



KANSAS CORPORATION COMMISSION 1075598
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 # 6039
Name: L. D. Drilling, Inc.
Address 1: 7 SW 26TH AVE
Address 2: _____
City: GREAT BEND State: KS Zip: 67530 + 6525
Contact Person: L. D. DAVIS
Phone: (620) 793-3051
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: W. SCOTT ALBERG
Purchaser: M V PURCASING

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 #: _____

<u>01/11/2012</u>	<u>1/20/2012</u>	<u>02/29/2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-007-23819-00-00

Spot Description: _____

S2 NW SE SW Sec. 14 Twp. 30 S. R. 12 East West

865 Feet from North / South Line of Section

1650 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Barber

Lease Name: KUMBERG Well #: 1-14

Field Name: MAIRS

Producing Formation: MISSISSIPPI

Elevation: Ground: 1760 Kelly Bushing: 1763

Total Depth: 4760 Plug Back Total Depth: 4505

Amount of Surface Pipe Set and Cemented at: 333 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: 3000 Feet

If Alternate II completion, cement circulated from: 3000

feet depth to: 0 w/ 100 sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 6000 ppm Fluid volume: 00 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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: Deanna Gerris Date: 04/25/2012



1075598

Operator Name: L. D. Drilling, Inc. Lease Name: KUMBERG Well #: 1-14
 Sec. 14 Twp. 30 S. R. 12 East West County: Barber

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

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Attached	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Name</td> <td style="width:33%;">Top</td> <td style="width:33%;">Datum</td> </tr> <tr> <td>Attached</td> <td>Attached</td> <td>Attached</td> </tr> </table>	Name	Top	Datum	Attached	Attached	Attached
Name	Top	Datum					
Attached	Attached	Attached					

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
SURFACE	14.75	10.75	32	333	60/40 POZMIX	350	3%CC,2%GEL
PRODUCTION	7.875	5.5	14	4517	COMMON	225	

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth
4	4300 - 4310'	Pad 33000 gal Foam 60 q	
		Frc 100600 gal 60 q Foam	
	DV TOOL @ 3000'	2500 gal 10% HCL Acid	
		60600 Progel LG 200	

TUBING RECORD:	Size: <u>2.375</u>	Set At: <u>4296</u>	Packer At:	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>03/09/2012</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____		
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KUMBERG 1-14
Doc ID	1075598

All Electric Logs Run

BOREHOLE COMPENSATED SONIC LOG
DUAL COMPENSATED POROSITY LOG
DUAL INDUCTION LOG
MICRORESISTIVITY LOG

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KUMBERG 1-14
Doc ID	1075598

Tops

Name	Top	Depth
TOPEKA	3274	-1512
HEEBNER	3634	-1871
BROWN LIME	3816	-2052
LANSING	3827	-2064
BASE KANSAS CITY	4246	-2483
MISSISSIPPIAN	4300	-2537
VIOLA	4625	-2761
SIMPSON	4611	-2848
ARBUCKLE	472	-2961

BASIC

energy services, L.P.

PG. # 1 OF # 2

TREATMENT REPORT

Customer LD DRILLING, INC.	Lease No.	Date 1-21-2012
Lease KUMBERG	Well # 1-14	
Field Order # 05523	Station PRATT, KS.	Casing 3 1/2"
		Depth 4517
Type Job CNW- 5 1/2" TWD STAGE L.S.	Formation TD- 4760	County BARBER
		State KS.
		Legal Description 14-22-12

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2" X 14#	Tubing Size	Shots/Ft	CMT-	Acid 1255K Common		RATE	PRESS	ISIP
Depth 4509.15	Depth	From	To	Pre Pad @ 1.43 CUFT	Max			5 Min.
Volume	Volume	From	To	Pad	Min			10 Min.
Max Press 1500	Max Press	From	To	Frac	Avg			15 Min.
Well Connection 1 1/2"	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth 4477.40	Packer Depth	From	To	Flush 109.6 BBL	Gas Volume			Total Load

Customer Representative **LD DAVIS** Station Manager **SCOTTY** Treater **LESLEY / GORDLEY**

Service Units	19907	37526	27463	19832	21010				
Driver Names	GORDLEY	LESLEY	LAURENCE	MARQUEZ	-				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:00 PM					ON LOCATION - SAFETY MEETING
11:00 PM					SPOT TRUCKS ON LOC.
11:36 PM					RUN 105 JTS. 5 1/2" X 14# CSQ. / SJ = 14.75'
					CENT. - 1, 3, 5, 7, 9, 33, 35, 37, 39, 41
					BASK. - BOTTOM OF #1 @ 34'
					DV TOOL - TOP #34 @ 3000'
1:25 AM					CSQ. ON BOTTOM
1:30 AM					HOOK UP TO CSQ. / BREAK CIRC. W/ RIG
2:40 AM	300		24	6	MUD FLUSH
3:05 AM	200		5	6	H2O SPACER
3:10 AM	200		32	6	MIX 1255K CMT. @ 15.0 PPG
3:14 AM					CLEAR PUMP & LINE / DROPLD. PLUG
3:19 AM	0		0	6	START DISPLACEMENT W/ H2O
3:27 AM	200		40	6	SWITCH TO MUD DISPLACEMENT
3:35 AM	400		85	6	LIFT PRESSURE
3:39 AM	500		105	5	SLOW RATE
3:40 AM	1500		109.6	4	PLUG DOWN - HELD
					CIRC. THRU BOTTOM STAGE
3:45 AM					DROP DV OPEN TOOL - WAIT 15 MIN.
4:00 AM	1000				OPEN DV TOOL W/ MUD
					CIRC. 2 HOURS

OVER →

BASIC

energy services, L.P.

PG # 2 OF 2

TREATMENT REPORT

Customer	LD DRILLING, INC.	Lease No.		Date	1-21-2012						
Lease	KUMBERG	Well #.	1-14								
Field Order #	05523	Station	PRATT, KS.	Casing	5 1/2"	Depth	4517	County	BARBER	State	KS
Type Job	CNW - 5 1/2" TWO STAGE I.S.			Formation	3000'-DV	Legal Description	14-02-12				

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size #	Tubing Size	Shots/Ft	CMT -	Aeje	100SK Common	RATE	PRESS	ISIP
5 1/2 x 14				Pre Pad	21.43 cuft	Max		5 Min.
Depth	4509.15	From	To	Pad		Min		10 Min.
Volume	73.2 BBL	From	To	Frac		Avg		15 Min.
Max Press.	1500	From	To			HHP Used		Annulus Pressure
Well Connection	P.C.	From	To	Flush	73.2 BBL	Gas Volume		Total Load
Plug Depth	3000	From	To					

Customer Representative	LD DAVIS	Station Manager	D. SCOTT	Treater	LESLEY / GORDLEY
Service Units	19907	37586	27463	19832	21010
Driver Names	GORDLEY	LESLEY	LAWRENCE	MARQUEZ	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
					TOP STAGE
6:00AM	250		24	6	MUD FLUSH
6:17AM	200		5	6	H ₂ O SPACER
6:21AM	150		25	6	MIX 100SK CMT. @ 15.0 PPG
6:25AM					CLEAR PUMP & LINE / DROP DU PLUG
6:28AM	0		0	5	START DISPLACEMENT
6:39AM	250		55	5	LIFT PRESSURE
6:42AM	500		65	4	SLOW RATE
6:45AM	2000		73.2	4	PLUG DOWN - CLOSE DU TOOL
					CIRC. THRU TOP STAGE
			7.5		PLUG R.H. & M.H.
					WASH UP TRUCK
					JOB COMPLETE,
					THANKS -
					KELEN LESLEY

