Confidentiality Requested: Yes No

KANSAS CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION**

1186424

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 #	API No. 15
Name:	Spot Description:
Address 1:	
Address 2:	Feet from Dorth / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
☐ Oil ☐ WSW ☐ SWD ☐ SIOW □ Gas □ D&A □ ENHR □ SIGW	Elevation: Ground: Kelly Bushing:
□ OG □ GSW □ Temp. Abd.	Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
Deepening Re-perf. Conv. to ENHR Conv. to SWD	Drilling Fluid Management Plan
Plug Back Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)
	Chloride content: ppm Fluid volume: bbls
Commingled Permit #: Dual Completion Permit #:	Dewatering method used:
SWD Permit #:	Location of fluid disposal if hauled offsite:
ENHR Permit #:	Location of huid disposa in nation offsite.
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R East West
Recompletion Date Recompletion Date	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:						
Confidential Release Date:						
Wireline Log Received						
Geologist Report Received						
UIC Distribution						
ALT I II Approved by: Date:						

	Page Two	1186424		
Operator Name:	Lease Name:	Well #:		
Sec TwpS. R 🔲 East 🗌 West	County:			
INCTDUCTIONS: Chave important tang of formations ponetrated	Datail all aaraa Bapart a	Il final conice of drill stome tests giving interval tested, time test		

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 (Attach Additional She	eets)	Yes No		-	on (Top), Depth a		Sample
Samples Sent to Geolog	gical Survey	Yes No	Name	9		Тор	Datum
Cores Taken Electric Log Run		☐ Yes ☐ No ☐ Yes ☐ No					
List All E. Logs Run:							
			RECORD Ne		ion, 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 / SQU	EEZE RECORD			
Purpose:	Depth					-	

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

Did you perform a hydraulic fracturing treatment on this well?	Yes
Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?	Yes
Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?	Yes

No	(If No, skip questions 2 and 3)
No	(If No, skip question 3)

No

Yes

If No, skip question 3) (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				A		ement Squeeze Record d of Material Used)	Depth		
TUBING RECORD:	Siz	ze:	Set At:		Packe	r At:	Liner Ru		No	
Date of First, Resumed	Date of First, Resumed Production, SWD or ENHR.				lethod:	ping	Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours		Oil Bb	ls.	Gas	Mcf	Wate	er	Bbls.	Gas-Oil Ratio	Gravity
									1	
DISPOSITION OF GAS:				METHOD OF COMPLETION:		TION:		PRODUCTION INTE	ERVAL:	
Vented Sold Used on Lease				Open Hole	Perf.	Dually				
(If vented, Submit ACO-18.) (Submit ACO-18.)				ACO-5)	(Submit ACO-4)					

Form	ACO1 - Well Completion
Operator	Rama Operating Co., Inc.
Well Name	LICHOLAT 1-27
Doc ID	1186424

Tops

Name	Тор	Datum
Heebner	3348	-1468
Toronto	3364	-1484
Douglas	3388	-1508
Brown Lime	3502	-1622
Lansing	3524	-1644
Viola	3942	-2062
Simpson Shale	4061	-2181
Arbuckle	4123	-2243
RTD	4184	-2304

Form	ACO1 - Well Completion
Operator	Rama Operating Co., Inc.
Well Name	LICHOLAT 1-27
Doc ID	1186424

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	12.250	8.625	23	354	A-Comm	250	

