

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 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)</i> <i>(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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Form	ACO1 - Well Completion
Operator	Raney Oil Company, LLC
Well Name	JONES 1A
Doc ID	1517361

All Electric Logs Run

comp. density
sonic
dual induction
micro



**From:** Ann Raney annraney@icloud.com   
**Subject:** Raney Jones #1A Geo Report  
**Date:** May 19, 2020 at 11:06 PM  
**To:** Ann Raney annraney@me.com

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**ROGER L. MARTIN**  
INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

From: Roger Martin rmrockhand@gmail.com  
 Subject: Pray#3 geo-log/report & invoice  
 Date: February 24, 2020 at 6:50 PM  
 To: Thomas Raney annraney@me.com, Ann Raney annraney@mac.com, Jeff Plummer Jeff.Plummer@18cg.com, Scott Asner asner1@swbell.net  
 Cc: Roger Martin rogermartingeo@yahoo.com



Please find attached.  
 Thanks  
 Roger Martin  
 316-833-2722 {iPhone/voice/text}  
 316-250-6970 {office/field/voice}  
 316-655-1227 {voice/text}

**ROGER L. MARTIN**  
 INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

**GEOLOGIST'S REPORT**  
 DRILLING TIME AND SAMPLE LOG

COMPANY RANEY OIL COMPANY, LLC  
 LEASE PRAY #3  
 FIELD CABIN VALLEY  
 LOCATION 750' FSL & 1410' FWL (~SW-NW-SE-SW/4)  
 SECTION 31 TOWNSHIP 33S RANGE 6E  
 COUNTY COWLEY STATE KANSAS

**ELEVATIONS**

KB 1271' GL 1263'

Measurements Are All  
 From KB:1271'

API 15-035-24711-0000

CONTRACTOR DUKE DRLG RIG #2  
 SPUD 12/14/2019 COMP 12/23/2019  
 RTD 3550' (-2279) LTD 3551' (-2280)

**ELECTRICAL SURVEYS**  
 ELI: DIL + CNL/CDL/PE; & SONIC + MEL  
 2 DST by TRILOBITE TESTING

**CASING**

SURFACE 8&5/8"x23#(295.15')@305'KB cmt'd  
w/ 200sx Class A+ (see Chrono)

PRODUCTION 5&1/2"x17#@~3549'+KB  
cmt'd w/ 220sx (see REMARKS)

FORMATION TOPS	LOG	SAMPLES	CHRONOLOGY
			12/14/19; MIRU; Spud@12:00am; Drlg@125@6:30am
HEEBNER SH	1503' (-232)	1504' (-233)	Drilled to 305'; Dev.Survey: 1/2deg @ 305'
IATAN	1802' (-531)	1804' (-533)	Ran 7jts new 8&5/8"x 23# (tally=295.15') set@~305'KB
STALNAKER SS	1869' (-598)	1867' (-596)	(strapped 1st 3jts & welded all collars) cmt'd w/ 200sx
			class A +3%CaCl +2%gel; cmt did circ; PD@4:45pm on
Upper LAYTON SS	2285' (-1014)	2289' (-1018)	12/14/19; by ELITE; Ticket # 4866
LAYTON SS	2304' (-1033)	2303' (-1032)	
			12/15/19; Drlg @ 544' @~6:45am
KANSAS CITY	2434' (-1163)	2430' (-1159)	
DODDS CREEK SS	2446' (-1174)	2446' (-1175)	12/16/19; Drlg @ 1615' @~6:45am
DENNIS LS	2501' (-1230)	2503' (-1232)	
SWOPE LS	2523' (-1252)	2525' (-1254)	12/17/19; Drlg @~2300'
HERTHA LS	2579' (-1308)	2579' (-1308)	
B/KC	2594' (-1123)	2595' (-1124)	12/18/19; Drlg @~2900'
HEPLER/CLEVELAND SS	2608' (-1337)	2610' (-1339)	
MARMATON	2675' (-1404)	2676' (-1405)	12/19/19; Drlg @~3100'; DST#1@3208'
ALTIMONT LS	2699' (-1428)	2700' (-1429)	
PAWNEE LS	2739' (-1468)	2740' (-1469)	12/20/19; Drlg @~3300'
FORT SCOTT LS	2780' (-1509)	2779' (-1508)	

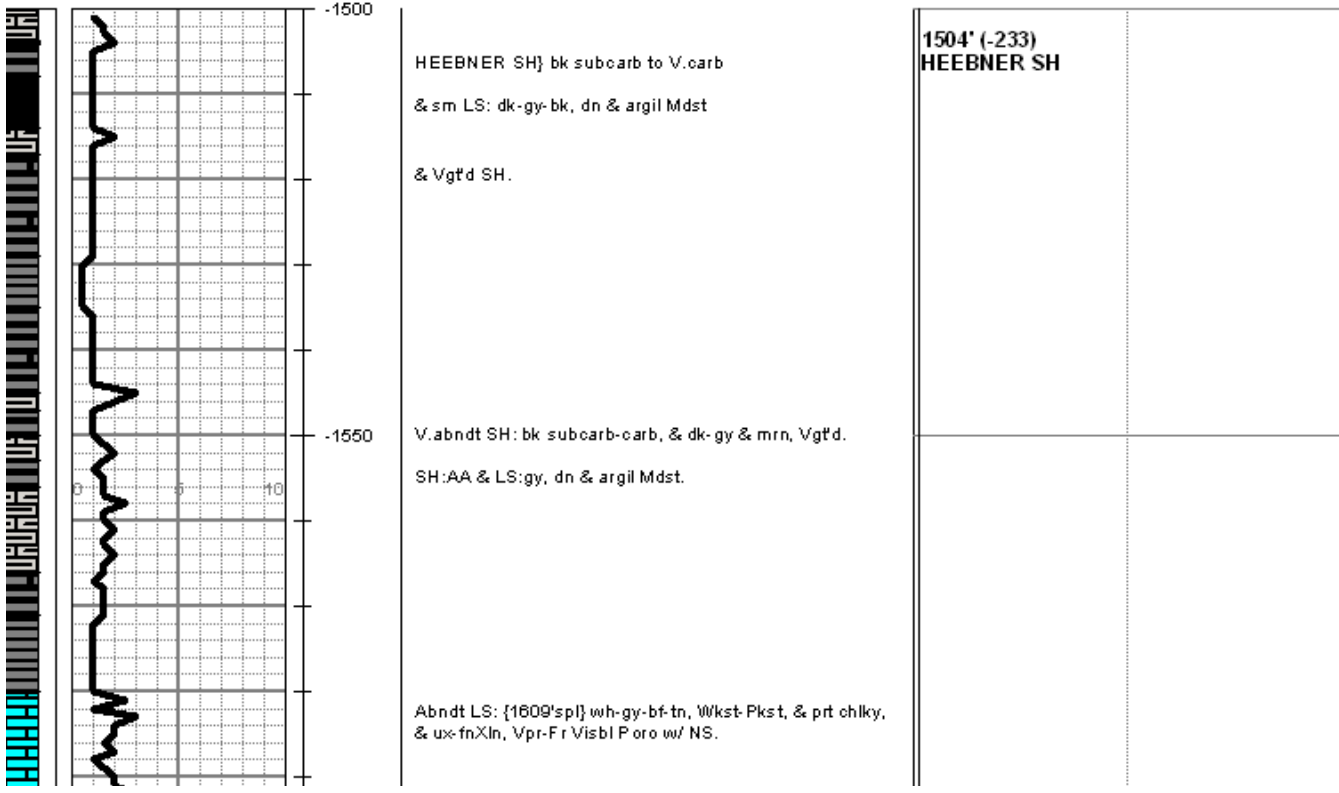
CHEROKEE GRP/SH	2813' (-1542)	2813' (-1542)	12/21/19; DST#2 @ 3500'
EROSIONAL MISS.	3065' (-1794)	3065' (-1794)	12/22/19; E-Logging @ RTD:3550' LTD:3551'
MISSISSIPPIAN	3069' (-1798)	3071' (-1800)	Ran 87jts of new 5&1/2"x17#/ft csg; tally=3541.93' +
MISS.CHERT POROSITY	3071' (-1800)	3071' (-1800)	9.31 landing jt = 3551.24 +~2' basket shoe & float collar
MISS. LS	3080' (-1809)	3081' (-1810)	=~3553' Total tally; tagged btm @~3551' - picked up
COWLEY FACIES/FORMATION	3204' (-1933)	3208' (-1937)	~1&1/2ft off btm; set shoe @~900psi; cm'd w/ 220sx
KINDERHOOK SH	3484' (-2213)	3486' (-2215)	Thick Set (see Remarks) displaced w/~84 bbls; final
CHATT.WOODFORD SH	3504' (-2233)	3503' (-2232)	pump pres=~1100psi & bump plug to ~1650 psi - held
ARBUCKLE	3539' (-2268)	3539' (-2268)	(good circ & lift pressure) by ELITE; Ticket # 4932
TOTAL DEPTH (LTD/RTD)	3551' (-2280)	3550' (-2279)	PD@~4:45am on 12/23/2019; jet; set slips, dump &
			clean pits. Rig release @~6:45AM on 12/23/2019.