LITHOLOGY STRIP LOG

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

Well Name: Kumberg #1-14
 Location: S/2 NW SE SW
 License Number: API: 15-007-23819-00-00
 Spud Date: January 11, 2012
 Surface Coordinates: 865' FSL, 1650' FWL Section 14-Twp 30 South - Rge 12 West
 Bottom Hole Coordinates: Vertical Hole
 Region: Barber County, Kansas
 Drilling Completed: January 20, 2012
 Meairs Pool
 Type of Drilling Fluid: Chemical Mud, Displace at 2450'.
 Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: L. D. Drilling, INC
 Address: 7 SW 26th AVE
 Great Bend, KS 67530-6525

GEOLOGIST

Name: W. Scott Alberg
 Company: Alberg Petroleum, LLC
 Address: 609 Meadowlark Lane
 Pratt, Kansas 67124

FORMATION TOPS

	SAMPLE TOPS	LOG TOPS
ONAGA SHALE	2698(-436)	2697(-834)
WABAUNSEE	2744(-491)	2743(-890)
STOTLER	2885(-1122)	2886(-1123)
HOWARD	3119(-1356)	3119(-1356)
TOPEKA	3276(-1512)	3274(-1512)
ELGIN SAND	3456(-1693)	3457(-1694)
HEEBNER	3834(-1871)	3834(-1871)
TORONTO	3650(-1887)	3654(-1891)
DOUGLAS SHALE	3670(-1907)	3671(-1908)
BROWN LIME	3814(-2051)	3815(-2052)
LANSING	3827(-2064)	3827(-2064)
STARK	4139(-2376)	4139(-2376)
B/KC	4248(-2486)	4248(-2483)
MISSISSIPPIAN	4300(-2537)	4300(-2537)
KINDERHOOK SHALE	4378(-2516)	4376(-2613)
VIOLA	4526(-2761)	4526(-2761)
SIMPSON	4810(-2847)	4811(-2848)
ARBUCKLE	4724(-2961)	4724(-2961)
RTD	4760(-2997)	
LTD		4760(-2997)

COMMENTS

Surface Casing: Set 8 joints 10 3/4", 32#, " at 333' with 350sxs 60/40 Poz, 3% cc 2% gel, Plug down at 4:30 am on January 12, 2012. Cement did circulate.
 Surveys: 1 - 335', 1 1/8 - 3696', 1 - 4319', 1 1/2 - 4760'.
 Production Casing: 5 1/2".
 Contractor Bit Record: 1- 14 3/4' out at 335'
 2- 7 7/8" out at 4760'

Gas Detector: Bluestem
 Mud System: Andy's Mud, Dennis Rector, Engineer
 DSTs: Diamond Testing, Mike Cochran, Tester
 Logged By Log Tech, Inc
 LTD 4760'

DSTs

DST #1 3662 to 3696' Upper Douglas Sand
 Times 30-60-30-60
 1st Opening - Strong Blow BOB 30 Seconds, no blow back
 2nd Opening - Strong Blow, BOB 25 Seconds, no blow back
 Recovery: 2160' GIP, 80' GWM ((1% G, 43% W, 56% M)
 Chlorides 23,000 ppm
 IFP 15-24# FFP 31-42#
 ISIP 1251# FSIP 1190#
 IHP 1731# FHP 1731#

DST #2 4283 to 4319' Mississippi
 Times 30-60-30-60
 1st Opening, Strong Blow, BOB 30 Seconds, weak 1/8" blow back
 2nd Opening, strong Blow, GTS 2 Minutes, TSTM, weak 1/8" blow back
 Recovery
 88' GDM (2%G, 98% M), trace of oil in tool.
 IFP 21-26# FFP 25-44#
 ISIP 1254# FSIP 1203#
 IHP 2064# FHP 2061#

DST #3 4320 to 4340 Mississippi
 Times 30-60-30-60
 1st Opening, weak Blow, 1 1/4", no blow back
 2nd Opening, Weak Blow 1 1/2", no blow back
 Recovery 50' GIP, 15' Mud
 IFP 9-20# FFP 9-11#
 ISIP 91# FSIP 60#
 IHP 2090# FHP 2080#

CREWS

Duke Drilling Rig #2
 Tool Pusher - John Armstrong
 Drillers - Days - Dion Vasquez
 Evening - Kevin Martin
 Morning - Rodney Shelton

RECOMMENDATIONS

With the results of log calculations and DST #2, it was recommended that casing be set to further evaluate the Mississippian and the Stotter Sand.