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TREATMENT REPORT

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ield Order	Station	P24-	lefense fo			Casing	Dept	<u>n</u>	County	<u></u> 5	Distant Chains	
ýpo Job	<i>ω 83</i>	£.	Noce		99446414933444666665544400A	animon <u>Maria Cala</u>	Formation	San Kanananan Internet and States		Legal	Description	
PIPE	DATA	dia norma da se		ING DATA		FLUID (JSED		T	REATMENT	te Anno englandera	
asing Size	Tubing Size	Shots/	Ft	2011.1.1.1.1.1.1.1 1920.1.1.2.1.1.1 1920.1.2.1.1.1 192	Acid	en en Status Nel Status			RATE	PRESS	ISIP	
354	Depth	From		То	Pre F	'ad		Мах			5 Min.	
lume	Volume	From		То	Pad	<u>.</u>	· · · · · · · · · · · · · · · · · · ·	Min	n s		10 Min.	
X Press	Max Press	From		То	Frac			Avg			15 Min.	
Connection		ADDRESS OF THE PARTY OF THE PAR		То			The second s	HHP Use	n Selanda - P		Annulus Pressure	
19 Depth	Packer Dep	In From		To	Flush			Gas Volu	- 5		Total Load	
stomer Repro	BOUTONIA		1	Static	on Manaç	or Di	4UE Scor	p.f.	Troate	or Robert	<u>L//s</u>	
rvice Units 3	A comparison of the second second	33.708	2091	20 198	26	23268	·		_			
imes 3	ullison)	GRA Tubing	1985	<u> </u>	Sung			÷ .		<u> </u>	 The definition of the second seco	
	Casing Pressure	Pressure	Bbls	Pumped	R	ate		A the second sec		Service Log		
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	1						Run	8-18	Sunt	ace crc.	· · · ·	
:2-5	· .						CASING	ONE	Button	V		
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40				3	3		st spice				· · · · · · · · · · · · · · · · · · ·	
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10244 NE Hiway 61 • P.O. Box 8613 • Pratt, KS 67124-8613 • (620) 672-1201 • Fax (620) 672-5383

Taylor Printing, Inc. 620-672-3656



SAL STREAM

TREATMENT REPORT

		1 1 10										
	Lease 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
L	hola† Station		1.	1	Cash/g"	Depth		ounty C	State			
Field Order #	<u> </u>	Iratt,	Tansa	•		Dri Depth Formation	ipe I	1010	escription - 1 2W			
		and the second	ORATING	PWA			. Di	TREATMENT				
Casing Size	Tubing Si Depth			Sac	Bre Rad 119	10 102	Cement	ATE PRESS	5 Min.			
Volume	Vojume	From	Тоl	<u> </u>	I READILCIT	Total (-	Max el Min [°] I - L	1.11.7.41	-40 Min			
Max Press		From	To	3.8	LB. Gal.	6.92C	2 <u>9</u> . 517 Avg	:, 1.43CV.	F ¹⁰ -μμμ./ Sπ. 15 Min.			
Well Connectio	Max Pres 5001	1	<u> </u>			· · · · · · · ·	HHP Used		Annulus Pressure			
X ~ Nole Plug Depth	Packer De	enth	<u>To</u>		Flush D _ 1	ing mud	Gas Votrime	esh water	Total Load			
Customer Rep	resentative	Allen	То	Statio	n Managari	in Gor		Treater rence R	Messick			
Service Units	79443	77686	19.905	70.9			011e y					
Driver Names		M -	raw		Phye							
Time / /	A delated a	Tubing Pressure	Bbls. Pur	nped	Rate			Service Log				
10:30					Tructor	locatio	n and ha	old Safety	Meeting			
						151/Plu	94,125	Feet 50 Sa	ctrs cement			
11:03		500			6	Start	Fresh	water Pre-F	-lush			
		·	20		5	start	Start Mixing cement					
)	3	2	<u> 5 </u>	Start						
		500	42		5	Start	t Drilling Mud Displace Ment.					
11 19		-0-	95			Stop	PUMPI	M.	le - Mont			
1:19		~~~			C	Start	<u>Plug TROFeet-SOsactscement</u> t Fresh water Pre-Flush					
<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	· · ·	300	8		<u>بر م</u>			ycement.	1/05/1			
		300	20		5	1		Water Disp	brement			
1:24		-0-	2L	┝	<u>~</u>	· ·	DUMPIN	· · · · · · · · · · · · · · · · · · ·	<u> 19155 //151//</u>			
		:							actis cement.			
1.41		200			5			ce ment	·			
	••	200	12		5	Start	Freshwa	iter Displac	ement.			
1:44	۰۰ در ۲۰۰۰ د. میروند ۲۰۰۰ د.	-0-	14		· · · · · · · · · · · · · · · · · · ·	Stopp	umping.					
	р <u>ан</u> (1996) <u>ула (1997)</u> ула (1996)				4th Plug 60Feet-20 suchs cement.							
2:50		100	· · · · · · · · · · · · · · · · · · ·		3		Mixing					
2:52	<u> </u>		5						ace. Stop pumping.			
310	· · · ·		<u> </u>	<u>5 </u>				Mousehol	<u>e5</u>			
2:26						1 `	1 1	ptruct.				
3.30	NE Hiv	 vav <u>61•</u>	P.O. Box	8613	• Pratt. KS	67124-86	om plet 13 • (620)	e. 672-1201 • Fa	ix (620) 672-5383			
									Taylor Printing Inc. 620-672-3656			