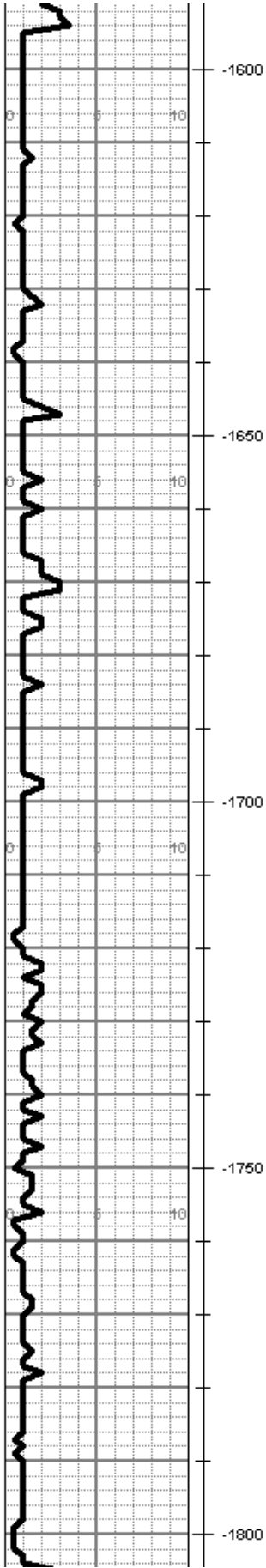
**REMARKS:** FOR A COMPLETION IN THE UPPER MISSISSIPPIAN SYSTEM; RAN 87 JOINTS OF NEW 5&1/2" x 17#/FT PRODUCTION CASING; TALLY=3541.93' +~2' BASKET SHOE & FLOAT COLLAR =~3543.93' + 9.31' LANDING JOINT =~ 3553' TOTAL; TAGGED BTM @~3551', PICKED UP ~1&1/2 FT & SET BASKET SHOE PACKER@~3549'+@~900 PSI PUMP 15 BBL FRESH WATER PRE-FLUSH; MIX & PUMP 220 SX THICK SET CEMENT + 2# PHENOSEAL/SK + 1/4% CFL; 13.8#; WW 1.63 YIELD; ~63.5 BBL SLURRY. DISPLACE WW 84 BBLs (1ST 40 BBLs KCL CITY WATER) FINAL PUMP PRESSURE= ~1100 PSI & BUMPED PLUG TO 1650 PSI; FLOAT HELD; GOOD CIRC & LIFT PRESSURE @~40 BBLs OUT. JOB BY ELITE CEMENTING & ACID SERVICE, LLC; TICKET # 4932. RAN 10 CENTRALIZERS: ON COLLARS OF JT#3 @~3422' & JT#5@3335' & JT#7@~3250' & JT#9@3185' & JT#11@~3085' & JT#18@~2799' & JT#20@~2720'& JT#25@~2514' & JT#28@~2390' & JT#31@~2317'. BASKETS ON JTS #4@~3420' & JT#9@~3210' & JT#32@~2315'

I RECOMMEND REVIEW OF THE UPPER LAYTON SANDSTONE & THE MARMATON GROUP BEFORE ABANDONMENT.

REPECTFULLY SUBMITTED,  
ROGER L MARTIN, WELLSITE GEOLOGIST

POROSITY	DRILLING TIME MIN/FT	DST	SAMPLE DESCRIPTION	REMARKS
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V.Abndt SH: Vgt'd; abndt mrr-rd & gy-bk.

-1600

SH: Vgt'd AA.

sm Silty Sd Clust: Vfn-fnGr'd, sm calc & Lmy; Vpr-NVP w/ NS.

sm argil LS; Vpr-NVP; NS.

-1650

Silty Sd Clust: Lt-gy, VfnGr'd, well omt'd w/ Vpr-pr Vlsbl Porow/ NS.

& argil-silty & dn LS w/ Vpr-NVP; NS.

Abndt Vgt'd SH:AA.

-1700

sm dn LS:AA & sm Silty Sd Clust:AA w/ NS;

Pred SH: dk-gy-bk, mrr-rd, Vgt'd

sm Silty Sd Clust- Sndy SILTS: pr-NVP; NS.

Pred SH: dk-gy-bk

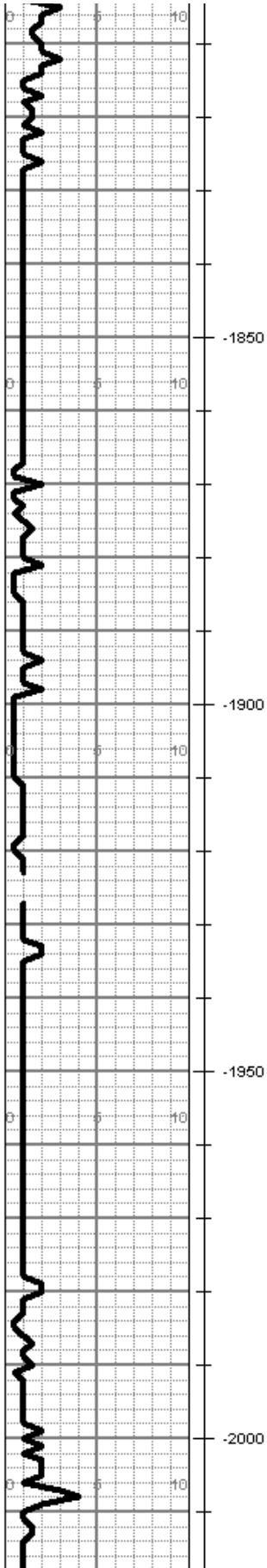
-1750

SH:AA

-1800

Mud-Co Report  
 12/16/19@10:15A  
 Drlg @ 1734'  
 Wt:9.3; Vis:32  
 PV:4; YP:4  
 pH:9.0; WL:16.0  
 CT:1/32; Alka:0.3  
 Cl: 1300 ppm  
 Ca: 80 ppm  
 Solids: 7.1%  
 LCM: 0  
 ECD: 9.61 #/gal





IATAN LS] Abndt LS {1828'KD.spl} wh-gy-tr- mot- Pkst, & ux-fnXln, Trc MdX's, sm chky; pred Vpr-pr Visbl Poro w/ NS.

V.abndt SH: Vgt'd; dk-gy & gn-gy, & mrn.

SH:AA; Vgt'd, pred gy.

SS: Trc Sd Clust {1891'KD.spl} VfnGr'd; As Below {AB} NS.

SS: {1923'KD.spl} Abndt Sd Clusters: Lt-gy-wh, VfnGr'd, micac, well cmt'd to fribl, sm silty, w/ pr-Fr Visbl Poro & sm Gd aprnt Poro w/ NSO {No Show of Oil} No FLR {NF} No Cut {NC}.

SS: {1954'KD->1987'KD.spl} Sd Clust: As Above {AA} w/ sm Fr-Gd Poro; NSO; NF; NC.

{1954'>1987'KD.spl.conf'd} Abndt SH: gy-bk, & mrn, Vgt'd.

SH: Vgt'd; incrs mrn-rd, & gn-gy.

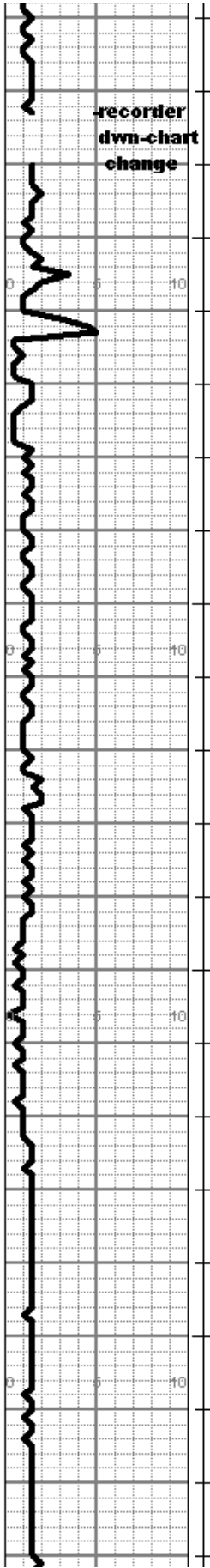
{2048'KD.spl} Abndt SH: gy-bk.

{2048'corrected-Kelly Down(KD)spl.conf'd} sm SILTS: gy, sm Sndy; V.rare {Vrr} Sd Clust: gy-wh, Vfn-fnGr'd, well cmt'd to fribl w/ pr-Fr Visbl Poro w/ NSO; NF; NC.

{2080'corrected-KD.spl} incrs Sd Clust; AA; sm calc & Lmy w/ pred pr-Fr Visbl Poro w/ NSO; NF; NC.

SH: AA.

IATAN LS	
<b>1867' (-596) STALNAKER SS</b>	
<b>(drilled a joint down that was Not recorded on the dp tally board; confirmed on TOH for DST#1; sample lag &amp; tops &amp; drilling time, are all corrected to depth after re-tally @ 3208')</b>	



sm SILTS: calo & Lmy.

sm SS: Sd Clust: gy-wh, bf-gy, Vfn-fnGr'd, pred well omt'd w/ Vpr-pr Poro; Tro Fr Visbl Poro w/ NSO; NF; NC.