Respectfully,

W. Scott Alberg

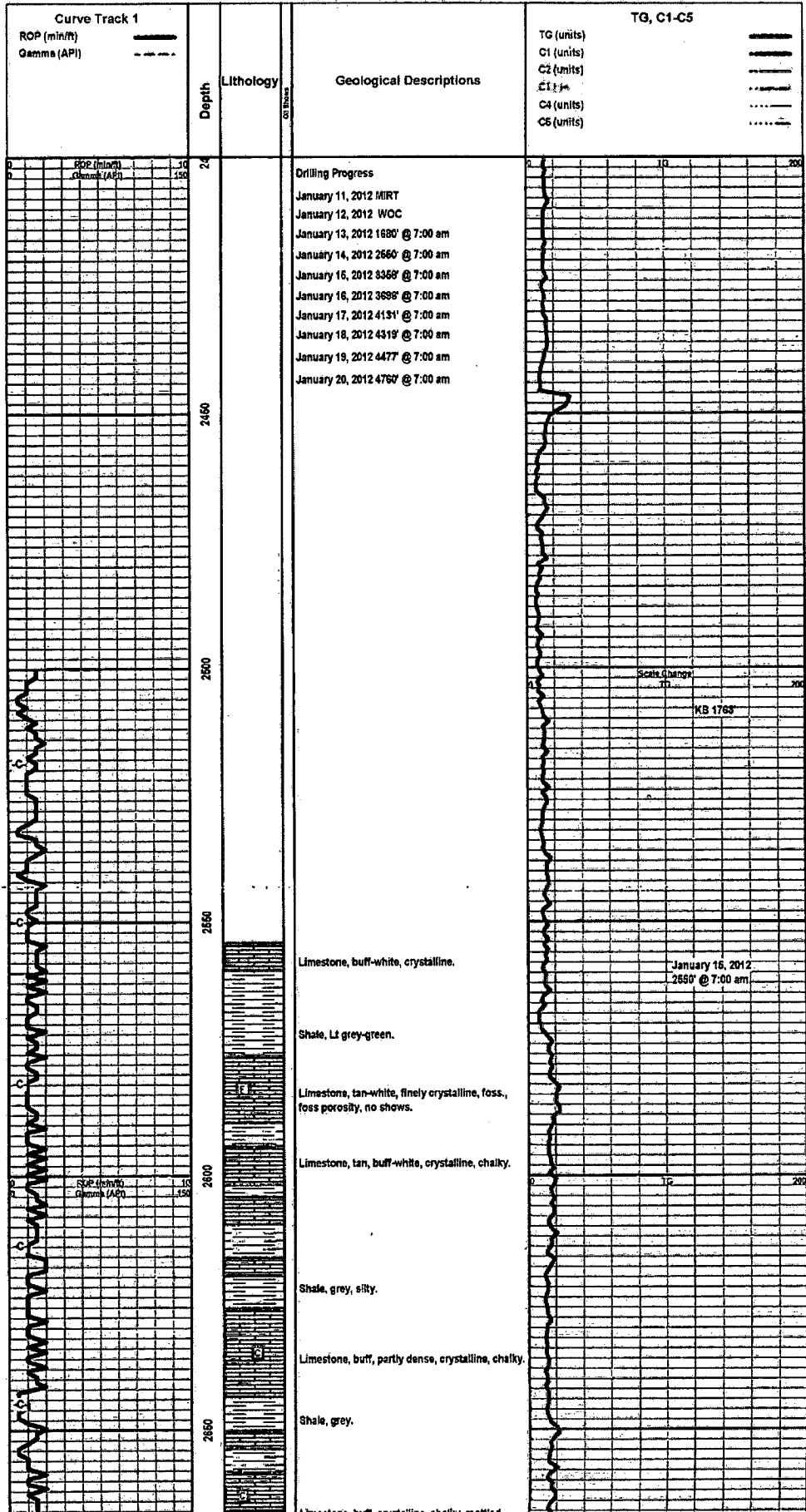
ROCK TYPES

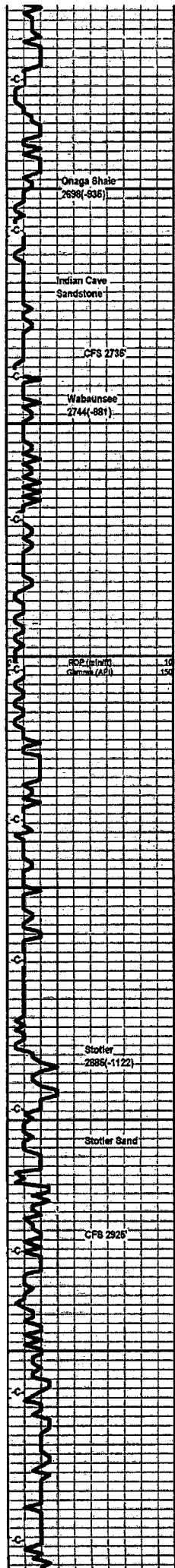
Anhy	Congl	Lmst	Black sh
Bent	Sdy dolo	Mrist	Gry sh
Brec	Shy dolo	Salt	Shale
Cht	Dol	Shale	Shysltst
Clyst	Gyp	Sitst	Sitysh
Coal	Sdy lmst	Ss	

ACCESSORIES

<input type="checkbox"/> MINERAL	<input type="checkbox"/> Chlorite	<input type="checkbox"/> Polec	<input type="checkbox"/> Grysh
<input type="checkbox"/> Anhy	<input type="checkbox"/> Dol	<input type="checkbox"/> Pellet	<input type="checkbox"/> Grysit
<input type="checkbox"/> Arg	<input type="checkbox"/> Sand	<input type="checkbox"/> Pisolite	<input type="checkbox"/> Lms
<input type="checkbox"/> Bent	<input type="checkbox"/> Sity	<input type="checkbox"/> Plant	<input type="checkbox"/> Sandylms
<input type="checkbox"/> Bit		<input type="checkbox"/> Strom	<input type="checkbox"/> Sh
<input type="checkbox"/> Brecfrag	FOSSIL	<input type="checkbox"/> Fuss	<input type="checkbox"/> Sitstn
<input type="checkbox"/> Calc	<input type="checkbox"/> Algae	<input type="checkbox"/> Oomoldic	
<input type="checkbox"/> Carb	<input type="checkbox"/> Amph		TEXTURE
<input type="checkbox"/> Chtdk	<input type="checkbox"/> Beim	STRINGER	<input type="checkbox"/> Boundst
<input type="checkbox"/> Chtlt	<input type="checkbox"/> Bioclst	<input type="checkbox"/> Anhy	<input type="checkbox"/> Chalky
<input type="checkbox"/> Dol	<input type="checkbox"/> Brach	<input type="checkbox"/> Arg	<input type="checkbox"/> Cryxln
<input type="checkbox"/> Ferrpet	<input type="checkbox"/> Bryozoa	<input type="checkbox"/> Bent	<input type="checkbox"/> Earthy
<input type="checkbox"/> Ferr	<input type="checkbox"/> Cephal	<input type="checkbox"/> Coal	<input type="checkbox"/> Finexln
<input type="checkbox"/> Glau	<input type="checkbox"/> Coral	<input type="checkbox"/> Dol	<input type="checkbox"/> Grainst
		<input type="checkbox"/> C...	<input type="checkbox"/> L...

Ferrpel	Bryozoa	Bent	Carry
Ferr	Cephal	Coal	Finexin
Glau	Coral	Dol	Grainst
Gyp	Crin	Gyp	Lithogr
Marl	Echin	Ls	Microxin
Nodule	Fish	Mrst	Mudst
Phos	Foram	Sitstrg	Packst
Pyr	Fossil	Ssstrg	Wackest
Salt	Gastro	Carbsh	
Sandy	Oolite	Clystn	
Silt	Ostra	Dol	





Limestone, buff, crystalline, chalky, mottled.

Shale, grey.

Limestone, cream, tan-white, crystalline, dense.

Shale, grey.

Limestone, cream, buff, crystalline, dense.

Shale, Lt grey, silty.

Sandstone, clear to grey-white, fine grained, partly friable, mica, no visible shows, no odor, no fluor., very slight increase in gas background

Sandstone, clear to white, fine grained, friable in part, silty, no visible shows, no fluor.

Shale, lt grey, silty.

Limestone, cream, buff-white, crystalline, dense, slightly foss, chalky.

Shale, grey, very silty.

Limestone, cream-white, crystalline, chalky.

Shale, grey, trace pyrite, slight show gas.

Limestone, tan-brown, dense, fossils.

Shale, light grey, silty.

Shale, grey, silty to slightly sandy.

Shale, grey.

Limestone, cream-tan, fine to medium crystalline, dense, fossils.

Sandstone, clear to tan-white, medium grained, poor sorting, friable, slight show gas bubbles, no fluor, no odor, slight increase in gas background.

Ala, fine grained, tite.

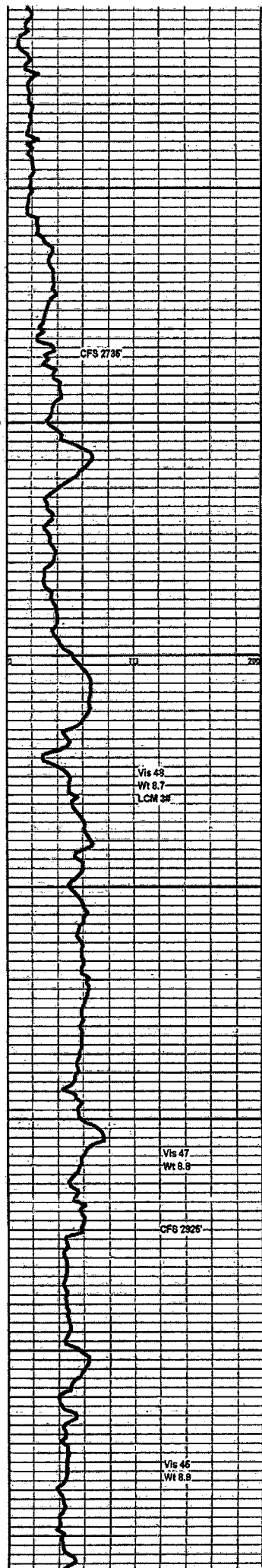
Limestone, cream-buff, xin, dense, trace fossils.

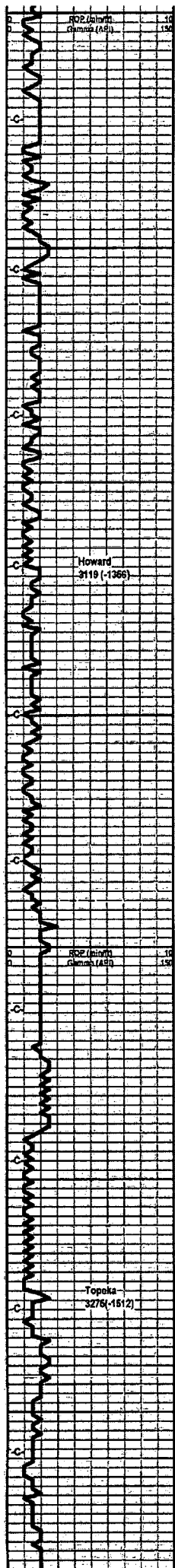
Shale, grey, silty.

Limestone, grey-white, tan, fine to medium crystalline, trace fossils, chalky in part.

