



KANSAS CORPORATION COMMISSION 1120197
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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____-_____-_____- Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: 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
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Black Diamond Oil, Inc.
Well Name	Kemper 1
Doc ID	1120197

All Electric Logs Run

TEMPERATURE SURVEY
NEURTON / DENSITY LOG
DUAL INDUCTION LOG
GAMMA RAY
MICRO LOG

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 6140

Cell 785-324-1041

Date	11-1-12	Sec.	22	Twp.	5	Range	21	County	Worton	State	KS	On Location		Finish	5:45 PM
Location <i>Lopen W to E 12th St to Dead End Fld Site</i>															

Lease	<i>Kemper</i>	Well No.	1	Owner	To Quality Oilwell Cementing, Inc.
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Contractor	<i>WJ #6</i>	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
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Type Job	<i>Surface</i>	Charge To	<i>Back Diamond</i>
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Hole Size	<i>12 1/4</i>	T.D.	<i>218</i>	Street	
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Csg.	<i>8 5/8</i>	Depth	<i>218</i>	City		State	
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Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
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Tool		Depth		Cement Amount Ordered	<i>165 com 3% Cu 2% Al</i>
------	--	-------	--	-----------------------	----------------------------

Cement Left in Csg.	<i>15</i>	Shoe Joint			
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Meas Line		Displace	<i>133C</i>	Common	<i>165</i>
-----------	--	----------	-------------	--------	------------

EQUIPMENT			Poz. Mix	
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Pumptrk	<i>5</i>	No.	Cementer	<i>Naig</i>	
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Bulktrk		No.	Helper		
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Bulktrk		No.	Driver	<i>Bert</i>	
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Bulktrk	<i>14</i>	No.	Driver	<i>Doug</i>	
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JOB SERVICES & REMARKS					
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Remarks:		Salt			
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Rat Hole		Flowseal			
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Mouse Hole		Kol-Seal			
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Centralizers		Mud CLR 48			
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Baskets		CFL-117 or CD110 CAF 38			
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D/V or Port Collar		Sand			
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	<i>8 5/8 on bottom. Fst. Circulation</i>	Handling	<i>174</i>		
--	--	----------	------------	--	--

	<i>Mix 165% Displace</i>	Mileage			
--	--------------------------	---------	--	--	--

	<i>Cement Circulated!</i>	FLOAT EQUIPMENT			
--	---------------------------	------------------------	--	--	--

		Guide Shoe			
--	--	------------	--	--	--

		Centralizer			
--	--	-------------	--	--	--

		Baskets			
--	--	---------	--	--	--

		AFU Inserts			
--	--	-------------	--	--	--

		Float Shoe			
--	--	------------	--	--	--

		Latch Down			
--	--	------------	--	--	--

		Pumptrk Charge	<i>Surface</i>		
--	--	----------------	----------------	--	--

		Mileage	<i>56</i>		
--	--	---------	-----------	--	--

		Tax			
--	--	-----	--	--	--

		Discount			
--	--	----------	--	--	--

		Total Charge			
--	--	--------------	--	--	--

X Signature *[Signature]*

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 6165

Cell 785-324-1041

Date	11-5-12	Sec.	22	Twp.	5	Range	21	County	NORTON	State	KANSAS	On Location		Finish	8:00AM
Lease								Location							
KEMPER								LOGAN W TO E 12 RD - STO CATTLE GUARD - STN							
Contractor								Owner							
W.W. #6								BLACK DIAMOND OIL INC.							
Type Job								To Quality Oilwell Cementing, Inc.							
PROD. STRING								You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Hole Size								Charge To							
7 1/2								BLACK DIAMOND OIL INC.							
Csg.								Street							
5 1/2" - 14LB NEW								PO Box 641							
Tbg. Size								City							
								HAYS							
Tool								State							
PORT COLLAR								KS, 67601							
Cement Left in Csg.								The above was done to satisfaction and supervision of owner agent or contractor							
Shoe Joint								Cement Amount Ordered							
13.54								175 com - 10 3/4" - 5 1/2" GUNN							
Displace															
87 Bbls															
EQUIPMENT															
Pumptrk #15								Common 175							
No. Cementer								Poz. Mix							
Helper NICK															
Bulktrk #14								Gel.							
No. Driver															
Driver LONNIE W.								Calcium							
Bulktrk AU								Hulls							
No. Driver								Salt 15							
Driver CISCIO								Flowseal							
JOB SERVICES & REMARKS															
Remarks:								Kol-Seal 875#							
Rat Hole 30 SK								Mud CLR 48 500 GAL.							
Mouse Hole								CFL-117 or CD110 CAF 38							
Centralizers 1, 3, 5, 7, 9, 11, 13, 45 COLLARS								Sand							
Baskets 2, 12, 46 PINS								Handling 188							
DAV or Port Collar OR COLLAR OF JOINT #46								Mileage							
DROPPED BALL - BROKE CIRCULATION								FLOAT EQUIPMENT							
DUMPED MUD CLR 48 - PLUGGED								Guide Shoe							
RATHOLE - MIXED & DUMPED 145								Centralizer 6 - 5 1/2" TURBOS							
SKS - DROPPED PLUG & WISHED PUMP.								Baskets 3 - 5 1/2							
DISPLACED. PLUG LANDED & HELD.								AFU Inserts							
LIFT PRESSURE 800 LBS								Float Shoe 1 - 5 1/2"							
PLUG LANDED 87 BBLs - 1300 LBS.								Latch Down 1 - 5 1/2" w/PLUG							
								port Collar							
								Pumptrk Charge prod long string							
								Mileage 56							
THANK YOU!															
Signature								Tax							
AU Doc Bull								Discount							
								Total Charge							

