Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1079385

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 # 32457
Name: Abercrombie Energy, LLC
Address 1: 10209 W. CENTRAL, STE 2
Address 2:
City: WICHITA State: KS Zip: 67212 + __ __ __ __
Contact Person: Gary Misak
Phone: (316) 262-1841
CONTRACTOR: License # 5822
Name: Val Energy, Inc.
Wellsite Geologist: Mike Maune
Purchaser: NCRA

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 #:

04/12/2012	04/22/2012	05/09/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-135-25373-00-00
Spot Description:
__ - NW - NW - NW Sec. 24 Twp. 19 S. R. 26 ☐ East ☑ West
330 Feet from ☑ North / ☐ South Line of Section
330 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: Ness
Lease Name: Vogel Well #: 3-24
Field Name: W V C Northwest
Producing Formation: Mississippian
Elevation: Ground: 2622 Kelly Bushing: 2627
Total Vertical Depth: 4596 Plug Back Total Depth: 4582
Amount of Surface Pipe Set and Cemented at: 261 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: 26000 ppm Fluid volume: 800 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: 05/31/2012
☑ **Confidential Release Date:** 05/31/2014
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 05/31/2012

[redacted] 1079385

Operator Name: Abercrombie Energy, LLC Lease Name: Vogel Well #: 3-24

Sec. 24 Twp. 19 S. R. 26 ☐ East ☑ West County: Ness

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:

Computer Processed Interpretation Log, Radiation Guard Log

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name Attached Top Attached Datum 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	8.3125	20	265	Common	170	3%cc 2% gel
Production	7.875	5.5	15.5	4582	Class A ASC	150	1st stage
Production	7.875	5.5	15.5	4582	60/40 Poz Mix	400	2nd stage

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
	Open Hole 4582-96	500 Gal 15% MCA	4582-96

TUBING RECORD: Size: 2 7/8 Set At: 4570 Packer At: N/A Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR.

Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	140				39

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:
4582-96

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Abercrombie Energy, LLC
Well Name	Vogel 3-24
Doc ID	1079385

Tops

Name	Top	Datum
Anhydrite	1885	+742
Base/Anhydrite	1925	+702
Heebner Shale	3931	-1304
Lansing	3974	-1343
Stark Shale	4231	-1604
Base/Kansas City	4305	-1678
Marmatohn	4346	-1719
Pawnee	4430	-1803
Ft. Scott	4485	-1858
Cherokee Shale	4508	-1881
Mississippi Lime	4576	-1949
Mississippi Dolomite	4580	-1953

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

May 10, 2012

Gary Misak
Abercrombie Energy, LLC
10209 W. CENTRAL, STE 2
WICHITA, KS 67212

Re: ACO1
API 15-135-25373-00-00
Vogel 3-24
NW/4 Sec.24-19S-26W
Ness County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Gary Misak

DRILL STEM TEST REPORT

Abercrombie Energy

10209 W Central Ste 2
Wichita, Ks 67212

ATTN: Mike Maune

24-19-26 Ness, Ks

Vogel 3-24

Job Ticket: 45050 **DST#: 1**

Test Start: 2012.04.19 @ 04:44:44

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:29:54
Time Test Ended: 14:23:54

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 60

Interval: 4528.00 ft (KB) To 4585.00 ft (KB) (TVD)
Total Depth: 4585.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

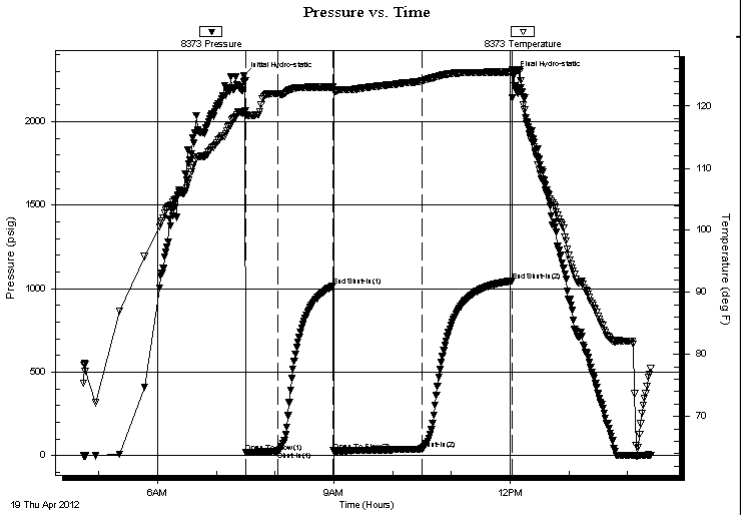
Reference Elevations: 2632.00 ft (KB)
2622.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: 40.89 psig @ 4529.00 ft (KB)
Start Date: 2012.04.19 End Date: 2012.04.19
Start Time: 04:44:44 End Time: 14:23:54

Capacity: 8000.00 psig
Last Calib.: 2012.04.19
Time On Btm: 2012.04.19 @ 07:28:09
Time Off Btm: 2012.04.19 @ 12:03:23

TEST COMMENT: IF: Surface blow built to 1 1/2.
IS: No return.
FF: Surface blow built to 3 1/2.
FS: No retrun.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2271.99	118.93	Initial Hydro-static
2	19.30	118.55	Open To Flow (1)
35	26.56	122.01	Shut-In(1)
91	1014.82	123.04	End Shut-In(1)
92	27.47	122.55	Open To Flow (2)
182	40.89	124.05	Shut-In(2)
274	1046.18	125.51	End Shut-In(2)
276	2273.05	125.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 5%g 35%o 60%m	0.87
0.00	31 GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy

10209 W Central Ste 2
Wichita, Ks 67212

ATTN: Mike Maune

24-19-26 Ness, Ks

Vogel 3-24

Job Ticket: 45050 **DST#: 1**

Test Start: 2012.04.19 @ 04:44:44

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.60 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3200.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

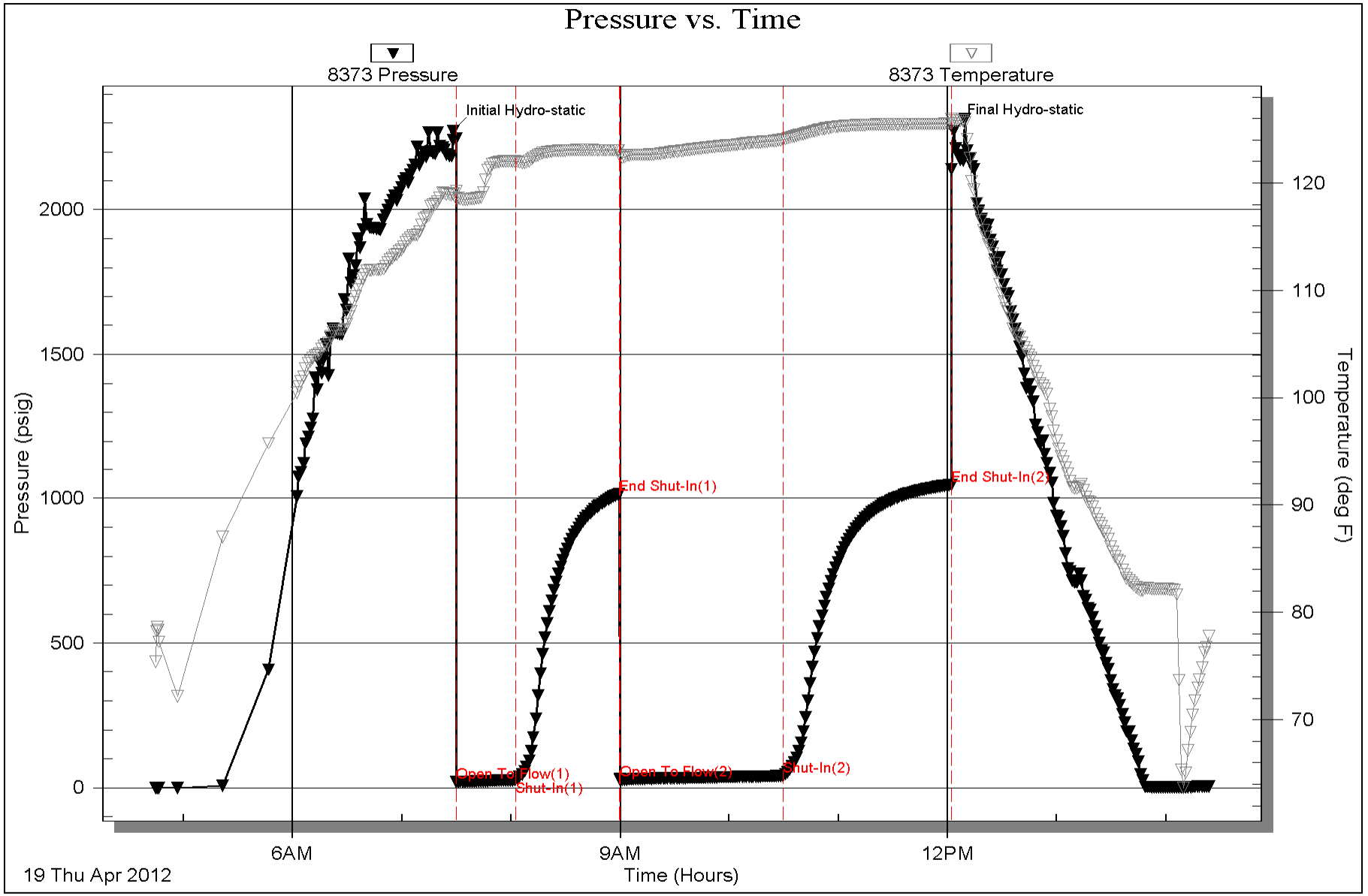
Recovery Table

Length ft	Description	Volume bbl
62.00	gocm 5%g 35%o 60%m	0.870
0.00	31 GIP	0.000