Joshua R. Austin Petroleum Geologist report for RAMA Operating CO., Inc							
COMPANY: RAMA Operat	ing Company, Inc.						
LEASE: Licholat #1-27							
FIELD: North Star							
LOCATION: SW-NE-SE-SE	E (700' FSL &350' FEL)						
SEC: 27 TWSP: 24s	RGE: <u>12w</u>						
COUNTY: <u>Stafford</u> STA	TE: <u>Kansas</u>						
KB: <u>1880'</u> GL: <u>1867'</u>							
API # 15-185-23857-00-00							
CONTRACTOR: Sterling I	Drilling (rig #5)						
Spud: <u>01/25/2014</u>	Comp: <u>01/31/2014</u>						
RTD: 4180	LTD: <u>4184</u>						
Mud Up: <u>2900'</u>	Type Mud: Chemical was displaced						
Samples Saved From: <u>2800'to RTD</u> Drilling Time Kept From: <u>2800'to RTD</u> Samples Examined From: <u>2800'to RTD</u> Geological Supervision From: <u>3200'to RTD</u> Geologist on Well: <u>Josh Austin</u>							
	Surface Casing: <u>8 5/8'' @356'</u> Production Casing: <u>None</u>						
Electronic Surveys: By Pi	oneer Energy Services						