OPERATOR

Company: BLACK DIAMOND OIL, INC.
 Address: PO BOX 641
 HAYS, KANSAS 67601-0641

Contact Geologist: KEN VEHIGE
 Contact Phone Nbr: 785-625-5891
 Well Name: KEMPER # 1

Location: NW SE SE Sec.22-5s-21w
 Pool: IN FIELD
 State: KANSAS

API: 15-137-20,626-00-00
 Field: RAY WEST
 Country: USA

Scale 1:240 Imperial

Well Name: KEMPER # 1
 Surface Location: NW SE SE Sec.22-5s-21w
 Bottom Location:
 API: 15-137-20,626-00-00
 License Number: 7076
 Spud Date: 11/1/2012 Time: 3:15 PM
 Region: NORTON COUNTY
 Drilling Completed: 11/5/2012 Time: 12:51 AM
 Surface Coordinates: 990' FSL & 990' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2161.00ft
 K.B. Elevation: 2166.00ft
 Logged Interval: 2600.00ft To: 3590.00ft
 Total Depth: 3590.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 990' FSL
 E/W Co-ord: 990' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING
 Address: 108 W 35TH
 HAYS, KS 67601

Phone Nbr: (785) 639-1337
 Logged By: Geologist Name: HERB DEINES

CONTRACTOR

Contractor: WW DRILLING LLC
 Rig #: 6
 Rig Type: MUD ROTARY
 Spud Date: 11/1/2012 Time: 3:15 PM
 TD Date: 11/5/2012 Time: 12:51 AM
 Rig Release: 11/6/2012 Time: 5:00 AM

ELEVATIONS

K.B. Elevation: 2166.00ft Ground Elevation: 2161.00ft
 K.B. to Ground: 5.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON POSITIVE RESULTS OF DST # 1.

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY


KEMPER # 1
990' FSL & 990' FEL, SE/4
Sec. 22-5s-21w
2161' GL 2166' KB

<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1756+ 410	1757+ 409
B-Anhydrite	1786+ 380	1786+ 380
Topeka		3164- 998
Heebner Shale	3309-1143	3312-1146
Toronto	3335-1169	3340-1174
LKC	3350-1184	3357-1191
BKC	3544-1378	3543-1377
Arbuckle	3588-1422	
Reagan Sand	NOT REACHED	
RTD	3590-1424	
LTD		3588-1422

SUMMARY OF DAILY ACTIVITY

- 11-01-12 Spud, set 8 5/8" surface casing to 217' w/ 165 sxs common, 2%gel, 3%CC, plug down 5:45PM, Slope ¾ degree**
- 11-02-12 863', drilling**
- 11-03-12 2688', drilling,**
- 11-04-12 3442', short trip, CCH 1 ½ hrs, DST # 1 3364'-3442' C-F, slope 1 degree, strap 3464.45' board 3464.05' .40' long.**
- 11-05-12 3590', RTD 3590'@ 12:51AM, mini short trip, CCH 1 ½ hrs, trip out for logs, slope at RTD 1 degree, logs, DST # 2 3541'-3590' Arbuckle, TIWB, CCH, lay down drill pipe and run production casing**
- 11-06-12 3590', finish running casing and cementing, RD**