Total Length: 62.00 ft Total Volume: 0.870 bbl

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

Serial #: 8373 **Inside** Abercrombie Energy Vogel 3-24 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 45050 Printed: 2012.04.19 @ 15:11:13

DRILL STEM TEST REPORT

Abercrombie Energy

10209 W Central Ste 2
Wichita, Ks 67212

ATTN: Mike Maune

24-19-26 Ness, Ks

Vogel 3-24

Job Ticket: 46501 **DST#: 2**

Test Start: 2012.04.19 @ 22:22:16

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:12:11
Time Test Ended: 07:05:11

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 60

Interval: 4584.00 ft (KB) To 4590.00 ft (KB) (TVD)
Total Depth: 4590.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

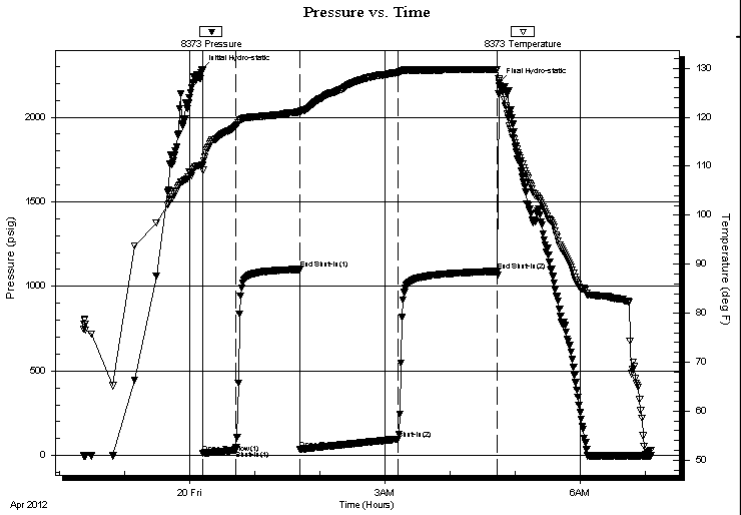
Reference Elevations: 2632.00 ft (KB)
2622.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: 97.54 psig @ 4585.00 ft (KB)
Start Date: 2012.04.19 End Date: 2012.04.20
Start Time: 22:22:16 End Time: 07:05:11

Capacity: 8000.00 psig
Last Calib.: 2012.04.20
Time On Btm: 2012.04.20 @ 00:10:56
Time Off Btm: 2012.04.20 @ 04:44:55

TEST COMMENT: IF: BOB in 24 min.
IS: No return.
FF: BOB in 25 min.
FS: Surface blow died in 30 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2282.31	110.18	Initial Hydro-static
2	15.14	109.14	Open To Flow (1)
32	33.60	118.14	Shut-In(1)
91	1100.68	121.08	End Shut-In(1)
91	37.67	120.78	Open To Flow (2)
182	97.54	129.18	Shut-In(2)
273	1089.48	129.74	End Shut-In(2)
274	2202.19	127.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	mcgo 10%g 50%o 40%m	0.87
144.00	go 10%g 90%o	2.02
0.00	310 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy

10209 W Central Ste 2
Wichita, Ks 67212

ATTN: Mike Maune

24-19-26 Ness, Ks

Vogel 3-24

Job Ticket: 46501 **DST#: 2**

Test Start: 2012.04.19 @ 22:22:16

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:	0 ppm
Viscosity:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.80 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

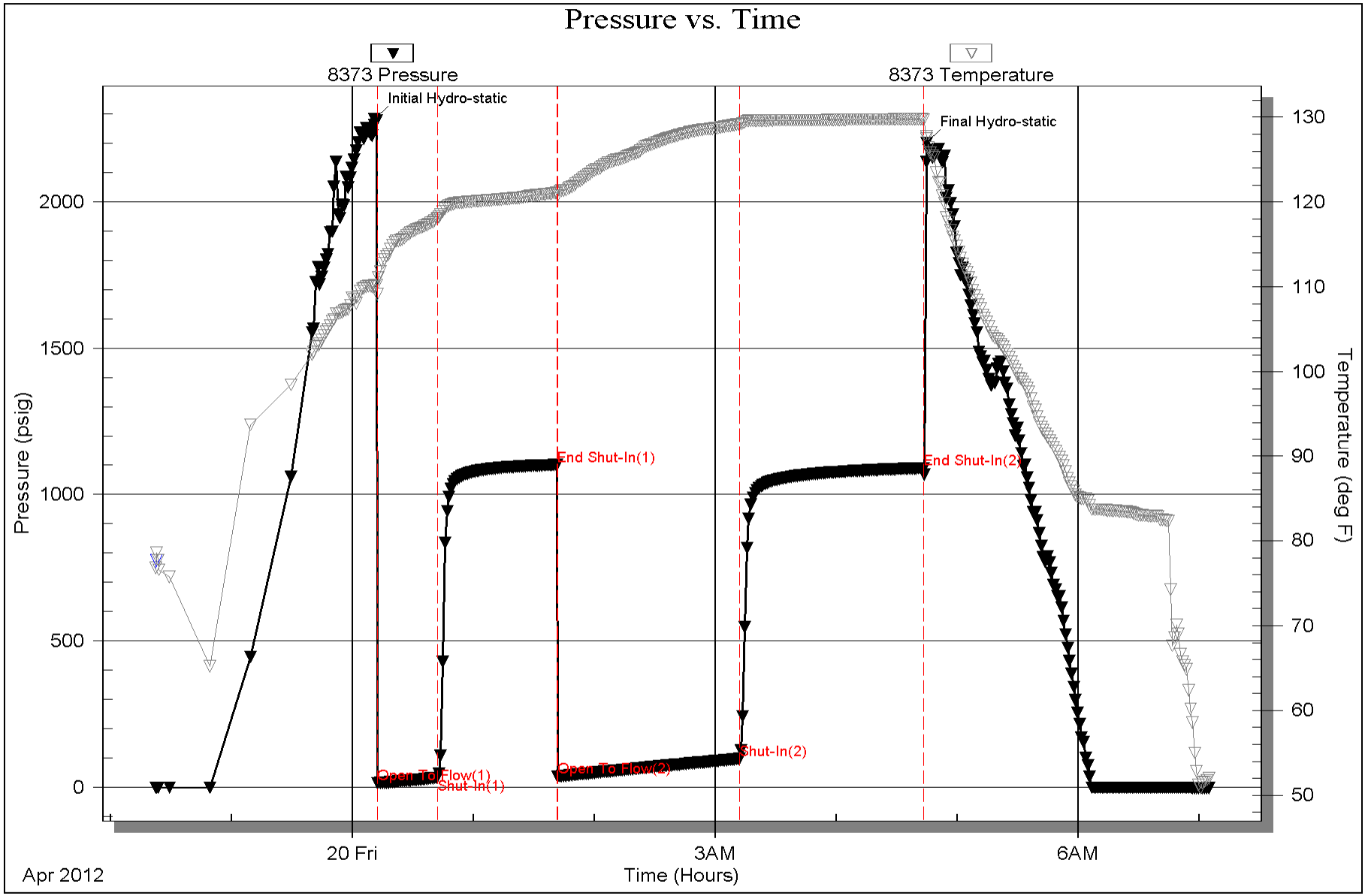
Recovery Table

Length ft	Description	Volume bbl
62.00	mcgo 10%g 50%o 40%m	0.870
144.00	go 10%g 90%o	2.020
0.00	310 GIP	0.000

Total Length: 206.00 ft Total Volume: 2.890 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 38@50=39

Serial #: 8373 **Inside** Abercrombie Energy Vogel 3-24 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 46501 Printed: 2012.04.20 @ 07:57:20

DRILL STEM TEST REPORT

Abercrombie Energy

10209 W Central Ste 2
Wichita, Ks 67212

ATTN: Mike Maune

24-19-26 Ness, Ks

Vogel 3-24

Job Ticket: 46502 **DST#: 3**

Test Start: 2012.04.20 @ 16:12:39

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:47:34
Time Test Ended: 01:25:34

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 60

Interval: 4589.00 ft (KB) To 4595.00 ft (KB) (TVD)
Total Depth: 4595.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

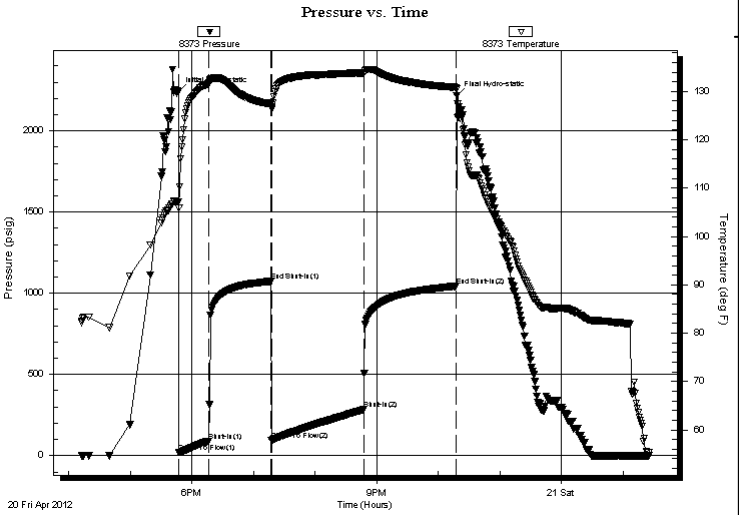
Reference Elevations: 2632.00 ft (KB)
2622.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: 284.52 psig @ 4590.00 ft (KB)
Start Date: 2012.04.20 End Date: 2012.04.21
Start Time: 16:12:39 End Time: 01:25:34

