GAS RATES

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59916 **DST#: 3**

Test Start: 2014.10.24 @ 21:37:28

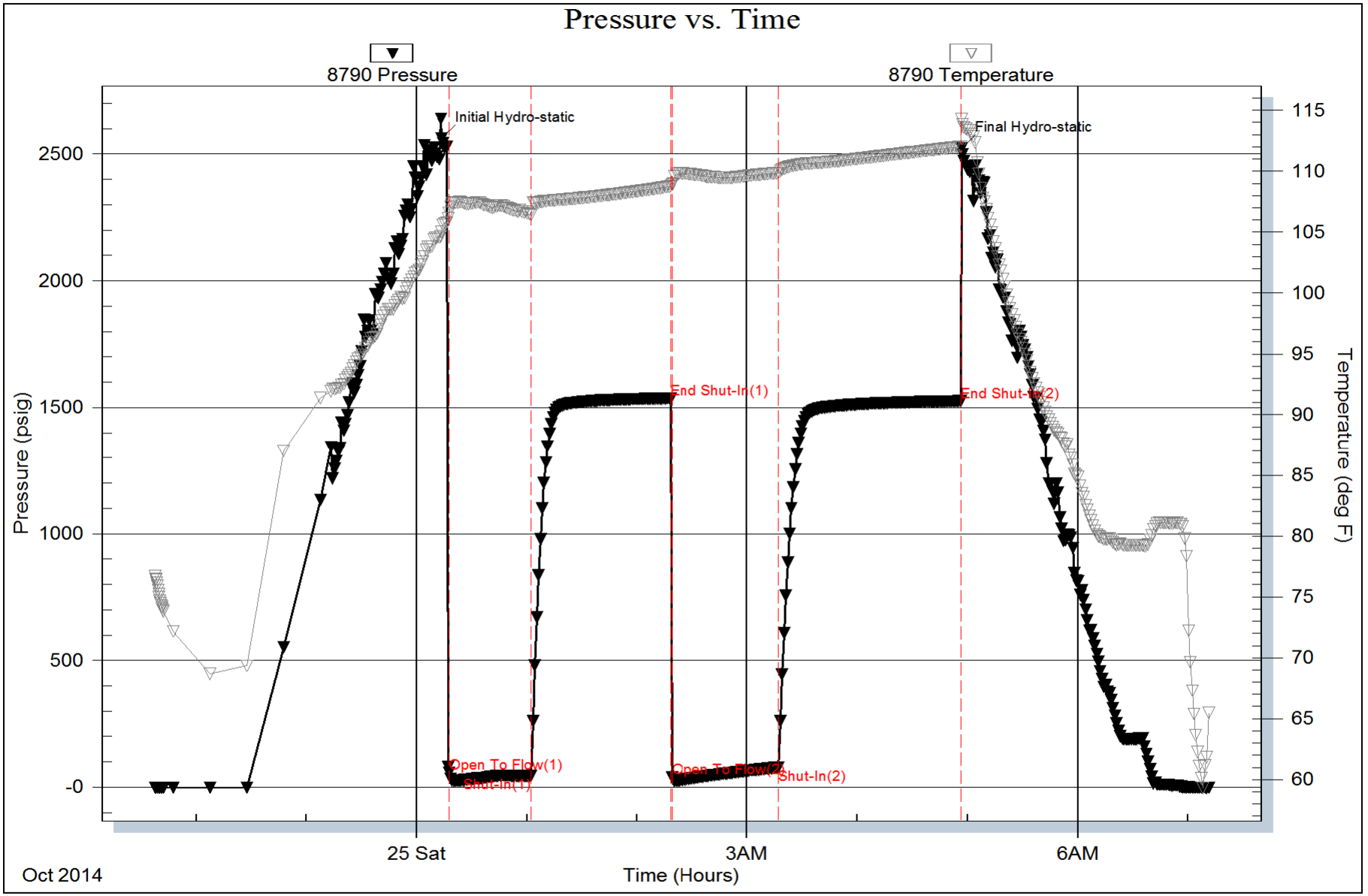
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	35	0.13	26.00	15.50
1	35	0.13	26.00	15.50
1	45	0.13	28.00	16.24
2	10	0.13	16.00	11.75
2	20	0.13	27.00	15.87
2	30	0.13	36.00	19.24
2	40	0.13	45.00	22.61
2	50	0.13	52.00	25.23

Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 59916 Printed: 2014.10.25 @ 09:59:30

DRILL STEM TEST REPORT

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59917 **DST#: 4**

Test Start: 2014.10.25 @ 16:45:45

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 19:17:30
Time Test Ended: 02:16:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Ryan Reynolds
Unit No: 68

Interval: 5205.00 ft (KB) To 5220.00 ft (KB) (TVD)
Total Depth: 5220.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

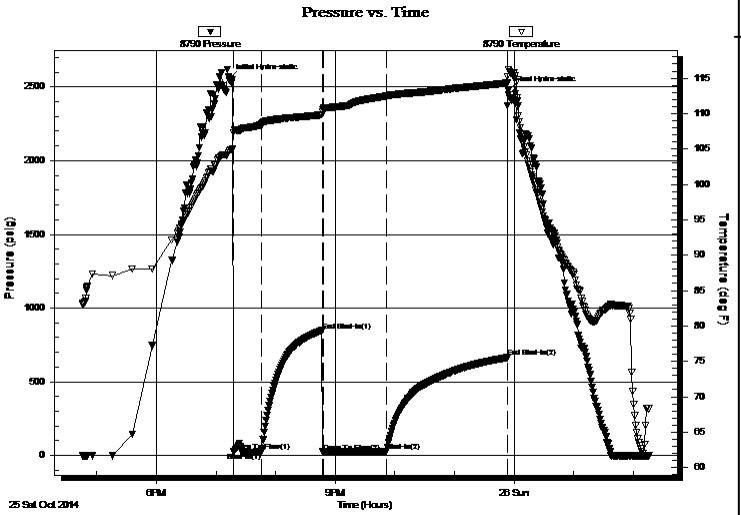
Reference Elevations: 2514.00 ft (KB)
2505.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8790 **Inside**

Press@RunDepth: 28.80 psig @ 5206.00 ft (KB)
Start Date: 2014.10.25 End Date: 2014.10.26
Start Time: 16:45:50 End Time: 02:16:15

Capacity: 8000.00 psig
Last Calib.: 2014.10.26
Time On Btm: 2014.10.25 @ 19:13:45
Time Off Btm: 2014.10.25 @ 23:54:15

TEST COMMENT: IF: Strong blow . BOB @ 20sec. No GTS.
ISI: No blow
FF: Strong blow . BOB immed. GTS @ 57min. TSTM
FSI: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2553.24	104.79	Initial Hydro-static
4	30.30	107.34	Open To Flow (1)
33	24.54	108.46	Shut-In(1)
93	847.57	109.83	End Shut-In(1)
94	21.68	110.55	Open To Flow (2)
158	28.80	112.50	Shut-In(2)
280	664.17	114.32	End Shut-In(2)
281	2475.33	116.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	GOCM 15%g, 25%o, 60%m	0.70

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59917 **DST#: 4**

Test Start: 2014.10.25 @ 16:45:45

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:	9100 ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	11.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	9100.00 ppm				
Filter Cake:	0.05 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	GOCM 15%g, 25%o, 60%m	0.701

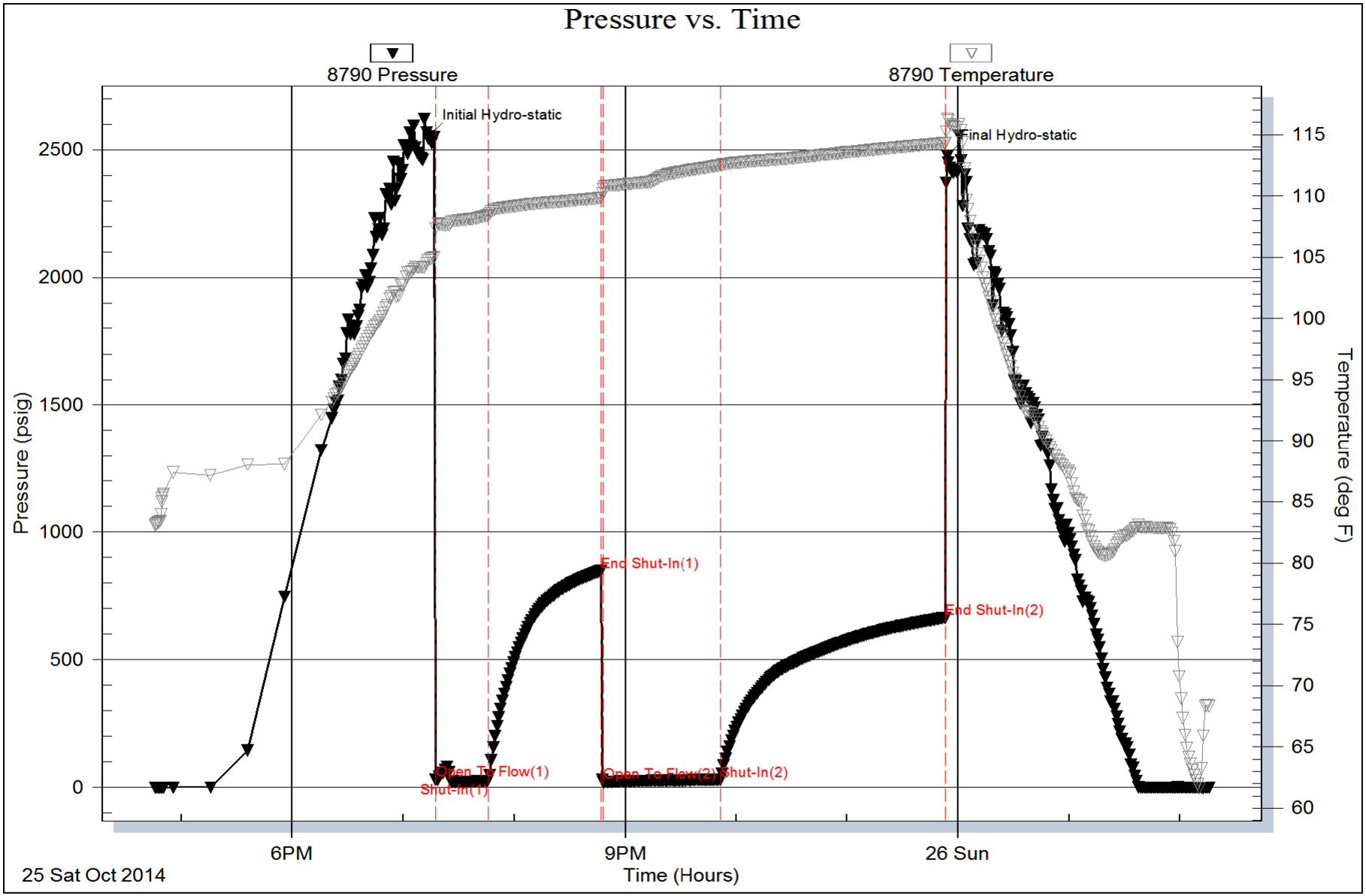
Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 1 Num Gas Bombs: 3 Serial #: RR-3