DST # 1 TEST SUMMARY

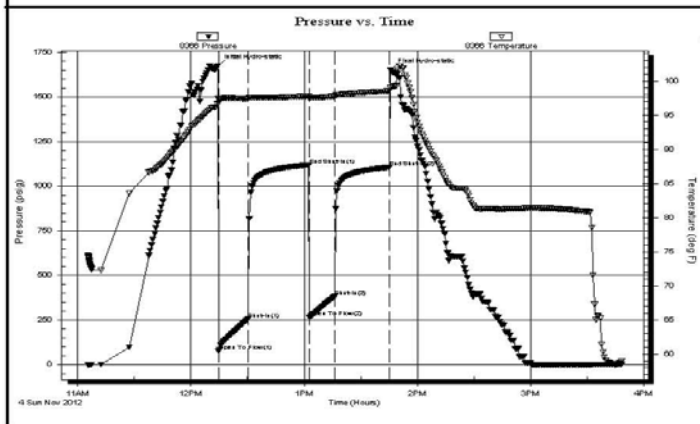
 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	
	Black Diamond Oil, Inc. PO Box 641 Hays, KS. 67601 ATTN: Herb Deines	22-5s-21w-Norton Kemper #1 Job Ticket: 48723 DST#: 1 Test Start: 2012.11.04 @ 11:05:23

GENERAL INFORMATION:

Formation: C-F	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: 0.00 ft (KB)	Tester: Jason McLemore
Time Tool Opened: 12:14:38	Unit No: 54
Time Test Ended: 15:48:23	Reference Elevations: 2167.00 ft (KB)
Interval: 3364.00 ft (KB) To 3442.00 ft (KB) (TVD)	2162.00 ft (CF)
Total Depth: 3442.00 ft (KB) (TVD)	KB to GR/CF: 5.00 ft
Hole Diameter: 7.80 inches	Hole Condition: Good

Serial #: 8366 Inside	Capacity: 8000.00 psig
Press@RunDepth: 381.22 psig @ 3431.00 ft (KB)	Last Calib.: 2012.11.04
Start Date: 2012.11.04	Time On Btm: 2012.11.04 @ 12:14:23
Start Time: 11:05:25	End Time: 15:48:23
	Time Off Btm: 2012.11.04 @ 13:45:53

TEST COMMENT: IFF-Strong, BOB in 4 Min.
 ISI-Surface Blow back Building to 1/4"
 FFP-Strong, BOB in 3 Min.
 FSI-Dead



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.73	97.47	Initial Hydro-static
1	75.94	96.75	Open To Flow (1)
16	255.26	97.36	Shut-In(1)
49	1117.62	97.79	End Shut-In(1)
49	266.39	97.44	Open To Flow (2)
62	381.22	97.77	Shut-In(2)
91	1105.72	98.56	End Shut-In(2)
92	1655.42	99.07	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
700.00	Muddy Water W/Oil Specks	8.71