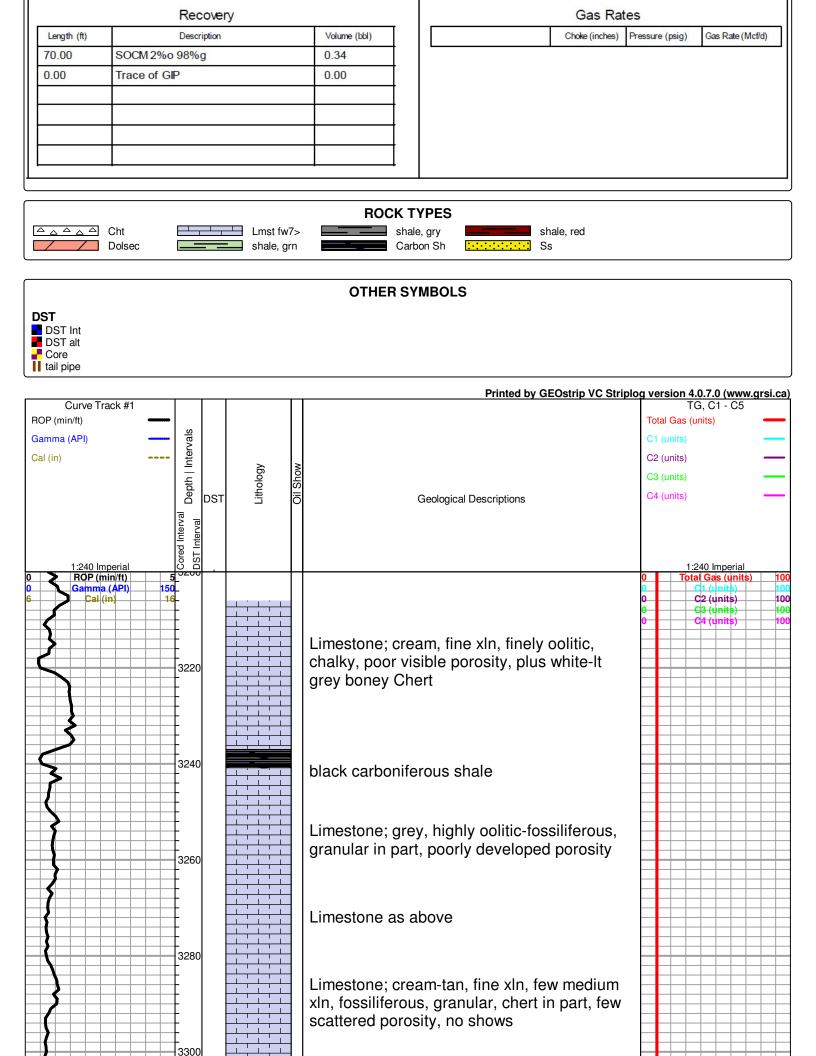
NOTES

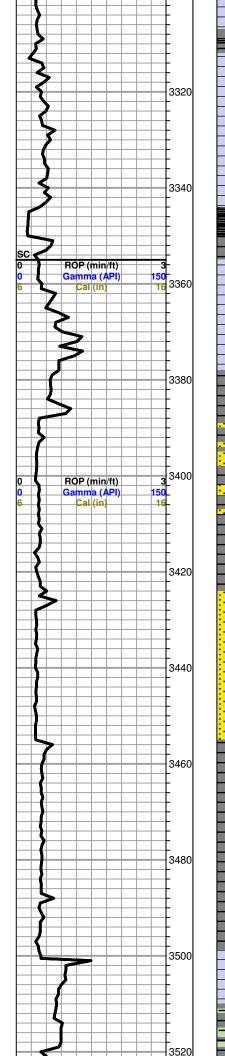
On the basis of the poor sturctural position, lack of shows and after evaluating the electric logs, it was recommended by all parties involved to plug and abandond the Licholat #1-27 at the rotary total depth 4180'.

		perating C	-
		mparison s	neet
DRILLING	WELL	COMPARISON WELL	COMPARISON WELL

	5	Lichola	Dale #1				Budde #3					
	1880	KB			1872	KB	Struct		1882	KB	Struct	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Heebner	3344	-1464	3348	-1468	Sector Products				3338	-1456	-8	-12
Toronto	3355	-1475	3364	-1484								
Douglas	3378	-1498	3388	-1508					3390	-1508	10	0
Brown Lime	3500	-1620	3502	-1622					3501	-1619	-1	-3
Lansing	3528	-1648	3524	-1644	3520	-1648	0	4	3521	-1639	-9	-5
Viola	3942	-2062	3942	-2062	3950	-2078	16	16	3934	-2052	-10	-10
Simpson Shale	4060	-2180	4061	-2181	4061	-2189	9	8	4058	-2176	-4	-5
Arbuckle	4125	-2245	4123	-2243	4124	-2252	7	9				
Total Depth	4180	-2300	4184	-2304	4151	-2279		56-151	4082	-2200		tio.

	DRILL STEM TES		ORT				
	Rama Oper. Co. Inc.	27-	24s-12w	Stafford of			
TESTING , INC	101 S. Main St. Stafford, Ks. 67578			holat #1 Ticket: 51		DST#:1	
	ATTN: Josh Austin)14.01.30 @ (
GENERAL INFORMATION:							
Formation: Lansing "L"							
Deviated: No Whipstock:	0.00 ft (KB)		Tes	t Type: (Conventional	Bottom Hole	e (Initial)
Fime Tool Opened: 02:30:21			Tes		Gary Pevotea		
Time Test Ended: 06:51:06			Unit	No:	53		
nterval: 3750.00 ft (KB) To 3	780.00 ft (KB) (TVD)		Ref	erence 🖽	evations:	1880.00	ft (KB)
Total Depth: 3780.00 ft (KB) (T						1867.00	
Hole Diameter: 7.88 inches Hol	e Condition: Fair			KB t	o GR/CF:	13.00	ft
Press@RunDepth: 56.45 psig Start Date: 2014.01.30 Start Time: 00:18:56 TEST COMMENT: IF: Weak blow . ISI: No blow . FF: Weak blow .	End Date: End Time: Surf 3 in.	2014.01.30 06:51:05	Capacity Last Cali Time On Time Off	b.: Btm: 2	2 2014.01.30 @ 2014.01.30 @		psig
FSI: No blow . Pressure vs. 7	lime	1	P	RESSUE		RY	
ere and the same	0715 Tempaske	Time	Pressure	Temp	Annotation		
77 15	10	(Min.)	(psig)	(deg F)			
		0	1908.43	104.31	Initial Hydro		
		2	15.14 45.55		Open To Flo Shut-In(1)	ow (1)	
		35 65	1000.49	107.99	End Shut-In	(1)	
		65	41.81	107.80			
			56.45	109.18			
			1039.76	110.34			
		147	1883.90	110.74	Final Hydro-	static	
39 Thu 394 Jan 2014 Tine (Huas)	1 , - C784						





black-grey shale

Limestone; cream, fine xln, chalky, dense, slightly cherty in part, poor porosity

HEEBNER 3344 (-1464)

Black carboinferous shale

TORONTO 3355 (-1475)

Limestone; white, fine xln, chalky, few pinpoint type porosity, no staining, no SFO, no odor

