



KANSAS CORPORATION COMMISSION 1095977  
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: \_\_\_\_\_



1095977

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 Bbbs.	Gas Mcf	Water Bbbs.	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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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API # 15-147-20662-00-00

Operator: Black Diamond Oil Well Name & No: Zillinger D #1-7  
 Location: 860 FSL & 900 FWL, Section 7-4s-19w County: Phillips State: Kansas  
 Rig No.: 8 Contractor: WW Drilling, LLC Tool Pusher: Sid Deutscher 785-259-2382  
 Drill Collars: 14 Size: 6 1/4 x 2 1/4 Rig Phone: 785-259-0816  
 Make Pump: Emsco D-375 Liner & Stroke: 6 x 14 Spud 1/19/12 @ 7:00 pm  
 Approx. TD: 3800 Elevation: 2010 K.B. 2015 KB Hole Complete: 1/24/12 @ 9:30 am  
 Mud Co.: Andy's Mud Mud Engineer: Kirk Werth Water Pond

Date	01/19/12	01/20/12	01/21/12	01/22/12	01/23/12	01/24/12	01/25/12
Days	1-spud	2-woc	3- drlg	4-drlg	5-dst #1	6-drlg	7-done
Depth		218	1960	2920	3305	3460	3500
Ft. Cut		218	1742	960	385	155	40
D.T.		6.75-woc	2-wop				
D.T.			1.25-woc				
C.T.					10.25	16.75	18.75
Bit Wt.	All		25,000	35000	38,000	38,000	
RPM	100		90	85	85	85	
Pressure	450		900	950	950	950	
SPM	60		58	58	58	58	
Mud Cost						6946	6946
Mud Wt.			9.1	9	9.1	9.6	
Viscosity			29	54	56	50	
Water Loss							
Chlorides						2#	
L.C.M.							
Dev. Sur		1/2"-218					
Dev. Sur							
Fuel	900	3400	3100	2650	2150	1650	1600
Water-Pit	3'	full	1.5'	full	full	full	
ACC Bit Hrs.			19.75	34.5	55.5	62.75	65.25
Formation	sd-sh	sd-sh	sd-sh	sd-sh	sh-lm	sh-lm	
Weather	clear	clear	clear	clear	clear	clear	

No.	Size	Type	Out	Ft.	Hrs.	Cum Hrs.	Bit Cond	Serial #	Tops
1	12 1/4	Smith	218	218	2.75	2.75	RR	54753	
2	7 7/8	Sm - F-27	3500	3242	62.75	65.5	New	PT 8127	
3								53.4 FPH	
4									

DEPTH	SIZE	SACKS	CEMENT MATERIAL	PLUG DOWN	DRILLED OUT	REMARKS
217	8 5/8	180	Common, 3% cc, 2% gel	12:15 AM	8:15 AM	Quality Cem. Did circulate
3499	4 1/2	180	Common	2:15 AM	1/25/2012	Quality Cementing Port Collar @ 1540'

NO	INTERVAL	OPEN	SHUT	OPEN	SHUT	RECOVERY
1	3258-3305	30	45	45	60	130' mud w/ os
2	3354-3375	30	60	30	out	1' mud
3						
4						
5						
6						
7						
8						
9						

Surface Casing Furnished by: Midwest Pipe: Milden delivered 5 joints of 20#, 8 5/8 tally 210.99 set @ 217'  
 Remarks: Strap & weld surface by WW. Anhydrite 1550-1575, Displace complete @ 2672' (640 bbls.). Short trip @ 3305', 34 stands (3.5 hrs). RTD 3500', LTD 3501' by Superior, logged 3.75 hrs. Ran 4 1/2 casing set @ 3499'. Plug down @ 2:15 am. Rig released @ 4:15 am, 1/25/12.