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

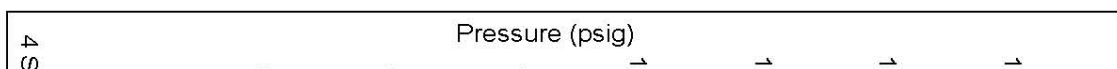
Trilobite Testing, Inc

Ref. No: 48723

Printed: 2012.11.04 @ 23:37:18

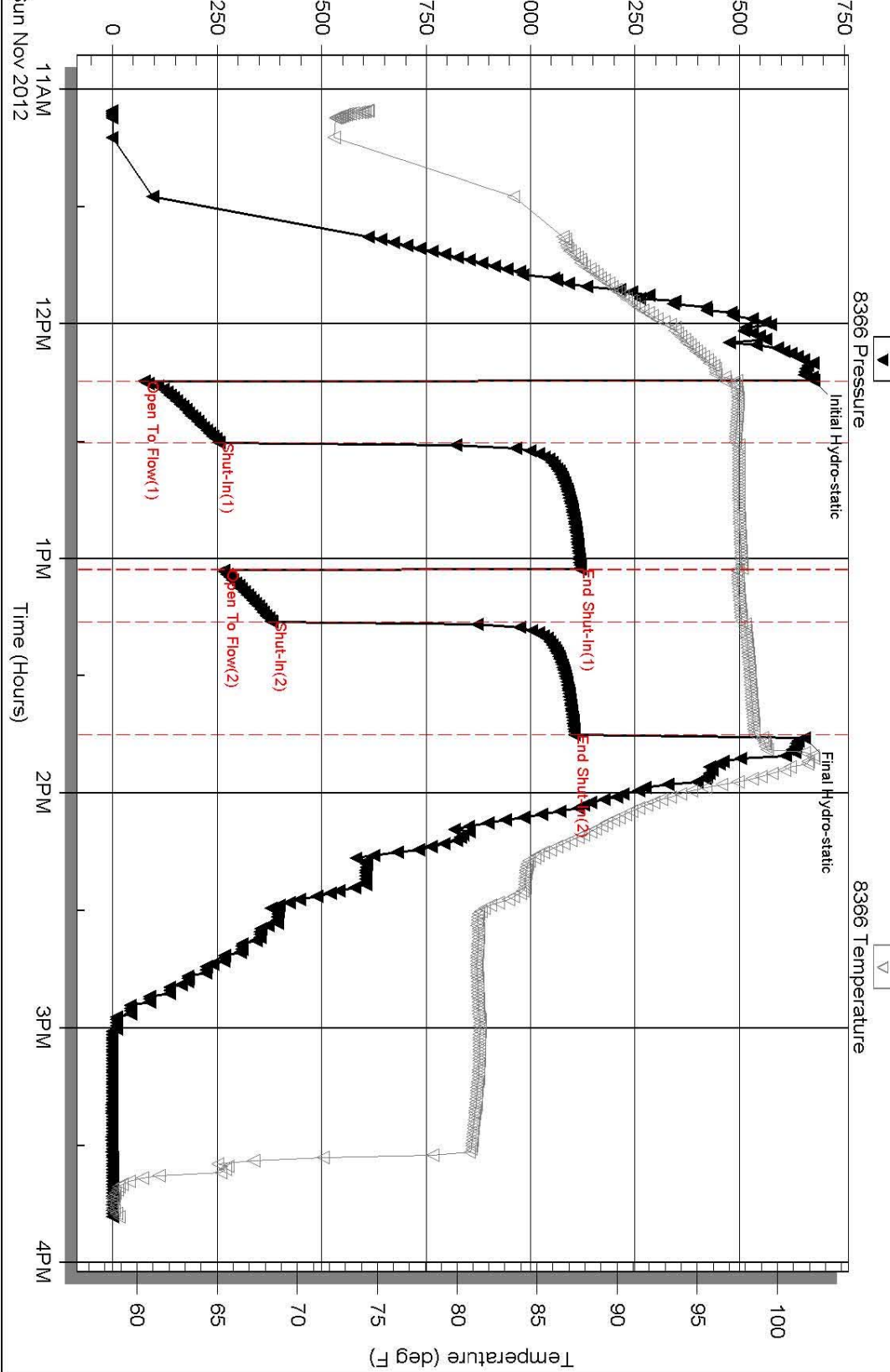
DST # 1 EXPANDED CHART

Trilobite



Series

Pressure vs. Time



DST # 2 TEST SUMMARY



DRILL STEM TEST REPORT

Black Diamond Oil, Inc.

PO Box 641
Hays, KS. 67601

22-5s-21w-Norton

Kemper #1

Job Ticket: 48724

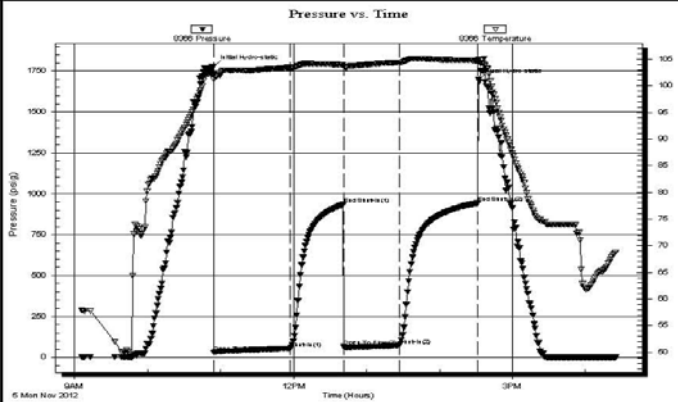
DST#: 2

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 10:54:37
 Time Test Ended: 16:25:07
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jason McLemore
 Unit No: 54
 Interval: **3541.00 ft (KB) To 3590.00 ft (KB) (TVD)**
 Total Depth: 3590.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Good
 Reference Elevations: 2167.00 ft (KB)
 2162.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8366 Inside
 Press@RunDepth: 73.83 psig @ 3579.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.11.05 End Date: 2012.11.05 Last Calib.: 2012.11.05
 Start Time: 09:05:54 End Time: 16:25:07 Time On Btm: 2012.11.05 @ 10:54:22
 Time Off Btm: 2012.11.05 @ 14:32:07

TEST COMMENT: IFF-Weak Blow, Built to 2-1/2"
 ISI-Dead
 FFP-Weak Blow, Built to 1"
 FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1778.95	102.14	Initial Hydro-static
1	30.86	101.15	Open To Flow (1)
63	55.26	103.43	Shut-In(1)
107	934.96	103.98	End Shut-In(1)
107	69.64	103.61	Open To Flow (2)
153	73.83	104.39	Shut-In(2)
218	944.06	104.75	End Shut-In(2)
218	1696.90	105.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	HOCM-50%O-50%M	0.59