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments:

Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 59917 Printed: 2014.10.26 @ 05:00:42

DRILL STEM TEST REPORT

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59918 **DST#: 5**

Test Start: 2014.10.26 @ 10:17:17

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 12:31:17
Time Test Ended: 19:54:32

Test Type: Conventional Bottom Hole (Reset)
Tester: Ryan Reynolds
Unit No: 68

Interval: 5228.00 ft (KB) To 5237.00 ft (KB) (TVD)
Total Depth: 5237.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

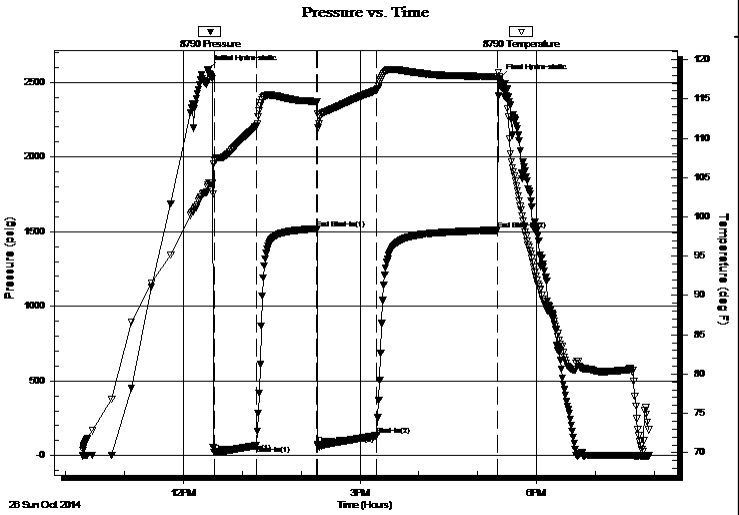
Reference Elevations: 2514.00 ft (KB)
2505.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8790 **Inside**

Press@RunDepth: 134.11 psig @ 5229.00 ft (KB)
Start Date: 2014.10.26 End Date: 2014.10.26
Start Time: 10:17:22 End Time: 19:54:32

Capacity: 8000.00 psig
Last Calib.: 2014.10.26
Time On Btm: 2014.10.26 @ 12:25:02
Time Off Btm: 2014.10.26 @ 17:22:02

TEST COMMENT: IF: Strong blow . BOB @ 1min.
ISI: GTS 2min. into. Weak 3" BB
FF: Strong blow . BOB @ 30sec. Gauged gas.
FSI: Good 6" BB.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2585.99	103.78	Initial Hydro-static
7	20.08	106.73	Open To Flow (1)
50	67.10	111.54	Shut-In(1)
111	1518.68	114.66	End Shut-In(1)
112	76.36	113.14	Open To Flow (2)
173	134.11	116.11	Shut-In(2)
296	1509.57	117.81	End Shut-In(2)
297	2522.04	117.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 21%g, 35%o, 44%m	0.84
250.00	Clean Gassy Oil 25%g, 75%o	3.51

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	4.00	7.26
Last Gas Rate	0.13	17.00	12.13
Max. Gas Rate	0.13	17.00	12.13

DRILL STEM TEST REPORT

FLUID SUMMARY

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59918 **DST#: 5**

Test Start: 2014.10.26 @ 10:17:17

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	39 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	6800 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.19 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6800.00 ppm				
Filter Cake:	0.05 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 21%g, 35%o, 44%m	0.842
250.00	Clean Gassy Oil 25%g, 75%o	3.507

Total Length: 310.00 ft Total Volume: 4.349 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:

DRILL STEM TEST REPORT

GAS RATES

Vincent Oil Corp.

155 N. Market Ste. 700
Wichita, KS 67202-1821

ATTN: Tom Dudgeon

34-28s-23w Ford Co., KS

Keough 2-34

Job Ticket: 59918 **DST#: 5**

Test Start: 2014.10.26 @ 10:17:17

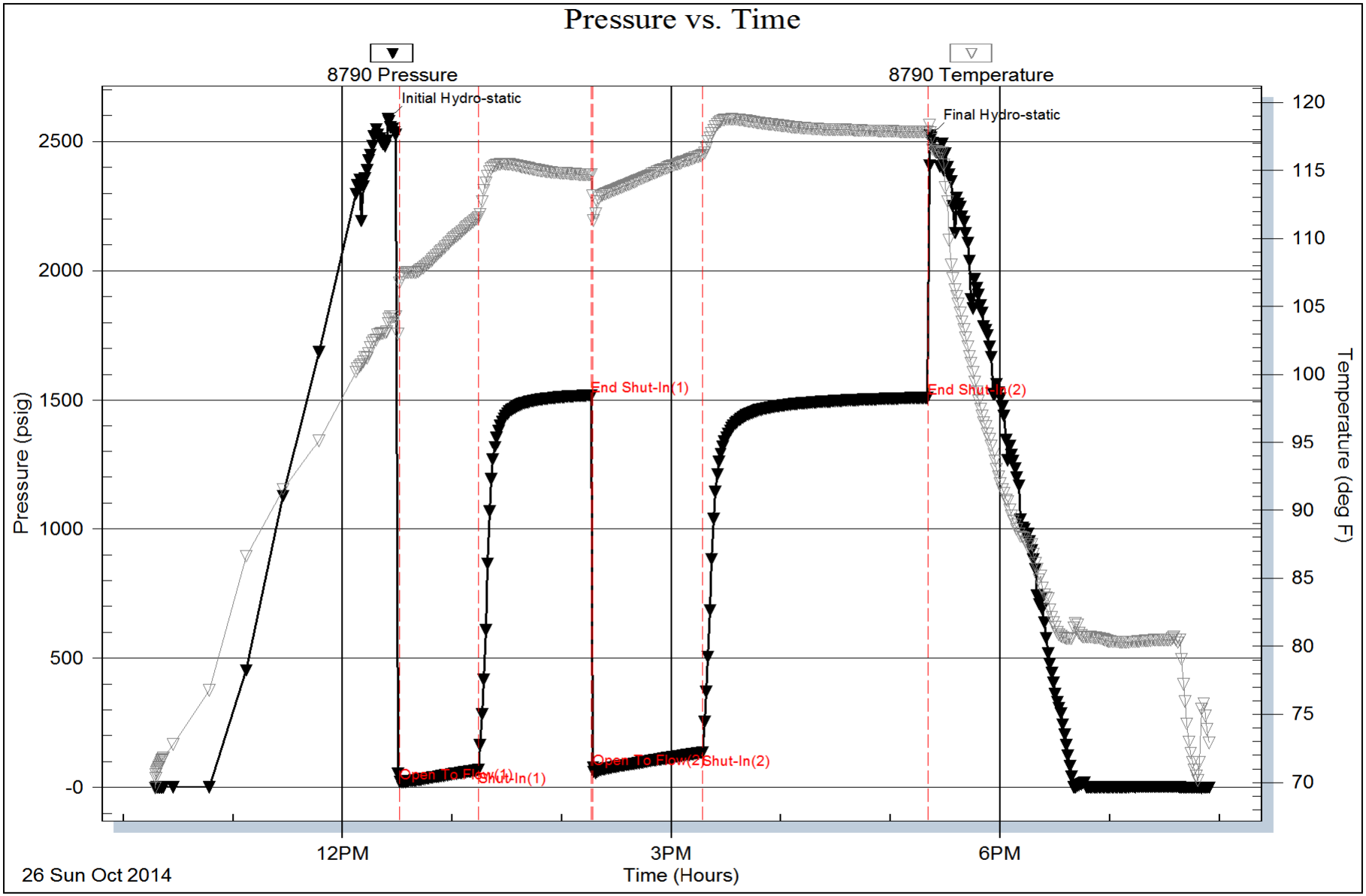
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	4.00	7.26
2	20	0.13	7.00	8.38
2	30	0.13	10.00	9.51
2	40	0.13	13.00	10.63
2	50	0.13	15.00	11.38
2	60	0.13	17.00	12.13

Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 59918 Printed: 2014.10.26 @ 22:58:28

Scale 1:240 Imperial

Well Name:	Keough 2-34		
Surface Location:	1340 FNL 343 FWL NE NW SW NW		
Bottom Location:			
API:	15-057-20944-00-00		
License Number:	5004		
Spud Date:	10/15/2014	Time:	2:00 PM
Region:			
Drilling Completed:	10/27/2014	Time:	5:51 AM
Surface Coordinates:	1340 FNL & 343 FWL		
Bottom Hole Coordinates:			
Ground Elevation:	2505.00ft		
K.B. Elevation:	2515.00ft		
Logged Interval:	4200.00ft	To:	5320.00ft
Total Depth:	5230.00ft		
Formation:	MISS		
Drilling Fluid Type:	Chemical		

LOGGED BY

Company:	Vincent Oil Corp		
Address:	155 N Market Ste 700 WIchita, KS 67202		
Phone Nbr:	316.262.3573		
Logged By:	Geologist	Name:	Tom Dudgeon

OPERATOR

Company:	Vincent Oil Corp		
Address:	155 N Market Ste 700 Wichita, KS 67202		
Contact Geologist:	Dick Jordan		
Contact Phone Nbr:	316.262.3573		
Well Name:	Keough 2-34		
Location:	1340 FNL 343 FWL NE NW SW NW	API:	15-057-20944-00-00
Pool:		Field:	Mulberry Creek
State:	Kansas	Country:	USA

CONTRACTOR

Contractor:	Val Drilling Co.		
Rig #:	2		
Rig Type:	Rotary		
Spud Date:	10/15/2014	Time:	2:00 PM
TD Date:	10/27/2014	Time:	5:51 AM
Rig Release:	10/28/2014	Time:	12:00 AM

ELEVATIONS

K.B. Elevation:	2515.00ft	Ground Elevation:	2505.00ft
K.B. to Ground:	10.00ft		

TOTAL DEPTH

Measurement Type:	Measurement Depth:	TVD:
Driller	5230.00	5231.00
Logger	5231.00	5231.00

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:	-99.8307254	Latitude:	37.5686274
N/S Co-ord:	1340 FNL		
E/W Co-ord:	343 FWL		

DRILLING FLUID SUMMARY

Type	Date	From Depth	To Depth
Chemical	10/27/2014	3805.00ft	5231.00ft

OPEN HOLE LOGS

Logging Company:	Nabors Completion and Production Services, Co.		
Logging Engineer:	Jeff Groneweg		
Truck #:	4854		
Logging Date:	10/27/2014	Time Spent:	7
# Logs Run:	4	# Logs Run Successful:	4

LOGS RUN

Tool	Logged Interval	Logged Interval	Hours	Remarks	Run #
DI	0.00ft	5231.00ft	3.00		1
CN/DE/PE	4150.00ft	5231.00ft	3.00		1
Micro	4150.00ft	5231.00ft	4.00		2
Sonic	0.00ft	5231.00ft	4.00		2

LOGGING OPERATION SUMMARY

Date	From	To	Description Of Operation
10/27/2014	0.00ft	5231.00ft	Logs ran successfully

CASING SUMMARY

	Surface	Intermediate	Main
Bit Size	12.25 in		7.88 in
Hole Size	12.25 in		7.88 in

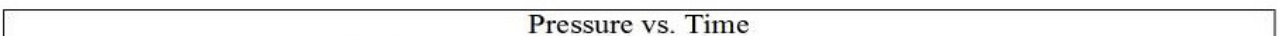
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8.625 in	644 ft	23#	15	10/17/2014 5:00 PM
Int Casing					
Prod Casing	4.5 in	5317 ft	11.6#	120	