Pred SH: dk-gy-bk.

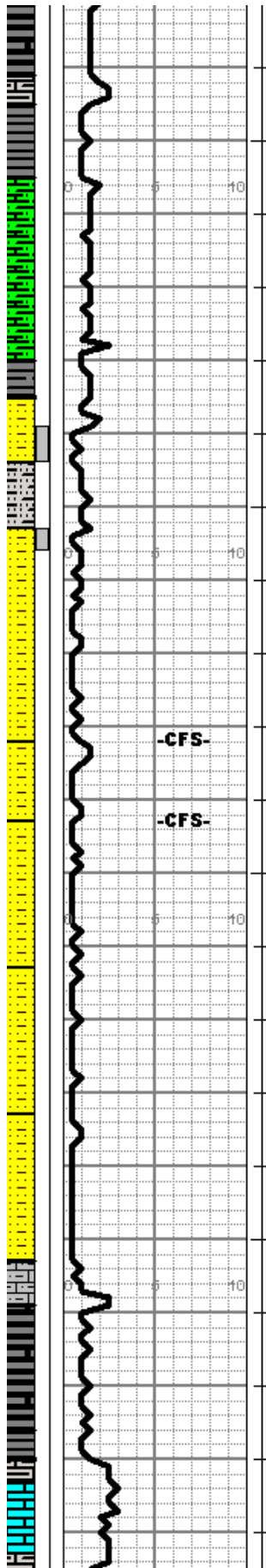
SH: gy-bk, sm bk-carb.

SH: AA

SH: AA & gy- micac

SH: dk-gy & gn-gy, sm Lmy; Tro argil- dn LS & Sndy SILTS.

Pred SH: AA.



Vrr LS: gy, dn-ux-fnX; & argil Mdst.

SH: gy-bk

SILTS: Lt-md-gy, micao & calc, sm Sndy; VfnGr'd; & sm argil-silty LS w/ Vpr-NVP w/NS. & SS: Sd Clust: Lt-gy, VfnGr'd, micao, silty, well cm'd to subfribl w/ pred Vpr-NVP w/ NSO.

UPPER LAYTON SS} Sd Clust: gy-bf, gy-wh, Vfn-fnGr'd, well Rnd'd to subanglr, pred well cm'd- subfribl w/ pred pr-Fr Visbl Poro; & V.rare (Vrr) fribl w/ Gd-IGr.Poro; ~20% w/ subsat dull yell FLR & Lt-fn-bn-O.STN & Sl-Fr SFO-GSY- "Lively" Show Free Oil (SFO) & Sl-Fr milky Cut; Sl Odor; pred silty & micao; sm shly w/ Vpr-pr visbl Poro & pred barren; & SILTS: Lt-gy, micao, sm Sndy.

LAYTON SS} Sd Clust: Lt-gy-bf-wh, VfnGr'd, silty, micao, well cm'd to fribl w/ Fr-Gd Poro- Pred Barren; Tro FLR-Tro SFO-STN & Tro milky Cut.

-CFS-

SS: Sd Clust gy-wh-bf, pred VfnGr'd, sm silty & micao & sm shly; sm fribl w/ Fr-Gd Poro; >99% Barren w/ NSO.

-CFS-

SS: Sd Clust Lt-gy-bf-wh, Vfn-fnGr'd, pred Rnd'd-Subanglr; prt silty- micao, sm sl shly, well cm'd to fribl w/ sm Fr-Gd Poro w/ NSO & NC; (abndt gy-bk SH in spl).

SS: Sd Clust gy-wh-bf, Vfn-fnGr'd, Vrr prt mdGr'd, pred Rnd'd- subanglr; incrs in fribl w/ Fr-Gd Poro w/ NSO & NC; sm silty & well cm'd & micao & sm sl shly w/ NSO.

SS: Sd Clusters: decrs AA; Vfn-mdGr'd; sm Fr-Gd Visbl Poro; w/ NSO.

sm calc & Lmy Sd Clust & Sndy-silty-LS w/ NSO.

Pred SH: gy-bk; Tro Crs F.Sd.Gr's.

SH: gy-bk

KC} LS: gy-tn, dn-ux-fnX; & Mdst-Wkst w/ Vpr-NVP; NSO.

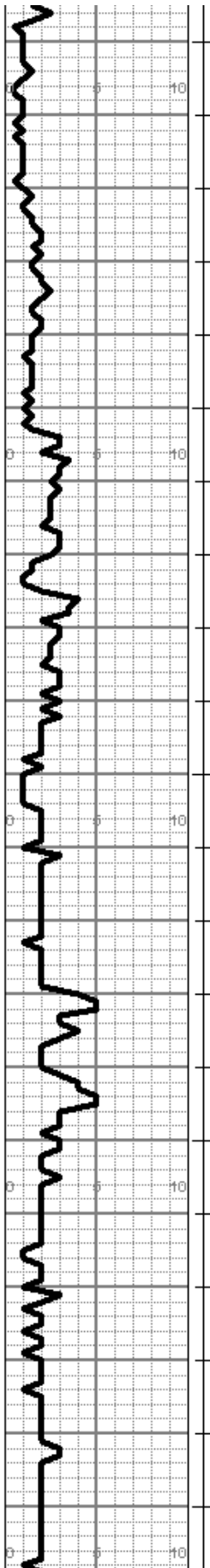
2289' (-1018)  
UPR.LAYTON SS  
{~20% Sl-Fr SFO}

2303' (-1032)  
LAYTON SS  
{Tro SFO}

Mud-Co Report  
12/17/19@10:30A  
Drig @ 2427'  
(corrected depth)  
Wt:9.3; Vis:47  
PV:13; YP:14  
pH:10.5; WL:7.2  
CT:1/32; Alka:0.9  
Cl: 1400 ppm  
Ca 60 ppm  
Solids: 6.8%  
LCM: 0  
ECD: 9.61 #/gal

2430' (-1159)  
KANSAS CITY

2446' (-1175)



-2450

DODDS CRK.SS} Sd Clusters: Lt-gy-bf; gy-wh, pred VfnGr'd; sm Vfn-fnGr'd; Tro mdGr's; abndt silty micac, sm sl shly; Rr fribl w/ Fr-VG d Poro w/ NSO; NF; NC; & SILTS: Lt-gy, micac, sndy; NSO.

sm SS: Sd Clust:AA w/ NSO; NF; NC; Sharp iners SILTS & Silty Sd Clustw/ Vpr-NVP; NSO; NF; NC.

Abndt SH: gy-bk; (sm SILTS & Rr Sd Clust:AA; NSO).

-2500

LS: om-tn-gy, & sm wh-ohly, sm ux-fnX; & Wkst-Pkst; pred pr-NVP; NSO.

LS: AA; & gy- argil.

Abndt SH:bk-carb & dk-gy.

LS: gy-bn, dn-ux-fnX; & argil- Mdst; Vpr-NVP; NS.

SH: dk-gy-bk;

-2550

shrp iners bk-carb to V.carb SH.

SH: AA & sm Silty Sd Clust:AA & SILTS:AA.

SH & Sndy SILTS:AA.

LS: tn-gy-bn, pred dn- ux & sm wh-gy-subohky & argil Mdst; Vpr-NVP; NS.

LS: gy-tn-wh, Wkst-Pkst, sl fos, sm ohky; pr-NVP; NS.

SH: dk-gy-bk, subcarb-carb; Rr Sndy SILTS & SiltySS- Sd Clust:gy, VfnGr'd, pr-Fr Poro w/ NSO; NF; NC.

-2600

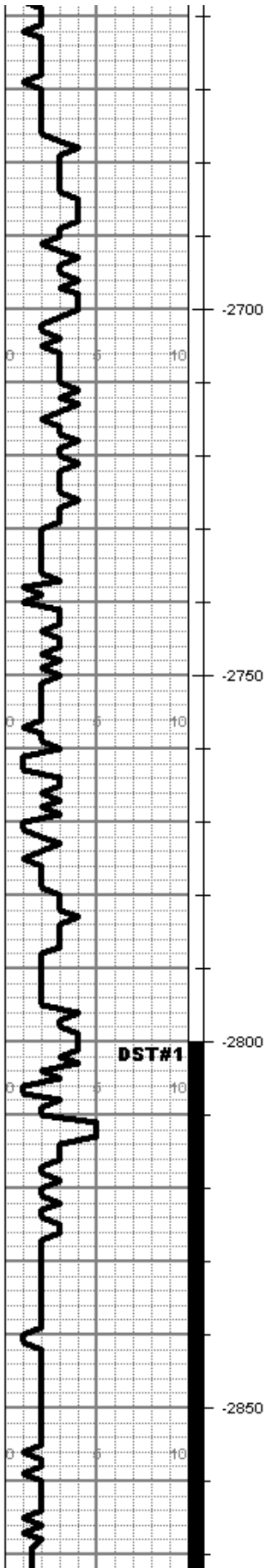
Vrr Sd Clust gy, Vfn-fnGr'd w/ Fr-Gd-IGr.Poro w/ NSO; NF; NC.