Gas Rates

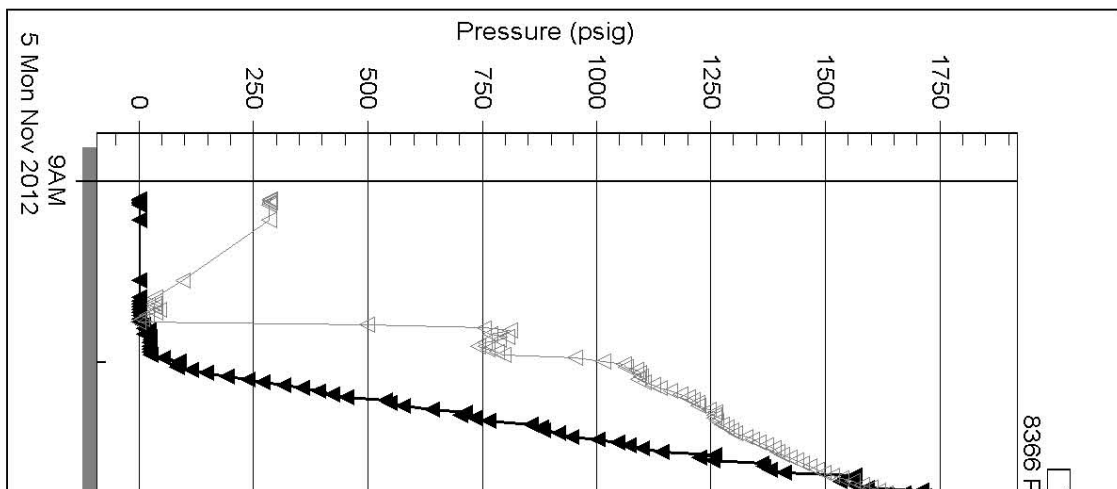
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