Capacity: 8000.00 psig
Last Calib.: 2012.04.21
Time On Btm: 2012.04.20 @ 17:47:04
Time Off Btm: 2012.04.20 @ 22:18:03

TEST COMMENT: IF: BOB in 7 1/2 min.
IS: Surface blow built to 4 in 60 min.
FF: BOB in 10 min.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2242.54	107.11	Initial Hydro-static
1	19.60	105.90	Open To Flow (1)
30	91.47	131.65	Shut-In(1)
90	1073.85	127.36	End Shut-In(1)
91	94.75	126.73	Open To Flow (2)
181	284.52	133.74	Shut-In(2)
271	1043.81	130.82	End Shut-In(2)
271	2217.72	130.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 20%g 20%o 60%m	0.87
692.00	go 15%g 85%o	9.71
0.00	248 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Abercrombie Energy

10209 W Central Ste 2
Wichita, Ks 67212

ATTN: Mike Maune

24-19-26 Ness, Ks

Vogel 3-24

Job Ticket: 46502 **DST#: 3**

Test Start: 2012.04.20 @ 16:12:39

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:47:34
Time Test Ended: 01:25:34

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 60

Interval: 4589.00 ft (KB) To 4595.00 ft (KB) (TVD)
Total Depth: 4595.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

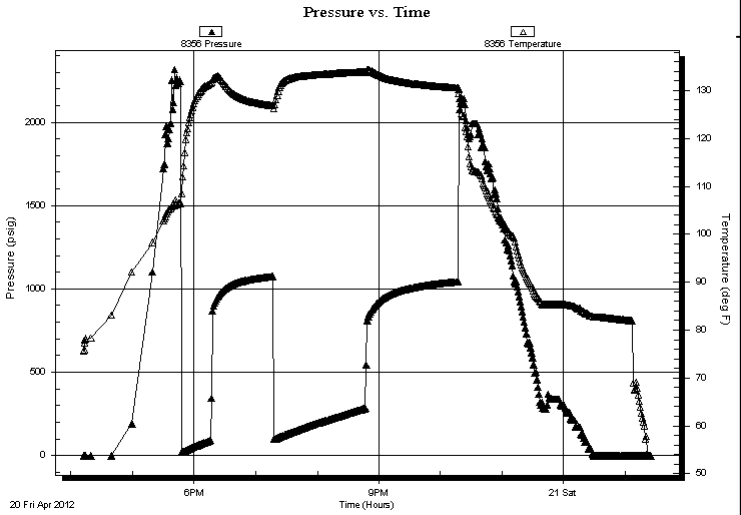
Reference Elevations: 2632.00 ft (KB)
2622.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8356

Press@RunDepth: psig @ ft (KB)
Start Date: 2012.04.20 End Date: 2012.04.21
Start Time: 16:12:21 End Time: 01:25:16

Capacity: 8000.00 psig
Last Calib.: 2012.04.21
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: BOB in 7 1/2 min.
IS: Surface blow built to 4 in 60 min.
FF: BOB in 10 min.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 20%g 20%o 60%m	0.87
692.00	go 15%g 85%o	9.71
0.00	248 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy

10209 W Central Ste 2
Wichita, Ks 67212

ATTN: Mike Maune

24-19-26 Ness, Ks

Vogel 3-24

Job Ticket: 46502 **DST#: 3**

Test Start: 2012.04.20 @ 16:12:39

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:	0 ppm
Viscosity:	44.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	gocm 20%g 20%o 60%m	0.870
692.00	go 15%g 85%o	9.707
0.00	248 GIP	0.000

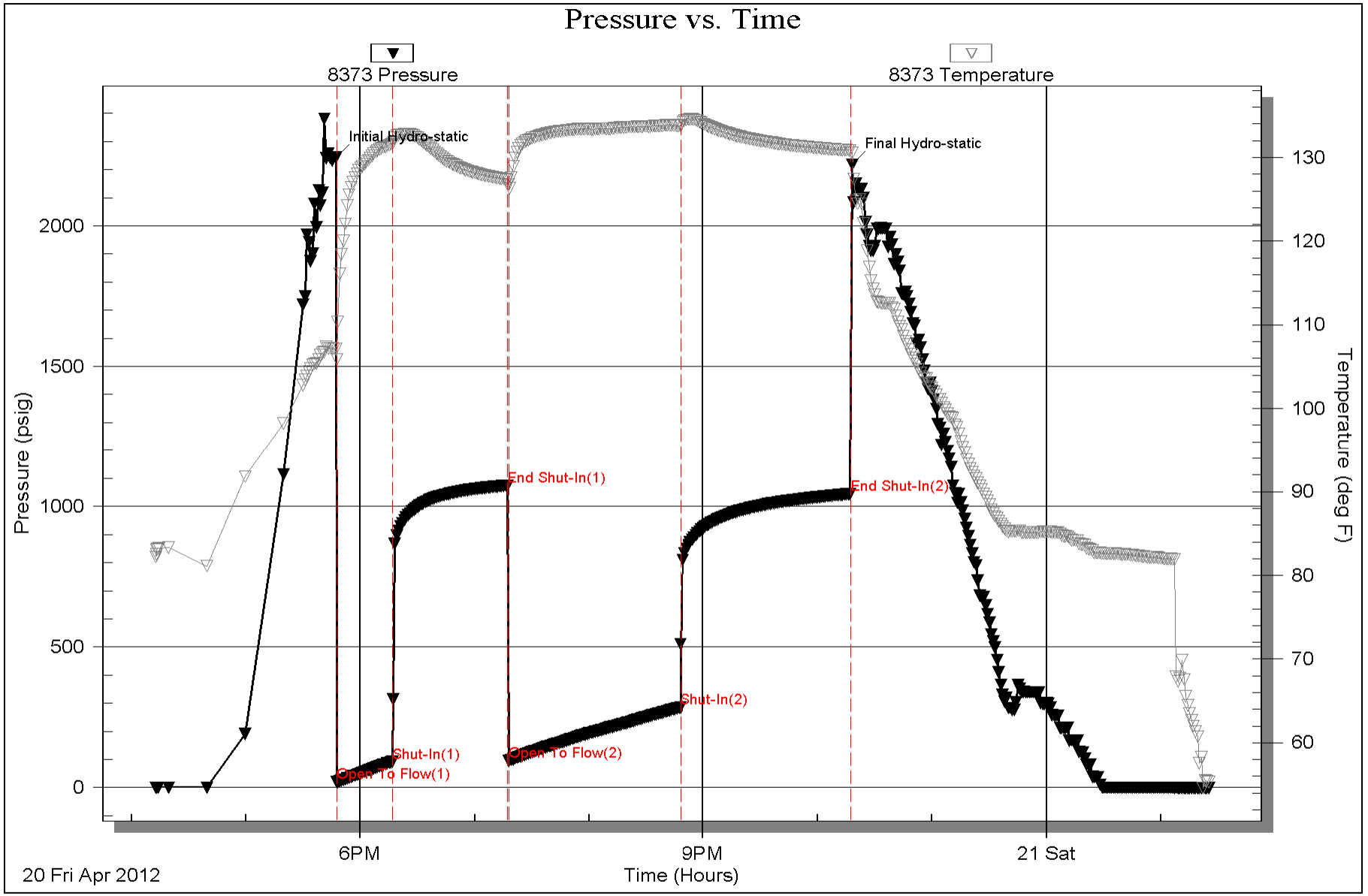
Total Length: 754.00 ft Total Volume: 10.577 bbl

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

Laboratory Name: Laboratory Location:

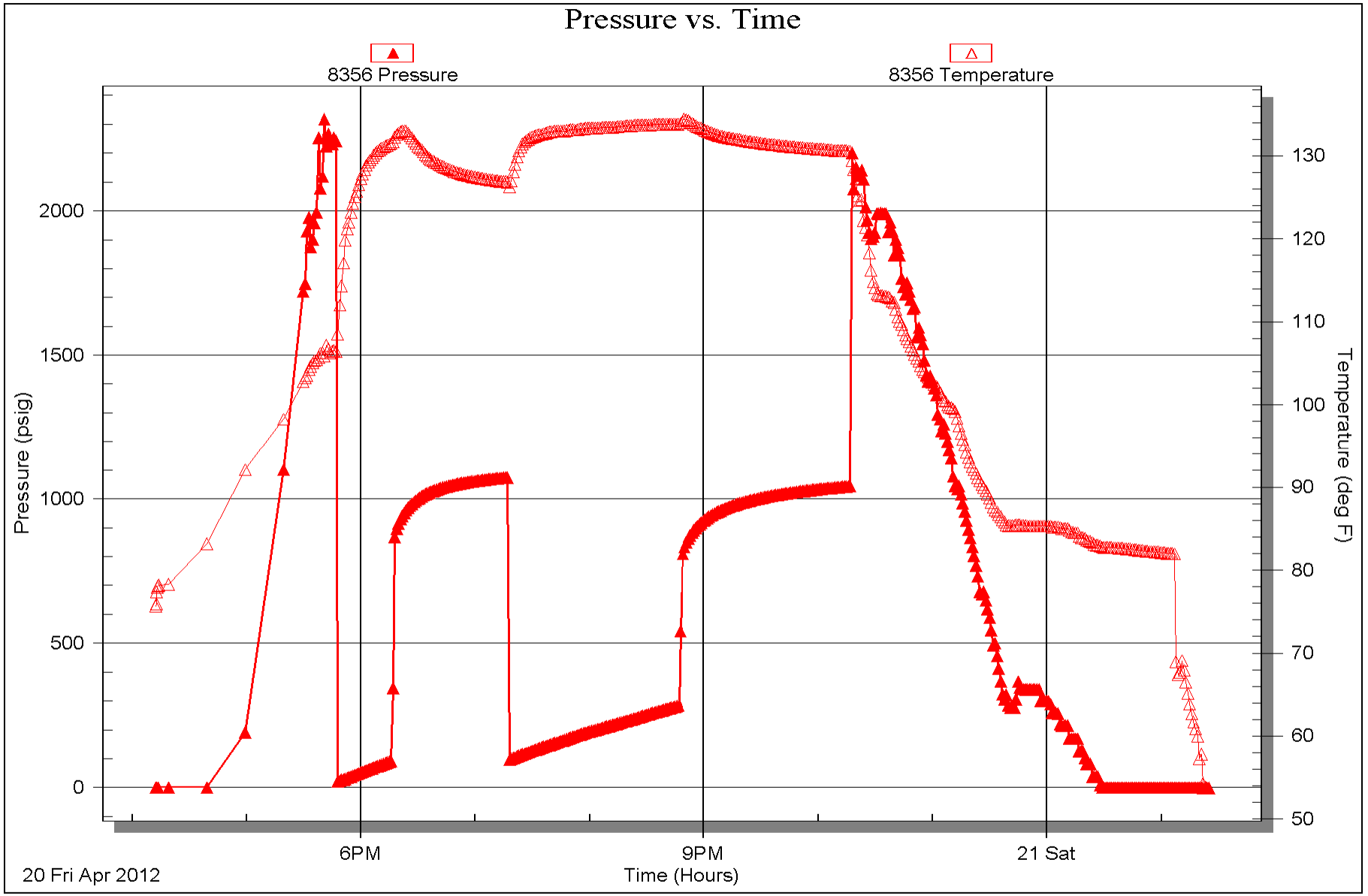
Recovery Comments: 37@40=39

Serial #: 8373 **Inside** Abercrombie Energy Vogel 3-24 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 46502 Printed: 2012.04.21 @ 08:17:38

Serial #: 8356 | Abercrombie Energy | Vogel 3-24 | DST Test Number: 3



Trilobite Testing, Inc | Ref. No: 46502 | Printed: 2012.04.21 @ 08:17:39

LITHOLOGY STRIP LOG
WellSight Systems
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name:	Abercrombie Energy, LLC. Vogel #3-24		
Location:	NW NW NW Section 24-T19S-R26W		
License Number:	API: 15-135-25373	Region:	Ness Co, KS
Spud Date:	April 12, 2012	Drilling Completed:	April 20, 2012
Surface Coordinates:	330 FNL & 330 FWLSection 24-T19S-R26W		
Bottom Hole Coordinates:			
Ground Elevation (ft):	2618	K.B. Elevation (ft):	2627
Logged Interval (ft):	3800 To: 4595	Total Depth (ft):	4595
Formation:	Mississippian, RTD 4595 (-1968), LTD		
Type of Drilling Fluid:	Chemical. Displaced at 3626'.		

OPERATOR

Company: Abercrombie Energy, LLC
Address: 10209 W. Central, Ste 2
Wichita, KS 67212

GEOLOGIST

Name: Mikeal K. Maune
Company: Consulting Petroleum Geologist - Kansas Licensed No. 210
Address: Wichita, Kansas
Office: 316-722-8173

COMMENTS

Surface Casing: 8 5/8" set @ 261' w/ 170 sks. Common 3% cc, 2% gel, cement did circulate. Plug down @ 3 am 4/13/12.

Production Casing: New 15.5# 5 1/2" casing set @ 4582'. Cemented bottom stage w/150 sks. Class A ASC, 10% Salt, 5% Coal Seal, 2% Gel. Cemented top stage w/400 sks. 60/40, 8% Gel, 3% CC, 1/4# Flow seal. Rat Hole 30 sks. Mousehole 20sks. DV tool set @ 1897'. Plug down @ 12:30 am 4/22/2012. Job by Allied Cement.

Deviation Surveys: 3/4 @ 265', 3/4 @4585'.
Pipe Strap @ 4585. Board 4594.23'. Strap 4593.59'. Strap short to Board .64'.

Val Energy Rig #4 Bit Record:
#1 12 1/4" JZ Rock in @ GL, out @ 265'.
#2 7 7/8" JZ QX21 in @ 265', out @ 4595'.

Mud System: Mud-CO/Service Mud
DSTs: Trilobite Testing Inc. (3 Dsts)
OH Logs: Log Tech RAG

Correlation of the OH Log with the Drilling Time, indicates OH Log depths and the Drilling Time depths are approximately equal from 3800 to TD. The Gamma ray curve was imported directly into this log without any depth adjustment.

OH Log Formation Tops: Anhydrite 1885 (+742), Base Anhydrite 1924 (+703), Heebner 3931 (-1304), Lansing 3974 (-1347), Stark 4231 (-1604), BKC 4305 (-1678), Pawnee 4430 (-1803), Fort Scott 4485 (-1858), Cherokee 4507 (-1880), Miss Ls, 4576 (-1949), Miss Dolomite 4580 9-1953), LTD 4596 (-1969).

DSTs

DST #1 4528-4585/30-60-90-90. 1st Op: Surface blow build to 1 1/2". 2nd Op: Surface blow build to 3 1/2". Recover: 31' GIP, 62' GOCM (5% Gas, 35%Oil, 60%M). IH 2271#, IFP 19-26#, ISIP 1014# building, FFP 27-40#, FSIP 1046# building, FH 2273#, BHT 125 F.

DST #2 4584-4590/30-60-90-90. 1st Op: BOB/24". 2nd Op: BOB/25". Recover: 310' GIP, 144' GO, Gty 39, (10% Gas, 90% Oil), 62' MCGO (10% Gas, 50%Oil, 40%M). IH 2282#, IFP 15-33#, ISIP 1100# building, FFP 37-97#, FSIP 1089# building, FH 2202#, BHT 129 F.

DST #3 4589-4595/30-60-90-90. 1st Op: BOB/7 1/2". RB build to 4" in 60 min. 2nd Op: BOB/10". No RB. Recover: 248' GIP, 692' GO, Gty 39, (15% Gas, 85% Oil), 62' GOCM (20% Gas, 20%Oil, 60%M). IH 2242#, IFP 19-91#, ISIP 1073# building, FFP 94-284#, FSIP 1043# building, FH 2217#, BHT 130 F.

ROCK TYPES

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Sdy dolo
- Shy dolo
- Dol
- Gyp
- Sdy lmst
- Lmst
- Mrlst
- Salt
- Shale
- Sltst
- Ss
- Black sh
- Gry sh
- Shale
- Shysltst
- Sltysh

ACCESSORIES

MINERAL

- Anhy
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Ferrpel
- Ferr
- Glau
- Gyp
- Marl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Chlorite
- Dol
- Sand
- Slty

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pelloidal
- Pisolite
- Plant
- Strom
- Fuss
- Oomoldic

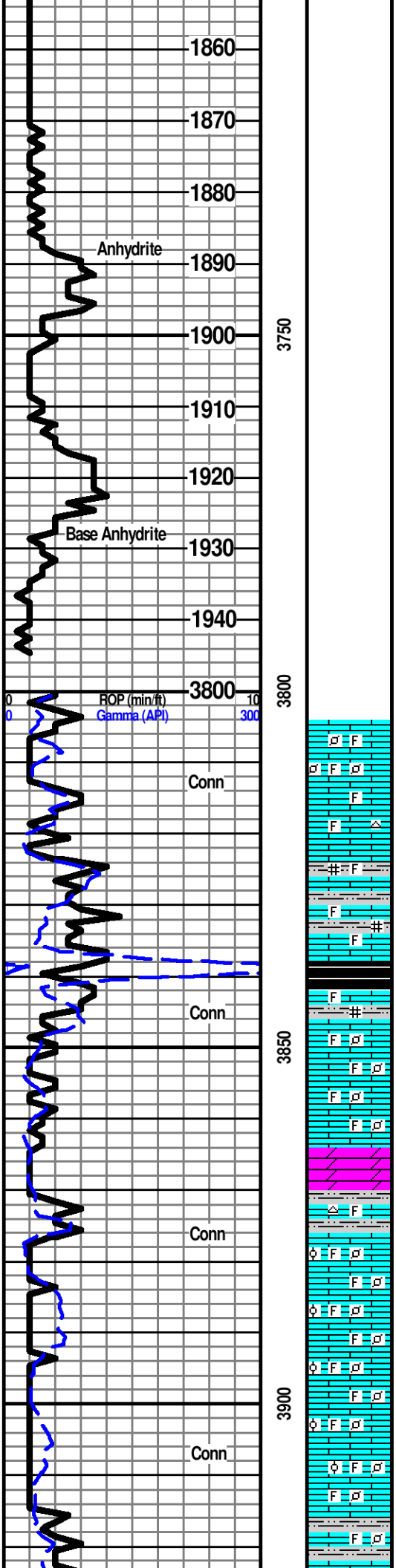
STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

- BS Boundst
- C Chalky
- CX Cryxln
- E Earthy
- FX Finexln
- GS Grainst
- L Lithogr
- MX Microxln
- MS Mudst
- PS Packst
- WS Wackest

Curve Track 1 ROP (min/ft) Gamma (API)	Depth	Lithology	Oil Shows	Geological Descriptions	Remarks
0 ROP (min/ft) 10 0 Gamma (API) 300 Depth 1850	3700				



Ls, wh, tan, mott, mdstn, wkestn, foss, pell, spt chky text, pp por & tr foss moldic por. Tr Cht, milky, tan, sub op, ang.