Limestone, cream-white, buff, finely crystalline, trace of crystalline porosity, no visible shows.

Limestone, grey-white, crystalline, dense, some grey shales.





Limestone, cream, gray-white, crystalline, dense.

Shale, grey, silty.

Limestone, tan, buff, crystalline, trace of fossils, foss porosity, no visible shows.

Limestone, cream, buff, crystalline, chalky, trace fossils, no visible shows.

Limestone, tan, buff, crystalline, trace of crystalline porosity, no visible shows.

Shale, grey.

Limestone, cream, tan, finely crystalline, crystalline porosity, slightly foss, foss porosity, no visible shows.

Shale, Grey-green.

Limestone, cream-tan, crystalline, partly dense, slightly foss., chalky in part, no visible shows.

Limestone, tan, buff-white, crystalline, partly dense, foss in part.

Limestone, buff-tan, crystalline, crystalline porosity, slightly foss., slightly chalky.

Limestone, buff-white, cream, crystalline, dense.

Limestone, tan, buff, crystalline, partly dense, crystalline porosity, chalky in part.

Limestone, a/a

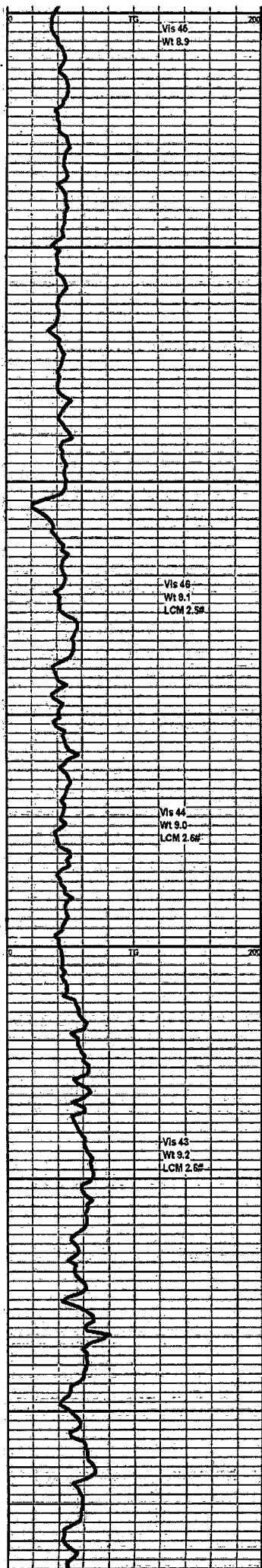
Shale, grey-green.

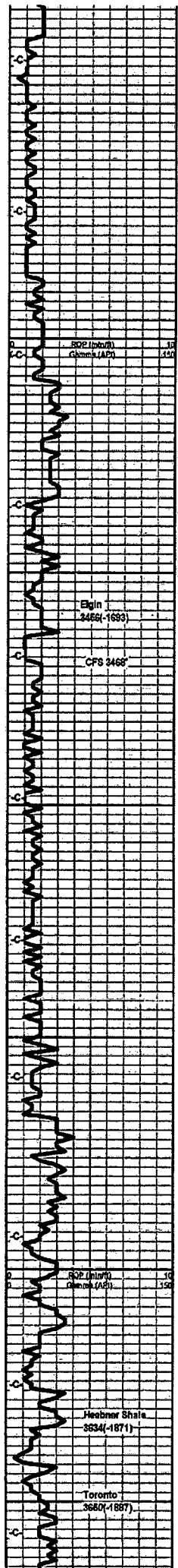
Shale, grey-green, trace pyrite, silty.

Limestone, cream-buff, tan, crystalline, trace of crystalline porosity, chalky in part.

Limestone, tan, grey, crystalline, partly dense, trace fossils.

Limestone, grey-white, buff, crystalline, fossils, trace foss porosity, crystalline porosity, no visible shows.





Limestone, cream, grey-white, crystalline, fossils, chalky on part, crystalline porosity, no visible shows, traces of oolitic porosity.

Limestone, buff-white, crystalline, trace of oolitic porosity, no visible shows.

Limestone, cream-tan, crystalline, dense in part, slightly chalky.

Limestone, cream-tan, buff, xln, dense.

Shale, grey.

Limestone, tan-white, crystalline, dense.

Shale, dark grey, silty.

Limestone, cream-tan, crystalline, dense.

Limestone, cream-tan, crystalline, dense.

Sandstone, clear to grey-white, fine grained, silty, some friable, mica, no visible shows, no odor, no fluor.

Shale, light grey, silty to sandy, no shows.

Shale, a/a

Shale, grey, light grey, silty, soft.

Shale, a/a

Limestone, tan, crystalline, dense, trace fossils.

Limestone, tan, crystalline, dense, trace fossils.

Shale, dark grey

Limestone, tan-brown, crystalline, dense.

Limestone, a/a, tan, buff

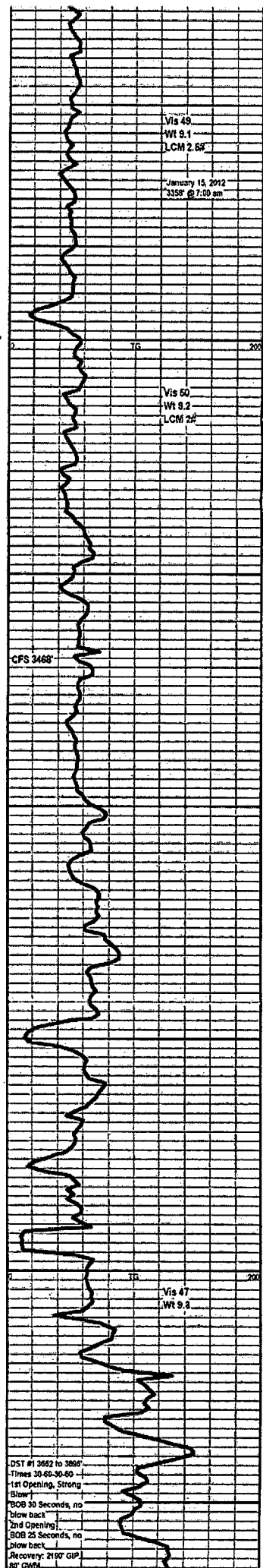
Shale, grey-black, carb

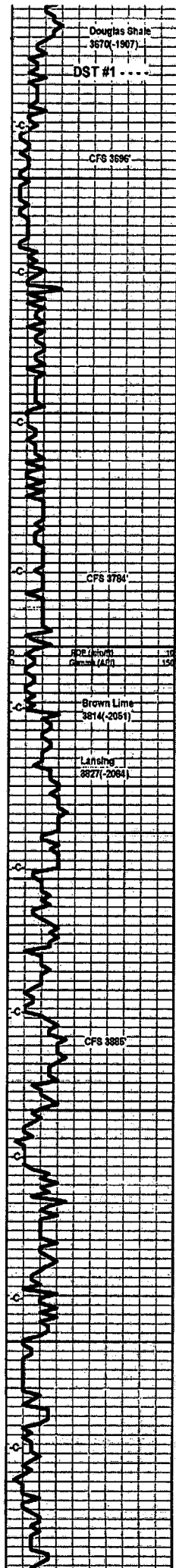
Limestone, buff, tan, dense, crystalline.

Shale, grey-black, carb

Limestone, grey-white, crystalline, dense.

Limestone, tan-white, cream, crystalline, fossils, trace of crystalline porosity, slightly chalky, no visible shows.





Shale, Light grey, silty.

Sandstone, clear to grey-white, fine grained, slightly friable, slight show gas bubbles, no visible show of oil, no odor.

Sandstone, a/a, very friable, slight show gas bubbles, faint odor, good gas indication.

Sandstone, a/a, friable, slight show gas bubbles, mica, faint odor, slight show of oil, spotty floor.

Shale, Light grey, silty to sandy.