1581-1606  
+434

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

No. 216

Phone 785-483-2025  
Cell 785-324-1041

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

Date	1/20/12	Sec.	7	Twp.	4	Range	19	County	Phillips	State	KS	On Location		Finish	12:15AM								
Lease	Zillinger "D"			Well No.	1-7			Location Glade, W to 1100 Rd, BN, 1 E 1/4 N, F into															
Contractor	W.W. Drilling Rtg #8							Owner															
Type Job	Surface							To Quality Oilwell Cementing, Inc. 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	12 1/4"			T.D.	218'			Charge To															
Csg.	8 7/8"			Depth	218'			Black Diamond															
Tbg. Size								Street															
Tool								City															
Cement Left in Csg.	15'			Shoe Joint								State											
Meas Line								Displace 13 Bbls.								The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Amount Ordered 160xCom 3%U 2%gel																							

**EQUIPMENT**

Pumptrk	9	No.	Cementer	Paul	Common	160
			Helper			
Bulktrk	14	No.	Driver	Mat	Poz. Mix	
			Driver			
Bulktrk	AU	No.	Driver	Brian	Gel.	3
			Driver			

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
Est. Circ.	Sand
Mix 160sx	Handling 168
Displace	Mileage
Cement Circulated	

**FLOAT EQUIPMENT**

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Thank You!!

Pumptrk Charge	Surface
Mileage	67
Tax	
Discount	
Total Charge	

X Signature 

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 615

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-25-12	7	4	19	Phillips	KS		2:15 AM
Lease Zillinger D	Well No. 1-7		Location Logan 4N 2 1/2 E 3/4 S Pinto				
Contractor W W #8				Owner			
Type Job Production String				To Quality Oilwell Cementing, Inc. 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 7 7/8	T.D. 3500		Charge To Black Diamond				
Csg. 4 1/2	Depth 3500		Street				
Tbg. Size	Depth		City				
Tool Port Collar #49	Depth 1540.12		State				
Cement Left in Csg. 20.00	Shoe Joint 20.00		The above was done to satisfaction and supervision of owner agent or contractor.				
Meas Line	Displace 55 1/4 BCL		Cement Amount Ordered 180 com 100% salt				
<b>EQUIPMENT</b>				20 BKL 500 gal med clear			
Pumptrk 5	No. Cementer Helper	Cady		Common			
Eulkrk	No. Driver	Brett		Poz. Mix			
Eulkrk 14	No. Driver	Brian		Gel.			
<b>JOB SERVICES &amp; REMARKS</b>				Calcium			
Remarks:	10.5" Pipe - 1960.16' = 31 1/4 BCL			Hulls			
Lat Hole	30 SK			Salt			
Mouse Hole	11.60" = 1540.12' = 23 3/4 BCL			Flowseat			
Centralizers				Kol-Seal			
Baskets				Mud CLR 48			
W or Port Collar				CFL-117 or CD110 CAF 38			
4 1/2 size @ 3500	Insert @ 3480			Sand			
Best Circulation Pump	500 gal med clear			Handling			
Plug Rathole - Cement	4 1/2 w 160 SK			Mileage			
Clear Lines & Displace Plug	1st 20 BCL			<b>FLOAT EQUIPMENT</b>			
with KCS - Plug landed @ 1200'	Release Pressure Dry.			Guide Shoe 4 1/2			
				Centralizer 5 Turbo's			
				Baskets 2			
				AFU Inserts Port collar			
				Float Shoe 1			
				Latch Down 1			
				Pumptrk Charge			
				Mileage			
				Tax			
				Discount			
				Total Charge			
Signature	Doc Biel						

**OPERATOR**

Company: BLACK DIAMOND OIL, INC.  
 Address: PO BOX 641  
 HAYS, KS 67601

Contact Geologist: KENNETH VEHIGE  
 Contact Phone Nbr: (785) 625-5891  
 Well Name: ZILLINGER D 1-7  
 Location: SW SE SW SW 7-4-19  
 Pool:  
 State: KS

API: 15-174-20662  
 Field: WILDCAT  
 Country: USA

**Scale 1:240 Imperial**

Well Name: ZILLINGER D 1-7  
 Surface Location: SW SE SW SW 7-4-19  
 Bottom Location:  
 API: 15-174-20662  
 License Number: 7076  
 Spud Date: 1/19/2012 Time: 3:34 PM  
 Region: PHILLIPS  
 Drilling Completed: 1/24/2012 Time: 9:30 AM  
 Surface Coordinates: 860 FSL & 900 FWL  
 Bottom Hole Coordinates:  
 Ground Elevation: 2010.00ft  
 K.B. Elevation: 2015.00ft  
 Logged Interval: 0.00ft To: 3501.00ft  
 Total Depth: 3500.00ft  
 Formation:  
 Drilling Fluid Type: FRESH WATER/CHEMICAL GEL