Sndy-SILTS & Silty-SS: Sd Clust w/ pred pr Visbl Poro w/ NSO; NF; NC.

Pred SH: gy-bk, sm bk-carb.

-2650

<b>DODDS CRK.SS</b>	
<b>2503' (-1232)</b> <b>DENNIS</b>	
<b>2525' (-1254)</b> <b>SWOPE LS</b>	
<b>2579' (-1308)</b> <b>HERTHA LS</b>	
<b>2595' (-1324)</b> <b>B/KC</b>	



SH: AA.

MARMATON} LS: cm-tn-gy, Wkst-Pkst & wh-chky; SI Cherty; pr-NVP w/ NS.

LS: gy-tn-wh, dn-ux-fnX; sm argil; Vpr-NVP; NS.

SH: gy & bk-carb; & LS:AA, argil.

-2700

LS: gy-tn-wh, ux-fnXln, Vrr prt mdXln- Vrr fos- Coral, & sl oole; Xln & Pkst w/ Fr Poro to Tre Gd.Poro; fos-vug, molde & IXP; Vrr FLR & Lt-tn-bn-OSTN; Tre SFO & milky Cut, pred Barren w/ pr-NVP; & sm argil LS.

LS: AA, sm argil;

& SH: bk subcarb to V.carb.

SH:AA; sm calc & Lmy

-2750

PAWNEE} LS: tn-gy-wh, ux-fnXln, & Wkst-Pkst, prt chky, w/ pr-Fr Poro; pp & IGr & IXP; Tre molde Poro; Tre FLR-SFO-STN & Cut, pred Barren.

SH: bk-carb & subcarb.

LS: tn-gy-wh, pred dn-ux, & argil- Mdst.

SH: bk-carb & dk-gy- sm calc & Lmy.

FT.SCOTT} LS: wh-chky & tn-gy- dn-ux- fnXln- sm 2nd ReX; sm Wkst-Pkst; SI Cherty; sm pr-Fr-IGr & pp & IXP; ~5% w/ spt & subsat-FLR & VSI-SISFO & VLT-OSTN & SI milky-Cut, VSI Odor.

-2800

SH: bk-subcarb to V.carb.

LS:AA; tn-gy-wh, dn-ux & argil Mdst.

CHEROKEE} SH: bk-carb- V.carb; Tre Coat; & SH:gy.

SH-SILTS: Vgt'd, sm calc- sndy; (abndt LS:AA).

AA; sl iners SH:AA.

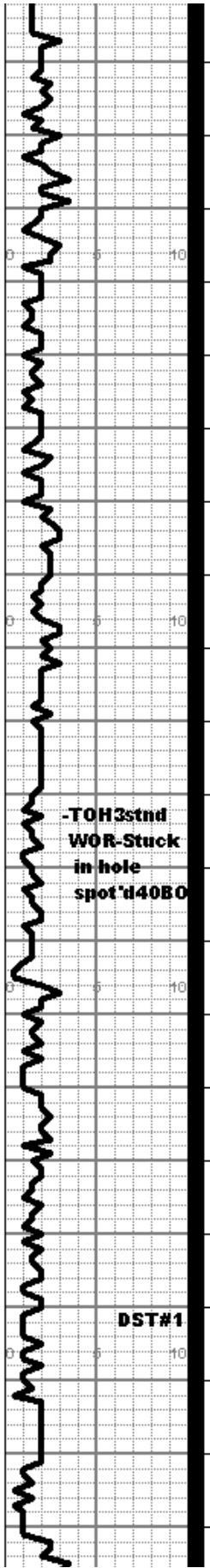
SH: gy & bk-carb; & SILTS:AA.

-2850

Sharp ;iners in SH & SILTS: AA.

SH-SILTS: AA; (Tre Sd Clust:AA; NS & sm LS:AA).

2676' (-1405) <b>MARMATON</b>	
2700' (-1429) <b>ALTAMONT</b> {Trc SFO}	
2740' (-1469) <b>PAWNEE</b>	
{Trc SFO}	
2779' (-1508) <b>FT. SCOTT</b>	
{VSL-SLSFO}	
2813' (-1542) <b>CHEROKEE</b>	



**-TOH3std  
WOR-Stuck  
in hole  
spot'd 40Bbl**

**DST#1**

SH: pred gy & bk-carb.  
& LS: dk-gy-bk, ux & argil Mdst

-2900 SH: bk-carb- V.carb.  
SILTS-SH: Lt-dk-gy, micac

SH: pred dk-gy - bk-carb;  
sm LS: dn-chky.

-2950 SH: AA; sm dn & argil LS; Vrr Sd ClustAA; NS.

SH: abndt gy & bk-carb, sm pyrto; & sm LS.

SH: dk-Lt-gy

sm bk-carb SH.

Pred SH: dk-gy-bk & Vgt'd

-3000 Vrr Coal; sm pyrto; sm LS: argil-Mdst.

Pred SH: Vgt'd, sm mrr-rd.

SH: Pred bk-carb & dk-gy.

-3050 SH: Vgt'd - mrr-rd & gy.

sm bk-carb SH.

SH: V-gt'd-gy & bk-carb, mrr-wxy; & sm dn-LS & argil-LS;  
& Tro sharp Chert.

CHERT: wh-bf-gy, sm w/ tn-O.STN; pred sharp & prtly  
W/thrd- sub.Tripole; ~30% W/thrd-Tripole w/ Fr-Gd Poro;  
pin point {pp} & vug & Inter-Granular {IGI} - Tripole Poro  
w/ sp'd to sat.FLR & tn-O.STN w/ Fr-Gd SFO-Gsy, SI to  
Gd milky Cut; Frly Strong Odor.

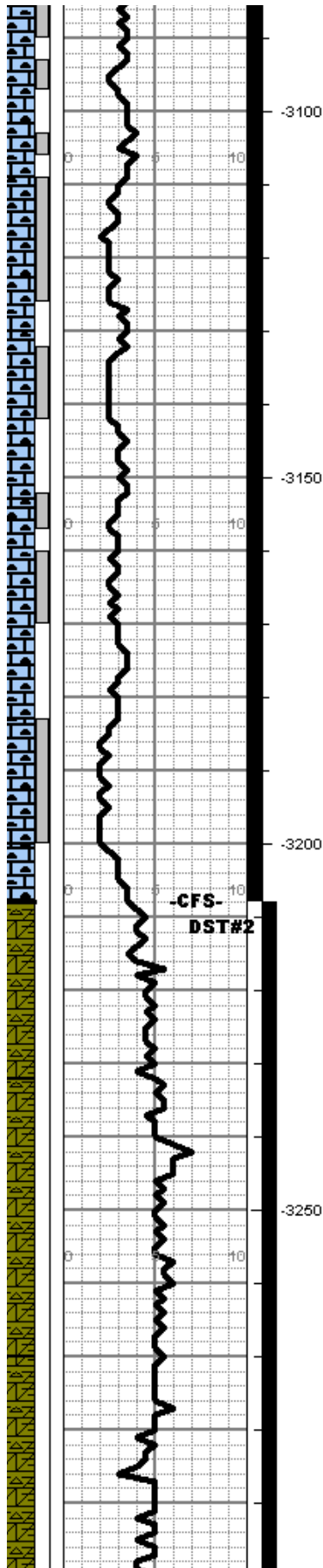
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<p>-TOH 3 stands to Work on rig- Stuck in hole spot'd 40 bbls oil- pulled loose after ~4hrs then circ &amp; TIH 3 stnds, then back to drlg.</p>	<p>Mud-Co Report 12/18/19@11:30A Drig @ 2958' (corrected depth) Wt:9.5+; Vis:47 PV:15; YP:15 pH:10.5; WL:7.2 CT:1/32; Alka:1.0 Cl: 1500 ppm Ca: 60 ppm Solids: 8.5% LCM: 1#bbl ECD: NC</p>
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<p>3071'(-1800) MISS.CHERT PORO. {Fr-Gd SFO}</p> <p>3081'(-1810) MISS. LS</p>	<p>DST#1; MISS. 2800'--3208' 30-45-60-90min. IF: Wk blow; bldg to 3": ISI: NRR.</p>
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LS: wh-chlky, & cm-bf, sub-chlky- Wkst-Pkst; & ux-fnX; Cherty; w/ V.rare(Vrr) pr Visbl Poro: pp-vug & u-Igr.Poro & u-Frac's Trc Fr Visbl.Poro; <5% w/ sptd-subst FLR & Lt.O.STN & VSLSFO & Cut, VSL Odor on brk; Trc Gd Visbl Poro w/ FLR-SFO-STN-Cut; (sm Chert:AA)(sm SH cavings).

LS: wh-chlky & subchlky; & cm-bf-tn & gy, Wkst-Pkst; & ux-fnX; Cherty (AA) s l incrs pr Fr- Visbl Poro- AA~5% <10% w/ sptd FLR & Lt-tn-O.STN & VSLSFO & milky Cut, Trc Odor on brk; Cherty: AA; (Abndt SH cavings).

LS: wh-bf-tn-gy, sm mot- Wkst-Pkst, prt chlky; sm fos & ool, Cherty- sm ool & fos Chert, sharp & sl Wthr'd; sm Pr Visbl Poro: pp-vug & Igr.Poro & u-Frac's; <5% w/ sptd FLR-VSLSFO & Cut, Trc O.STN; Trc Odor on brk.

