

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical 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

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs 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 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 <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 Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input 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 type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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810 E 7TH  
 PO Box 92  
 EUREKA, KS 67045  
 (620) 583-5561



**Cement or Acid Field Report**  
 Ticket No. **4912**  
 Foreman Russell McCoy  
 Camp Eureka

APR 15-139-201106-00-00

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State	
12-8-19	1361	Humphreys # 1	14	16	15	OSAGE	KS	
Customer Messenger Petroleum Inc.			Unit #		Driver		Unit #	
Mailing Address 525 S MAIN ST			105		JASON			
City Kingman			112		JOSH			
State KS			128		Russell			
Zip Code 67048								
Safety Meeting PM JASON JOSH								

Job Type SURFACE Hole Depth 201 Slurry Vol. 37 Bbl Tubing \_\_\_\_\_  
 Casing Depth 200 KB Hole Size 12 1/4 Slurry Wt. 15 Drill Pipe \_\_\_\_\_  
 Casing Size & Wt. 8 5/8 24 # Cement Left in Casing 25 FT Water Gal/SK 6.5 Other \_\_\_\_\_  
 Displacement \_\_\_\_\_ Displacement PSI 75 DSF Bump Plug to \_\_\_\_\_ BPM 5

Remarks: Safety meeting, Rig to 8 5/8 casing, circulate w/ pipe on bottom  
Pump 10 water 150 SKS CLASS A w/ 3% CA12 2% Gel 1/4 Floccule @ 15 #  
= 37 Slurry Displace w/ 11 Bbl water. 5 Bbl Slurry to Pit. Close casing  
in. Annulus stayed Full Job Complete, Tear Down. 11:15 PM  
 THANK YOU  
 Russell McCoy

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C-101	1	Pump Charge	890.00	890.00
C-107	70	Mileage	4.20	294.00
C-200	150	CLASS A cement	15.75	2,362.50
C-205	420	CA12 = 3%	.63	264.60
C-206	280 #	Gel = 2%	.21	58.80
C-209	35 #	Floccule 1/4 # Per SK	2.35	82.25
C-108B	7.05	Tow mileage x 70 miles	1.40	690.90
				41643.05
			5% Disc	(2082.15)
			Sales Tax	201.61
Authorization <u>Alan Left</u> Title _____			Total	4602.12

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office.

# GLOBAL OIL FIELD SERVICES, LLC

13929

REMIT TO 24 S. Lincoln  
Russell, KS 67665

SERVICE POINT: Russell

DATE <u>12-13-19</u>	SEC. <u>14</u>	TWP. <u>16</u>	RANGE <u>15</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>6:30 a.m.</u>
LEASE <u>Humphreys</u>	WELL #. <u>1</u>	LOCATION <u>Osage camp 4 east</u>			COUNTY <u>Osage</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE) <u>NEW</u>			<u>39 N east 1st</u>				

CONTRACTOR STERLING RY#5  
 TYPE OF JOB Plug  
 HOLE SIZE \_\_\_\_\_ T.D. 2960  
 CASING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_  
 PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_  
 MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_  
 CEMENT LEFT IN CSG. \_\_\_\_\_  
 PERFS \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_

OWNER \_\_\_\_\_  
 CEMENT AMOUNT ORDERED 160 sz 40/100 gal  
 COMMON \_\_\_\_\_ @ \_\_\_\_\_  
 POZMIX \_\_\_\_\_ @ \_\_\_\_\_  
 GEL \_\_\_\_\_ @ \_\_\_\_\_  
 CHLORIDE \_\_\_\_\_ @ \_\_\_\_\_  
 ASC \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 HANDLING \_\_\_\_\_ @ \_\_\_\_\_  
 MILEAGE \_\_\_\_\_ @ \_\_\_\_\_  
 TOTAL \_\_\_\_\_