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: -99.5122108 Latitude: 39.7149495  
 N/S Co-ord: 860 FSL  
 E/W Co-ord: 900 FWL

**LOGGED BY**

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

Phone Nbr: (785) 259-3737  
 Logged By: Geologist

Name: JEFF LAWLER

**CONTRACTOR**

Contractor: WW DRILLING, LLC  
 Rig #: 8  
 Rig Type: MUD ROTARY  
 Spud Date: 1/19/2012 Time: 3:34 PM  
 TD Date: 1/24/2012 Time: 9:30 AM  
 Rig Release: 1/25/2012 Time: 8:00 AM

**ELEVATIONS**

K.B. Elevation: 2015.00ft Ground Elevation: 2010.00ft  
 K.B. to Ground: 5.00ft

**NOTES**


4.5" X 10.5# PRODUCTION CASING WAS RUN TO FURTHER TEST ZONES OF INTEREST.

RESPECTFULLY SUBMITTED,  
JEFF LAWLER

**WELL COMPARISON SHEET**

FORMATION	ZILLINGER 'D' 1-7				SW NE SE NE 12-4-20				SW SE NW 12-4-20				NE NE SE 13-4-20				N2 NE SW 1-4-20			
	LOG TOPS		SAMPLE TOPS		LOGS		CARD		CARD		CARD		CARD		CARD					
	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	DEPTH	DATUM	CORR.	DEPTH	DATUM	CORR.	DEPTH	DATUM	CORR.				
	ANHYDRITE TOP	1580	435	1581	434	1613	429	+ 5	1645	424	+ 10									
BASE	1606	409	1606	409	1640	402	+ 7	1672	397	+ 12										
TARKIO																				
TOPEKA	2977	-962	2979	-964	3009	-967	+ 3				3019	-960	- 4	3050	-986	+ 22				
OREAD																				
HEEBNER SHALE	3175	-1160	3177	-1162	3207	-1165	+ 3	3242	-1173	+ 11	3205	-1146	- 16	3243	-1179	+ 17				
TORONTO	3202	-1187	3203	-1188	3234	-1192	+ 4	3257	-1188	+ 0										
DOUGLAS																				
BROWN LIME																				
LKC	3221	-1206	3221	-1206	3251	-1209	+ 3	3286	-1217	+ 11	3250	-1191	- 15	3288	-1224	+ 18				
BKC	3427	-1412	3427	-1412	3458	-1416	+ 4				3460	-1401	- 11	3494	-1430	+ 18				
CONGOMLERATE/QTZ																				
MISSISSIPPIAN																				
ARBUCKLE					3556	-1514		3616	-1547		3560	-1501		3588	-1524					
RTD			3500	-1485	3630	-1588	+ 103							3590	-1526	+ 41				
LTD	3501	-1486			3629	-1587														

**DST #1 LKC "D,E,F"**

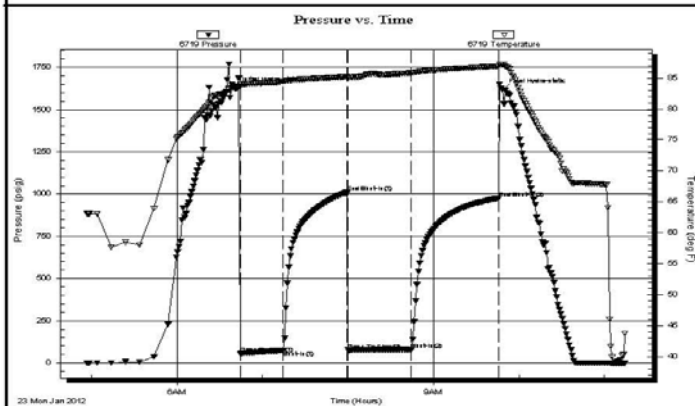
	<b>DRILL STEM TEST REPORT</b>	
	Black Diamond Oil Inc PO Box 641 Hays, KS 67601 ATTN: Jeff Lawler	7/4s/19w Phillips KS <b>Zillinger D #1-7</b> Job Ticket: 45559 <b>DST#: 1</b> Test Start: 2012.01.23 @ 04:57:00