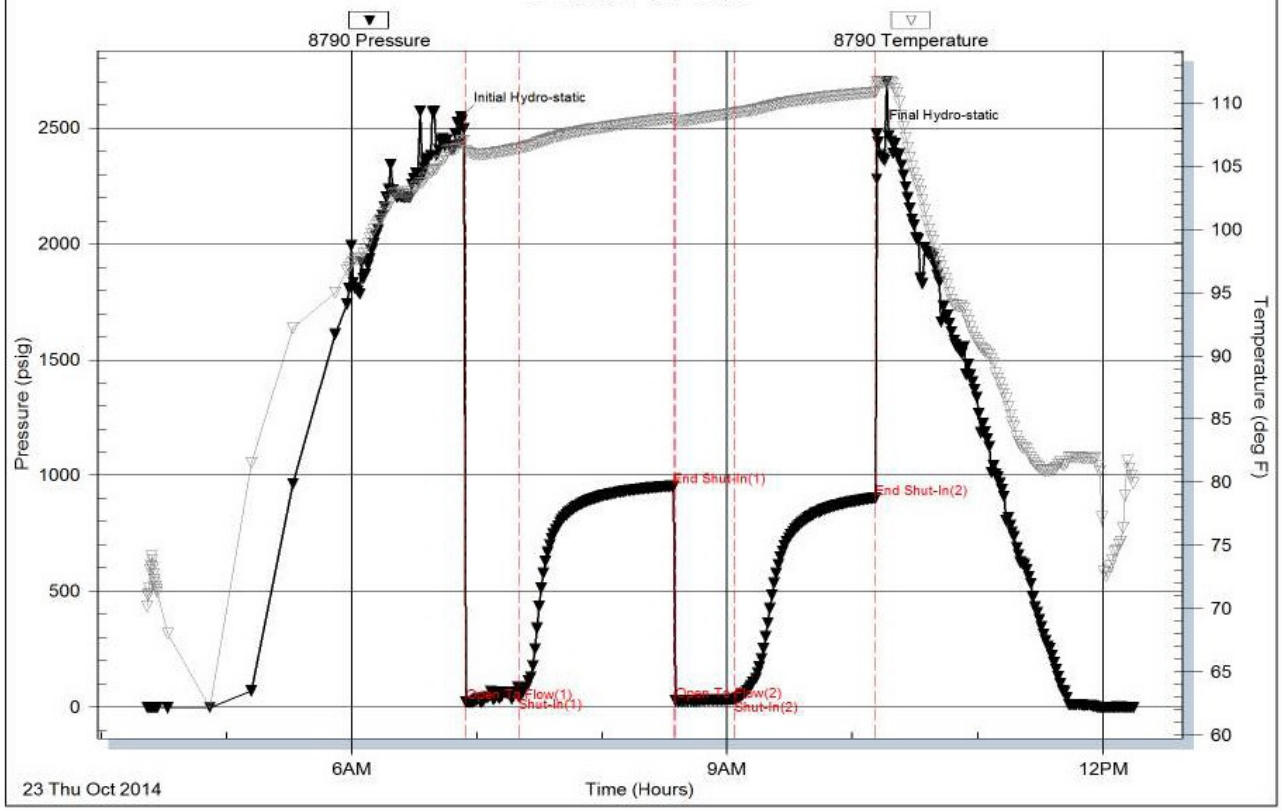
CASING SEQUENCE

Type	Hole Size	Casing Size	At
	0.00 in	0.00	0.00 ft

DST #1

Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 1

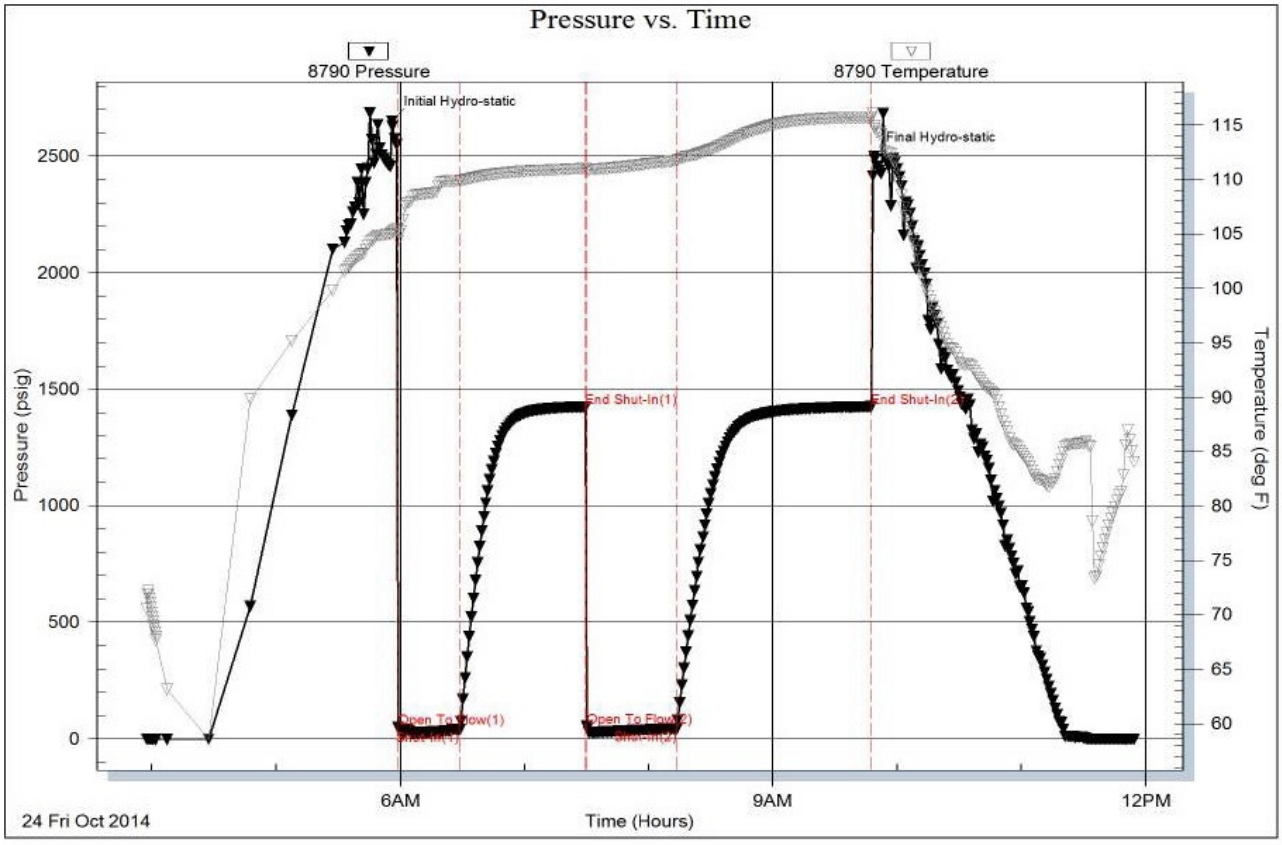




Trilobite Testing, Inc Ref. No: 59914 Printed: 2014.10.23 @ 13:23:27

DST #2

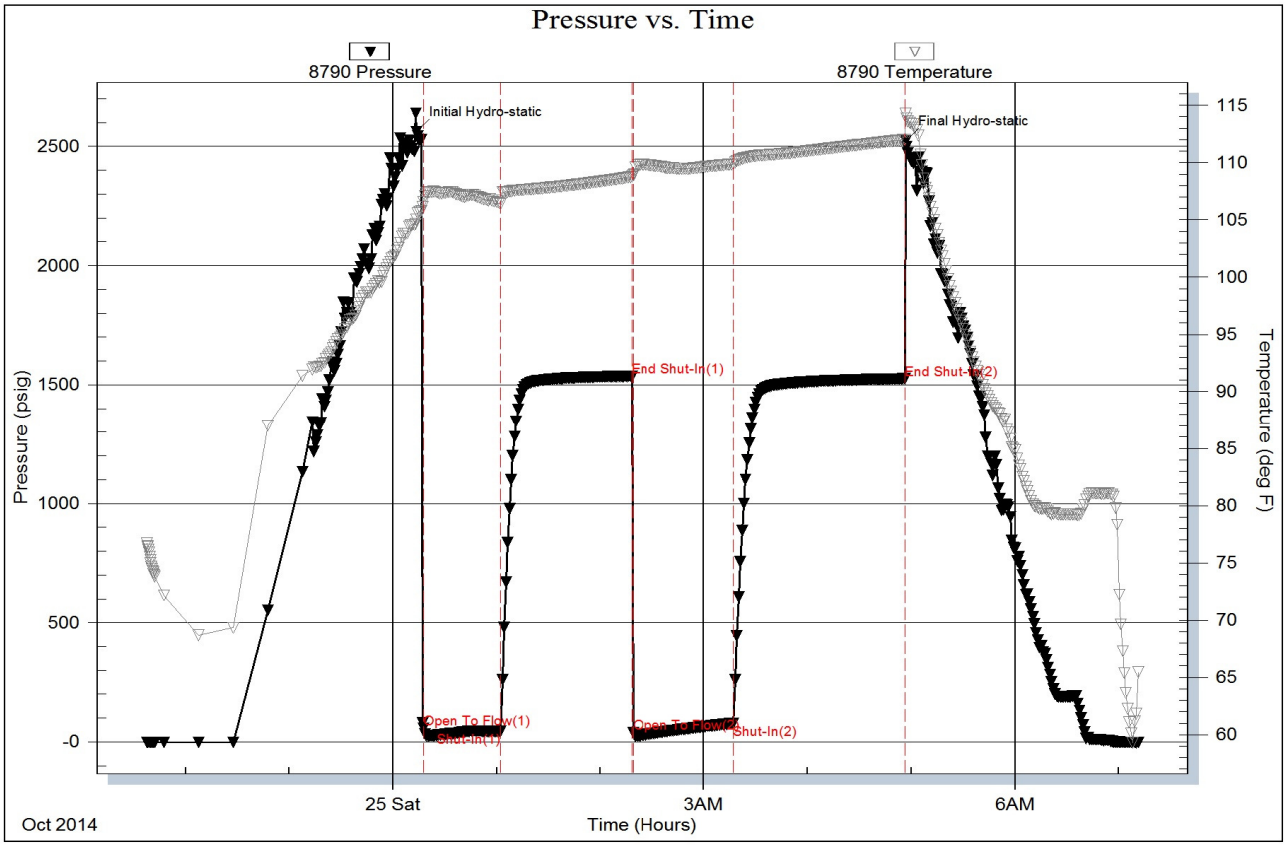
Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 59915 Printed: 2014.10.24 @ 13:14:14

DST #3

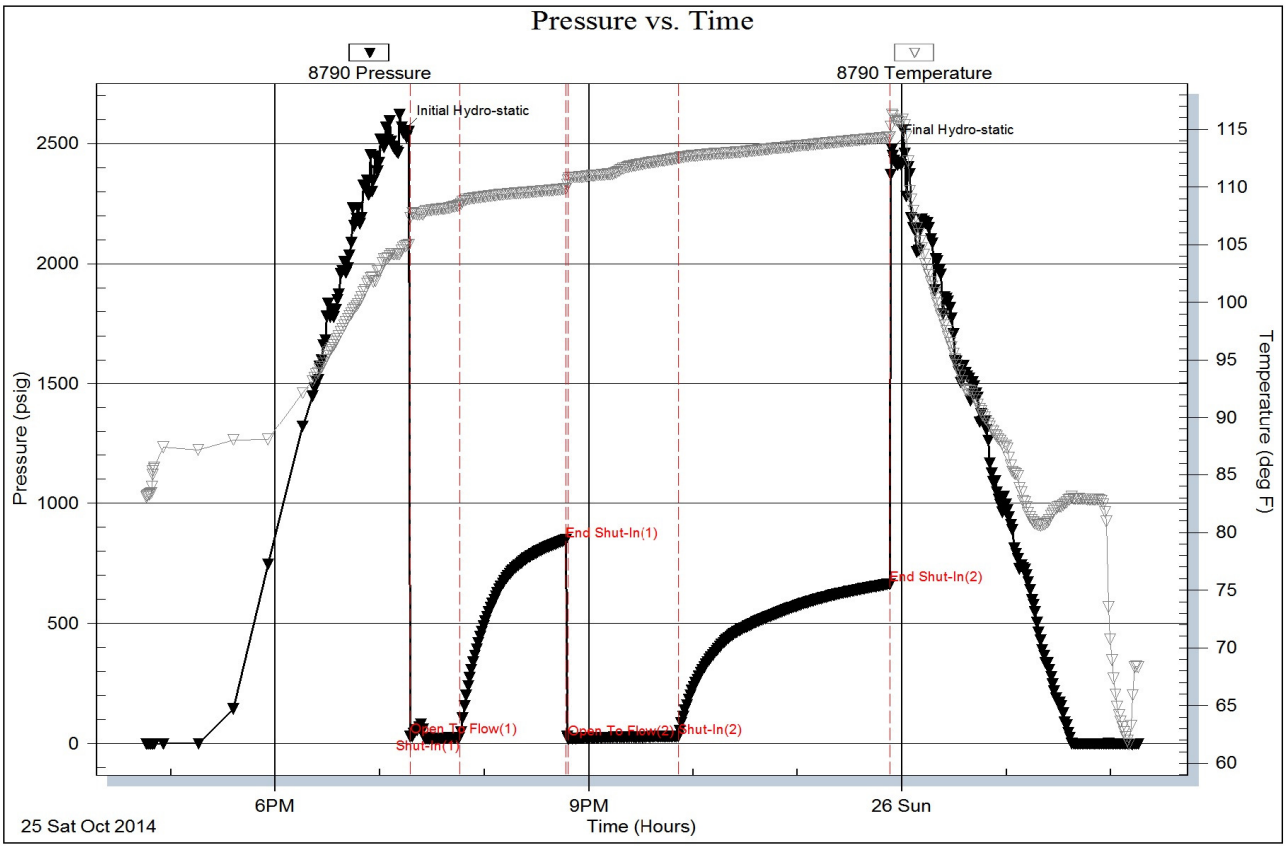
Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 59916 Printed: 2014.10.25 @ 09:59:30