Shale, grey, light grey, silty sandy in part.

Sandstone, grey, fine to medium grained, some limestone fragments, few pieces friable, no visible shows, no odor, no fluor.

Shale, dark grey, silty.

Limestone, tan-brown, fine to medium crystalline, dense, fossils.

Shale, grey.

Limestone, cream-white, tan, crystalline, dense, slightly foss, chalky, no visible shows.

Limestone, cream-tan, crystalline, trace crystalline porosity, chalky, fossils, no visible shows.

Shale, grey.

Limestone, cream, buff, crystalline, crystalline porosity, some pin point porosity, no visible shows, no odor, no gas kick.

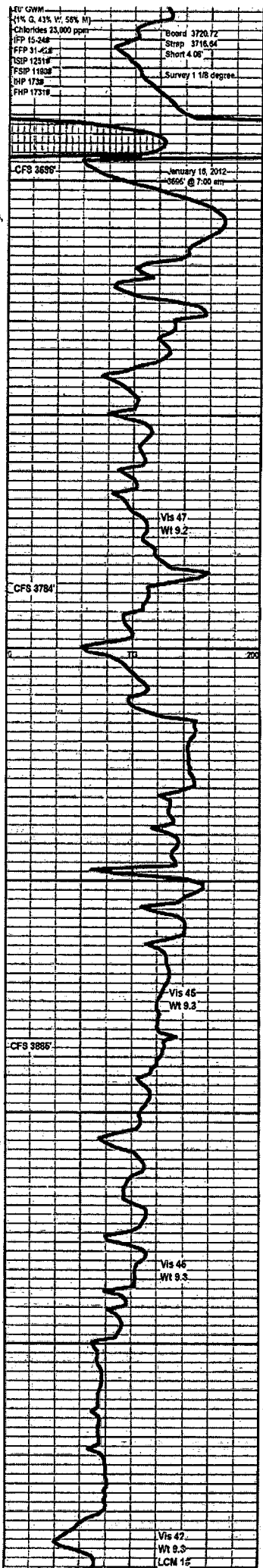
Shale, grey.

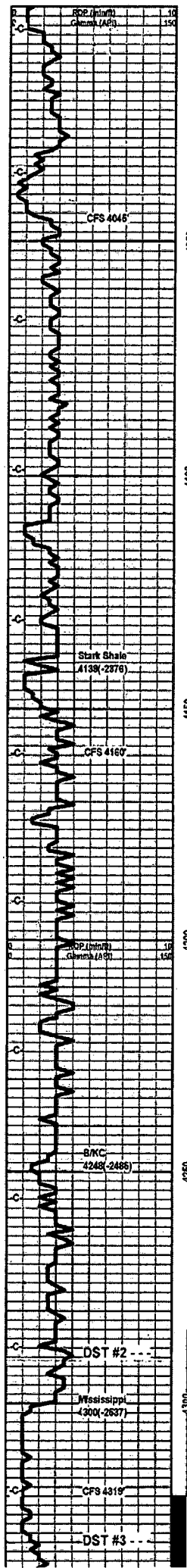
Limestone, buff, cream-white, crystalline, slightly foss., trace of oolitic porosity, crystalline porosity, no visible shows.

Limestone, grey-white, finely crystalline, dense, fossils, no visible shows.

Limestone, buff-white, crystalline, trace oolitic porosity, oolitic, no visible shows.

Limestone, buff-white, crystalline, crystalline porosity, slightly foss, traces of grey chert, no visible shows.





Limestone, a/a, oolitic, trace of oolitic porosity, no visible shows.

Limestone, tan-brown, crystalline, dense, fossils, no visible shows.

Shale, grey-green.

Limestone, cream-white, crystalline, oolites, oolitic porosity, barren, no odor, no gas kick, no visible shows.

Limestone, tan, buff, fine to medium crystalline, dense, slightly foss. no visible shows.

Limestone, tan, grey, crystalline, dense, fossils, no visible shows, traces of grey shales, grey cherts.

Limestone, tan-white, crystalline, fossils, oolitic porosity, no visible shows, no odor, no gas kick.

Limestone, tan-grey, off-white, crystalline, dense, grey cherts, no shows.

Shale, grey-black, carb.

Limestone, buff-white, finely crystalline, traces of crystalline porosity, some foss. porosity, no visible shows, no odor, no kick, slightly chalky in part.

Shale, grey-black, carb.

Limestone, tan-brown, buff, crystalline, dense, slightly foss., no visible shows.

Limestone, tan, fine to medium crystalline, dense, slightly foss, trace tan cherts, no visible shows.

Limestone, tan-buff, crystalline, oolitic, trace of foss. porosity, no visible shows.

Limestone, grey-tan, fine to medium crystalline, dense, foss. no visible shows.

Shale, grey.

Limestone, tan-white, crystalline, dense.

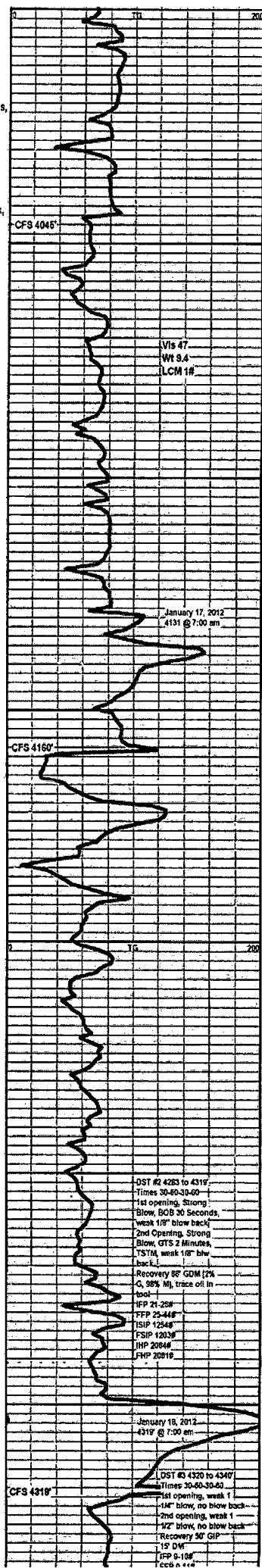
Shale, grey-green.

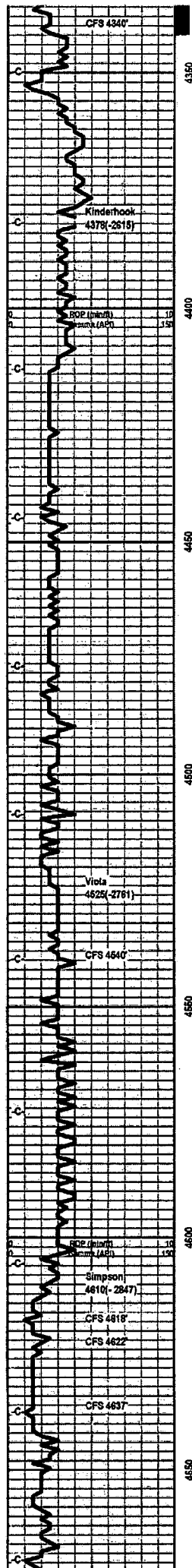
Limestone, tan-white, crystalline, dense, trace dark asphaltic staining, no odor, no gas kick.

Shale, grey-green.

Chert, white, bone-white, sharp, trace of weathered, some light edge staining, very slight show oil, poor odor, very dull spotty fluor., trace small vugs, trace asphaltic staining.

Chert, white to off-white, bone-white, sharp, some weathered, scattered small vugs, edge staining, asphaltic staining, slight odor, spotty fluor., some free oil in tray.





Limestone, tan-white, crystalline, slightly cherty, trace chalky.

Chert, white to translucent, sharp, very clean, no visible shows.

Limestone, tan, buff-white, crystalline, dense, chalky in part.