Ls, tan, wkestn, foss, spt chky text, tr pp & foss moldic por. Shy Sltstn, gry, foss, calc, micro pyr. Tr Cht, milky, tan, gry, semi transl, ang.

Shy Ls, tan, gry, mott wkestn, foss, arg, tr micropyr. Ls, tan, brn, mdstn, wkestn, foss, dns.

Sh, blk, carb, pyr. Shy Ls, gry, tan, mott, wkestn, foss, arg, pyr.

Ls, tan, gry, mott, wkestn, tr pkstn, foss, pell, pp & foss moldic por, fair spt inter gran por. Shy Ls, lt gry, wkestn, foss, arg, pp por.

Dolo Ls, tan, vfn xln, poor to fair spt suc por w/Dolo Ls, tan, vfn xln, poor inter xln por.

Shy Ls, gry, wkestn, foss, arg. Cht, tan, gry, milky, transl, ang.

Ls, lt gry, wkestn, pkstn, foss, pell, fn ool in part, pp & foss moldic por (fuss), poor to fair oom por, few frag tr vug por, spt intergran por.

Ls, tan, lt gry, blk to brn flaky spks, wkestn, pkstn, foss, pell, fn ool in part, pp & foss moldic por (fuss), poor to fair oom por, few frag w/tr vug por, spt intergran por. blk to brn flaky spks.

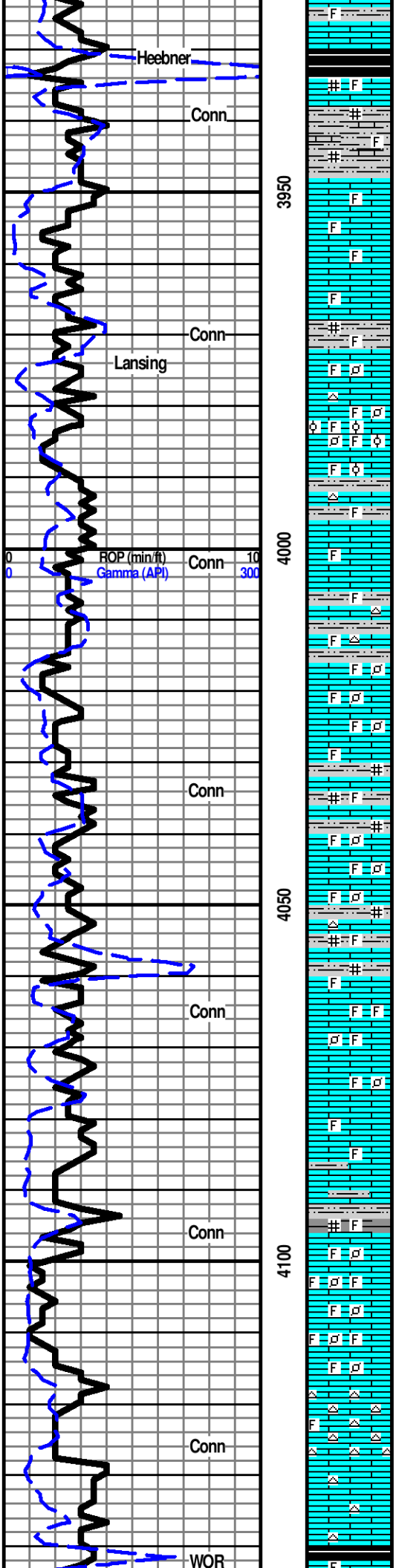
Ls, tan, gry, mott, blk to brn spks, wkestn, foss, pell, pp & tr foss moldic por. Shy Ls, tan, brn, mott gry, w/ blk, brn, spks, wkestn, foss, arg, tr micro pyr.

Anhydrite 1888 (+739)
OH Log 1885 (+742)

Base Anhydrite 1928 (+699)
OH Log 1924 (+703)

Geologist on Location @ 3800'.

Correlation of the OH Log with the Drilling Time, indicates OH Log depths and the Drilling Time depths are approximately equal from 3800 to TD.
The Gamma ray curve was imported directly into this log without any depth adjustment.



Sh, blk, carb, pyr. Shy Ls, dk gry, brn, wkestn, foss, arg, pyr, dns. Ls, tan, gry, wkestn, dk gry foss, pyr, arg.

Heebner 3931 (-1304)

Shy Sltstn, gry-brn, calc, tr foss, soft. Shy Ls, gry, brn, moss foss, arg, tr pyr.

Flood Ls, lt gry, brn, mdstn, dns. Ls, tan, gry, mott, mdstn, tr wkestn, foss, arg in part micro pyr, soft to hard.

Ls, tan, mdstn, soft to hard. Ls, gry, mdstn, dns, tr micro pyr. Ls, tan, gry, mott, wkestn, foss, tr pyr.

Shy Ls, dk gry, brn, mott, wkestn, foss, pyr. Shy Sltstn, gry-grn, soft.

Ls, tan, brn, mott gry, wkestn, tr pkstn, foss, pell, pp & tr foss moldic por, clear 2nd calcite. Tr Ls, lt gry, wkestn, foss, tr pyr foss. Tr Cht, milky, wh, lt gry, sub op ang.

Lansing 3974 (-1347)

Ls, wh, tan, wkestn, foss, tr fn ool, pp & tr foss moldic por, spt chky text, tr fn oom por (uphole?).

Ls, tan, brn, gry, mdstn, dns, tr w/Cht, milky, gry, transl, ang. Ls, tan, brn, mdstn, foss.

Ls, tan, brn, gry, wkestn, foss, clear 2nd calcite. Ls, brn, gry, mdstn, sl foss, dns.

Flood Shy Ls, gry, dk gry, wkestn, foss, arg, tr pyr. Ls, gry, mdstn, dsn. Cht, dk gry-blk, w/milky foss, semi transl, ang.

Ls, wh, tan, wkestn, tr pkstn, foss, pell, clear 2nd calcite, pp por, tr foss moldic por, poor spt inter gran por, spt chky text.

Flood Ls, gry, dk gry, wkestn, foss, arg, tr pyr. Shy sltstn, gry, dk gry, pyr.

Mud-Co/Service Mud, Inc.
10:30 am 4/17/2012
Drilling @ 4030'
Wt 9.0, Vis 47, WL 6.8
pH 10.0, LCM 4#, Chl 3,000
PV 15, YP 15, GelS 9/23

Ls, wh, tan, mott, wkestn, foss, pell, clear 2nd calcite filled por, tr pp & scatt foss moldic por, spt chky text in part. Ls, tan, mdstn, sl foss, dns. Tr Cht, milky, wh, transl, ang.

Flood Shy Ls, gry, dk gry, wkestn, foss, arg, dns. Tr Cht, milky, wh, transl, ang.

Ls, wh, tan, mott, wkestn, tr pkstn, foss, abdnt 2nd calcite, pp por. Ls, tan, lt gry, mdstn, dns.

Ls, tan, lt gry, mdstn, sl foss, hard. Ls, wh, tan, wkestn, foss, pell, clear 2nd calcite. Ls, tan, gry, mdstn, dns. Tr Cht, tan, milky, transl, ang.

Ls, tan, brn, gry, mdstn, sl arg, tr micro pyr, dns. Ls, dirty gry, wkestn, foss, sl arg, soft chky text.

Sh & Shy Sltstn, dk gry, blk, calc, foss, pyr. Shy Ls, dk gry, gry, tan foss frag, arg, pyr.

Ls, wh, tan, wkestn, pkstn, foss, pell, clear 2nd calcite, pp & scatt foss moldic por, spt intergran por.