EQUIPMENT  
 PUMP TRUCK CEMENTER Dean  
 # 417 HELPER F220C  
 BULK TRUCK  
 # 379 DRIVER Hunter  
 BULK TRUCK  
 # \_\_\_\_\_ DRIVER \_\_\_\_\_

REMARKS:  
1st - 2959 - 15 sz cement  
2nd - 23144 - 15 sz  
3rd - 1194 - 15 sz  
4th - 80044 - 15 sz  
5th - 25024 - 70 sz  
Rat - 70 sz

CHARGE TO: Messenger Petroleum inc  
 STREET 525 S main street  
 CITY Kayman STATE KS ZIP 67608

Global Oil Field Services, LLC  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME ALAN LOTT  
 SIGNATURE Alan Lott

SERVICE  
 DEPTH OF JOB \_\_\_\_\_  
 PUMP TRUCK CHARGE \_\_\_\_\_  
 EXTRA FOOTAGE \_\_\_\_\_ @ \_\_\_\_\_  
 MILEAGE \_\_\_\_\_ @ \_\_\_\_\_  
 MANIFOLD \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 TOTAL \_\_\_\_\_

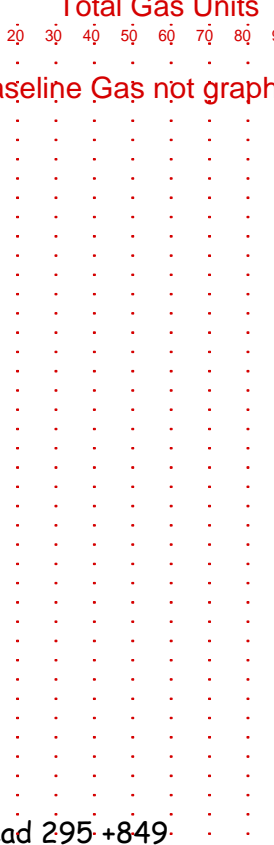
PLUG & FLOAT EQUIPMENT  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 TOTAL \_\_\_\_\_

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES \_\_\_\_\_  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS



# GEOLOGICAL REPORT

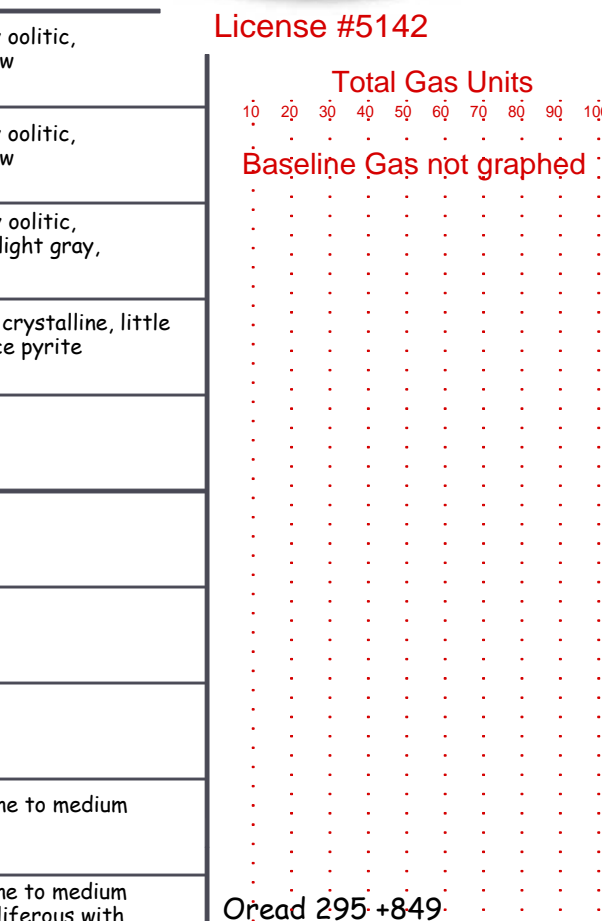
DRILLING TIME & SAMPLE LOG  
REPORT PREPARED BY FRANK S. MIZZI/GEOLOGIST  
API #: 15-139-201.06