DST #4

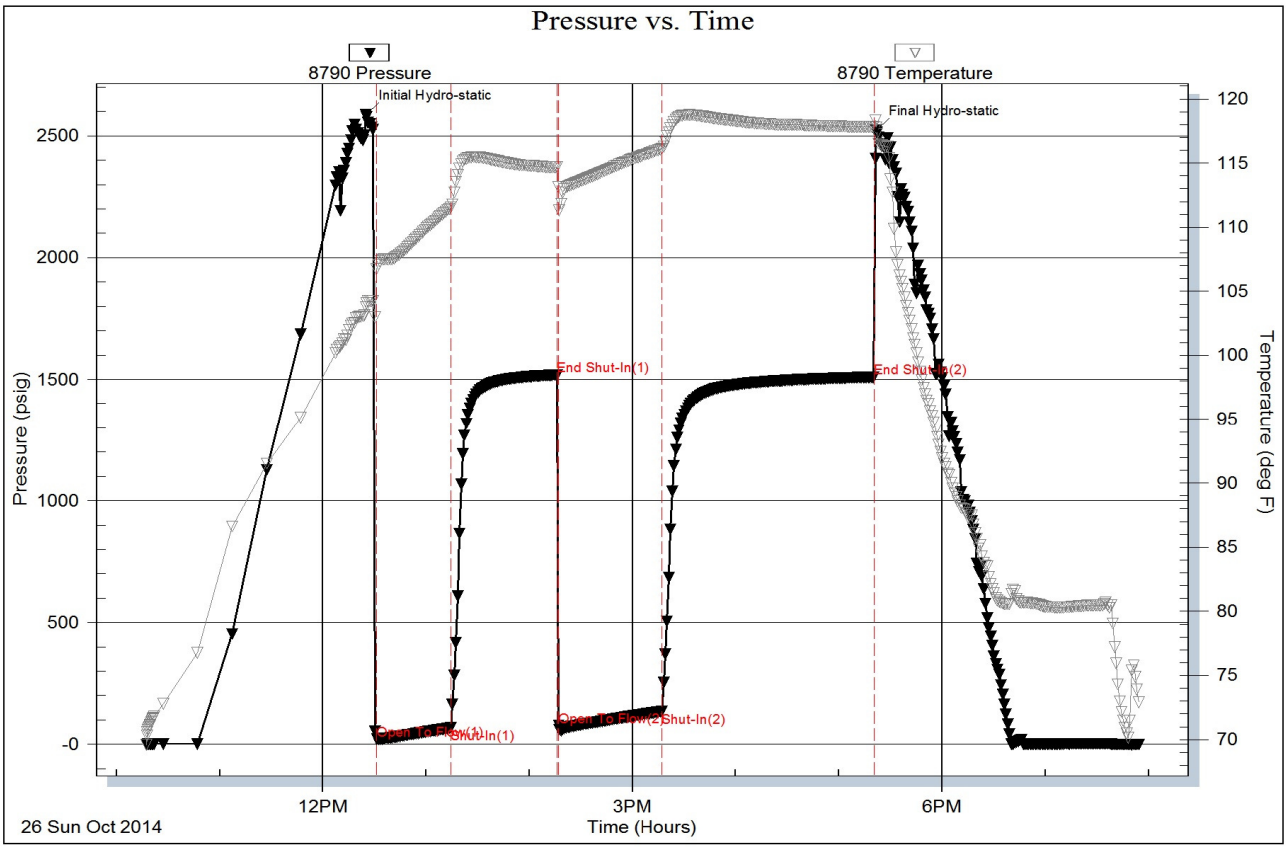
Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 59917 Printed: 2014.10.26 @ 05:00:42

DST #5

Serial #: 8790 **Inside** Vincent Oil Corp. Keough 2-34 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 59918 Printed: 2014.10.26 @ 22:58:28

ROCK TYPES

Cht, Coal, Dolsec, Lmst fw<7, Lmst fw7>, Shgy, Shblck, Shcol, Cht vari

ACCESSORIES

MINERAL
- Calcareous
- Chert, dark
- Dolomitic
- Glauconite
- Heavy, dark minerals
- P Pyrite
- Sandy
- Silty
- Chert White

FOSSIL
- Brachiopod
- Crinoids
- Foraminifera
- F Fossils < 20%
- Oolite
- Spicules

STRINGER
- Dolomite
- Sandstone
- Shale

TEXTURE
- C Chalky
- CX Cryptocrystalline
- e Earthy
- FX FinexIn
- MX MicroxIn

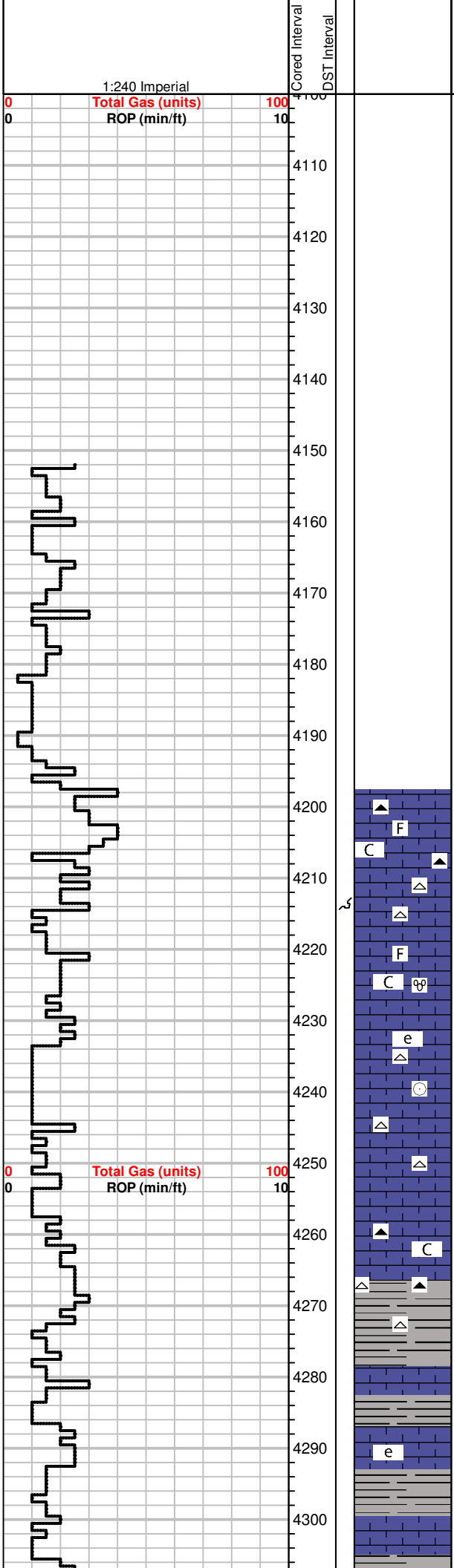
OTHER SYMBOLS

POROSITY TYPE
- × Intercrystalline
- Φ Interoolitic
- V Vuggy
- P Pinpoint
- Moldic
- O Organic
- F Fracture
- e Earthy
- Fenestral

OIL SHOWS
- Even Stn
- Spotted Stn 50 - 75 %
- Spotted Stn 25 - 50 %
- Spotted Stn 1 - 25 %
- O Questionable Stn
- D Dead Oil Stn
- Fluorescence

INTERVALS
- Core
- DST

Curve Track #01 Total Gas (units) ROP (min/ft)	Depth | Intervals	Porosity Types	Interpreted Lithology	Oil Shows	Geological Descriptions	Comment



Geologist on location @ 9:45AM 10/21/14

Gas Detector provided by MBC Well Logging on & working @ 4390'

Drill time from 4150' to RTD
10' Samples from 4200' to RTD

MS-WS, crm to lt. brn, mic-xln to earthy txt, sandy pcs scatt, chalky throughout, soft, friable, crinoids and brach frgmts, rare Chert, gray, fossilif.

MS to WS, A.A., some pcs micro oolitic, , rare Chert, white, fossilif, NS, moldic por.

WS, mottled, brn, tan, crm, gray, mic-xln, dense, m-gr oolitic in pcs, some pcs hard, f-gr oolitic, some pcs chalky matrix.

MS-WS, A.A., f-xln to vf-suc txt, earthy, dense, fusilinids, dull fluor, NS, Chert, white, crinoid frgmts.

MS, tan to gray, f-xln to vf-xln, A.A., firm, NS,
Chert, white

MS, tan to primarily gray pcs, some crm, f to mic-xln, firm to hard, chalky matrix, dense scatt pcs, most firm, NS

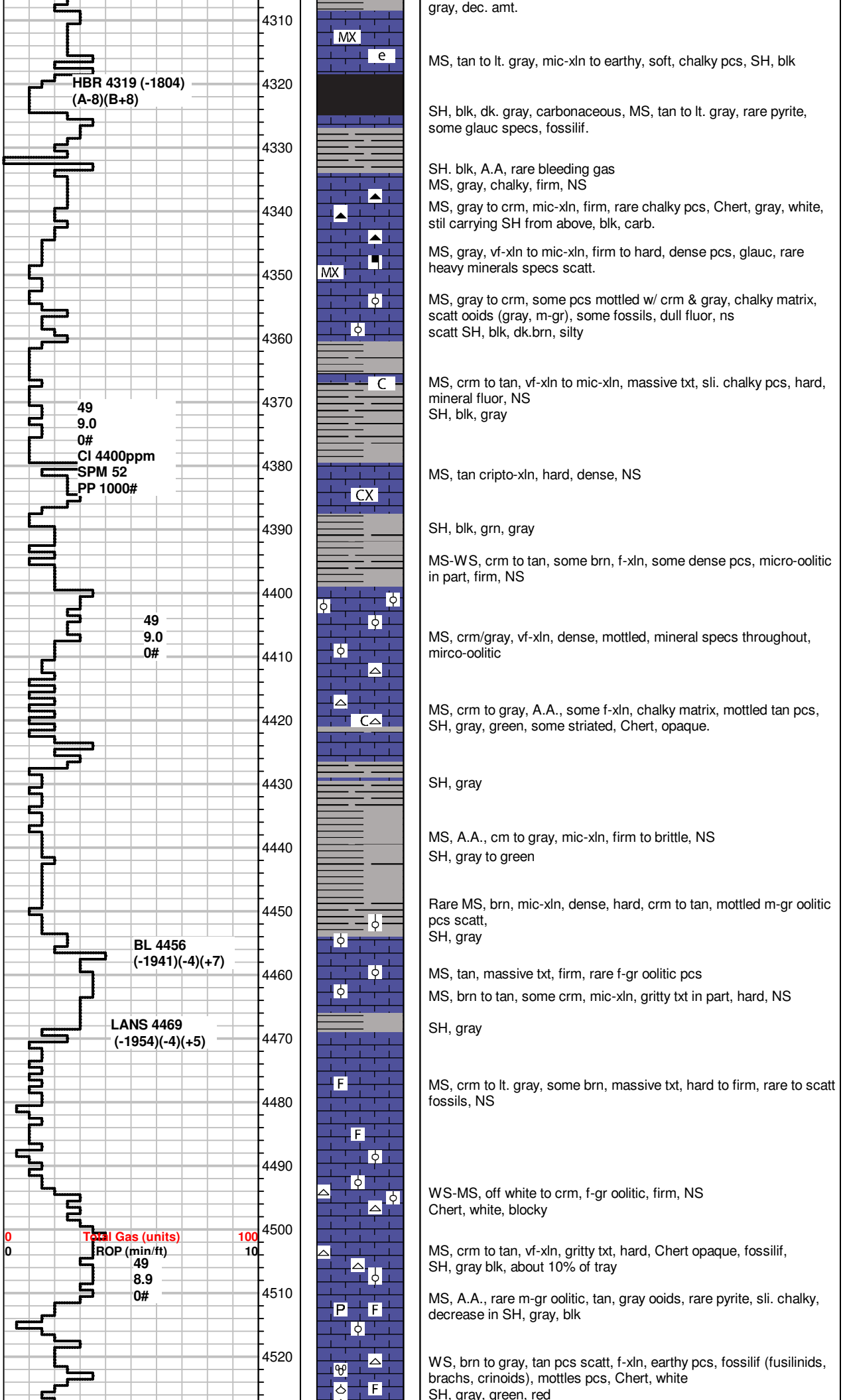
some SH, gray, MS, crm to brn, earthy to mic-xln, scatt chalky pcs, hard to firm, Chert, white, gray, fossilif.