* Recovery from multiple tests

DST # 2 EXPANDED CHART

Trilobite Testing, Inc

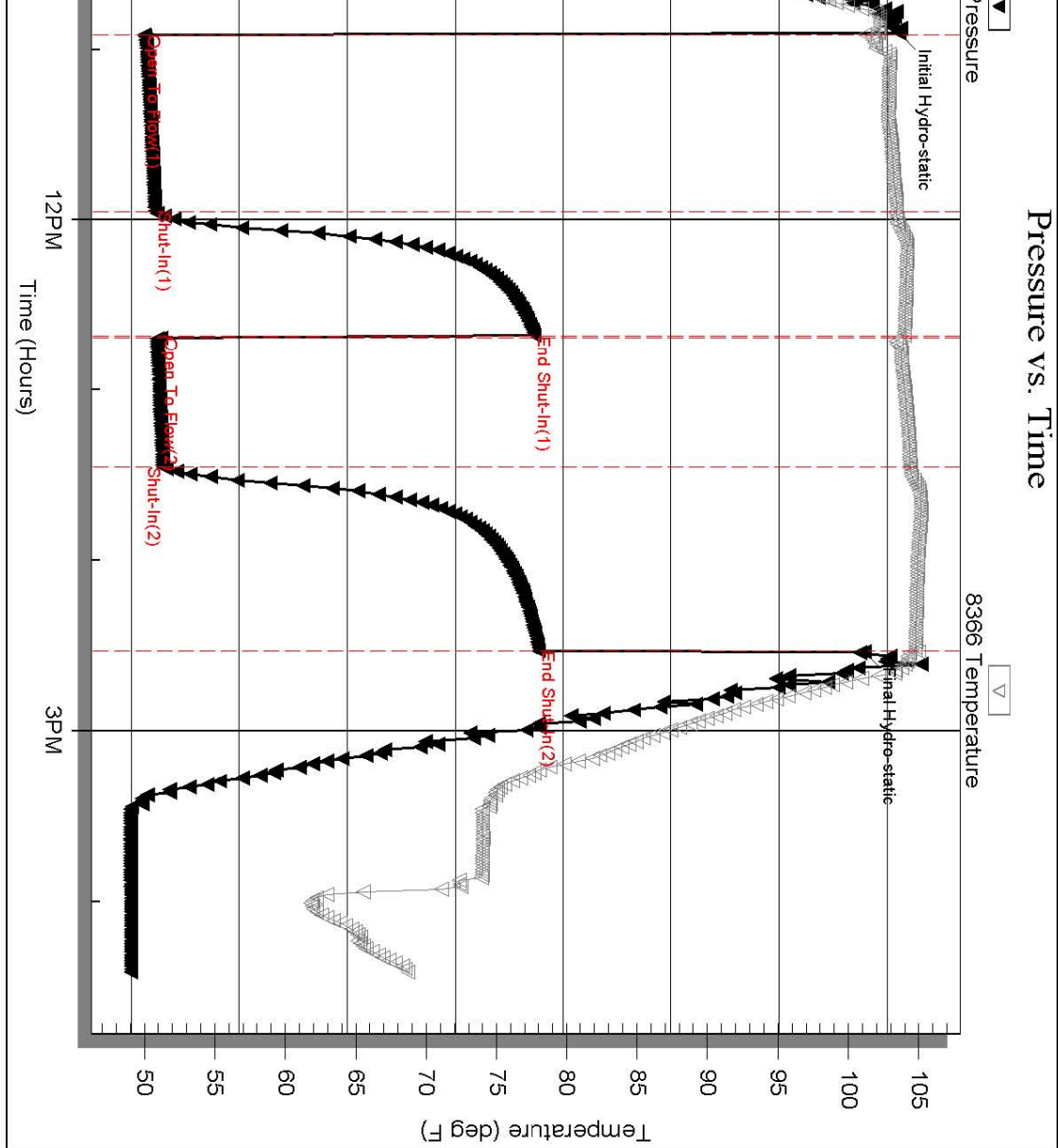
Ref. No



Serial #: 8366

Inside

Black Diamond



48724

Printed: 2012.11.05 @ 22:52:37

ROCK TYPES

Cht	Dolprim	shale, grn	shale, red
Cht vari	Lmst fw<7	shale, gry	Shcol
Clystgy	Lmst fw>7	Carbon Sh	Lscongl

ACCESSORIES

MINERAL

- ▲ Chert, dark
- ∩ Glauconite
- P Pyrite
- △ Chert White

OTHER SYMBOLS

DST

- DST Int
- DST alt
- Core

Curve Track #1								
ROP (min/ft)								

Depth | Interval
Cored Interval
DST Interval

DST

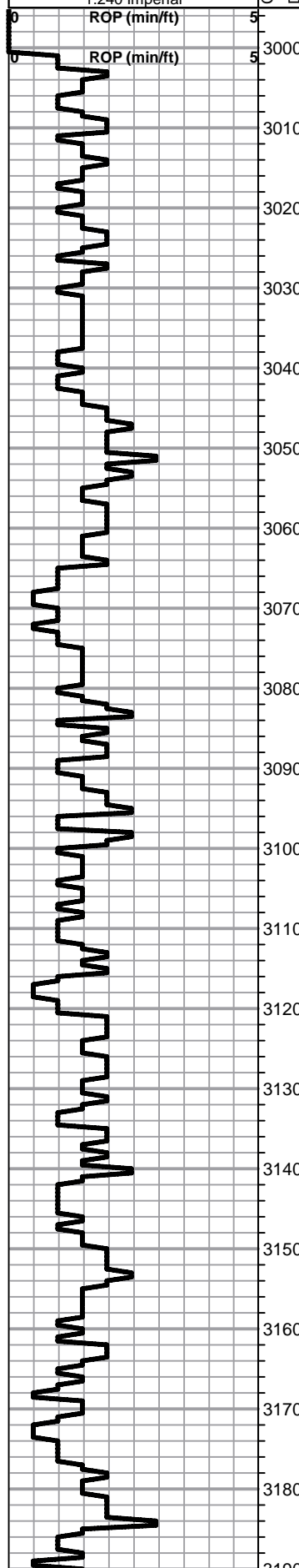
Lithology

Oil Show

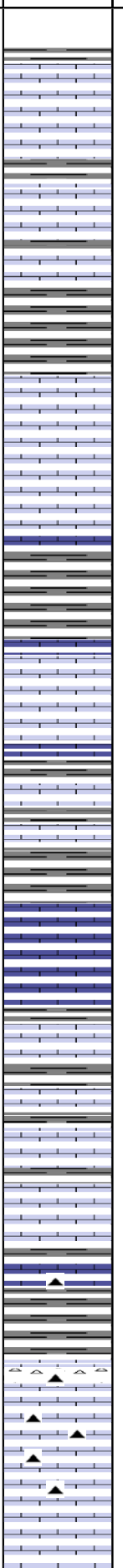
Geological Descriptions

1:240 Imperial

1:240 Imperial
ROP (min/ft)



3000
3010
3020
3030
3040
3050
3060
3070
3080
3090
3100
3110
3120
3130
3140
3150
3160
3170
3180
3190