LS: wh-chlky, & bf-tn-gy, Wkst-Pkst, ux-fnX; <5% w/ pr-Fr Poro: pp-vug, Igr, u-Frac's w/ Trc SFO-FLR-STN-Cut; Cherty:AA; <5% w/ pr-Fr Poro w/ sptd-subst FLR-SFO-STN-Cut, Vsl Odor on brk.

LS: wh-gy-tn, sm mot- Wkst-Pkst, prt chlky, & Cherty; <5% w/ pr-Fr Poro: pp-vug, Igr.Poro & u-Frac's w/ FLR-SFO-STN & Vsl Cut.

LS: AA w/ Trc SFO-FLR-STN-Cut; & Abndt dn Mdst-Wkst w/ Vpr-NVP w/ NS.

COWLEY} LS: dk-md-gy-bn, dn-ux & Mdst-Wkst, sm silic, sm sl dolome & argil; sl Cherty; pred Vpr-NVP; Trc u-Frac's & Edg w/ FLR & Trc SFO & Cut.

LS: dk-Lt-gy & gy-bn, pred dn- ux-VfnXln, sm sl dolome, sm sl silic, & argil-Mdst; pred Vpr-NVP; Trc Vpr Visbl Poro & u-Frac's & Edg w/ FLR- Trc SFO & Trc Cut; Sl Cherty:cm-gy-bf, wh, sharp to sl Wthr'd- Trc Vpr Visbl Poro- u-Frac's & Edg w/ FLR- Trc SFO & Trc Cut (sm SH cavings).

LS: Pred dk-gy-bn, dn- ux; & Mdst- sm shly- argil, sm silic, sm sl dolome, Trc Vpr Visbl Poro: pin point (pp) & u-Frac's & u-IXP & Edges w/ FLR & Trc SFO & Trc resid.Cut; >99% Barren w/ Vpr-NVP (decs in SH cavings).

{VSLSFO}

{VSLSFO}

{VSLSFO}

{VSLSFO}

{VSLSFO}

{VSLSFO}

{VSLSFO}

{VSLSFO}

{VSLSFO}

{VSLSFO}

{VSLSFO}

{Trc SFO}

3208'(-1937)  
COWLEY  
{Trc SFO}

{Trc SFO}

{Trc SFO}

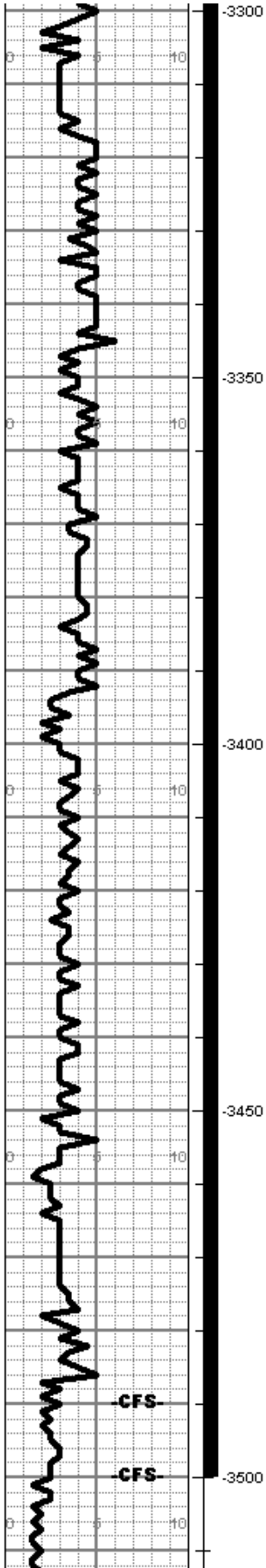
FF: Wk blow; bldg to 1"; FSI:NBB.  
Rec: 100'Drig Mud  
Tool Spl: Trc of OCM/Trc.Show Oil

IHP: 1489  
IFP: 24-39  
ISIP: 529  
FFP: 41-59  
FSIP: 488  
FHP: 1382  
Temp: 104deg.F.

Mud-Co Report  
12/19/19@11:00A  
CIRC @ 3208'  
(corrected depth)  
Wt:9.4+; Vis:56  
PV:22; YP:20  
pH:10.5; WL:6.4  
CT:1/32; Alka:0.8  
Cl: 1900 ppm  
Ca: 80 ppm  
Solids: 7.7%  
LCM: 4#bbl  
ECD: NC

DST#2; Lwr.MISS  
3208'--3500'  
30-45-45-90min.  
IF: Wk blow,  
bldg to 2".  
ISI: NBB.  
FF: No Blow  
FSI: NBB.  
Rec: 30'Drig.Mud  
IHP: 1596  
IFP: 26-31  
ISIP: 657  
FFP: 32-33  
FSIP: 219  
FHP: 1550  
Temp:110deg.F.





LS: dk-gy-bn, sm tn-bn, pred dn-ux {micro-xln} sm silic, sm sl dolomc; & Mdst- sm argil; w/ pred pr-NVP; Tro Vpr Visbl Poro & u-Frac's & Edg FLR & Tro SFO & resid.Cut; (Rr Chert:AA w/ FLR-SFO-STN-Cut). (sm SH cavings:AA).

LS: dk-gy-bn, & gy-bk, ux-dn, sm silic & sm sl dolomc; & argil- Mdst w/ pred Vpr-NVP; Tro u-Frac's & u-IXP & Edg FLR- Tro SFO & Tro Resid.Cut; >99% Barren; (incrs SH cavings).

{V.Abndt SH cavings} & sm LS: dk-gy-bk & gy-bn; pred dn Mdst- sm argil, & ux-dn, sm sl silic, & sm sl dolomc; Tro Vpr Visbl Poro: u-Frac's & u-IXP & Edg w/ FLR- Tro SFO & Resid.Cut.

LS: wh-chlky, & em-bf-gy, ux-fnX, & fos- Wkst-Pkst; pr-Vrr-Fr-Visbl-Poro- u-IGr & u-IXP & u-Frac's; Tro FLR-SFO-Cut; Tro Chert:AA w/ FLR-SFO-STN-Cut. (abndt SH cavings AA).

(V.abndt SH: bk-carb & dk-gy & gn-gy & mrn-rd).

Sharp incrs in LS: wh-chlky, & em-bf-gy, Wkst-Pkst, & ux-fnX, Vsl Cherty; Pred Vpr-pr Visbl Poro:AA; Tro Fr Visbl Poro; Tro FLR-SFO-STN-Cut >99% Barren. (~50%LS:AA & \*50%SH:AA).

LS: wh-chlky & wh-bf-gy-subchlky to dn w/ pred Vpr-NVP w/ NS. (Tro Chert:AA) (incrs gn-gy-SH).

incrs SH: gy, & gn-gy; & LS:gy, argil- Mdst, pred Vpr-NVP w/ NS.

SH: AA & LS:AA

LS: gy-tn, & gn-gy, dn- Lithogr & cryptox-ux & Mdst w/ pred Vpr-NVP w/ NS.

LS: gy-bf-wh, dn-cryptox-ux & chlky; Vpr-NVP; NS.

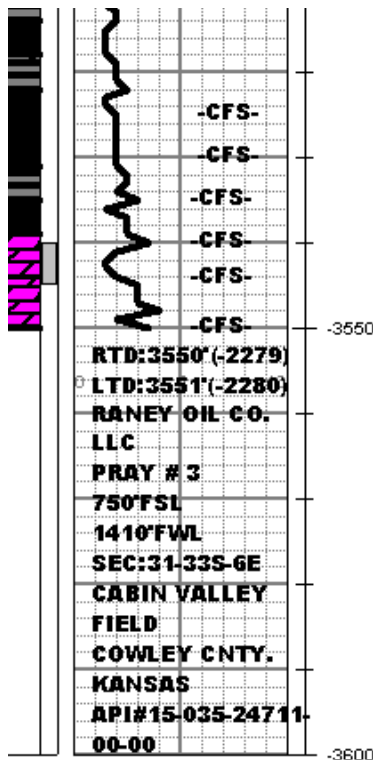
KINDERHOOK SH} incrs SH in circ.spls @ 3490'} bk-carb- V.carb.

SH: bk & dk-gy, & bk-carb- V.carb. (sharp decrs in LS:AA).

incrs in SH: Vgtd, abndt bk-carb.

{Trc SFO}	Mud-Co Report 12/20/19@10:30A Drlg @ 3305' Wt:9.3+; Vis:59 PV:20; YP:23 pH:10.5; WL:6.4 CT:1/32; Alka:0.8 Cf: 1100 ppm Ca 60 ppm Solids: 7.1% LCM:3&1/2#/bbl ECD: NC
{Trc SFO}	
{Trc SFO}	
{Trc SFO}	
{Trc SFO}	
3486' (-2215) KINDERHOOK	Mud-Co Report 12/21/19@8:45A DST#2 @ 3500' Wt:9.4; Vis:65 PV:24; YP:22 pH:10.5; WL:6.4 CT:1/32; Alka:0.7 Cf: 1100 ppm Ca 60 ppm Solids: 7.8% LCM: 1#/bbl ECD: 10.14
3503' (-2232) CHATT WOODFORD SH	





SH: abndt bk-carb & V.carb; (s m Rr LS:AA).