COMPANY: Messinger Petroleum, Inc.  
ELEVATION: K.B. 1144 D.F. \_\_\_\_\_  
LEASE: Humphreys #1  
FIELD: Wiclat  
LOCATION: 1079 FSL & 1308 FEL  
G.L.: 1131  
SEC 14 T18S R16S R15E  
DEPTH MEASURED FROM KB  
COUNTY: Osage STATE: Kansas  
CONTRACTOR: Sterling Drilling Rig 45  
SPUD: 12-7-19 COMP: 12-14-19  
SAMPLES SAVED FROM 200' TO RTD

FORMATION	SAMPLE	E LOG	DTTM	A. SCOUT	B.	C.
Ordovician	295		-849			
Lansing	641		+503			
Lane	739		+405			
KTG	821		+323			
KCC	1026		+118			
Aldrich	1183		-182			
Mississippian	1286		-592			
Kendrick	2027		-929			
Hutton	Missng		-1095			
Videa	2149		-1126			
Simmons	2270		-1170			
Arlough	2314		-1176			
Reubin	2880		-1741			
Reubin	2914		-1782			
Reubin	2989		-1822			
A. Orlando Petroleum, Hyde #1 SE SE 14-15S, 15E, T18N, R15W						
B. _____						
C. _____						

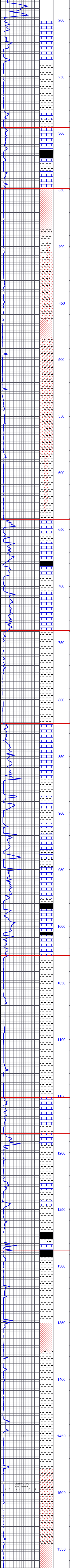
Drilling operation and information provided by:



License #5142

Total Gas Units

Baseline Gas not graphed



200  
Limestone: gray to light brown, densely oolitic, oolitic, little visible porosity, no show  
Limestone: gray to light brown, densely oolitic, oolitic, little visible porosity, no show  
Limestone: gray to light brown, densely oolitic, oolitic, little visible porosity, trace light gray, micritic, no porosity  
Limestone: off white to light gray, fine crystalline, little visible porosity, some argillaceous, trace pyrite  
Shale: gray  
250  
Shale: gray  
Shale: gray  
Shale: gray  
Limestone: light gray to light brown, fine to medium crystalline, little visible porosity  
Limestone: light gray to light brown, fine to medium crystalline, little visible porosity, fossiliferous with Fusulimids  
Limestone: light brown, medium crystalline, very dense, very poor intercrystalline porosity, no show, trace pyrite  
300  
Heebner 315 +829  
Shale: black, carbonaceous  
Limestone: off white fine to medium crystalline, poor to fair intercrystalline porosity, no show  
Shale: medium gray, much off white, fine crystalline limestone w/poor intercrystalline porosity, no show  
Limestone: off white, fine crystalline, fair to good intercrystalline and trace vuggy porosity, no show  
350  
Douglas 349 +795  
Sandstone: light gray, very fine rounded grains, well sorted, poorly cemented, highly argillaceous, excellent intergranular porosity, no show  
Sandstone: light gray, very fine rounded grains, well sorted, poorly cemented, highly argillaceous, excellent intergranular porosity, no show  
400  
Siltstone: gray, good intergranular porosity, highly argillaceous  
Siltstone: gray, good intergranular porosity, highly argillaceous  
450  
Siltstone: gray, good intergranular porosity, highly argillaceous  
500  
Sandstone: light gray, fine rounded grains, well sorted, poor silica cement, no show  
Siltstone: gray, good intergranular porosity, highly argillaceous  
550  
Siltstone: gray, good intergranular porosity, highly argillaceous  
Shale: gray, trace siltstone  
600  
Shale: gray, trace siltstone  
Shale: gray, trace siltstone  
Lansing 641 +503  
650  
Limestone: dirty gray, fine crystalline, no visible porosity  
Shale: gray, fossiliferous w/crinoids  
Limestone: light brown to gray, medium crystalline, little visible porosity, no show  
Limestone: off white, fine to medium crystalline, little visible porosity, no show  
Shale: black, carbonaceous  
Limestone: off white to beige, fine to medium crystalline, poor intercrystalline porosity, no show  
700  
Shale: light gray  
Limestone: light gray, micritic, no visible porosity  
Limestone: light beige, medium to coarsely crystalline, no visible porosity  
Limestone: light beige, medium to coarsely crystalline, no visible porosity  
Limestone: gray to beige to light brown, coarsely crystalline, no porosity  
Lane 739 +405  
750  
Shale: light gray, silty  
Shale: light gray, silty  
Shale: light gray, silty  
Shale: light gray, silty  
Shale: light gray, slightly fissile  
800  
Shale: light gray  
Shale: light gray  
Kansas City 821 +323  
850  
Limestone: off white, fine to medium crystalline, little visible porosity, no show  
Limestone: off white, fine to medium crystalline, little visible porosity, no show  
Limestone: off white, fine to medium crystalline, no visible porosity, trace grayish green shale  
Limestone: off white, coarsely crystalline, no visible porosity, fossiliferous w/bryozoans  
Shale: dark gray, pyritic  
Shale: dark gray  
Limestone: light brown, coarsely crystalline, no porosity  
Limestone: light brown, coarsely crystalline, no porosity  
900  
Shale: grayish green  
Shale: grayish green to brown  
Limestone: beige, medium to coarsely crystalline, no visible porosity, no show  
Shale: gray  
Limestone: beige, medium to coarsely crystalline, no porosity, no show  
Shale: brownish gray  
950  
Limestone: off white, pelletal, little visible porosity, no show  
Limestone: off white, pelletal, little visible porosity, no show  
Shale: green to black to brown  
1000  
Limestone: beige to gray, fine to coarsely crystalline, some poor intercrystalline porosity, no show  
Limestone: beige to gray, fine to coarsely crystalline, very dense, no porosity, no show  
Limestone: beige medium to coarsely crystalline, no porosity, trace beige chert, no show  
Shale: black  
Limestone: gray to dark brown, medium to coarsely crystalline, dense, poor intercrystalline porosity, no show  
Limestone: off white to beige, fine to medium crystalline, some chalky, no show  
Base Kansas City 1026 +118  
1050  
Shale: gray  
Shale: gray  
1100  
Shale: gray  
Shale: grayish green  
Shale: gray, silty  
Shale: gray, silty  
1150  
Shale: gray, slightly pyritic  
Shale: gray  
Shale: gray, slightly pyritic  
Shale: gray  
Lenap 1151 -7  
1200  
Limestone: off white to gray, medium to coarsely crystalline, little visible porosity, no show  
Limestone: off white to gray, medium to coarsely crystalline, little visible porosity, no show  
Limestone: off white to light brown, medium to coarsely crystalline, poor intercrystalline porosity, no show  
Limestone: beige to light brown, coarsely crystalline, no porosity, no show  
Shale: grayish green  
Shale: gray to dark gray  
Shale: gray to dark gray  
Shale: gray to dark gray  
Limestone: gray, medium to coarsely crystalline, little visible porosity, no show  
Shale: gray to dark gray  
1250  
Limestone: beige to gray, medium to coarsely crystalline, trace very poor intercrystalline porosity, no show  
Shale: gray to black  
Shale: gray to black  
Shale: gray to black  
Limestone: off white to beige, medium crystalline, poor intercrystalline porosity, no show  
Shale: gray to black  
Cherokee 1286 -142  
1300  
Shale: gray  
Shale: gray  
Limestone: beige, coarsely crystalline, no visible porosity  
Shale: gray  
Shale: gray  
1350  
Sandstone: gray, very fine angular grains, well sorted, fair to good calcite cement, fair amount mica, good intergranular porosity, no show  
Sandstone: gray, very fine angular grains, well sorted, fair to good calcite cement, fair amount mica, good intergranular porosity, no show  
Shale: dark gray, arenaceous  
Shale: dark gray  
1400  
Shale: gray  
Shale: gray  
Shale: gray  
1450  
Shale: gray + coal  
Shale: gray + coal, pyritic in very thin layers  
1500  
Siltstone: gray, excellent intergranular porosity, much gray shale  
Siltstone: gray, excellent intergranular porosity, much gray shale  
Siltstone: gray, excellent intergranular porosity, much gray shale  
1550  
Sandstone: gray, fine angular grains, good intergranular porosity, much gray shale  
Shale: gray to tan to mustard yellow  
Shale: gray to brown, some arenaceous