BEGIN 1' DRILL TIME FROM 3000' TO RTD
BEGIN 10' WET AND DRY SAMPLES FROM 3050' TO RTD

ANHYDRITE ELOG TOP 1757+409
ANHYDRITE ELOG BASE 1786+380

Lime, lt-med brn, fnxln

Lime, tan-lt brn-lt gray, fnxln-granular, slightly fossiliferous

Lime, tan-med brn-lt gray, fnxln-granular, crinoid segments

Lime, lt-med gray, fnxln

Lime, med brn-gray, fnxln, slightly fossiliferous

Shale, gray, soft, blocky, calcareous in part

Lime, lt-med gray, fnxln, soft on crush

Lime, med-dark gray, fnxln

Lime, tan-brn with yellow oolites, granular

Lime, med-dark gray, granular, crinoid segments

Shale, dove gray, soft mud

Lime, lt-med brn, fnxln, slightly fossiliferous

Lime, crm-tan, fnxln, bedded chalk in part with lt chalky wash

Lime, lt brn-lt gray, fnxln-granular, slightly fossiliferous

Lime, lt brn-lt gray, fnxln, fossiliferous chert

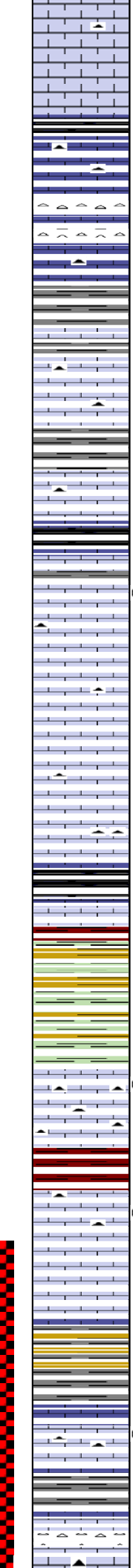
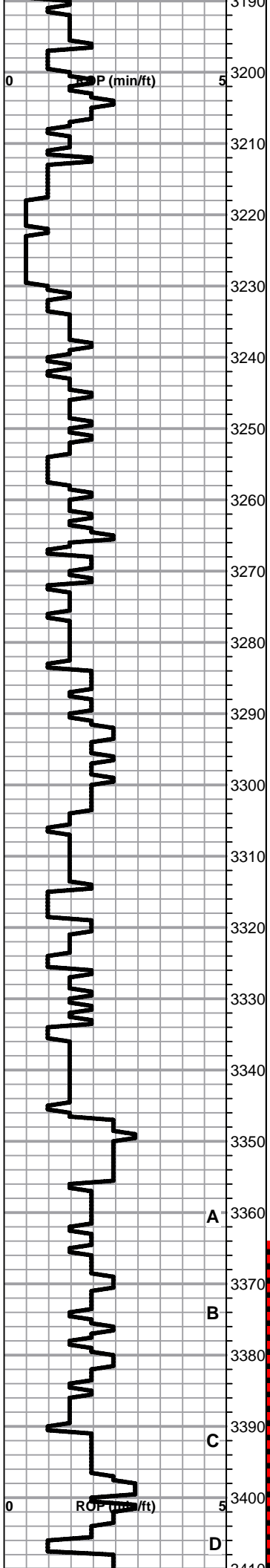
TOPEKA ELog 3164-998

Lime, lt brn-lt gray, fnxln
Chert, tan, bedded, fresh, sharp

Lime, crm-tan, fnxln-granular, slightly bedded chalk in part

8 5/8" SURFACE CASING SET TO 217' W/ 165 SXS COMMON 2%GEL, 3%CC
SLOPE 3/4 DEGREE @ 218'

Lime, crm-tan, fnxln-granular, bedded chalk in part



Lime, med-dark brn, fnxln, slightly fossiliferous, hard on crush

Shale, black carbonaceous

Lime, tan-med brn, fnxln, hard on crush

Lime, tan-med brn, granular, bedded chert, tan, fresh, sharp

Lime, tan-med brn-yellow, fnxln-granular

Lime, tan-lt brn, fnxln, slightly fossiliferous

Lime, med brn, fnxln

Shale, black carbonaceous

Lime, crm-tan, fnxln-granular with few chips with fresh oil specks in fn-md interxln porosity, No Odor

Lime, off white-crm, fn-vfxln, hard on crush

Lime, offwhite-crm, fn-vfxln, hard on crush

Lime, crm-offwhite, fn-vfxln, slightly fossiliferous

HEEBNER SHALE ELog 3312-1146

Shale, black carbonaceous

Lime, med brn, vfxln, hard on crush

Shale, reddish brn, brns, lt-med gray, soft blocky

TORONTO ELog 3340-1174

Lime, white, crm-tan, fnxln, 1 chip with scattered stain, NFO, No Odor

LKC ELog 3357-1191

Lime, crm-tan, mostly fnxln, thin bed of oolitic/fossil fragment material on top of bench, NFO, No Odor, scattered lt stain

Lime, crm-tan, fn-vfxln, slight bedded chalk, NS

Lime, dark brn, fnxln grading into shale, varicolored, greens, brns and reds, soft, blocky