SH: pred bk-carb, sm sl pyrto.

SH:AA, iners pyrto.

3540'circ.spls] Tre ARB. DOLD: AB (As Below)  
 3544'circ.spls] DOLD: gy-bf-cm, ux-mdXln; w/ Fr. Rr.Gd  
 Poro: IXP & vug.Poro w/ FLR & SISFO & subsat STN &  
 Sl Fr-Cut Vrr prt CrsXln w/ VG d Poro w/ SFO-FLR-STN-  
 Cut; Sl Fr Odor; pred Barren. (3550'circ.spls] DOLD: cm-  
 bf-gy, Vfn-mdXln, pred pr Fr-Visbl Poro: IXP & vug Poro;  
 Rr G d Visbl Poro: IXP & vug Poro- pred (~99%) Barren;  
 ~1% w/ SFO-FLR-STN-Cut, Tre Odor; (~50% Arb.Dolo in  
 3550'+40min.circ.sp).

3539' (-2268)  
 ARBUCKLE  
 (SLSFO)

RTD:3550'(-2279)  
 LTD: 3551'(-2280)

Mud-Co Report  
 12/22/19@4:00A  
 CIRC @ 3550'  
 Wt:9.4; Vis:61  
 PV:20; YP:20  
 pH:10.5; WL:6.4  
 CT:1/32; Alka:0.6  
 Ct: 1700 ppm  
 Ca 60 ppm  
 Solids: 7.8%  
 LCM: 6#bbl  
 ECD: 10.10

RANEY OIL CO.,LLC  
 PRAY # 3  
 750'FSL & 1410'FWL  
 SEC: 31-33S-6E  
 CABIN VALLEY FIELD  
 COWLEY CNTY., KS.  
 API#15-035-24711-00-00

## ROGER L. MARTIN

INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY RANEY OIL COMPANY, LLC  
 LEASE PRAY #3  
 FIELD CABIN VALLEY  
 LOCATION 750' FSL & 1410' FWL (~SW-NW-SE-SW/4)  
 SECTION 31 TOWNSHIP 33S RANGE 6E  
 COUNTY COWLEY STATE KANSAS

### ELEVATIONS

KB 1271' GL 1263'

Measurements Are All  
 From KB:1271'

API 15-035-24711-0000

CONTRACTOR DUKE DRLG RIG #2  
 SPUD 12/14/2019 COMP 12/23/2019  
 RTD 3550' (-2279) LTD 3551' (-2280)

### CASING

SURFACE 8.85/8"x23#(295.15')@305'KB cmt'd  
w/ 200sx Class A+ (see Chrono)

RTD 3550 / LTD 3550  
**ELECTRICAL SURVEYS**  
 ELI: DIL + CNL/CDL/PE; & SONIC + MEL  
 2 DST by TRILOBITE TESTING

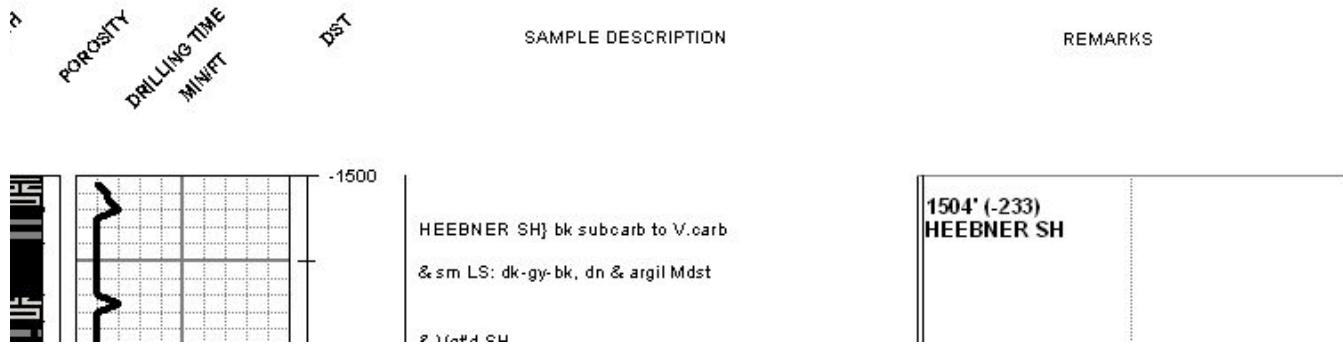
**PRODUCTION** 5&1/2"x17#@~3549+KB  
 cmt'd w/ 220sx (see REMARKS)

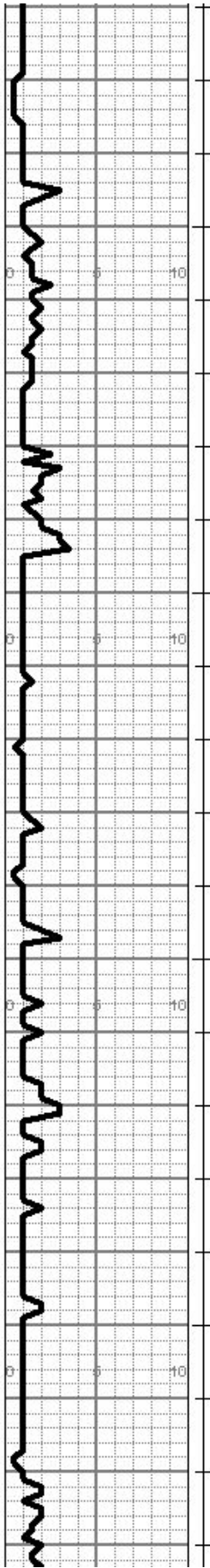
FORMATION TOPS	LOG	SAMPLES	CHRONOLOGY
HEEBNER SH	1503' (-232)	1504' (-233)	12/14/19; MIRU; Spud@12:00am; Drlg@125@6:30am
IATAN	1802' (-531)	1804' (-533)	Drilled to 305'; Dev.Survey: 1/2 deg @ 305'
STALNAKER SS	1869' (-598)	1867' (-596)	Ran 7jts mew 8&5/8"x 23# (tally=295.15') set@~305'KB (strapped 1st 3jts & welded all collars) cmt'd w/ 200sx
Upper LAYTON SS	2285' (-1014)	2289' (-1018)	class A +3%CaCl +2%gel; cmt did circ; PD@4:45pm on
LAYTON SS	2304' (-1033)	2303' (-1032)	12/14/19; by ELITE; Ticket # 4866
KANSAS CITY	2434' (-1183)	2430' (-1159)	12/15/19; Drlg @ 544' @~6:45am
DODDS CREEK SS	2446' (-1174)	2446' (-1175)	12/16/19; Drlg @ 1615' @~6:45am
DENNIS LS	2501' (-1230)	2503' (-1232)	
SWOPE LS	2523' (-1252)	2525' (-1254)	12/17/19; Drlg @~2300'
HERTHA LS	2579' (-1308)	2579' (-1308)	
B/KC	2594' (-1123)	2595' (-1124)	12/18/19; Drlg @~2900'
HEPLER/CLEVELAND SS	2608' (-1337)	2610' (-1339)	
MARMATON	2675' (-1404)	2676' (-1405)	12/19/19; Drlg @~3100'; DST#1@3208'
ALTMONT LS	2699' (-1428)	2700' (-1429)	
PAWNEE LS	2739' (-1468)	2740' (-1469)	12/20/19; Drlg @~3300'
FORT SCOTT LS	2780' (-1509)	2779' (-1508)	
CHEROKEE GRP/SH	2813' (-1542)	2813' (-1542)	12/21/19; DST#2 @ 3500'
EROSIONAL MISS.	3065' (-1794)	3065' (-1794)	12/22/19; E-Logging @ RTD:3550' LTD:3551'
MISSISSIPPIAN	3069' (-1798)	3071' (-1800)	Ran 87jts of new 5&1/2"x17#/ft csg; tally=3541.93' +
MISS.CHERT POROSITY	3071' (-1800)	3071' (-1800)	9.31 landing jt = 3551.24 + ~2' basket shoe & float collar
MISS. LS	3080' (-1809)	3081' (-1810)	=~3553' Total tally; tagged btm @~3551' - picked up
COWLEY FACIES/FORMATION	3204' (-1933)	3208' (-1937)	~1&1/2ft off btm; set shoe @~900psi; cmt'd w/ 220sx
KINDERHOOK SH	3484' (-2213)	3486' (-2215)	Thick Set (see Remarks) displaced w/~84 bbls; final
CHATT.WOODFORD SH	3504' (-2233)	3503' (-2232)	pump pres~1100psi & bump plug to ~1650 psi - held
ARBUCKLE	3539' (-2268)	3539' (-2268)	(good circ & lift pressure) by ELITE; Ticket # 4932
TOTAL DEPTH (LTD/RTD)	3551' (-2280)	3550' (-2279)	PD@~4:45am on 12/23/2019; jet; set slips, dump & clean pits. Rig release @~6:45AM on 12/23/2019.