- SHALE
- SANDSTONE
- LIMESTONE
- DOLMITE
- HALITE
- ANHYDRITE/GYPSUM

		<p>1600 Shale: gray to black Shale: gray to black Shale: gray to black Shale: gray to black 1650 Shale: gray to black Shale: gray to black Shale: gray to black Shale: light brownish gray to black Mississippian 1694 -550 1700 Limestone: off white, highly dolomitic, little visible porosity, trace mottled gray chert, no odor, pale fluorescence Limestone: off white, slightly dolomitic, little visible porosity, no odor, pale fluorescence Limestone: off white, slightly dolomitic, little visible porosity, no odor, pale fluorescence Dolomite: light gray, medium crystalline, poor to fair vuggy porosity, highly pyritic and glauconitic, no odor, pale fluorescence Dolomite: off white, medium crystalline, poor to fair vuggy porosity, trace pyrite, glauconite and chert, no odor, pale fluorescence Dolomite: off white to gray, medium crystalline, little visible porosity, trace pyrite and chert, no odor 1750 Dolomite: off white to beige, fine to medium crystalline, poor vuggy porosity, no show, trace chert &amp; pyrite Dolomite: off white to beige, fine to medium crystalline, poor vuggy porosity, no show, trace chert &amp; pyrite Dolomite: off white to beige, fine to medium crystalline, little visible porosity, no show, trace chert &amp; pyrite Dolomite: off white to beige, fine to medium crystalline, very poor vuggy porosity, no show, trace chert &amp; pyrite Dolomite: off white to gray, coarsely crystalline, little visible porosity, no show, trace chert 1800 Dolomite: off white to gray, coarsely crystalline, little visible porosity, no show, trace chert Dolomite: off white to gray, coarsely crystalline, little visible porosity, no show, trace chert Dolomite: off white to gray, medium to coarsely crystalline, poor intercrystalline porosity, no show, trace chert Dolomite: light beige to light brown, medium to coarsely crystalline, poor intercrystalline porosity, no show, fair amount off white to light brown chert Dolomite: light beige to light brown, medium to coarsely crystalline, poor intercrystalline porosity, no show, fair amount off white to light brown chert 1850 Dolomite: light beige to light brown, medium to coarsely crystalline, poor intercrystalline porosity, no show, fair amount off white to gray chert Dolomite: light brown, fine to coarsely crystalline, some good intercrystalline porosity, no show, much off white to gray chert Dolomite: light brown, fine to coarsely crystalline, some good intercrystalline porosity, no show, much off white to gray chert Dolomite: light brown, fine to coarsely crystalline, some good intercrystalline porosity, no show, much off white to gray chert Dolomite: light brown, fine to coarsely crystalline, poor intercrystalline porosity, much mottled gray chert, trace off white Dolomite: light brown, fine to coarsely crystalline, poor intercrystalline porosity, much off white to light gray chert Dolomite: light brown, fine to coarsely crystalline, poor intercrystalline porosity, much off white to light gray chert 1900 Dolomite: light brown, fine to coarsely crystalline, poor intercrystalline porosity, much off white to light gray chert Dolomite: light brown, fine to coarsely crystalline, poor intercrystalline porosity, much off white to light gray chert Dolomite: beige, fine crystalline, little visible porosity, fair amount off white to gray chert Dolomite: beige, fine crystalline, little visible porosity, fair amount off white to gray chert Limestone: beige to gray, fine grained, no visible porosity, fair amount gray chert Limestone: beige to gray, fine grained, no visible porosity, fair amount gray chert 2000 Limestone: beige to gray, fine grained, no visible porosity, fair amount gray chert Limestone: beige to gray, fine grained, no visible porosity, fair amount gray chert Limestone: beige to gray, fine grained, no visible porosity, fair amount gray chert Limestone: beige to gray, fine grained, no visible porosity, fair amount gray chert 2050 Limestone: beige to gray, fine grained, no visible porosity, fair amount gray chert Kinderhook 2057 -913 2100 Shale: gray to medium gray Shale: gray to medium gray Shale: gray to medium gray, fair amount pyrite Shale: gray to medium gray Shale: gray to medium gray Shale: gray to medium gray to brownish gray Shale: gray to medium gray Shale: gray to medium gray 2150 Dolomite: off white to gray, coarsely crystalline, no porosity, trace chert Dolomite: off white to gray, coarsely crystalline, no porosity, trace light gray chert Dolomite: off white to beige, coarsely crystalline, no