Lime, crm-tan, fnxln

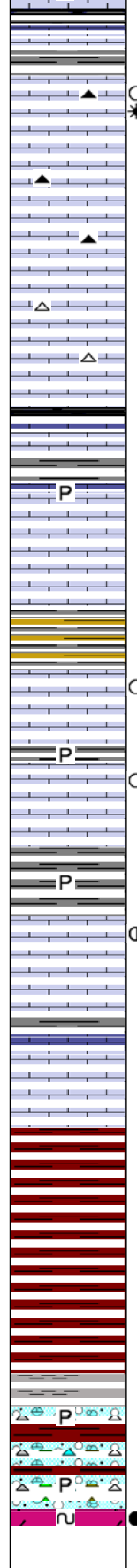
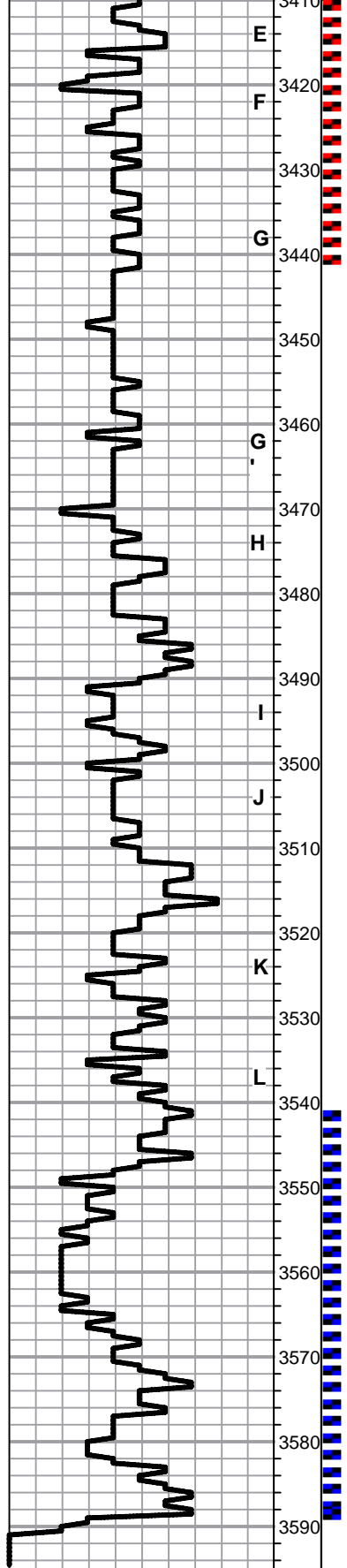
Chert, lt brn, tan, fresh, sharp, bedded, few chips with scattered pinpoint vuggy porosity

Shale, reddish brn, brns, grays, soft, blocky

Lime, crm-tan, fnxln

Chert, smokey gray-tan, opaque, sharp, fresh.

DST # 1 3364' TO 3442' SEE
 HEADER FOR TEST
 SUMMARY



Shale, gray-green-black carbonaceous
Lime, light pale green tinted, fnxln

3420 ○ Lime, crm-tan, mostly fnxln, F-G odor in oolitic lime, with scattered vugs. Scattered lite staining. Appears to be very lite oil

3430 ▲ Lime, crm, granular in part with lt bedded chalk in part

3440 ▲ Lime, crm-tan fnxln
Chert, grays, tans

3450 ▲ Lime, crm-tan, fnxln
Chert, milky white, fresh, sharp

3460 ▲ Lime, gray-black trashy, fossiliferous

3460 Shale, black carbonaceous

3470 P Shale, lt gray, calcareous in part

3480 H Lime, offwhite, fnxln-granular, NS, pyritic clusters

3490 Shale, reddish brn-brns-grays, soft blocky

3490 ○ Lime, crm, thin oolitic/fossil fragment bed with fn interparticle porosity, NFO, No Odor. Hydrocarbon show appears as organic rich lime with little visible porosity.

3500 P ○ Lime, offwhite-crm, fnxln, few chips with fine intercrystalline porosity with finely dispersed staining, NFO, very lite odor.

3510 P Shale, vari colored, soft, blocky

3520 ○ Lime, white-crm, fnxln with fine pinpoint vuggy porosity, trace of live oil, very lite odor with oil filled fossil cavities in part

3530 Lime, crm-offwhite, fnxln, bedded chalk in part

3540 L Lime, lt brn, fnxln, with yellow-gold oolites in part

BKC ELog 3543-1377

3550 Shale, red, sandy grit, firm, blocky

3560 Shale, reddish brn, sandy, firm, blocky

3570 Shale, reddish brn, sandy, firm, blocky with increasing content of clastic limestone and sticky argillaceous shale

3580 P Shale, dove gray, soft, sticky clumps
Dolomite, ivory-lt brn, fn-cxln, glauconitic, scat-sat stain, lt odor, SFO

ARBUCKLE SPL TOP 3588-1422

SLOPE @ 3442' 1 DEGREE

PIPE STRAP 3464.34
BOARD 3463.05

DST # 2 3541' TO 3590' SEE
HEADER FOR TEST SUMMARY

SLOPE @ 3590' 1 DEGREE