**REMARKS:** FOR A COMPLETION IN THE UPPER MISSISSIPPIAN SYSTEM; RAN 87 JOINTS OF NEW 5&1/2" x 17#/FT PRODUCTION CASING; TALLY=3541.93' +~2' BASKET SHOE & FLOAT COLLAR =~3543.93' + 9.31' LANDING JOINT =~ 3553' TOTAL; TAGGED BTM @~3551', PICKED UP ~1&1/2 FT & SET BASKET SHOE PACKER@~3549+@~900 PSI PUMP 15 BBL FRESH WATER PRE-FLUSH; MIX & PUMP 220 SX THICK SET CEMENT + 2# PHENOSEAL/SK + 1/4% CFL; 13.8#; W/ 1.63 YIELD; ~63.5 BBL SLURRY; DISPLACE W/ 84 BBL (1ST 40 BBL KCL CITY WATER) FINAL PUMP PRESSURE= ~1100 PSI & BUMPED PLUG TO 1650 PSI; FLOAT HELD; GOOD CIRC & LIFT PRESSURE @~40 BBL OUT. JOB BY ELITE CEMENTING & ACID SERVICE, LLC; TICKET # 4932. RAN 10 CENTRALIZERS: ON COLLARS OF JT#3 @~3422' & JT#5@3335' & JT#7@~3250' & JT#9@3165' & JT#11@~3085' & JT#18@~2799' & JT#20@~2720' & JT#25@~2514' & JT#28@~2390' & JT#31@~2317'. BASKETS ON JTS #4@~3420' & JT#9@~3210' & JT#32@~2315'

I RECOMMEND REVIEW OF THE UPPER LAYTON SANDSTONE & THE MARMATON GROUP BEFORE ABANDONMENT.

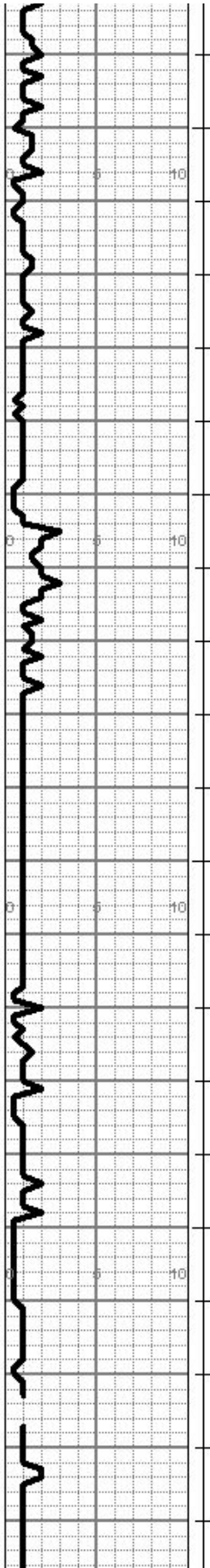
REPECTFULLY SUBMITTED,  
 ROGER L MARTIN, WELLSITE GEOLOGIST





& vgt'd sh.  
  
 -1550 V.abndt SH: bk subcarb-carb, & dk-gy & mrn, Vgt'd.  
 SH:AA & LS:gy, dn & argil Mdst.  
  
 Abndt LS: {1609'spl} wh-gy-bf-fn, Wkst-Pkst, & prt chlky,  
 & ux-fnXln, Vpr-Fr Visbl Poro w/ NS.  
  
 V.Abndt SH: Vgt'd; abndt mrn-rd & gy-bk.  
  
 -1600 SH: Vgt'd AA.  
  
 sm Silty Sd Clust: Vfn-fnGr'd, sm calc & Lmy; Vpr-NVP w/  
 NS.  
  
 sm argil LS; Vpr-NVP; NS.  
  
 -1650 Silty Sd Clust: Lt-gy, VfnGr'd, well omd'd w/ Vpr-pr Visbl  
 Poro w/ NS.  
  
 & argil-silty & dn LS w/ Vpr-NVP; NS.  
 Abndt Vgt'd SH:AA.  
  
 sm dn LS:AA & sm Silty Sd Clust:AA w/ NS;  
 Pred SH: dk-gy-bk, mrn-rd, Vgt'd  
  
 -1700 sm Silty Sd Clust- Sndy SILTS: pr-NVP; NS.

**Mud-Co Report**  
**12/16/19@10:15A**  
**Drig @ 1734'**  
**Wt:9.3; Vis:32**  
**PV:4; YP:4**  
**pH:9.0; WL:16.0**  
**CT:1/32; Alka:0.3**  
**Cl: 1300 ppm**  
**Ca: 80 ppm**  
**Solids: 7.1%**  
**LCM: 0**  
**ECD: 9.61 #/gal**



Pred SH: dk-gy-bk

SH:AA

IATAN LS] Abndt LS {1828'KD.sp]} wh-gy-tn- mot- Pkst, & ux-fnXln, Trc MdX's, sm chky; pred Vpr-pr Visbl Poro w/ NS.

V.abndt SH: Vgt'd; dk-gy & gn-gy, & mrn.

SH:AA; Vgt'd, pred gy.

SS: Trc Sd Clust {1891'KD.sp]} VfnGr'd; As Below {AB} NS.

SS: {1923'KD.sp]} Abndt Sd Clusters: Lt-gy-wh, VfnGr'd, micac, well omt'd to fribl, sm silty, w/ pr-Fr Visbl Poro & sm Gd aprnt Poro w/ NSO {No Show of Oil} No FLR {NF} No Cut {NC}.

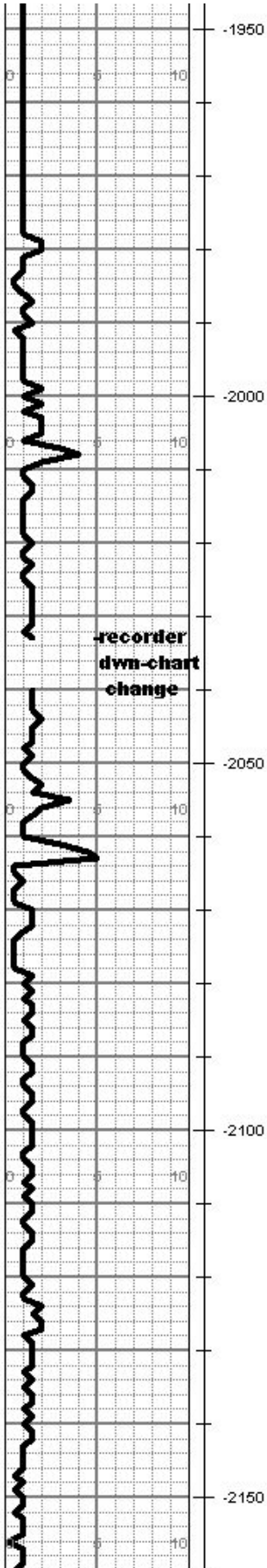
SS: {1954KD->1987'KD.sp]} Sd Clust: As Above {AA} w/ sm Fr-Gd Poro; NSO; NF; NC.

{1954->1987'KD.sp].cont'd} Abndt SH: gy-bk, & mrn, Vgt'd.

**1804' (-533)  
IATAN LS**

**1867' (-596)  
STALNAKER SS**





SH: Vgt'd; incrs mrrn-rd, & gn-gy.

{2048'KD.spl} Abndt SH: gy-bk.

{2048'corrected-Kelly Down(KD)spl.conf'd} sm SILTS: gy, sm Sndy; V.rare {Vrr} Sd Clust: gy-wh, Vfn-fnGr'd, well omt'd to fribl w/ pr-Fr Visbl Poro w/ NSD; NF; NC.

{2080'corrected-KD.spl} incrs Sd Clust; AA; sm calc & Lmy w/ pred pr-Fr Visbl Poro w/ NSD; NF; NC.

SH: AA.

sm SILTS: calc & Lmy.

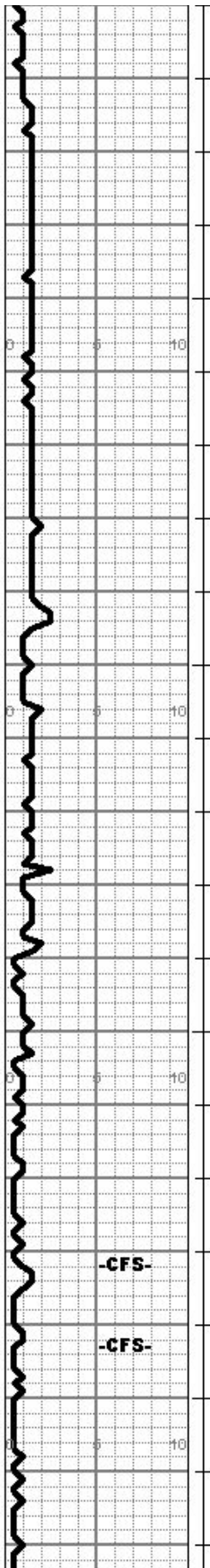
sm SS: Sd Clust: gy-wh, bf-gy, Vfn-fnGr'd, pred well omt'd w/ Vpr-pr Poro; Trc Fr Visbl Poro w/ NSD; NF; NC.