porosity, trace light gray chert Dolomite: off white to beige, coarsely crystalline, no porosity, much light gray chert Dolomite: off white to beige, coarsely crystalline, no porosity, much light gray chert 2200 Dolomite: off white to beige, coarsely crystalline, no porosity, much light gray chert Limestone: light gray trace light brown, fine grained to medium crystalline, little visible porosity, trace gray chert and pyrite Limestone: light gray trace light brown, fine grained to medium crystalline, little visible porosity, trace gray chert and pyrite Limestone: light gray trace light brown, fine grained to medium crystalline, little visible porosity, fair amount gray chert, trace pyrite 2250 Limestone: light gray trace light brown, fine grained to medium crystalline, little visible porosity, fair amount gray chert, trace pyrite Limestone: light gray trace light brown, fine grained to medium crystalline, little visible porosity, fair amount gray chert, trace pyrite Simpson 2270 -1126 2300 Shale: green, waxy Sandstone: off white, fine to medium, well rounded, frosted grains, fair sorting, fair to good cement, no show Sandstone: off white, fine to medium, well rounded, frosted grains, fair sorting, fair to good cement, no show, some green waxy shale Sandstone: off white, fine to medium well rounded frosted grains, fair sorting, very good silica cement, very poor intergranular porosity, no show, fair amount green waxy shale Sandstone: off white, fine to medium well rounded frosted grains, fair sorting, very good silica cement, very poor intergranular porosity, no show Arbuckle 2314 -1170 2350 Dolomite: gray, coarsely crystalline, little visible porosity, no show Dolomite: gray to light brown, medium to coarsely crystalline, some good intercrystalline porosity, no show Dolomite: light brown, coarsely crystalline, little visible porosity Dolomite: light brown, coarsely crystalline, fair intercrystalline porosity, fair amount free dolomite crystals Dolomite: light gray, coarsely crystalline, dense, little visible porosity Dolomite: light gray, coarsely crystalline, dense, little visible porosity Dolomite: light gray, coarsely crystalline, dense, little visible porosity, trace opaque chert Dolomite: light gray, coarsely crystalline, dense, little visible porosity, trace opaque chert and free quartz crystals Dolomite: light gray to beige, coarsely crystalline, dense, little visible porosity 2400 Dolomite: light gray to beige, coarsely crystalline, dense, little visible porosity Dolomite: light gray to beige, coarsely crystalline, dense, little visible porosity, trace free quartz and pyrite Dolomite: light gray to beige, medium to coarsely crystalline, dense, fair intercrystalline porosity, trace gray chert Dolomite: light gray to beige, medium to coarsely crystalline, dense, good intercrystalline and trace vuggy porosity, trace gray chert Dolomite: light gray to beige, medium to coarsely crystalline, dense, good intercrystalline and trace vuggy porosity, trace gray chert 2450 Dolomite: light gray to beige, medium to coarsely crystalline, dense, good intercrystalline and trace vuggy porosity, trace gray chert Dolomite: light gray to beige, medium to coarsely crystalline, dense, good intercrystalline and trace vuggy porosity, trace gray chert and free dolomite crystals Dolomite: light gray to beige, medium to coarsely crystalline, dense, excellent intercrystalline and vuggy porosity, trace gray chert Dolomite: light gray to beige, medium to coarsely crystalline, dense, excellent intercrystalline and vuggy porosity, trace gray chert 2500 Dolomite: beige to light brown, medium to coarsely crystalline, fair intercrystalline and trace vuggy porosity, fair amount chert Dolomite: beige to light brown, medium to coarsely crystalline, fair intercrystalline and trace vuggy porosity, fair amount chert Dolomite: beige to brown, medium to coarsely crystalline, excellent intercrystalline and vuggy porosity, fair amount chert Dolomite: beige to gray, coarsely crystalline, very dense, no visible porosity Dolomite: beige to gray, coarsely crystalline, very dense, no visible porosity, some free dolomite crystals 2550 Dolomite: beige to gray, medium to coarsely crystalline, poor to fair intercrystalline porosity, some free dolomite crystals Dolomite: beige to gray, medium to coarsely crystalline, poor to fair intercrystalline porosity, some free quartz crystals Dolomite: off white to gray, coarsely crystalline, little visible porosity, trace light gray chert Dolomite: off white to gray, coarsely crystalline, little visible porosity, trace light gray