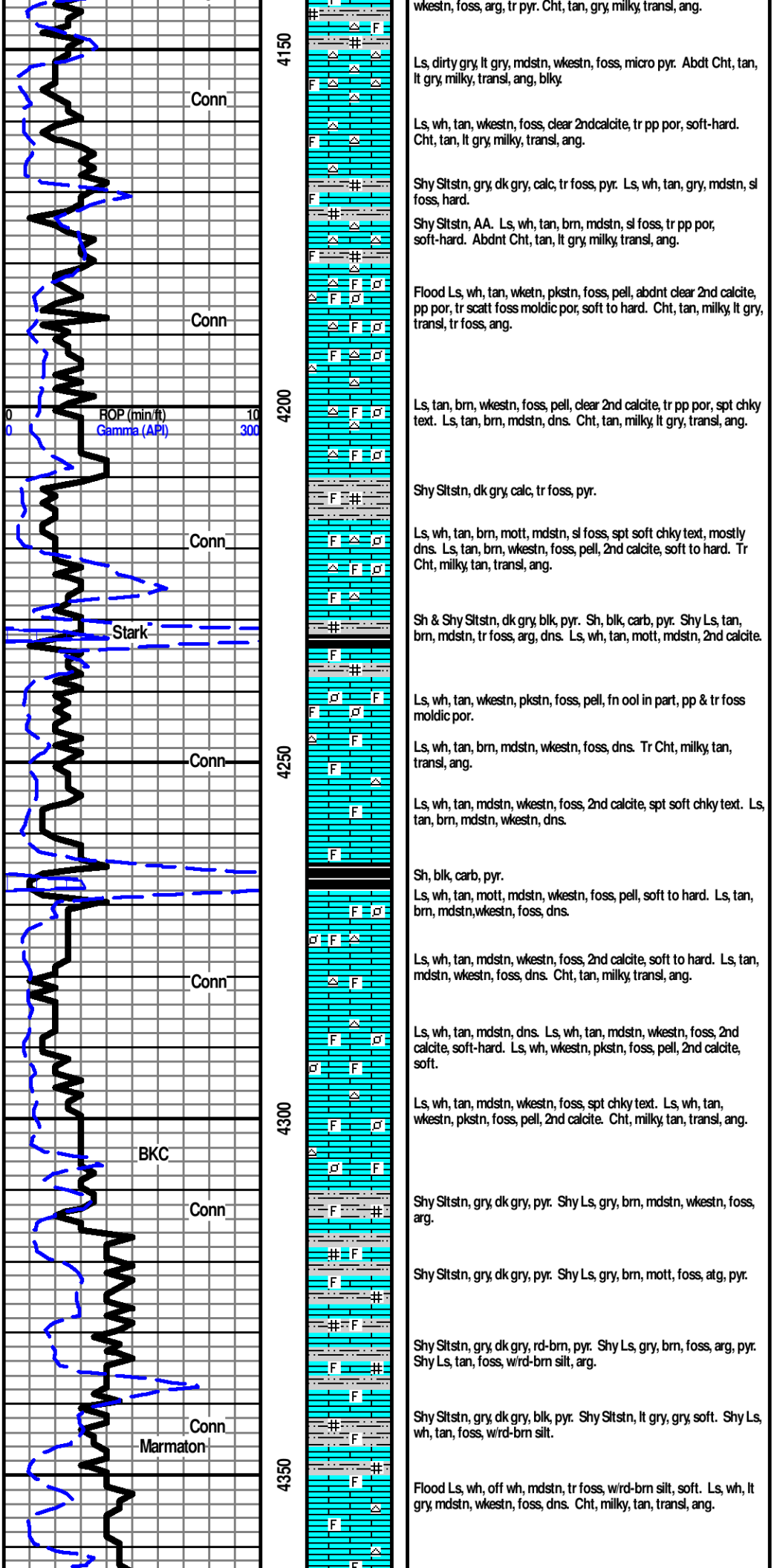
Ls, wh, tan, mott , wkestn, pkstn, foss, pell, clear 2nd calcite, pp & foss moldic por, spt chky text.

Ls, tan, brn, mdstn, sl foss, dns. Flood Cht, tan, milky, lt gry, tr foss, spic, semi transl, ang, sharp.

Ls, tan, brn, mdstn, sl foss, dns. Ls, tan, wkestn, pkstn, foss, 2nd calcite, soft-hard. Cht, tan, gry, milky, semi transl, tr foss, ang.

Sh, blk, carb, pyr. Shy Sltstn, gry, calc, pyr. Ls, dirty gry, gry, mdstn,

WOR @ 4142, Rotary chain broke.



wkestn, foss, arg, tr pyr. Cht, tan, gry, milky, transl, ang.

Ls, dirty gry, lt gry, mdstn, wkestn, foss, micro pyr. Abdt Cht, tan, lt gry, milky, transl, ang, blky.

Ls, wh, tan, wkestn, foss, clear 2ndcalcite, tr pp por, soft-hard. Cht, tan, lt gry, milky, transl, ang.

Shy Sltstn, gry, dk gry, calc, tr foss, pyr. Ls, wh, tan, gry, mdstn, sl foss, hard.

Shy Sltstn, AA. Ls, wh, tan, brn, mdstn, sl foss, tr pp por, soft-hard. Abdnt Cht, tan, lt gry, milky, transl, ang.

Flood Ls, wh, tan, wketn, pkstn, foss, pell, abdnt clear 2nd calcite, pp por, tr scatt foss moldic por, soft to hard. Cht, tan, milky, lt gry, transl, tr foss, ang.

Ls, tan, brn, wkestn, foss, pell, clear 2nd calcite, tr pp por, spt chky text. Ls, tan, brn, mdstn, dns. Cht, tan, milky, lt gry, transl, ang.

Shy Sltstn, dk gry, calc, tr foss, pyr.

Ls, wh, tan, brn, mott, mdstn, sl foss, spt soft chky text, mostly dns. Ls, tan, brn, wkestn, foss, pell, 2nd calcite, soft to hard. Tr Cht, milky, tan, transl, ang.

Sh & Shy Sltstn, dk gry, blk, pyr. Sh, blk, carb, pyr. Shy Ls, tan, brn, mdstn, tr foss, arg, dns. Ls, wh, tan, mott, mdstn, 2nd calcite.

Stark Sh 4232 (-1605)

Ls, wh, tan, wkestn, pkstn, foss, pell, fn ool in part, pp & tr foss moldic por.

Ls, wh, tan, brn, mdstn, wkestn, foss, dns. Tr Cht, milky, tan, transl, ang.

Ls, wh, tan, mdstn, wkestn, foss, 2nd calcite, spt soft chky text. Ls, tan, brn, mdstn, wkestn, dns.

Sh, blk, carb, pyr.

Hushpuckney Sh 4265 (-1638)

Ls, wh, tan, mott, mdstn, wkestn, foss, pell, soft to hard. Ls, tan, brn, mdstn,wkestn, foss, dns.

Ls, wh, tan, mdstn, wkestn, foss, 2nd calcite, soft to hard. Ls, tan, mdstn, wkestn, foss, dns. Cht, tan, milky, transl, ang.

Ls, wh, tan, mdstn, dns. Ls, wh, tan, mdstn, wkestn, foss, 2nd calcite, soft-hard. Ls, wh, wkestn, pkstn, foss, pell, 2nd calcite, soft.

Ls, wh, tan, mdstn, wkestn, foss, spt chky text. Ls, wh, tan, wkestn, pkstn, foss, pell, 2nd calcite. Cht, milky, tan, transl, ang.

BKC 4305 (-1678)

Shy Sltstn, gry, dk gry, pyr. Shy Ls, gry, brn, mdstn, wkestn, foss, arg.

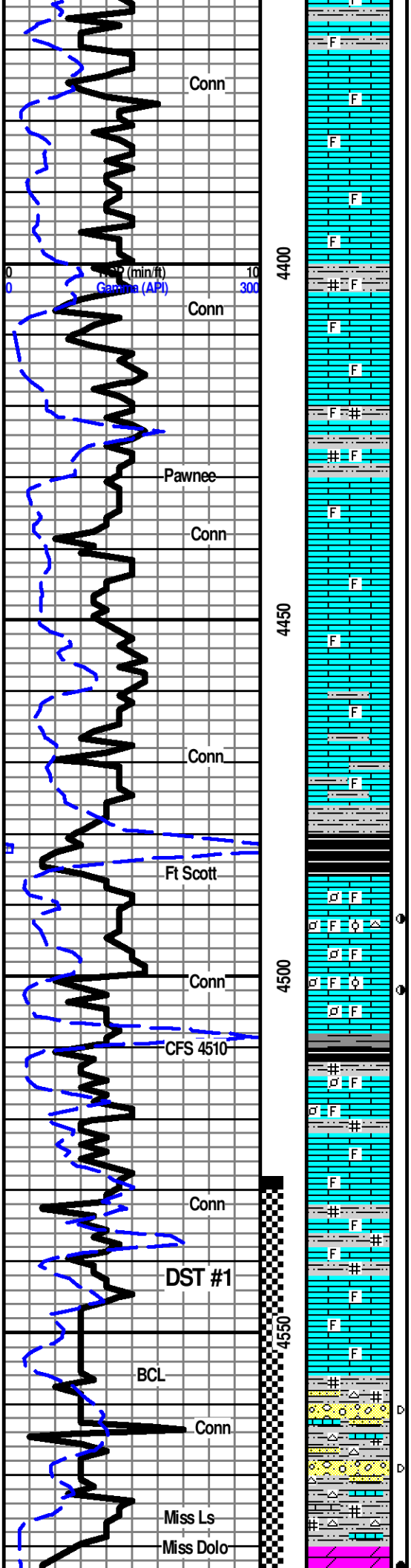
Shy Sltstn, gry, dk gry, pyr. Shy Ls, gry, brn, mott, foss, atg, pyr.

Shy Sltstn, gry, dk gry, rd-brn, pyr. Shy Ls, gry, brn, foss, arg, pyr. Shy Ls, tan, foss, w/rd-brn silt, arg.

Shy Sltstn, gry, dk gry, blk, pyr. Shy Sltstn, lt gry, gry, soft. Shy Ls, wh, tan, foss, w/rd-brn silt.

Marmaton 4346 (-1719)

Flood Ls, wh, off wh, mdstn, tr foss, w/rd-brn silt, soft. Ls, wh, lt gry, mdstn, wkestn, foss, dns. Cht, milky, tan, transl, ang.



Shy Sltstn, gry, dk gry, rd-brn, pyr. Shy Ls, gry, foss, arg, pyr.

Flood Ls, wh, tan, mdstn, sl foss, 2nd calcite,spt chky text in part. Ls, tan, mdstn, wkestn, foss, 2nd calcite, dns.