**GENERAL INFORMATION:**

Formation: **LKC "D - F"**  
 Deviated: No Whipstock      ft (KB)  
 Time Tool Opened: 06:44:30  
 Time Test Ended: 11:14:30  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: James Winder  
 Unit No: 57  
 Interval: **3258.00 ft (KB) To 3305.00 ft (KB) (TVD)**  
 Total Depth: 3305.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Reference Elevations: 2015.00 ft (KB)  
 2010.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6719      Inside**  
 Press@RunDepth: 80.26 psig @ 3259.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2012.01.23      End Date: 2012.01.23      Last Calib.: 2012.01.23  
 Start Time: 04:57:05      End Time: 11:14:29      Time On Btm: 2012.01.23 @ 06:41:30  
 Time Off Btm: 2012.01.23 @ 09:48:30

**TEST COMMENT:** 30 - IF: 5" surge blow at open, built to 6", bled off at 15 min., blow built to 3/4" from 15 - 30 min.  
 45 - IS: Bled off, No blow back (Diesel in bucket)  
 45 - FF: Blow started at 5 min., built to just over 1"  
 60 - FS: Bled off, No blow back



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1624.61	83.45	Initial Hydro-static
3	56.30	83.65	Open To Flow (1)
33	74.31	84.46	Shut-In(1)
78	1009.11	85.21	End Shut-In(1)
79	76.67	85.06	Open To Flow (2)
123	80.26	85.79	Shut-In(2)
184	975.34	86.87	End Shut-In(2)
187	1616.86	87.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	Mud w /oil spots 90%m, 7%g, 3%o	0.30
62.00	Mud w /oil spots 97%m, 2%g, 1%o	0.30
11.00	Mud w /trace oil 100%m	0.15

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 45559

Printed: 2012.01.23 @ 12:01:43

DST #2 LKC "I"



**TRILOBITE TESTING, INC**

DRILL STEM TEST REPORT

Black Diamond Oil Inc  
 PO Box 641  
 Hays, KS 67601  
 ATTN: Jeff Lawler

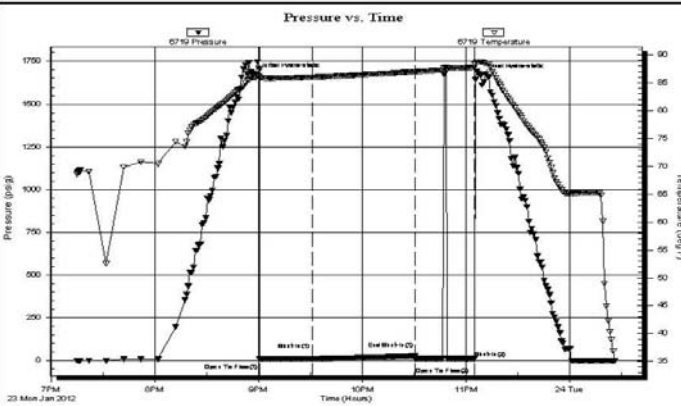
**7/4s/19w Phillips KS**  
**Zillinger D #1-7**  
 Job Ticket: 45560 **DST#: 2**  
 Test Start: 2012.01.23 @ 19:15:00

GENERAL INFORMATION:

Formation: **LKC "I"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 21:01:00 Tester: James Winder  
 Time Test Ended: 00:27:00 Unit No: 57  
 Interval: **3354.00 ft (KB) To 3375.00 ft (KB) (TVD)** Reference Elevations: 2015.00 ft (KB)  
 Total Depth: 3375.00 ft (KB) (TVD) 2010.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 6719 Inside**  
 Press@RunDepth: 11.43 psig @ 3355.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.01.23 End Date: 2012.01.24 Last Calib.: 2012.01.24  
 Start Time: 19:15:00 End Time: 00:27:00 Time On Btm: 2012.01.23 @ 20:58:30  
 Time Off Btm: 2012.01.23 @ 23:09:00

TEST COMMENT: 30 - IF: Blow built to 1/4", then died back, dead at 20 min.  
 60 - IS: No blow back (Diesel in Bucket)  
 30 - FF: No blow, Flushed tool at 16 min., open surge then dead  
 Pulled Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1673.47	85.88	Initial Hydro-static
3	10.67	85.84	Open To Flow (1)
33	11.43	85.99	Shut-In(1)
92	25.91	86.98	End Shut-in(1)
93	11.99	86.98	Open To Flow (2)
127	13.25	87.75	Shut-in(2)
131	1668.30	88.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud w /trace oil 100%m	0.00
0.00	Oil spots in Tool	0.00