MS, A.A., inc in gray SH, some WS, crm, f to m-gr oolitic, hard, NS

flood SH, blk, carbonaceous, dk. gray, some gas bubbles, scatt MS, crm, earthy, firm NS

SH, blk, A.A.

MS, crm to tan, massive to earthy txt, chalky in part, SH, blk, dk.



gray, dec. amt.

MS, tan to lt. gray, mic-xln to earthy, soft, chalky pcs, SH, blk

SH, blk, dk. gray, carbonaceous, MS, tan to lt. gray, rare pyrite, some glauc specs, fossilif.

SH. blk, A.A, rare bleeding gas
MS, gray, chalky, firm, NS

MS, gray to crm, mic-xln, firm, rare chalky pcs, Chert, gray, white, stil carrying SH from above, blk, carb.

MS, gray, vf-xln to mic-xln, firm to hard, dense pcs, glauc, rare heavy minerals specs scatt.

MS, gray to crm, some pcs mottled w/ crm & gray, chalky matrix, scatt ooids (gray, m-gr), some fossils, dull fluor, ns
scatt SH, blk, dk.brn, silty

MS, crm to tan, vf-xln to mic-xln, massive txt, sli. chalky pcs, hard, mineral fluor, NS
SH, blk, gray

MS, tan cripto-xln, hard, dense, NS

SH, blk, grn, gray

MS-WS, crm to tan, some brn, f-xln, some dense pcs, micro-oolitic in part, firm, NS

MS, crm/gray, vf-xln, dense, mottled, mineral specs throughout, mirco-oolitic

MS, crm to gray, A.A., some f-xln, chalky matrix, mottled tan pcs, SH, gray, green, some striated, Chert, opaque.

SH, gray

MS, A.A., cm to gray, mic-xln, firm to brittle, NS
SH, gray to green

Rare MS, brn, mic-xln, dense, hard, crm to tan, mottled m-gr oolitic pcs scatt,
SH, gray

MS, tan, massive txt, firm, rare f-gr oolitic pcs

MS, brn to tan, some crm, mic-xln, gritty txt in part, hard, NS

SH, gray

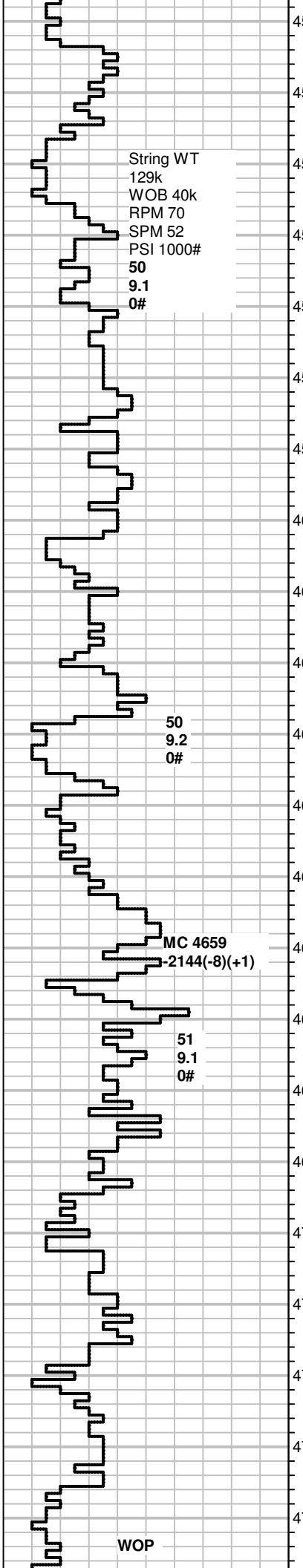
MS, crm to lt. gray, some brn, massive txt, hard to firm, rare to scatt fossils, NS

WS-MS, off white to crm, f-gr oolitic, firm, NS
Chert, white, blocky

MS, crm to tan, vf-xln, gritty txt, hard, Chert opaque, fossilif,
SH, gray blk, about 10% of tray

MS, A.A., rare m-gr oolitic, tan, gray ooids, rare pyrite, sli. chalky, decrease in SH, gray, blk

WS, brn to gray, tan pcs scatt, f-xln, earthy pcs, fossilif (fusilinids, brachs, crinoids), mottles pcs, Chert, white
SH, gray, green, red



4530

SH, A.A., MS, crm to lt. tan, massive txt, some pcs f-gr oolitic, firm, NS

4540

MS, lt. gray, mic-xln in chalky matrix, firm to hard, rare mottled pcs, dull fluor, NS,
Some SH, gray, green, rare blk

4550

MS, A.A., inc in crm pcs, soft, chalky, magntite specs, fossilif, rare SH blk, some gray, green

4560

MS, crm to tan, mix-xln, some pcsa mottled, some sandy pcs, m-gr ooids present, some blk specs, Chert, white,

4570

MS, tan, cript-xln, massive txt, hard, some ooids in dense matrix, Chert, white, fossilif, gray pcs scatt, Inc in SH, gray, green

4580

4590

MS, gray, mic-xln, firm, platy, some fossils, NS
SH, gray

F

4600

MS, crm to gray, f-xln, sli. earthy txt, firm, some pcs mottled, gray, m-gr oolitic in part, rare Chert, white, fossilif,
some SH, gray

MS, A.A., Chert, white, fossilif.

4610

4620

MS, crm to tan, mic to vf-xln, hard, dense, calcite on edges of rare pcs, Chert, white
SH, rare blk, inc. in gray

Background gas 60 Units

4630

MS, crm, vf-xln, some earthy, rare fn-gr oolitic pcs, sandy txt, Chert, white, gray, micro oolitic.
SH, dk. gray, gray

4640

MS, crm to lt. tan, f-xln, silty to chalky txt, soft, Chert, white, tan, oolitic, fossilif.,

4650

WS-PS, brn to gray, cript-xln, firm to hard, micro to m-gr oolitic pcs, Chert, white, micro oolitic, gray, brn

4660

MS, crm to off white, chalky matrix in 1/3 of tray, vf-xln, soft, sandy pcs, some fossilif, rare edge stn in dry, scatt Chert, gray

4670

MS, crm to lt. gray, vf-xln, gritty txt, micro oolitic, friable, dull fluor, NS, Chert, white
SH, blk, gray

P

4680

P

SH, blk, gray, some sandy to silty, MS, crm to tan, earthy to mic-xln, hard to firm, fractured pcs, rare fossils(spicules)

V

F

4690

SH, gray, silty, dec. amt, MS crm to brn, vf-xln to mic-xln, some pcs w fossil frgmts, m-gr oolitic in paart, hard, dense, rare chalky pcs, NS

4700

MS, crm to brn, mic-xln to fn-sucrosic, gritty txt, hard, dense, NS, Chert, white, platy

4710

C

MS, A.A., chalky pcs throughout,
carrying SH, rare dk. gray, gray

P

4720

MS-WS, crm to off white, mic to cript-xln, oolitic in part, hard to firm, some gritty pcs, most dense, NS, Chert, white, micro oolitic, gray pcs scatt

4730

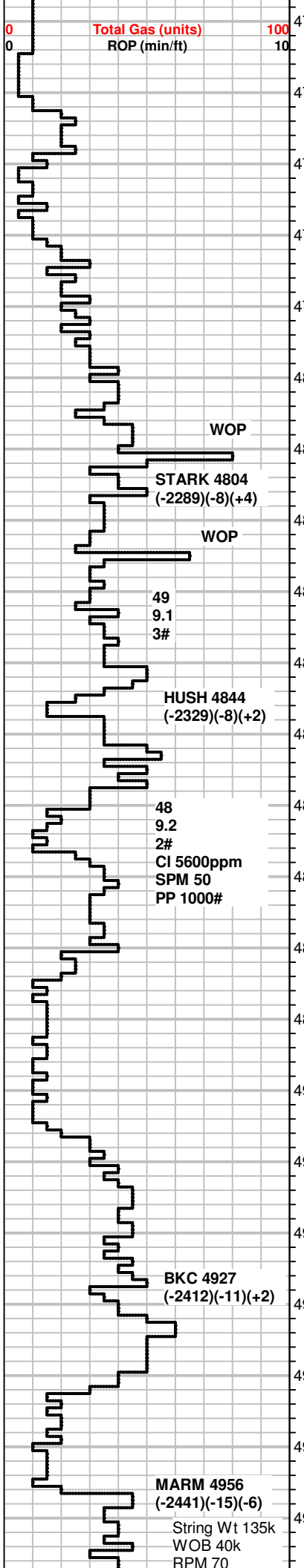
MS, crm to gray, vf to f-xln, dense looking but chalky matrix, some gray pcs fossilif, hard to brittle, rare earthy pcs, NS, Chert, brn, gray