Shale, light grey, silty.

Shale, lt grey, grey, traces of pyrite.

Shale, grey, silty.

Shale, grey, dark grey.

Shale, grey, dark grey.

Shale, dark grey, brownish grey, silty, traces of pyrite.

Shale, dark grey brownish grey, traces of sand clusters, slight possible staining on sand clusters, questionable slight show on sand, very faint odor.

Limestone, buff-white, very finely crystalline, trace of crystalline porosity, traces of tan chert, sharp, dolomitic in part, some granular texture, few places had a very slight show of light oil, faint odor, poor porosity, dull spotty fluor.

Limestone, tan-white, finely crystalline, dense, traces of sharp tan cherts, some chalky limestone, very slightly dolomitic in part, no visible shows, no odor, dull spotty fluor.

Limestone, tan, crystalline, dolomitic, granular texture, tan cherts, no visible show, no odor, no fluor.

Limestone, tan-white, tan, crystalline, granular, chert, slightly dolomitic, no visible shows.

Shale, pale green to green.

Sandstone, clear to white, SA, fair sorting, friable, some grey-white, no visible shows, no odor no fluor, questionable slight gas increase.

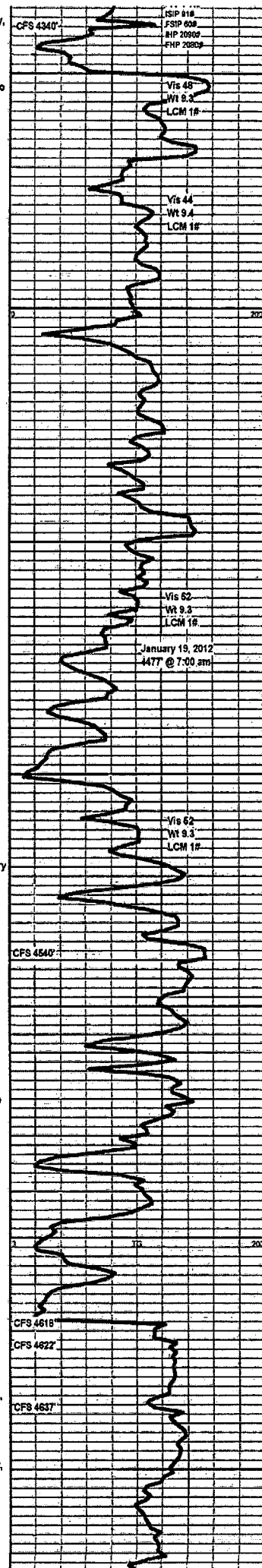
Sandstone, clear to grey-white, fair sorting, some well cemented, ss to sr, no visible shows, no odor, no fluor.

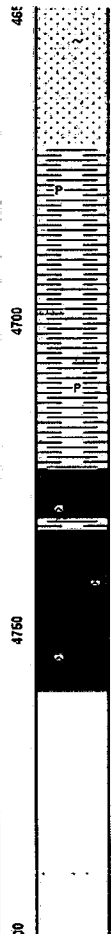
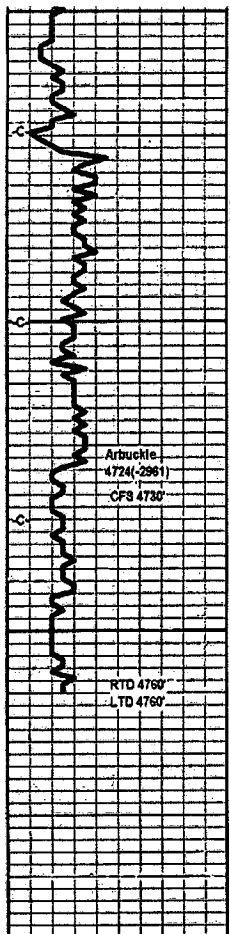
Sandstone, clear to grey-white, as

Sandstone, clear to grey, sa to sr, friable in part, no visible shows, no odor, no fluor.

Sandstone, grey, white, SA to SR, friable in part, some dolomitic, no visible shows, no odor, no kick.

a/a





some dolomitic, no visible shows, no odor, no kick.

a/a

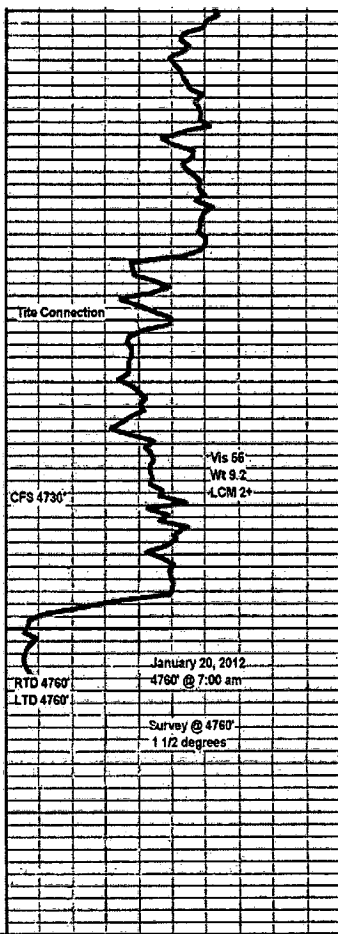
Shale, green, dark green, firm.

Shale, dark green, firm, few sand clusters.

Dolomite, tan, granular, some crystalline, xin porosity, trace of tan chert, no visible shows, no odor, very sandy, some sand clusters.

Dolomite, a/a, traces of dark green shales, no visible shows.

Dolomite, tan, xin, dense, chalky in part, tan sharp chert, no visible shows.



Tite Connection

CFS 4730

Vis 56
Wt 9.2
LCM 2+

January 20, 2012
4760 @ 7:00 am

Survey @ 4760
1 1/2 degrees

DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	L.D. DRLG	Job Number	M259
Well Name	KUMBERG #1-14	Representative	MIKE COCHRAN
Unique Well ID	DST#1 3662-3696 UPPER DOUGLAS SANDSTONE	Well Operator	L.D. DRLG
Surface Location	SEC.14-30S-12W BARBER CO.KS.	Report Date	2012/01/16
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	SCOTT ALBERG
		Test Unit	NO. 1

Test Information

Test Type	CONVENTIONAL		
Formation	DST#1 3662-3696 UPPER DOUGLAS SANDSTONE		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2012/01/16	Start Test Time	01:20:00
Final Test Date	2012/01/16	Final Test Time	09:05:00
		Well Fluid Type	01 Oil
Gauge Name	E1150		
Gauge Serial Number			

Test Results

Remarks

RECOVERED:
2190' GIP
80' GMW 1% GAS, 43% WTR, 56% MUD
80' TOTAL FLUID

CHLOR: 23,000 PPM
PH: 7.0
RW: .58 @54 DEG

TOOL SAMPLE: 70% WTR, 30% MUD



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: KMBRG1-14DST1

TIME ON: 0120
TIME OFF: 0905

Company L.D. DRLG Lease & Well No. KUMBERG #1-14
Contractor DUKE RIG 2 Charge to L.D. DRLG
Elevation 1763 KB Formation UPPER DOUGLAS SAND Effective Pay _____ Ft. Ticket No. M259
Date 1/16/12 Sec. 14 Twp. _____ 30 S Range _____ 12 W County BARBER State KANSAS
Test Approved By SCOTT ALBERG Diamond Representative MIKE COCHRAN

Formation Test No. 1 Interval Tested from 3662 ft. to 3696 ft. Total Depth 3696 ft.
Packer Depth 3657 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Packer Depth 3662 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 3644 ft. Recorder Number E1150 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 3693 ft. Recorder Number 13386 Cap. 3,875 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Mud Type CHEM Viscosity 9.3 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 47 Water Loss 10.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 5,600 P.P.M. Drill Pipe Length 3630 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 1 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 34 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GSB, BOB 30 SEC (NO BB)
2nd Open: GSB, 6" RIGHT AWAY, BOB 25 SEC (NO BB)