Gas Rates

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

\* Recovery from multiple tests

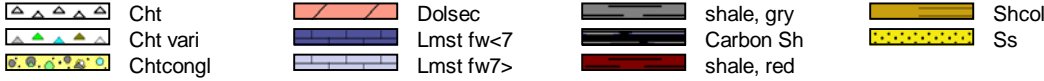
Trilobite Testing, Inc

Ref. No: 45560

Printed: 2012.01.24 @ 00:44:02



### ROCK TYPES



### ACCESSORIES

#### STRINGER

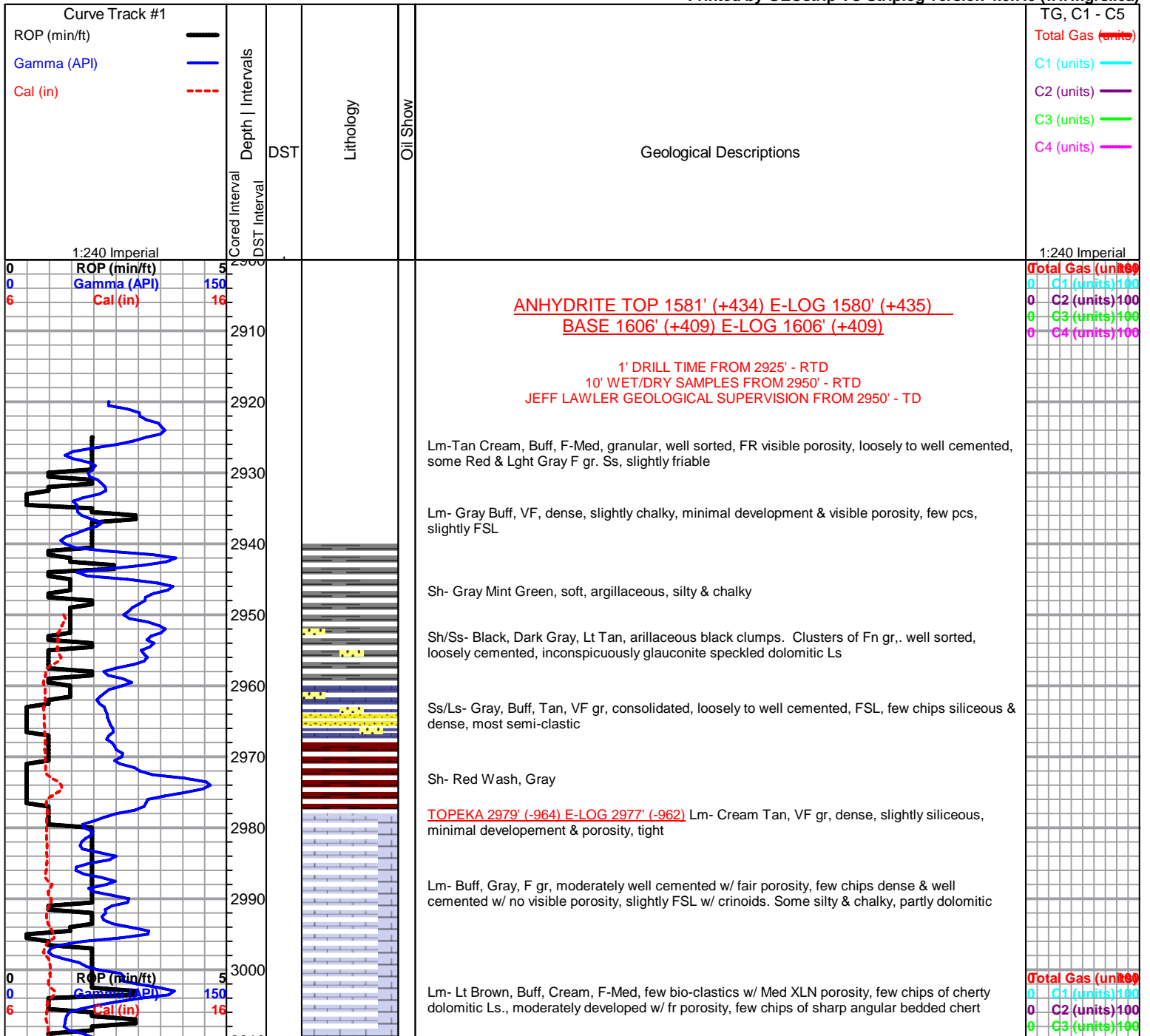


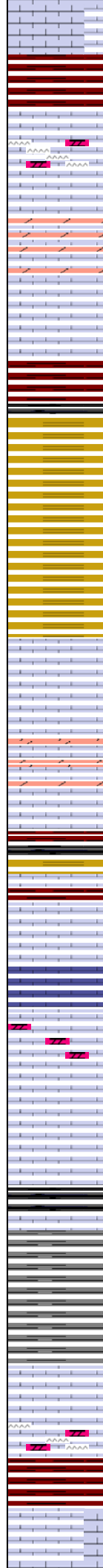
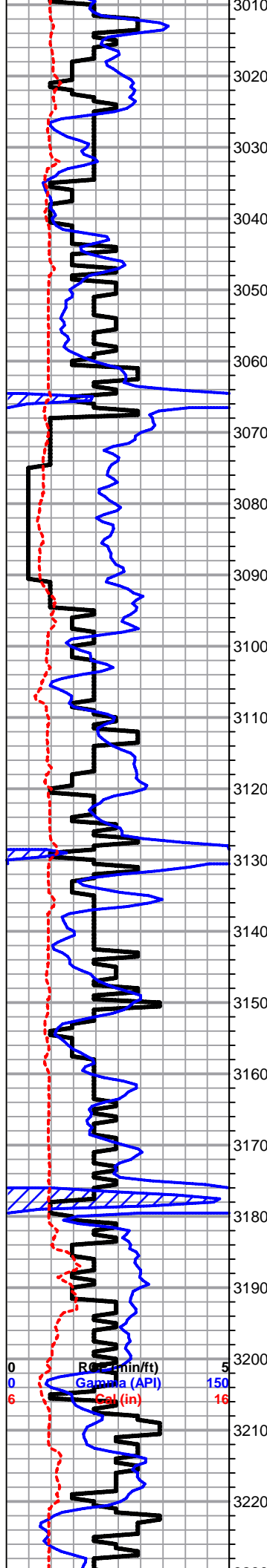
### OTHER SYMBOLS

#### DST



Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)





Lm- Cream Drk Gray, dense well cemented chalky siltstone

Sh- Red Gray Salmon Tan, sticky chalky clumps & various colored washed shales, abundant clean white chalk

Chert/Ls - Smokey Gray, Cream Buff, Med gr, consolidated & well cemented dolomitic Ls, and cherty dolomitic Ls. Sharp angular fresh bedded chert

Lm- Buff Cream, Med XLN, granular dolomitic Ls, fairly cemented w/ fr. porosity, some slightly unconsolidated & silty, few dense, partially siliceous cemented, w/ poor XLN porosity

Lm- Cream Buff, VFXLN, dense, very well cemented, pr. visible porosity, slightly granular dolomitic cherty Ls, Black & Red granular shale