chert Dolomite: off white to gray, medium to coarsely crystalline, poor intercrystalline porosity, trace light gray chert Dolomite: off white to gray, medium to coarsely crystalline, poor intercrystalline porosity, trace light gray chert and quartz crystals Dolomite: medium gray, medium to coarsely crystalline, poor intercrystalline porosity Dolomite: off white to gray, medium to coarsely crystalline, fair intercrystalline porosity, trace white chert Dolomite: light gray to beige, medium to coarsely crystalline, fair to good intercrystalline porosity, trace white chert Dolomite: light gray, medium to coarsely crystalline, good intercrystalline porosity, trace white chert, fair amount white chert Dolomite: light gray, medium to coarsely crystalline, good intercrystalline porosity, trace white chert, free dolomite crystals Dolomite: light gray, medium to coarsely crystalline, fair to good intercrystalline porosity, trace white oolitic chert Dolomite: light gray, medium to coarsely crystalline, fair to good intercrystalline porosity, trace white oolitic chert Dolomite: light gray, medium to coarsely crystalline, fair to good intercrystalline porosity, trace white chert Dolomite: light gray, medium to coarsely crystalline, fair to good intercrystalline porosity, trace white chert 2700 Dolomite: off white to light gray, medium to coarsely crystalline, fair to good intercrystalline porosity, white chert Dolomite: off white to light gray, medium to coarsely crystalline, fair to good intercrystalline porosity, white chert Dolomite: off white to light gray, medium to coarsely crystalline, fair to good intercrystalline porosity, white chert, trace quartz crystals Dolomite: off white to light gray, medium to coarsely crystalline, fair to good intercrystalline porosity, white chert, trace dolomite crystals Dolomite: off white to light gray, medium to coarsely crystalline, little visible porosity, fair amount off white to opaque chert Dolomite: off white to light gray, medium to coarsely crystalline, little visible porosity, fair amount off white to opaque chert Dolomite: beige to light gray, medium to coarsely crystalline, poor intercrystalline porosity, fair amount off white to opaque chert Dolomite: beige to light gray, medium to coarsely crystalline, poor intercrystalline porosity, fair amount off white to opaque chert Dolomite: beige to light gray, medium to coarsely crystalline, poor to fair intercrystalline porosity, fair amount off white to opaque chert Dolomite: beige to light gray, medium to coarsely crystalline, poor to fair intercrystalline porosity, fair amount off white to opaque chert Dolomite: beige to light gray, medium to coarsely crystalline, poor to fair intercrystalline porosity, trace black pyritic shale Dolomite: beige to light gray, fine crystalline, poor intercrystalline porosity, some slightly argillaceous, fair amount off white to opaque chert 2850 Dolomite: dirty gray to brown, fine crystalline, fair intercrystalline porosity, argillaceous Dolomite: dirty gray to brown, fine crystalline, fair intercrystalline porosity, argillaceous Shale: green dolomitic to brown Reagan 2860 -1716 2900 Sandstone: off white to blue green, fine grained, good dolomitic cement, slightly glauconitic, trace mica, no show Sandstone: off white to blue green, fine grained, good dolomitic cement, slightly glauconitic, trace mica, no show Granite: fair amount weathered quartz w/fresh granite (quartz, orthoclase and hornblende) Granite: fair amount weathered quartz w/fresh granite Granite: fair amount weathered quartz w/fresh granite Granite: high concentration of Orthoclase, trace weathered Granite: high concentration of Orthoclase, trace weathered Granite: high concentration of Orthoclase, trace weathered Granite: high concentration of Orthoclase, trace weathered 2950 Granite: high concentration of Orthoclase, trace weathered Granite: high concentration of Orthoclase, trace weathered 3000 RTD 2959 2959 x10 Messenger Petroleum, Inc. 1144 KB Humphreys #1 1079' FSL &amp; 1506' FEL 14-16S-15E Osage County, KS</p>	<p>Baseline gas near 20 units to this point</p> <p>SHALE SANDSTONE LIMESTONE DOLomite MICA ANHYDRITE/GYPSUM</p> <p>Baseline gas near 20 units below this point</p> <p>Kinderhook 2057 -913</p> <p>Viola 2149 -1005</p> <p>Simpson 2270 -1126 fair amount very fine grained w/dolomitic cement.</p> <p>Arbuckle 2314 -1170</p> <p>2480 x11</p> <p>Reagan 2860 -1716</p> <p>Granite 2897 -1753</p> <p>2920 x11</p> <p>Baseline gas near 25 units below this point</p> <p>2930 x10</p>
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Comments:

12/09/19 7:00 AM WOC  
Sunday  
Finish drilling Rathole at 9:45 am. Set Rathole. Pick up (2) 8" Drill collars, did not pump water.  
Drill 12-1/4" hole 44'-130' (86').  
Drill 12-1/4" hole 130'-201'. Circulate. Survey 1 degree. Wiper trip to bit. Did not pump water.  
Water pit 2.5' down. Circulate. Trip out. Lay down 8" DC. Run 8-5/8" casing. Cement 8-5/8" casing. WOC 7.75 hours. Water pit 3.5' down, started pumping at 6:30am.  
8.00  
12/10/19 7:00 AM: Drilling ahead @ 1270'  
WOC. Drill cement plug, trip out to unplug bit jets, flush mud pump suction line and clean suction pit. Trip back in and finish drilling cement. At 9:30am drilling new hole with 7-7/8" PDC bit. Mud up at 350'.  
Water pit full, drained line at 11:30am. Drilled from 201'-550' (349') 8.00  
Drilling 7-7/8" hole. Clean suction pit. Rig check. Water pit level 1' down. Drilled from 550' - 880' (330')  
Cleansed out suction pit and check rig. Water pit level down to 1.5' down. Drilled from 880' - 1270' (390')  
12/11/19 7:00 AM Drilling ahead @ 2265'  
Wednesday  
12/12/19 7:00 AM Drilling ahead @ 2830'  
Thursday  
12/13/19 7:00 AM @ 2959' RTD Plugging well