Ls, wh, tan, mdstn, spt chky text. Ls, wh, tan, lt gry, mdstn, tr foss, 2nd calcite filled por, dns.

Ls, wh, tan, mdstn, soft-hard. Ls, wh, off wh, lt gry, mdstn, tr foss, dns. Ls, wh, lt gry, mdstn, wkestn, foss, dns.

Shy Ls, gry, mdstn, dns. Shy Sltstn, gry, dk gry, calc, tr foss.

Ls, wh, tan, mott, mdstn, wkestn, foss, spt chky text. Ls, tan, mdstn, tr foss, dns.

Ls, wh, tan, lt gry, mdstn, dns. Ls, tan, mdstn, wkestn, foss, 2nd calcite. Shy Ls, gry, wkestn, foss, arg, tr pyr, dns.

Shy Sltstn, gry, dk gry, calc, tr foss. Shy Ls, gry, mdstn, wkestn, foss, arg, tr pyr

Pawnee 4430 (-1803)

Ls, tan, brn, mdstn, tr foss, soft to hard. Ls, tan, brn, mdstn, dns. Tr Ls, brn, lithographic, dns.

Ls, wh, tan, mdstn, sl foss, soft-hard. Ls, tan, mdstn, wkestn, foss, 2nd calcite, dns. Tr Ls, tan, brn, lithographic, dns.

Mud-Co/Service Mud, Inc.
10:10 am 4/18/2012
Drilling @ 4447'
Wt 9.3, Vis 45, WL 7.6
pH 9.0, LCM 3#, Chl 3,200
PV 14, YP 14, GelS 9/24

Ls, wh, tan, mdstn, sl foss, soft-hard. Ls, tan, brn, mdstn, dns. Ls, brn, gry, mott, mdstn, arg.

DST #1 4528-4585/30-60-90-90
1st Op: Surface blow > 1 1/2".
2nd Op: Surface blow > 3 1/2".
Recover: 31' GIP, 62' GOCM
(5% Gas, 35%Oil, 60%M).
IH 2271#, IFP 19-26#, ISIP 1014#
FFP 27-40#, FSIP 1046#,FH 2273#,
BHT 125 F.

Ls, tan, brn, gry, mdstn, tr foss, dns. Shy Ls, gry, mdstn, arg, dns.

Ls, tan, brn, gry, mdstn, tr foss, dns. Tr cht, tan, brn, transl, ang. Shy Ls, gry, mdstn, arg, dns, tr pyr

Flood sh, blk, carb, pyr. Shy Sltstn, dk gry, blk, calc, tr foss, pyr.

FT Scott 4486 (-1859)

Ls, gry, dk gry, mdstn, wkestn, foss, pell, tr ool, 2nd calcite, tr Cht, milky, transl, dns. Ls, brn, gry, mott, wkestn, tr pkstn, foss, pell, fn ool, clear 2nd calcite filled por, dns. Few Frag w/ tr pp por, trace of brn FO on break.

Ls, off wh, dirty gry, tan, mdstn, micro pyr, few blk spks, soft. Ls, dirty gry, brn, wkestn, tr pkstn, foss frag, pell, pyr, soft to hard, VSS lt brn FO on break.

Cherokee 4507 (-1880)

Shy Sltstn, gry, dk gry, pyr. Sh, blk, pyr.

Ls, tan, gry, mdstn, wkestn, foss, pell. Ls, brn, tan, wkestn, tr pkstn, foss, pell.

Shy Sltstn, gry, dk gry, blk, pyr.

Flood Ls, off wh, tan, mdstn, tr foss, soft to dns. Ls, tan, brn, gry, wkestn, tr pkstn, foss, pell, 2nd calcite. Ls, tan, brn, gry, mdstn, silty.

DST #2 4584-4590/30-60-90-90
1st Op: BOB/24".
2nd Op: BOB/25".
Recover: 310' GIP, 144' GO, Gty 39,
(10% Gas, 90% Oil), 62' MCGO
(10% Gas, 50%Oil, 40%M).
IH 2282#, IFP 15-33#, ISIP 1100#
FFP 37-97#, FSIP 1089#, FH 2202#,
BHT 129 F.

Sh & Shy Sltstn, gry, grn, dk gry, blk, pyr. Ls, wh, tan, gry, mdstn, sl foss, dns. Ls, tan, gry, wkestn, foss, pell, 2nd calcite, tr pyr.

Flood Ls, wh, tan, mott, mdstn, tr foss, tr pyr, soft to dns. Ls, tan, mdstn, wkestn, foss, dns.

BCL 4556 (-1929)

Flood Shy Sltstn, gry, dk gry, grn, calc, tr foss, pyr. Shy Ls, gry, foss, arg. Tr Sst clear, tan, vvfn gr qtz, spks blk flaky dead oil stn. Tr Cht, wh, yell, clear transl, ang.

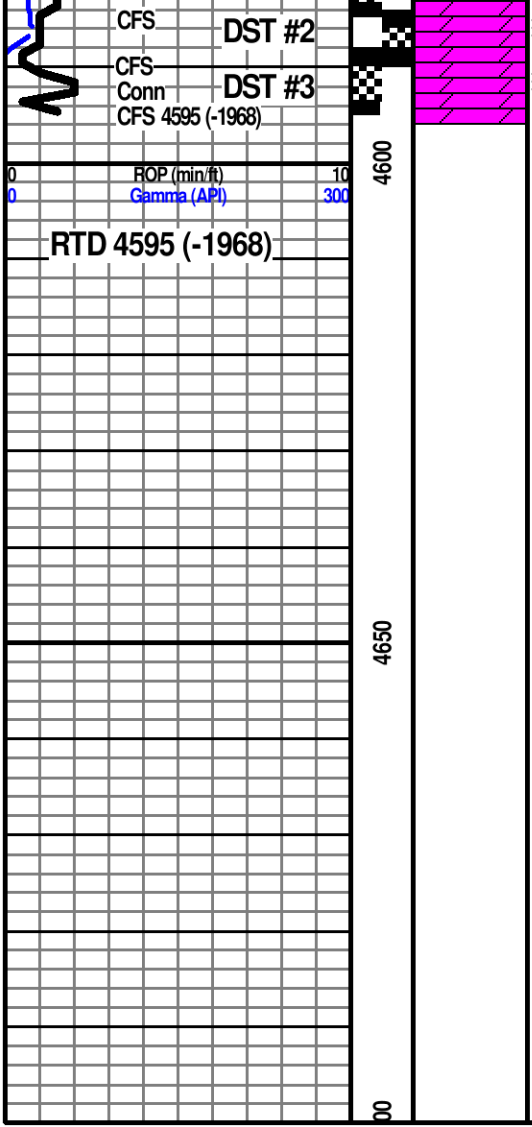
Mud-Co/Service Mud, Inc.
9:15 am 4/19/2012
Depth 4585. DST #1
Wt 9.3, Vis 47, WL 6.8
pH 10.5, LCM 2#, Chl 2,800
PV 14, YP 16, GelS 6/22

Flood Shy Sltstn, AA. Shy Ls, gry, foss, tr pyr. Sst, clear, tan, vvfn qtz gr, blk spks dead flaky oil. Cht, wh, yell, clear, transl, tr w/blk tarry oil stn. Tr Ls, wh, tan, foss, soft, w/blk dead oil stn.

Miss Ls 4576 (-1949)

Miss Dolo 4580 (-1953)

4585 CFS 25" Shy Sltstn, Sst, Cht, Ls, AA.
4585 CFS 50" Slight odor, Flood Dolo. FSFO, PPBYF. See



description at right.

4590 CFS Good Odor. Flood Dolo, & Dolo Ls. SSG, GSFO, PP BYF. See description at right.

4595 CFS 50'' Good Odor. Flood Dolo & Dolo Ls, tan, brn, mott gry, pr to fr spt suc por, foss moldic por, tr vug por, dk brn-blk stn in vugs, PP & BYF, GS tan, brn FO, SSG & bleeding oil. Streaming wh cut. Dry Sample: Tan, brn, blk, spt stn & sat.

4595 CFS 75'' Good Odor. Dolo & Dolo Ls, AA. Increase Dolo, vfn-fnxln, far spt suc por, Foss moldic & vug por, dk brn blk oil stn & sat, SSG, bleeding dk brn-blk oil, PP & BYF. Dry Sample, tan, brn, blk, spt stn & sat.

DST #3 4589-4595/30-60-90-90.
1st Op: BOB/7 1/2''. RB 4''.
2nd Op: BOB/10''. No RB.
Recover: 248' GIP, 692' GO, Gty 39,
(15% Gas, 85% Oil), 62' GOCM
(20% Gas, 20%Oil, 60%M).
IH 2242#, IFP 19-91#, ISIP 1073# >,
FFP 94-284#, FSIP 1043# >, FH 2217#,
BHT 130 F.

4585 CFS 50'' Slight Odor. Flood Dolo, tan, brn, very small frags, vfn-fn xln, fair suc por, tr vug por, PP BYF, FS clear-tan FO on break. Fast streaming wh cut. Dry Sample: Tan-brn spt stn & sat.

4590 CFS 50'' Good Odor. Dolo, tan, small frags, vfn-fn xln, fr to gd suc por, tr vug por, tr foss moldic, PP BYF, FS clear, tan, brn FO on break, Tr gas bubbles. Fast streaming wh cut. Few large frag Dolo Ls, vfn xln, poor suc por, vug por, bleeding brn FO. Dry Sample: Tan, brn, spt stn & sat.