Sh- Black Red Pale Mint Green, fissile, soft, chalky w/ VF micro grains

Sh- Red Tan Gray, soft, argillaceous granular clumps

Lm- Cream Tan, VF-FXLN, mostly dense w/ minimal visible porosity, oolitic, vry scattered secondary porosity, fracturing & recrystallization, poorly developed

Lm- Lt Brown Cream Buff, F-Med XLN, well cemented & dense, slightly FSL w/ fusulinds, gluaconite speckled, some granular dolomitic Ls, poorly developed

Sh- Reddish Brown Cream White, clean soft clumps, few Fine gr. Ca cemented sand clusters, loosely cemented, clean & barren

Lm- Cream Tan, VFXLN, slightly oolitic & FSL, dense w/ minimal visible porosity, well cemented

Lm- A/A, more secondary porosity by recrystallization, some chalky & dense in part, well cemented

Lm- Cream Tan, Med XLN, granular dolomitic slightly chert Ls, well cemented, poorly developed, FSL w/ crinoids & fusulinids

Lm- Lt Gray, VF gr., mostly dense, minimal developement & visible porosity, slightly FSL, brittle in part, slightly siliceous,

**HEEBNER 3177' (-1162) E-LOG 3175' (-1160)** Sh- Black Brown, abundant carbonaceous, fissile, few chipss of Fine gr. sandy shales