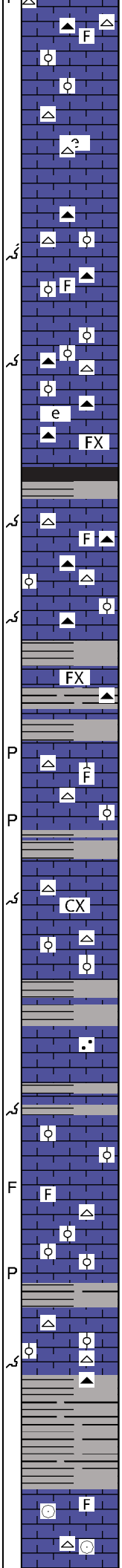
C

4740

MS, crm to brn-ish gray, earthy to silky looking, firm to soft, mottled pcs common,
SH, dk. gray, gray

P





MS-WS, crm to tan, f-xln, dense, sli. oolitic, m-gr ooids, firm, NS
Chert, brn white, fossilif

MS-WS, crm , tan, lt. gray, f-xln, dense, some pcs mottled, oolitic, m-gr, Chert, white, m-gr oolitic, NS
SH, gray dec. amt

MS, crm, earthy txt, firm to hard, dense pcs, dull fluor, NS
Chert, white/brn pcs

WS-PS, brn to tan, m-gr oolitic, ringed ooids, dense, hard, NS
Chert, gray, fossilif.

Background gas 65 Units

WS-PS, brn, mic-xln, oolitic in dense matrix, hard, NS
Chert, brn, white

MS, brn, earthy to fn-xln, brittle, hard,
Chert, brn, blocky

SH, blk, dk. gray

63 UGK, 40 UGK recycle, shale gas

MS, brn to tan, massive txt, firm to hard, rare PS, crm, m-gr oolitic,
Chert, white, brn, gray, fossilif

MS, crm to lt. gray some tan,vf-xln to fn sucrosic, some gritty txt,
some WS, oolitic, m-gr, dense, hard, NS
Chert, brn, white, spicules, micro oolitic white pcs

MS, lt. gray to brn, f-xln, dense, hard, some gritty txt,
Chert, white, brn

67 UGK, 45 UGK recycle, shale gas

SH, blk, gray, dk. gray,
MS, A.A., Chert, white, fossilif

MS, crm to gray, f-xln, dense, NS
SH, blk, gray

MS, A.A., some cript-xln, Chert on edge, free Chert, white

MS, crm to brn, gritty to massive txt, dense, hard, fossilif, NS
Chert, white, m-gr oolitic

Sh, blk, gray, scatt. in tray
MS-WS, crm to brn, f-xln, firm to hard, gritty txt, NS

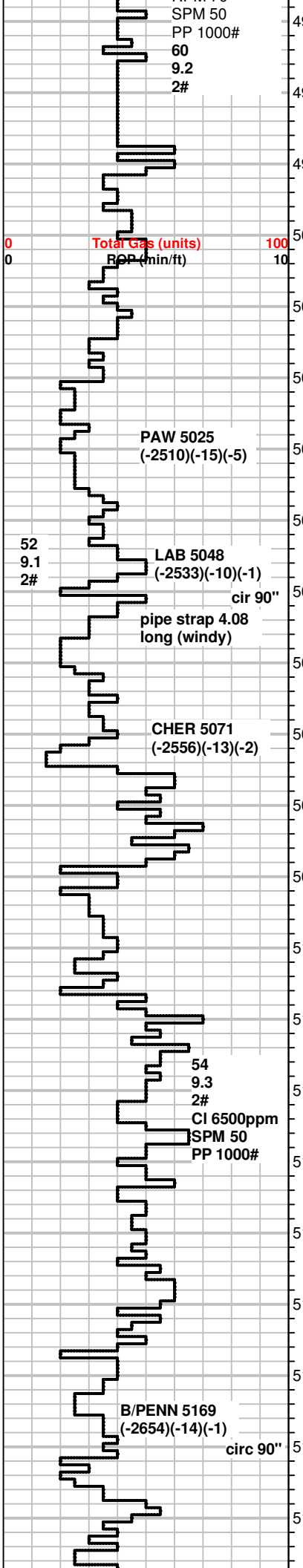
MS-WS, A.A., brn pcs fossilif to sub oolitic crm pcs, dense, inc in gray SH, blk also

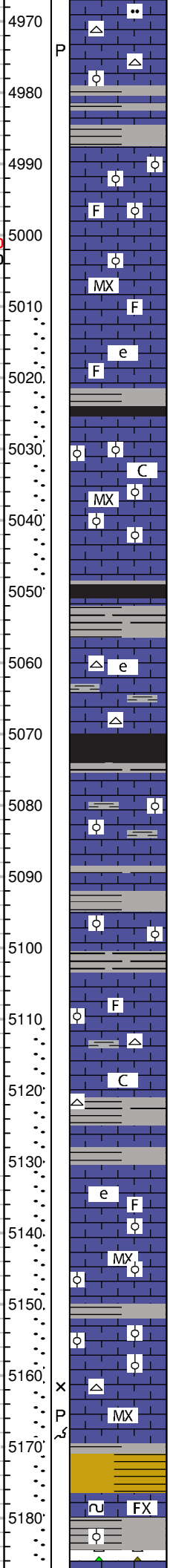
MS-WS, crm to tan, lt. gray, f-xln, dense, some pcs mottled, NS,
Chert, white, m-gr ooids,
some SH, gray

MS-WS, gray to brn some crm, gritty to silty txt, fossilif, micro oolitic, dense, NS, Chert, tan, white
inc SH, gray

MS, gray, rare crm pcs, m-xln, silty, hard dense, some fossils, rare oolites, Chert, gray white fossilif, blk
SH, gray, green

SH, blk, gray, green,
MS, crm to gray, mottled, firm to hard, dense pcs, fossilif.-crinoid sections intact.





MS, crm to gray, f to m-xln, silty txt, firm, some chalky pcs, dense, rare chalky pcs w/ co-gr ooids, NS
Chert, white, platy

MS, crm to gray, A.A., inc in Chert, white, fossilif, fresh and wethrd edges on indiv. pcs,
SH, blk, gray, green

MS, crm to tan, f-xln to earthy, sub oolitic in part, fossilif, dull fluor, NS

DST #1 5011-5050
30-60-30-60
WB, 1 inch
NBB
WB, 1 inch
NBB
REC:
35' OWGCM
(7g, 1o, 4w,88m)
IH 2548#
IF 21-45#
ISIP 953#
FF 28-33#
FSIP 903#
FH 2474#
Temp 111*F

WS-PS, crm, mic-xln, m-gr oolitic, dense, rare chalky pcs, some SH, gray, green

WS-PS, A.A., some pcs mic-xln, massive txt

Flood of MS, crm, vf-xln to earthy txt, firm to brittle, scatt fossils, some chalky pcs, rare chert, white

SH, blk, gray, green

95 UGK shale gas

MS-WS, tan to brn off white, mic-xln to chalky matrix, m-gr oolitic, some crm pcs, micro oolitic, **flash odor, rare bright fluor, 1 pc cut when broken,** no new show in 30/60", barren in dry, no visible porosity

121 units TG, 86 UGK from Pawnee Lime

SH, blk, gray

88 UGK shale gas

SH, gray, green, rare blk

MS, brn to gray, sli. chalky matrix, earty pcs throughout, dense, hard, dull fluor, rare spotty stn in dry, no vis por, Chert, white, some fossils

SH, blk, gk. gray
MS-WS, brn to crm, off white, mic-xln, dense, some pcs m-gr oolitic, NS

98 UGK shale gas

MS-WS, crm to lt. gray, f-xln to mic-xln, dense, hard, rare sub oolitic pcs, scatt chalky pcs, some pcs fractured, barren, no sample show

60 UGK
65 UGK

scatt SH, gray, blk, green

SH blk, gray, green
MS, brn to tan, some gray, f-xln, scatt. mic-xln, dense, oolitic in part, fossilif

60 UGK, shale gas?

MS, crm, tan, mic-xln, some chalky pcs, most dense, fossil frgmts, NS
scatt SH, blk, gray, some bleeding gas

DST #2 5110-5170
30-60-45-90
SB, BOB 4 min
NBB
SB, BOB Immed, GTS/15min
GA 1/8in choke
11.8 MCFG/20min
12.9 MCFG/30min
14.0 MCFG/40min
14.7 MCFG/45min
NBB
REC: 30' MUD
IH 2650#
IF 49-40#
ISIP 1425#
FF 54-43#
FSIP 1426#
FH 2499#
Temp 115*F
Cl 5600ppm

MS, brn to gray, mic-xln, dense to chalky pcs A.A., dull fluor, NS, some Chert, tan
SH, gray, green