4590 CFS 75'' Good Odor. Flood Dolo & Dolo Ls, tan, vfn-fn xln, pr to fr suc por, vug por, tr foss moldic por, PP & BYF, FS tan, brn FO on break. SSG & bleeding oil. Streaming wh cut. Dry Sample: Tan-brn spt stn & sat.

Mud-Co/Service Mud, Inc.
10:30 am 4/20/2012
CTCH @ 4590 after DST #2
Wt 9.1, Vis 44, WL 8.0
pH 10.5, LCM 2#, Chl 2,500
PV 14, YP 14, GelS 6/18

Surface

ALLIED CEMENTING CO., LLC. 042466

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Great Bend, KS

RECEIVED
APR 23 '12
GB

DATE 4-13-12	SEC. 24	TWP. 19S	RANGE 26W	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE Vogel	WELL # 3-24		LOCATION Bucklin KS, 5S, 1½E, ½N, 1E, ¼ N West into			COUNTY Ness	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR Val #4
TYPE OF JOB Surface
HOLE SIZE 12 ¼ T.D.
CASING SIZE 8 5/8 DEPTH 265
TUBING SIZE DEPTH
DRILL PIPE 4½ DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15 foot
PERFS.
DISPLACEMENT Freshwater

OWNER Abercrombie Energy LLC

EQUIPMENT

PUMP TRUCK CEMENTER Dustin C
366 HELPER Shane K
BULK TRUCK
341 DRIVER Joel M
BULK TRUCK
DRIVER

REMARKS:

Pipe on bottom break circulation with Big Red
Mix 170 sks class A 3%cc 2%gel
Displace with 15.92 Bbls Freshwater
Shut in
Cement did circulate
Rig down
Plug Down 3:00 AM

CHARGE TO: Abercrombie
STREET
CITY STATE ZIP

CEMENT

AMOUNT ORDERED 170 sx com 3% cc 2% gel

COMMON	170	@ 16.25	2.762.50
POZMIX		@	
GEL	3	@ 21.25	63.75
CHLORIDE	6	@ 58.20	349.20
ASC		@	
HANDLING	183.5	@ 2.10	385.35
MILEAGE	8.37 x 24 x	2.35	511.40
		TOTAL	4.072.20

SERVICE

DEPTH OF JOB 265
PUMP TRUCK CHARGE 1125.00
EXTRA FOOTAGE @
MILEAGE Lum 52 @ 7.00 364.00
MANIFOLD @
Lum 52 @ 4.00 208.00
@
TOTAL 1697.00

PLUG & FLOAT EQUIPMENT

@
@
@
@
@
TOTAL

SALES TAX (If Any)
TOTAL CHARGES 5.769.20
70% 20% 1 695.54
DISCOUNT IF PAID IN 30 DAYS
4.073.66

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

PRINTED NAME X
SIGNATURE X

Thank You!!

ALLIED
OIL & GAS SERVICES, LLC

APR 30 '12

PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

INVOICE

Invoice Number: 130894
Invoice Date: Apr 21, 2012
Page: 1

1967 2012 45 YEARS

Bill To:

Abercrombie Energy, LLC
5510 Oil Center RD South
Great Bend, KS 67530

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Aber	Vogel #3-24	Net 30 Days	
Job Location	**Camp Location**	**Service Date**	**Due Date**
KS1-02	Medicine Lodge	Apr 21, 2012	5/21/12

Quantity	Item	Description	Unit Price	Amount
240.00	MAT	Class A Common	16.25	3,900.00
160.00	MAT	Pozmix	8.50	1,360.00
28.00	MAT	Gel	21.25	595.00
13.00	MAT	Chloride	58.20	756.60
150.00	MAT	ASC	19.00	2,850.00
750.00	MAT	KolSeal	0.89	667.50
100.00	MAT	FloSeal	2.70	270.00
500.00	MAT	Mud Clean	1.27	635.00
640.00	SER	Handling	2.25	1,440.00
26.00	SER	Ton Miles	70.40	1,830.40
1.00	SER	2 Stage Production	2,405.00	2,405.00
26.00	SER	Heavy Vehicle Mileage	7.00	182.00
2.00	SER	Additional Hours	400.00	800.00
26.00	SER	Light Vehicle Mileage	4.00	104.00
1.00	EQP	5 1/2 Triplay Shoe	1,340.00	1,340.00
1.00	EQP	5 1/2 DV Tool	3,721.00	3,721.00
3.00	EQP	5 1/2 Baskets	337.00	1,011.00
9.00	EQP	5 1/2 Centralizers	49.00	441.00
1.00	CEMENTER	Andrew Forslund		
1.00	CEMENTER	Darin Franklin		
1.00	EQUIP OPER	Eddie Piper		

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

$

ONLY IF PAID ON OR BEFORE
May 16, 2012

Subtotal	Continued
Sales Tax	Continued
Total Invoice Amount	Continued
Payment/Credit Applied	
TOTAL	**Continued**

ALLIED
OIL & GAS SERVICES, LLC

PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

MAY - 2 2012

RECEIVED
APR 30 '12
GB

INVOICE

Invoice Number: 130894
Invoice Date: Apr 21, 2012
Page: 2

2012 1967 45 YEARS

Bill To:

Abercrombie Energy, LLC
5510 Oil Center RD South
Great Bend, KS 67530

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Aber	Vogel #3-24	Net 30 Days	
Job Location	**Camp Location**	**Service Date**	**Due Date**
KS1-02	Medicine Lodge	Apr 21, 2012	5/21/12

Quantity	Item	Description	Unit Price	Amount
1.00	OPER ASSIST	Troy Lenz		
1.00	OPER ASSIST	Billy Turner		
		CEMENT BOTH UPPER & LOWER STAGES		
		VENDOR NUMBER		
		VOUCHER NUMBER		
		VERIF OF RECEIPT		
		CODE NUMBER AMOUNT		
		135206 2		
		VOGEL #3-24		
		CEMENT 5 1/2 CSG - 2 STAGE		
		APPROVAL		
		VERIFIED ACCURACY GM		

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

$ 5919.90

ONLY IF PAID ON OR BEFORE

May 16, 2012

Subtotal	24,308.50
Sales Tax	1,105.47
Total Invoice Amount	25,413.97
Payment/Credit Applied	
TOTAL	**25,413.97**

19,494.07

ALLIED CEMENTING CO., LLC. 037965

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Medicine Lodge, KS
4-22-

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
4-21-2012	24	19S	26W		10:30 AM	11:30pm	12:30AM

LEASE	WELL #	LOCATION	COUNTY	STATE
Vogel	3-24	Beeler, KS 5 South	Ness	KS

OLD OR (NEW) (Circle one) 1½ east, ½ north, 1 east, ¼ north, W into

CONTRACTOR VGI #4
TYPE OF JOB 2 Stage
HOLE SIZE 7 7/8 T.D.
CASING SIZE 5½ 15.5# DEPTH 4580'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DV Tool DEPTH 1897'
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT 60 bbls 2% KCL water
50 bbls mud

OWNER Abercrombie Energy

EQUIPMENT

PUMP TRUCK CEMENTER Andrew, Dustin
#548-545 HELPER Eddie, [redacted]
BULK TRUCK
#421-252 DRIVER Troy
BULK TRUCK
#386-310 DRIVER Billy - Oakley

REMARKS:

Pipe on bottom & break Circulation, pump 3 bbls water, 500 gals mud clean, 3 bbls water, mix 150sx of cement, shut down, wash pump & lines, Release plug, start displacement, lift pressure 80 bbls, slow to 3 bpm at 100 bbls, bump @ 110 bbls, 400-800 psi, float held, open tool Circulate 1 hour, plug Rathole, mix 5sx of cement, shut down, wash pump & lines, Release plug start displacement, lift pressure 35 bbls, slow rate to 3 bpm 35 bbls, bump plug at 46 bbls, 1500 psi, float held

CHARGE TO: Abercrombie
STREET
CITY STATE ZIP

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

PRINTED NAME X Jason Schuler
SIGNATURE X Jason Schuler

CEMENT

AMOUNT ORDERED 150sx class A ASC 5# Kolseal +10% salt + 2% Gel, 400sx 60:40:8% Gel +3% cc + ¼# flosel 500 gals mud clean

COMMON A	240	@ 16.25	3900.00
POZMIX	160	@ 8.50	1360.00
GEL	28	@ 21.25	595.00
CHLORIDE	13	@ 58.20	756.60
ASC	150	@ 19.00	2850.00
Kolseal	750	@ .89	667.50
Flosel	100#	@ 2.70	270.00
Mud-clean	500 Gals	@ 1.27	635.00
		@	
		@	
		@	
		@	
		@	
HANDLING	640	@ 2.25	1440.00
MILEAGE	26/64/.11		1830.40

TOTAL 14,304.50

SERVICE

DEPTH OF JOB	4580'		
PUMP TRUCK CHARGE			2405.00
EXTRA FOOTAGE		@	
MILEAGE	26	@ 7.00	182.00
MANIFOLD	Hesa rental	@	
Addition hours	2	@ 400.00	800.00
Light Vehicle	26	@ 4.00	104.00

TOTAL 3491.00

PLUG & FLOAT EQUIPMENT

5½

1-Triplex Shoe		@	1340.00
1-DV Tool		@	3721.00
3-Basskets		@ 337.00	1011.00
9-Centralizers		@ 49.00	441.00
		@	

TOTAL 6513.00

SALES TAX (If Any)
TOTAL CHARGES 24,308.50
DISCOUNT 70/20 IF PAID IN 30 DAYS
NET 18,388.60