Recovered 2190 ft. of GIP
Recovered 80 ft. of GWM 1% GAS, 43% WTR, 56% MUD
Recovered 80 ft. of TOTAL FLUID
Recovered _____ ft. of _____
Recovered _____ ft. of PH: 7.0 Price Job _____
Recovered _____ ft. of CHLOR: 23,000 PPM Other Charges _____
Remarks: RW: .58 @ 54° Insurance _____
TOOL SAMPLE: 70% WTR, 30% MUD W/ A THIN SCUM OF OIL Total _____

Time Set Packer(s) 4:00 A.M. P.M. Time Started Off Bottom 7:00 A.M. P.M. Maximum Temperature 106
Initial Hydrostatic Pressure..... (A) 1731 P.S.I.
Initial Flow Period..... Minutes 30 (B) 15 P.S.I. to (C) 24 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 1251 P.S.I.
Final Flow Period..... Minutes 30 (E) 31 P.S.I. to (F) 42 P.S.I.
Final Closed In Period..... Minutes 60 (G) 1190 P.S.I.
Final Hydrostatic Pressure..... (H) 1731 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	L.D. DRLG	Job Number	M260
Well Name	KUMBERG #1-14	Representative	MIKE COCHRAN
Unique Well ID	DST#2 4283-4319 MISSISSIPPI	Well Operator	L.D. DRLG
Surface Location	SEC.14-30S-12W BARBER CO.KS.	Report Date	2012/01/18
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	SCOTT ALBERG
		Test Unit	NO. 1

Test Information

Test Type	CONVENTIONAL		
Formation	DST#2 4283-4319 MISSISSIPPI		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2012/01/17	Start Test Time	22:10:00
Final Test Date	2012/01/18	Final Test Time	06:20:00
		Well Fluid Type	01 Oil
Gauge Name	E1150		
Gauge Serial Number			

Test Results

Remarks

RECOVERED:

GTS 2 MIN
88' GDM 2% GAS, 98% MUD
88' TOTAL FLUID

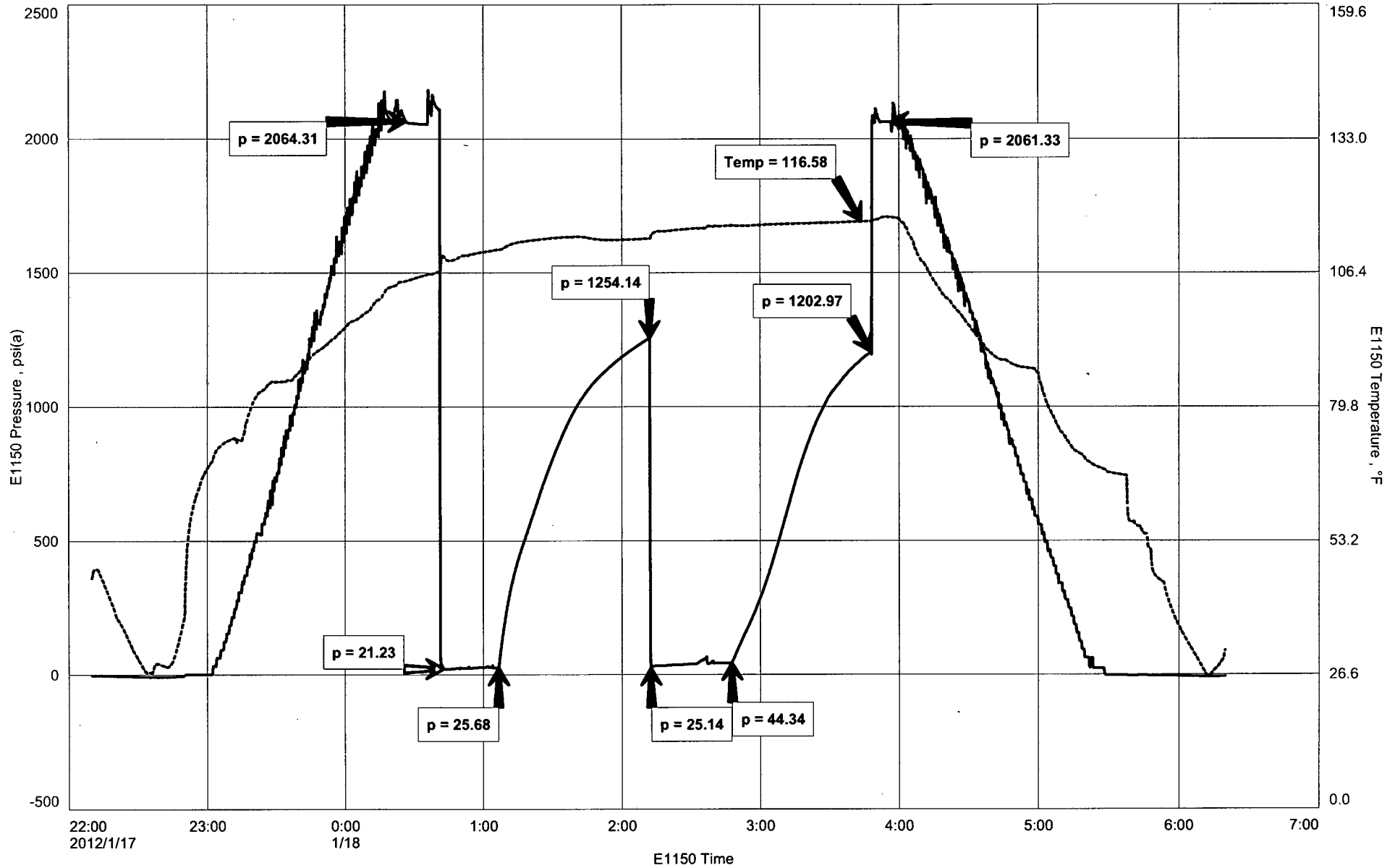
GAS VOLUME TSTM, DID BURN NICELY, BLUE&ORANGE

TOOL SAMPLE: GASSY DM W/ A FEW SPOTS OF OIL

L.D. DRLG
DST#2 4283-4319 MISSISSIPPI
Start Test Date: 2012/01/17
Final Test Date: 2012/01/18

KUMBERG #1-14
Formation: DST#2 4283-4319 MISSISSIPPI
Pool: WILDCAT
Job Number: M260

KUMBERG #1-14





DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: KMBRG1-14DST2

TIME ON: 2210 (1/17)
TIME OFF: 0620 (1/18)

Company L.D. DRLG Lease & Well No. KUMBERG #1-14
Contractor DUKE RIG 2 Charge to L.D. DRLG
Elevation 1763 KB Formation MISSISSIPPI Effective Pay _____ Ft. Ticket No. M260
Date 1/17/12 Sec. 14 Twp. 30 S Range 12 W County BARBER State KANSAS
Test Approved By SCOTT ALBERG Diamond Representative MIKE COCHRAN

Formation Test No. 2 Interval Tested from 4283 ft. to 4319 ft. Total Depth 4319 ft.
Packer Depth 4278 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Packer Depth 4283 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 4265 ft. Recorder Number E1150 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4316 ft. Recorder Number 13386 Cap. 3,875 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Mud Type CHEM Viscosity 45 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.4 Water Loss 11.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 7,000 P.P.M. Drill Pipe Length 4251 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 1 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 36 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GSB, BOB 30 SEC (WEAK 1/8" BB)
2nd Open: GSB, BOB RIGHT AWAY GTS 2 MIN (WEAK 1/8" BB)

Recovered 88 ft. of GDM 2% GAS, 98% MUD
Recovered 88 ft. of TOTAL FLUID
Recovered _____ ft. of _____
Recovered _____ ft. of _____

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: <u>GAS VOLUME TSTM, DID BURN NICELY, BLUE&ORANGE</u>	Insurance
<u>TOOL SAMPLE: GASSY DM W/ A FEW SPOTS OF OIL</u>	Total

Time Set Packer(s) 12:45 A.M. P.M. Time Started Off Bottom 3:45 A.M. P.M. Maximum Temperature 117

Initial Hydrostatic Pressure..... (A) 2064 P.S.I.
Initial Flow Period..... Minutes 30 (B) 21 P.S.I. to (C) 26 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 1254 P.S.I.
Final Flow Period..... Minutes 30 (E) 25 P.S.I. to (F) 44 P.S.I.
Final Closed In Period..... Minutes 60 (G) 1203 P.S.I.
Final Hydrostatic Pressure..... (H) 2061 P.S.I.