MS-WS, crm to off white, f-xln, chalky matrix, hard to firm pcs, oolitic, NS, scatt Chert, white, fossilif to oolitic, blocky
MS-WS, crm to brn, f-xln, hard to firm, some mottled, earthy, fossils throughtout, NS
MS, brn, tan, f-xln to mic-xln, dense, fossils, dull fluor, NS

MS, A.A., mic-xln, dense, rare pcs sub oolitic, scatt. fossils, NS
SH, dk. gray, gray

MS-WS, crm to tan some, mic-xln, hard, brittle, fossilif, some oolitic PS, off white, friable, rare bright fluor, no cut, no odor, Chert, tan

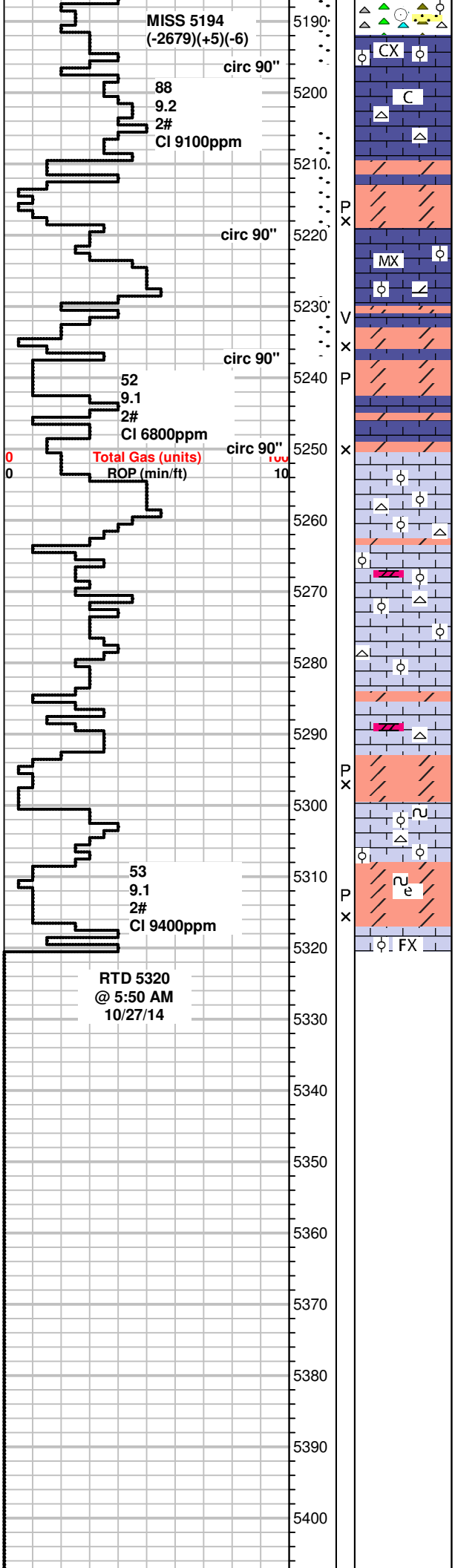
84 UGK w/
83 UGK recycle

MS-WS, crm to off white, chalky to mic-xln, friable, scatt bright fluor, inc bright fluor in 60" sample, no odor, oil stn in pore space on MS, free oil droplets, instant streaming & milky cut on selected pcs, PP, moldic por., rare edge stn on dry

SH, blk, gray, green, mustard yellow, brick red, sandy to silty pcs, striated on select pcs,

MS, crm to lt. gray, f-xln, dense, some glauc, rare Chert, white
Chert, white to tan, smoky gray, fresh, rare wethrd pcs, fossilif, oolitic pcs, crinoid frgmts, **2 pcs w/ milky cut, faint odor in 90"**

140 UGK



smpl bag, rare SS cluster, f-gr, well srtd, sub rnded, friable, **spotty stn in dry, pp por.**

MS-WS, crm to brn, f-xln, oolitic, hard, mineral fluor, rare PS, brn, m-gr oolitic, dense, cript-xln, NS

MS-WS, crm to off white, f-xln, chalky pcs, firm to hard, scatt Chert, white

Dolo, gray to lt. brn, fn-sucrosic, friable, **good odor in sample bag and tray, stn on wet sample, bleeding gas, live oil in tray, instant streaming cut on selected pcs, pp and inter-xln por.**

MS-WS, crm to of white, mic-xln, m-gr oolitic to massive txt, sli. dolomitic, NS

Dolo, crm to brn, f-suc to m-suc, soft friable, **partial to even stn, scatt bright fluor, slow milky cut on 50% of selected pcs, fair to good odor in bag, vuggy to pp por**

Dolo, tan to brn, vf-suc, firm to hard, mineral fluor, rare spotty bright fluor, slow streaming to milky cut on selected pcs(50%) faint odor, no stn, no live oil.
WS-PS, crm to off white, f-xln, hard, dense, oolitic to sub oolitic pcs, NS

Dolo, brn to tan, fn-sucrosic, hard, waxy looking, scatt PP por, Mineral fluor, NS

WS-PS, crm to tan, some off white, f-xln, chalky txt, oolitic, m-gr, firm to hard, dull fluor, NS
Scatt Dolo, brn, fn-suc, hard, mineral fluor, NS

WS-PS, crm to off white, A.A. NS

Dolo, gray to brn, f-xln, firm to scatt hard pcs, vf-sucrosic, waxy txt, mineral fluor, No sample show, very faint odor in bag

WS-PS, scatt MS, crm to brn, f-xln, some chalky pcs, oolitic, hard, mineral specs(glauc, rare dark specs),

Dolo, some Limy, crm to lt. gray, earthy, vf-sucrosic txt, some pcs w/ glauc, mineral fluor, NS

WS-PS, crm to off white, f-xln, hard to firm, oolitic, scatt glauc specs, NS

140 UGK

154 UGK,
120 Unit recycle, possible trip gas

+158 UGK,
70 Unit recycle

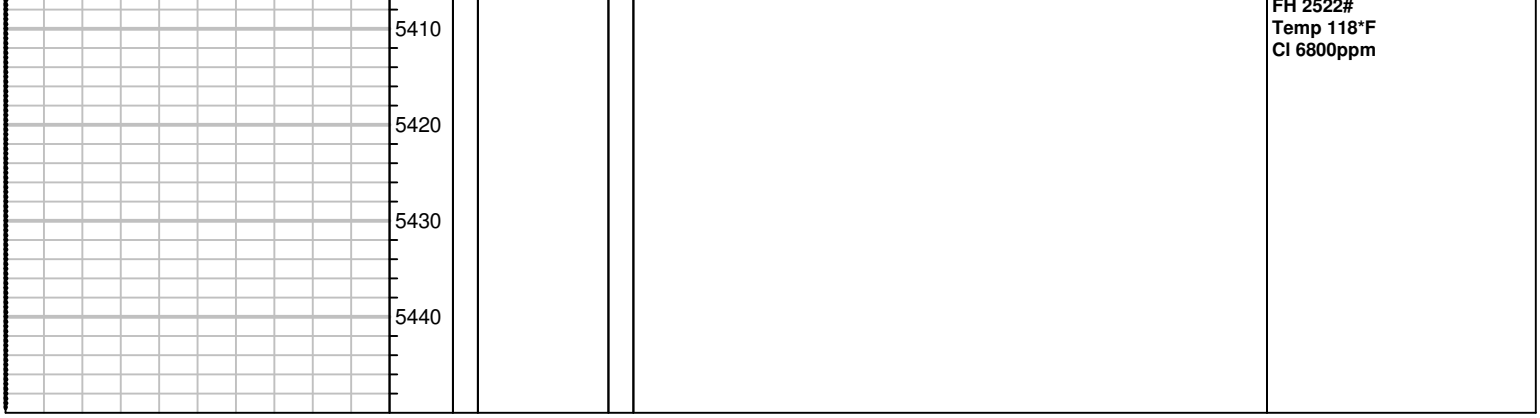
69 UGK

NO GAS INCREASE

DST #3 5168-5196
45-75-60-90
SB BOB/30 sec
GTS/33 min
GA 1/8 in choke
15.5 MCFG/35 min
16.2 MCFG/45 min
NBB
SB BOB/immed
GA 1/8 in choke
11.8 MCFG/10 min
15.9 MCFG/20min
19.2 MCFG/30 min
22.6 MCFG/40 min
25.2 MCFG/50 min
27.8 MCFG/60 min
REC: 40' MUD
IH 2563#
IF 58-43#
ISIP 1536#
FF 39-78#
FSIP 1525#
FH 2523#
Temp 112*F
Cl 6500ppm

DST #4 5205-5220
30-60-60-120
SB BOB/15 sec
NBB
SB BOB/immed GTS 57/min
TSTM
REC:
50' GOCM (15g, 25o, 60m)
IH 2553#
IF 30-25#
ISIP 848#
FF 22-29#
FSIP 664#
FH 2475#
Temp 114*F
Cl 9100ppm

DST #5 5228-5237
45-60-60-120
SB BOB/1 min
GTS 2/min into ISI,
WBB/ 3 inch
SB BOB/30 sec
GTS GA 1/8 inch choke
7.3 MCFG/10 min
8.4 MCFG/20 min
9.5 MCFG/30 min
10.6 MCFG/40 min
11.4 MCFG/50 min
12.1 MCFG/60 min
GBB, 6 inch
REC:
250' CGO (25g, 75o)
60' GOCM (21g, 35o, 44m)
IH 2586#
IF 20-67#
ISIP 1519#
FF 76-134#
FSIP 1510#


5410
5420
5430
5440
FH 2522#
Temp 118*F
Cl 6800ppm