Sh- Gray Lt Brown Maroon Mint Green, soft, chalky clumps, dense, hard chips

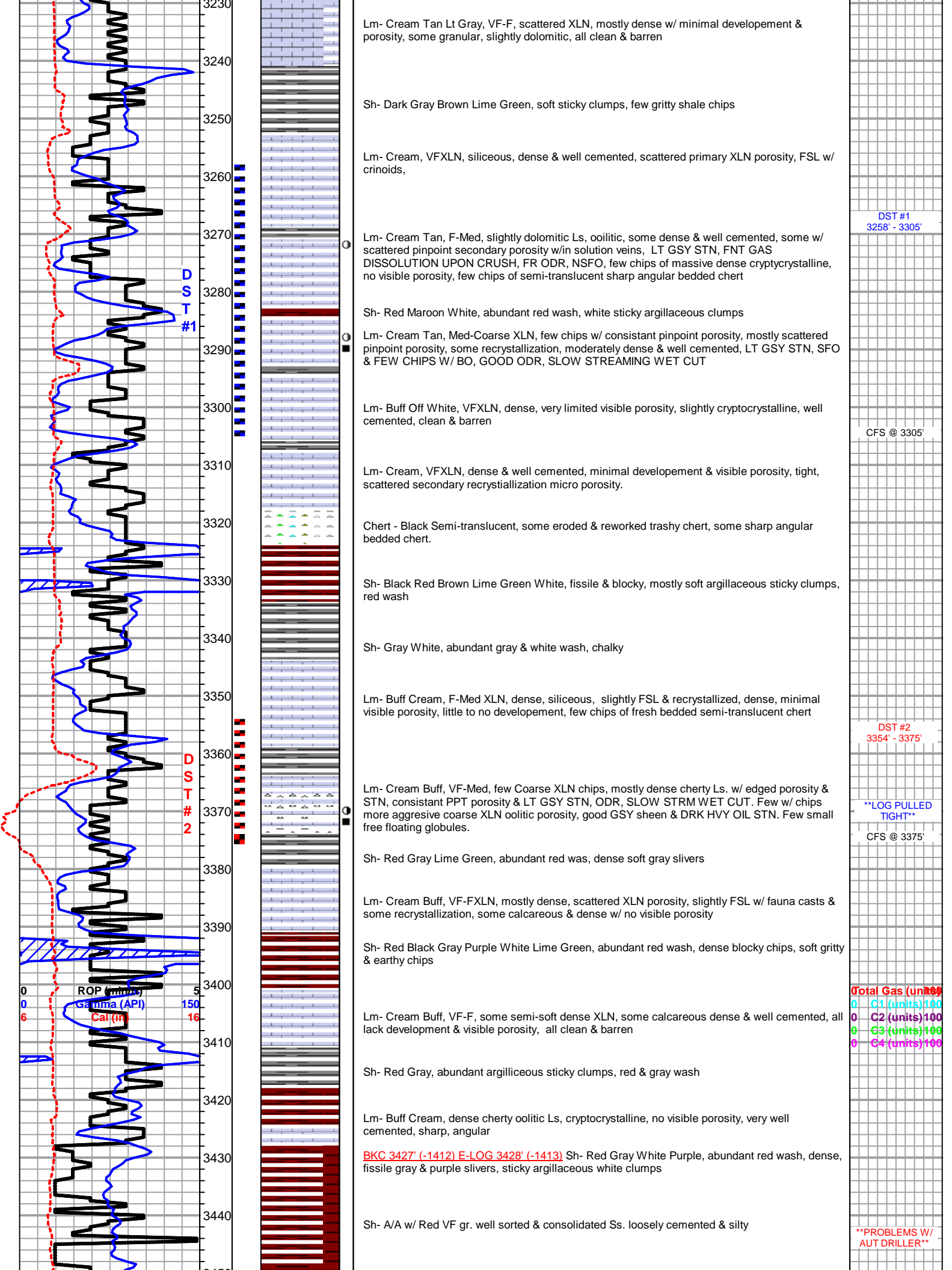
**TORONTO 3203' (-1188) E-LOG 3202' (-1187)** Lm- Cream, Fine-Med-Coarse, FSL w/ oolites & fusulinids, oolitic Ls degrading into cherty granular dolomitic Ls., scattered micro vugs, well developed toward top, gas dissolution upon crush, MINOR STN, NSFO, NO ODR