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DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	L.D. DRLG	Job Number	M261
Well Name	KUMBERG #1-14	Representative	MIKE COCHRAN
Unique Well ID	DST#3 4320-4340 MISSISSIPPI	Well Operator	L.D. DRLG
Surface Location	SEC.14-30S-12W BARBER CO.KS.	Report Date	2012/01/18
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	SCOTT ALBERG
		Test Unit	NO. 1

Test Information

Test Type	CONVENTIONAL		
Formation	DST#3 4320-4340 MISSISSIPPI		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2012/01/18	Start Test Time	13:25:00
Final Test Date	2012/01/18	Final Test Time	20:25:00
		Well Fluid Type	01 Oil
Gauge Name	E1150		
Gauge Serial Number			

Test Results

Remarks

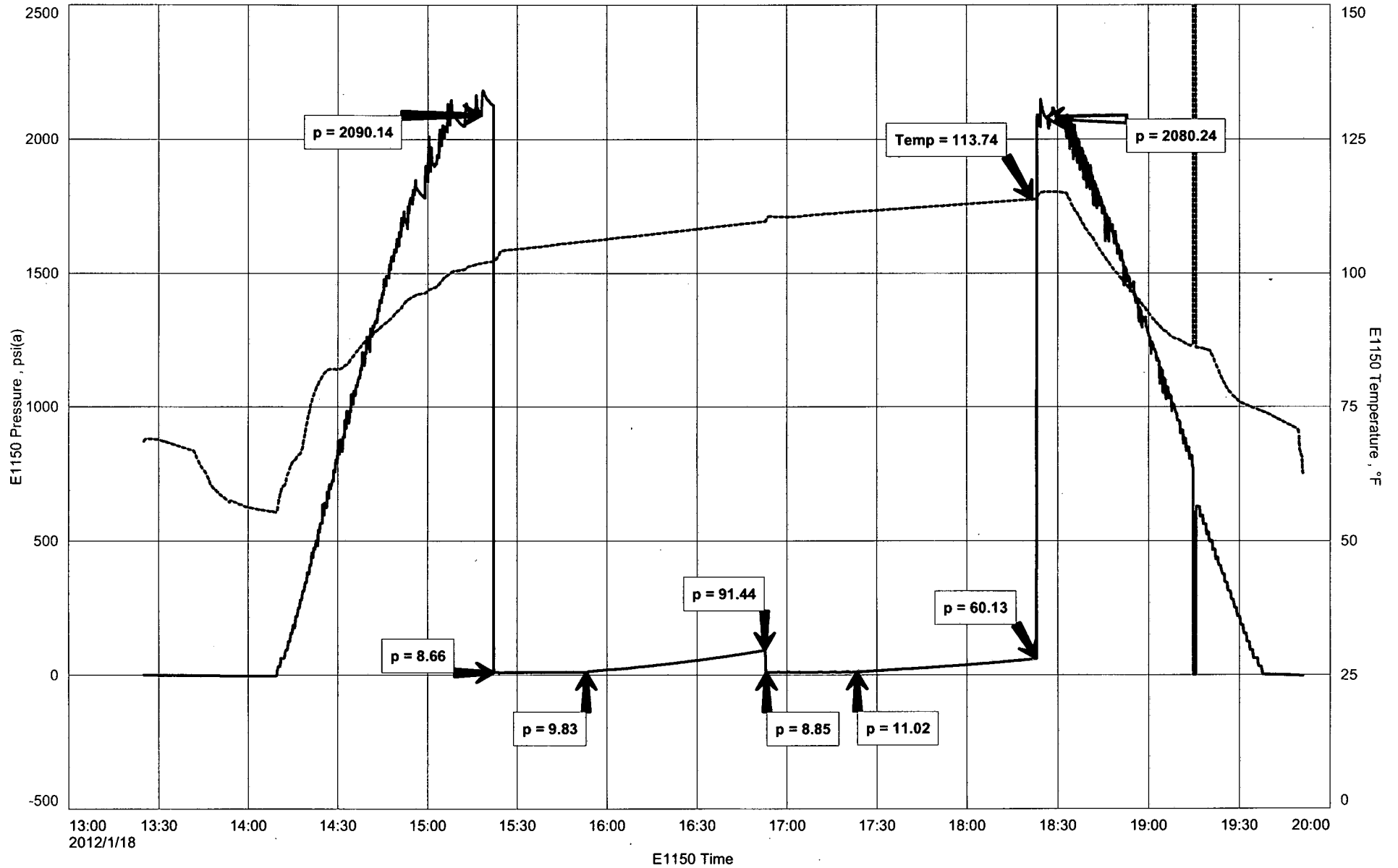
RECOVERED:
50' GIP
15' DM 100% MUD
15' TOTAL FLUID

TOOL SAMPLE:100% MUD

L.D. DRLG
DST#3 4320-4340 MISSISSIPPI
Start Test Date: 2012/01/18
Final Test Date: 2012/01/18

KUMBERG #1-14
Formation: DST#3 4320-4340 MISSISSIPPI
Pool: WILDCAT
Job Number: M261

KUMBERG #1-14





DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: KMBRG1-14DST3

TIME ON: 1325
TIME OFF: 2025

Company L.D. DRLG Lease & Well No. KUMBERG #1-14
Contractor DUKE RIG 2 Charge to L.D. DRLG
Elevation 1763 KB Formation MISSISSIPPI Effective Pay _____ Ft. Ticket No. M261
Date 1/18/12 Sec. 14 Twp. _____ 30 S Range _____ 12 W County BARBER State KANSAS
Test Approved By SCOTT ALBERG Diamond Representative MIKE COCHRAN

Formation Test No. 3 Interval Tested from 4320 ft. to 4340 ft. Total Depth 4340 ft.
Packer Depth 4315 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Packer Depth 4320 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 4302 ft. Recorder Number E1150 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4337 ft. Recorder Number 13386 Cap. 3,875 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Mud Type CHEM Viscosity 49 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.2 Water Loss 9.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 6,000 P.P.M. Drill Pipe Length 4288 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 1 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 20 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB, INC. TO 1 1/4" BLOW (WS BB)
2nd Open: WSB, INC. TO 1 1/2" INTERMITTENT BLOW (WS BB)

Recovered 50 ft. of GIP
Recovered 15 ft. of DM 100% MUD
Recovered 15 ft. of TOTAL FLUID
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Remarks: _____
TOOL SAMPLE: 100% MUD

	Price Job
	Other Charges
	Insurance
	Total

Time Set Packer(s) 3:15 P.M. ^{A.M.}/_{P.M.} Time Started Off Bottom 6:15 P.M. ^{A.M.}/_{P.M.} Maximum Temperature 117
Initial Hydrostatic Pressure..... (A) 2090 P.S.I.
Initial Flow Period..... Minutes 30 (B) 9 P.S.I. to (C) 10 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 91 P.S.I.
Final Flow Period..... Minutes 30 (E) 9 P.S.I. to (F) 11 P.S.I.
Final Closed In Period..... Minutes 60 (G) 60 P.S.I.
Final Hydrostatic Pressure..... (H) 2080 P.S.I.

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