DOUGLAS 3378 (-1498)

grey-greyish green shale, silty in part, slightly micaceous

Shale; grey-greyish green, micaceous, silty, few siltstone; greyish green, micaceous

Sand; grey-greyish green, very fine grained, silty, micaceous in part, no shows

Sand as above, plus Shale; grey-greyish green, silty, micaceous, few soft pieces

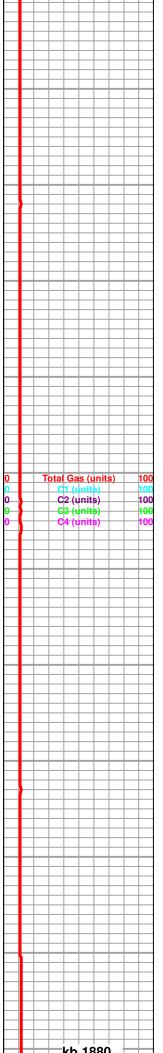
Shale; grey-dark grey, silty in part, slightly micaceous

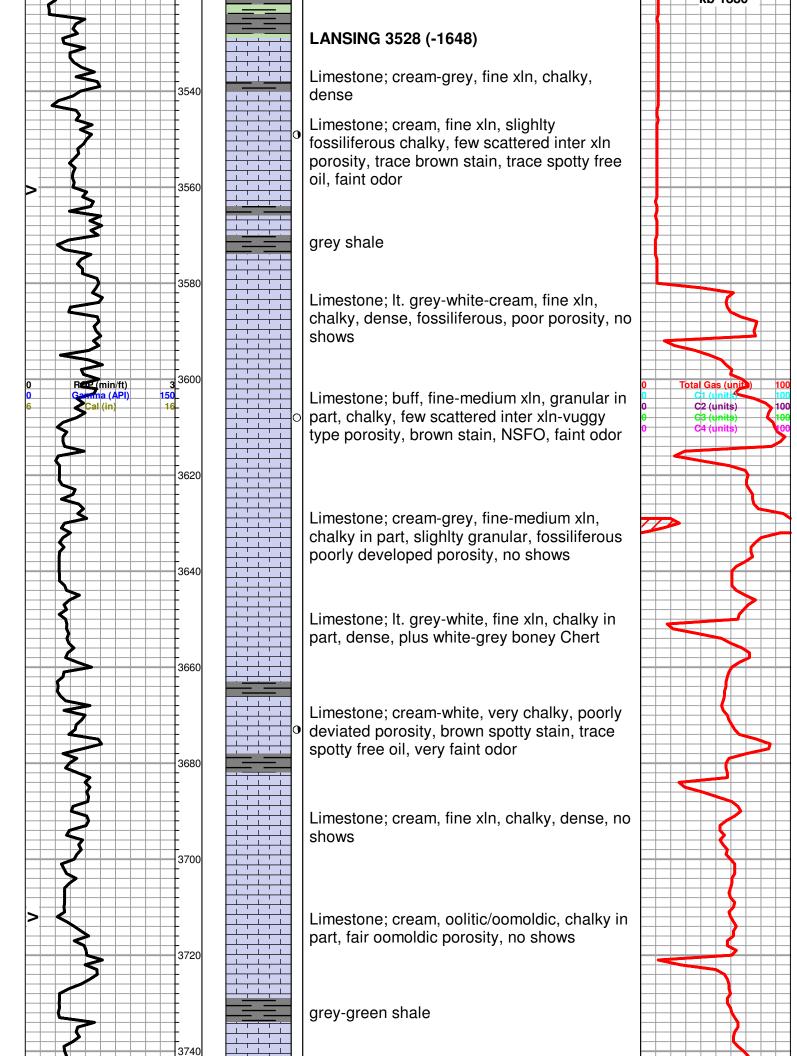
Shale as above

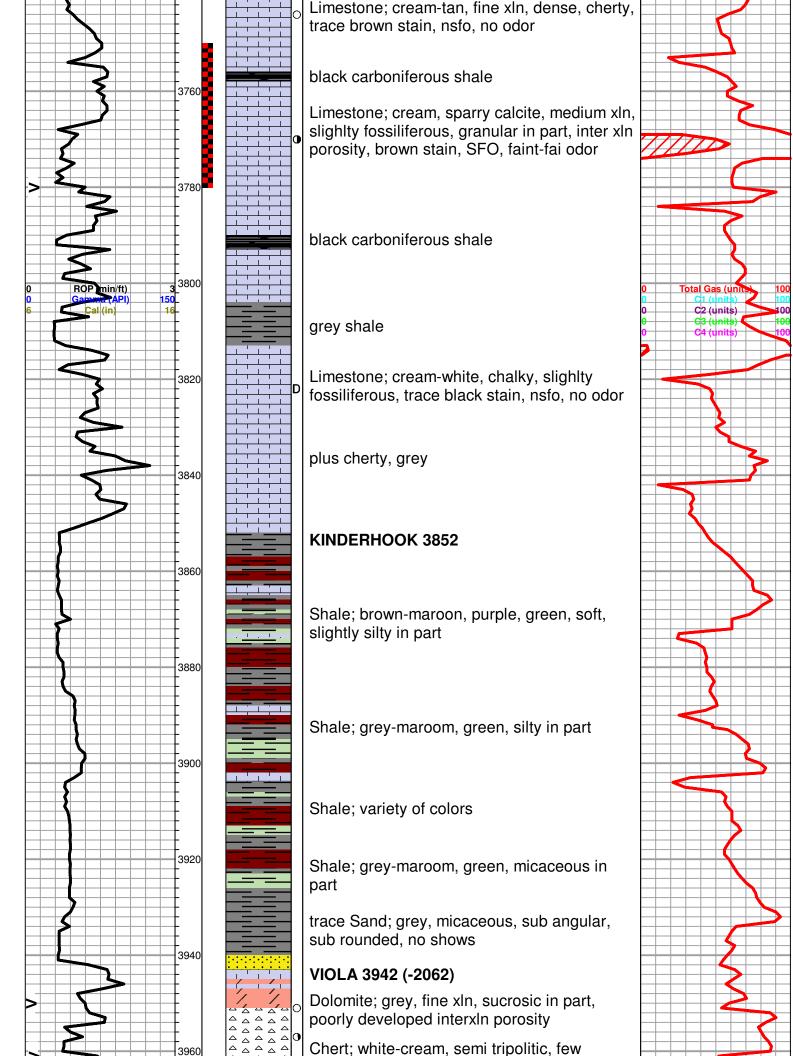
BROWN LIME 3500 (-1620)

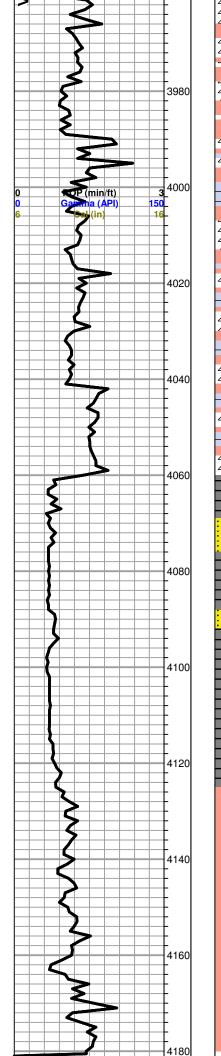
Limestone; tan-brown, fine xln, dense, cherty

grey shale









scattered porosity, trace golden brown stain, trace spotty free oil, very faint odor

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> Chert as above plus Dolomite; cream, fine xln, sucrosic in part, interxIn porosity, trace brown stain, NSFO, very faint odor

Dolomite; as above, plus white, boney chert

Limestone; cream-grey, fine xln, chalky, dense

dolomite; lt. grey-buff, fine-medium xln, sucrosic in part, few with fair porosity, plus white-lt. grey Chert, boney, no shows

as above, plus Limestone; dense, cherty in part

SIMPSON SHALE 4060 (-2180)

Shale; grey, micaceous, silty in part

Sand; grey-clear, fine-medium grained, sub angular, sub rounded, micaceous, friable, fair inter granular porosity, questionable trace black stain, NSFO

Shale; grey-green, silty in part, waxey

Sand; grey, fine xln, dolomitic in part, few inter granular porosity, no shows

Shale; grey-greyish green, soft, micaceous

ARBUCKLE 4125 (-2245)

Dolomite; tan-buff, fine xln, sucrosic, few scattered vuggy-inter xln porosity, no shows

Dolomite; cream, buff, pinkish, fine xln, dense, few scattered porosity, no shows, plus Chert; white, boney

Dolomite; cream-lt. grey, fine-medium xln, poorly developed porosity, no shows, Chert as above

ROTARY TOTAL DEPTH 4180 (-2300)