Sh- Reddish Brown White Tan, abundant soft chalky clumps

**LKC 3221' (-1206) E-LOG 3221' (-1206)** Lm-Buff Cream, VF-F gr, mostly dense w/ minimal visible porosity, FSL w/ crinoids & fusulinids, scattered secondary recrystallization porosity, well cemented, clean & barren

0 - C4 (units) 100

Total Gas (units) 100  
 0 - C1 (units) 100  
 0 - C2 (units) 100  
 0 - C3 (units) 100  
 0 - C4 (units) 100



Lm- Cream Tan Lt Gray, VF-F, scattered XLN, mostly dense w/ minimal development & porosity, some granular, slightly dolomitic, all clean & barren

Sh- Dark Gray Brown Lime Green, soft sticky clumps, few gritty shale chips

Lm- Cream, VFXLN, siliceous, dense & well cemented, scattered primary XLN porosity, FSL w/ crinoids,

DST #1  
3258' - 3305'

Lm- Cream Tan, F-Med, slightly dolomitic Ls, oolitic, some dense & well cemented, some w/ scattered pinpoint secondary porosity w/in solution veins, LT GSY STN, FNT GAS DISSOLUTION UPON CRUSH, FR ODR, NSFO, few chips of massive dense cryptocrystalline, no visible porosity, few chips of semi-translucent sharp angular bedded chert

DST #1

Sh- Red Maroon White, abundant red wash, white sticky argillaceous clumps

Lm- Cream Tan, Med-Coarse XLN, few chips w/ consistant pinpoint porosity, mostly scattered pinpoint porosity, some recrystallization, moderately dense & well cemented, LT GSY STN, SFO & FEW CHIPS W/ BO, GOOD ODR, SLOW STREAMING WET CUT

Lm- Buff Off White, VFXLN, dense, very limited visible porosity, slightly cryptocrystalline, well cemented, clean & barren

CFS @ 3305'

Lm- Cream, VFXLN, dense & well cemented, minimal developement & visible porosity, tight, scattered secondary recrystallization micro porosity.

Chert - Black Semi-translucent, some eroded & reworked trashy chert, some sharp angular bedded chert.

Sh- Black Red Brown Lime Green White, fissile & blocky, mostly soft argillaceous sticky clumps, red wash

Sh- Gray White, abundant gray & white wash, chalky

Lm- Buff Cream, F-Med XLN, dense, siliceous, slightly FSL & recrystallized, dense, minimal visible porosity, little to no developement, few chips of fresh bedded semi-translucent chert

DST #2  
3354' - 3375'

DST #2

Lm- Cream Buff, VF-Med, few Coarse XLN chips, mostly dense cherty Ls. w/ edged porosity & STN, consistant PPT porosity & LT GSY STN, ODR, SLOW STRM WET CUT. Few w/ chips more aggressive coarse XLN oolitic porosity, good GSY sheen & DRK HVY OIL STN. Few small free floating globules.

\*\*LOG PULLED TIGHT\*\*

CFS @ 3375'

Sh- Red Gray Lime Green, abundant red was, dense soft gray slivers

Lm- Cream Buff, VF-FXLN, mostly dense, scattered XLN porosity, slightly FSL w/ fauna casts & some recrystallization, some calcareous & dense w/ no visible porosity

Sh- Red Black Gray Purple White Lime Green, abundant red wash, dense blocky chips, soft gritty & earthy chips

Total Gas (units) 100  
C1 (units) 100  
C2 (units) 100  
C3 (units) 100  
C4 (units) 100

Lm- Cream Buff, VF-F, some semi-soft dense XLN, some calcareous dense & well cemented, all lack development & visible porosity, all clean & barren

Sh- Red Gray, abundant argillaceous sticky clumps, red & gray wash

Lm- Buff Cream, dense cherty oolitic Ls, cryptocrystalline, no visible porosity, very well cemented, sharp, angular

BKC 3427' (-1412) E-LOG 3428' (-1413) Sh- Red Gray White Purple, abundant red wash, dense, fissile gray & purple slivers, sticky argillaceous white clumps

Sh- A/A w/ Red VF gr. well sorted & consolidated Ss. loosely cemented & silty

\*\*PROBLEMS W/ AUT DRILLER\*\*