Pred SH: dk-gy-bk.

SH: gy-bk, sm bk-carb.

SH: AA

<p>(drilled a joint down that was Not recorded on the dp tally board; confirmed on TOH for DST#1; sample lag &amp; tops &amp; drilling time, are all corrected to depth after re-tally @ 3208')</p>	



SH: AA & gy- micac

SH: dk-gy & gn-gy, sm Lmy; Trc argil- dn LS & Sndy SILTS.

-2200

Pred SH: AA.

Vrr LS: gy, dn-ux-fnX; & argil Mdst.

-2250

SH: gy-bk

SILTS: Lt-md-gy, micac & calc, sm Sndy; VfnGr'd; & sm argil-silty LS w/ Vpr-NVP w/NS. & SS: Sd Clust: Lt-gy, VfnGr'd, micac, silty, well cmf'd to subfriblw/ pred Vpr-NVP w/ NSO.

UPPER LAYTON SS} Sd Clust: gy-bf, gy-wh, Vfn-fnGr'd, well Rnd'd to subanglr, pred well cmf'd- subfriblw/ pred pr-Fr Visbl Poro; & V.rare (Vrr) friblw/ Gd-IGr.Poro; ~20% w/ subat dull yell FLR & Lt-fn-bn-O.STN & Sl-Fr SFO- GSY- "Lively" Show Free Oil (SFO) & Sl-Fr milky Cut; Sl Odor; pred silty & micac; sm shly w/ Vpr-pr visbl Poro & pred barren; & SILTS: Lt-gy, micac, sm Sndy.

-2300

LAYTON SS} Sd Clust: Lt-gy-bf-wh, VfnGr'd, silty, micac, well cmf'd to friblw/ Fr-Gd Poro- Pred Barren; Trc FLR- Trc SFO-STN & Trc milky Cut.

2289' (-1018)  
UPR.LAYTON SS  
{~20% Sl-Fr SFO}

-CFS-

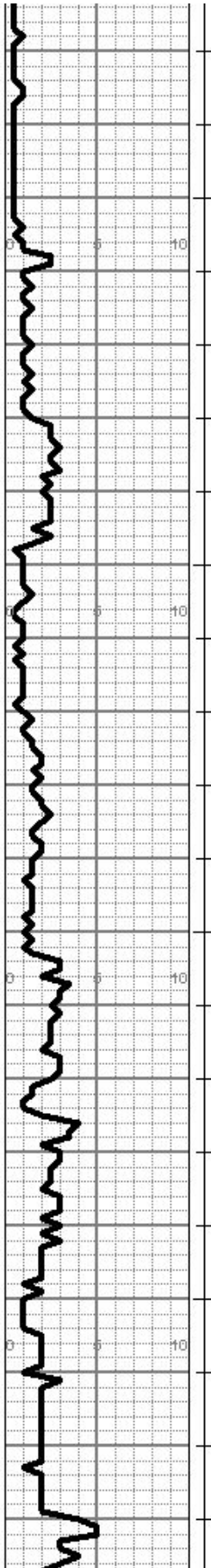
SS: Sd Clust gy-wh-bf, pred VfnGr'd, sm silty & micac & sm shly; sm friblw/ Fr-Gd Poro; >99% Barren w/NSO.

-CFS-

-2350

SS: Sd Clust Lt-gy-bf-wh, Vfn-fnGr'd, pred Rnd'd-Subanglr; prt silty- micac, sm sl shly, well cmf'd to friblw/ sm Fr-Gd Poro w/ NSO & NC; (abndt gy-bk SH in spls).

SS: Sd Clust gy-wh-bf, Vfn-fnGr'd, Vrr prt mdGr'd, pred Rnd'd-subanglr; incrs in friblw/ Fr-Gd Poro w/ NSO & NC; sm silty & well cmf'd & micac & sm sl shly w/ NSO.



SS: Sd Clusters: deors AA; Vfn-mdGr'd; sm Fr-G d Visbl Poro; w/ NSD.

-2400

sm calc & Lmy Sd Clust & Sndy-silty-LS w/ NSD.

Pred SH: gy-bk; Tro Crs F.Sd.Gr's.

SH: gy-bk

KC} LS: gy-tn, dn-ux-fnX; & Mdst-Wkstw/ Vpr-NVP; NSD.

2430' (-1159)  
KANSAS CITY

Mud-Co Report  
12/17/19@10:30A  
Drig @ 2427'  
(corrected depth)  
Wt:9.3; Vis:47  
PV:13; YP:14  
pH:10.5; WL:7.2  
CT:1/32; Alka:0.9  
Cl: 1400 ppm  
Ca: 60 ppm  
Solids: 6.8%  
LCM: 0  
ECD: 9.61 #/gal

-2450

DODDS CRK.SS} Sd Clusters: Lt-gy-bf; gy-wh, pred VfnGr'd; sm Vfn-fnGr'd; Tro mdGr's; abndt silty micae, sm sl shly; Rr fribl w/ Fr-VG d Poro w/ NSD; NF; NC; & SILTS: Lt-gy, micae, s ndy; NSD.

sm SS: Sd Clust:AA w/ NSD; NF; NC; Sharp iners SILTS & Silty Sd Clustw/ Vpr-NVP; NSD; NF; NC.

Abndt SH: gy-bk; (sm SILTS & Rr Sd Clust:AA; NSD).

2446' (-1175)  
DODDS CRK.SS

-2500

LS: om-tn-gy, & sm wh-ohly, sm ux-fnX; & Wkst-Pkst; pred pr-NVP; NSD.

LS: AA; & gy- argil.

Abndt SH:bk-carb & dk-gy.

LS: gy-bn, dn-ux-fnX; & argil- Mdst; Vpr-NVP; NS.

2503' (-1232)  
DENNIS

2525' (-1254)  
SWOPE LS

-2550

shrp iners bk-carb to V.carb SH.

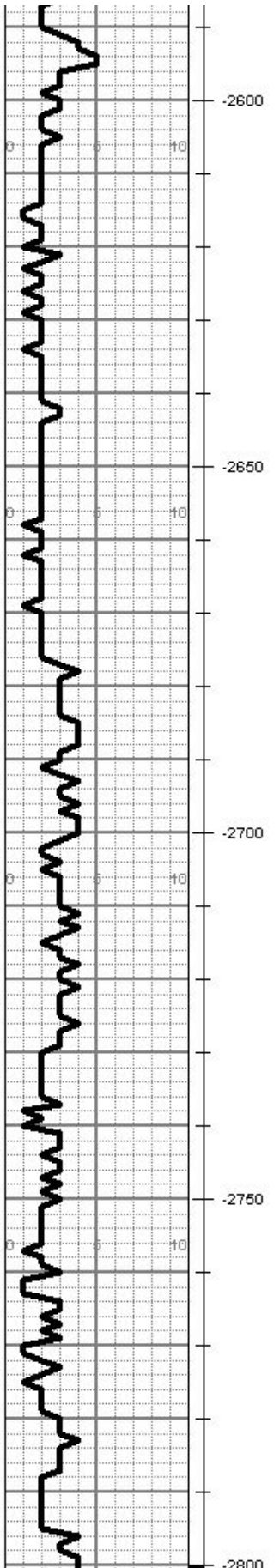
SH: AA & sm Silty Sd Clust:AA & SILTS:AA.

SH & Sndy SILTS:AA.

LS: tn-gy-bn, pred dn- ux & sm wh-gy-subchky & argil Mdst; Vpr-NVP; NS.

2579' (-1308)  
HERTHA LS





LS: gy-tn-wh, Wkst-Pkst, sl fos, sm chky; pr-NVP; NS.

SH: dk-gy-bk, subcarb-carb; Rr Sndy SILTS & SiltySS- Sd Clust; gy, VfnGr'd, pr-Fr Poro w/ NSO; NF; NC.

Vrr Sd Clust gy, Vfn-fnGr'd w/ Fr-Gd-IGr.Poro w/ NSO; NF; NC.

Sndy-SILTS & Silty-SS: Sd Clust w/ pred pr Visbl Poro w/ NSO; NF; NC.

Pred SH: gy-bk, sm bk-carb.

SH: AA.

MARMATON] LS: cm-tn-gy, Wkst-Pkst & wh-chky; SI Cherty; pr-NVP w/ NS.

LS: gy-tn-wh, dn-ux-fnX; sm argil; Vpr-NVP; NS.

SH: gy & bk-carb; & LS:AA, argil.

LS: gy-tn-wh, ux-fnXln, Vrr prt mdXln- Vrr fos- Coral, & sl oolc; Xln & Pkst w/ Fr Poro to Trc Gd.Poro: fos-vug, molde & IXP; Vrr FLR & Lt-tn-bn-OSTN; Trc SFO & milky Cut, pred Barren w/ pr-NVP; & sm argil LS.

LS: AA, sm argil;

& SH: bk subcarb to V.carb.

SH:AA; sm calc & Lmy

PAWNEE] LS: tn-gy-wh, ux-fnXln, & Wkst-Pkst, prt chky, w/ pr-Fr Poro: pp & IGr & IXP; Trc molde Poro; Trc FLR-SFO-SFN & Cut, pred Barren.

SH: bk-carb & subcarb.

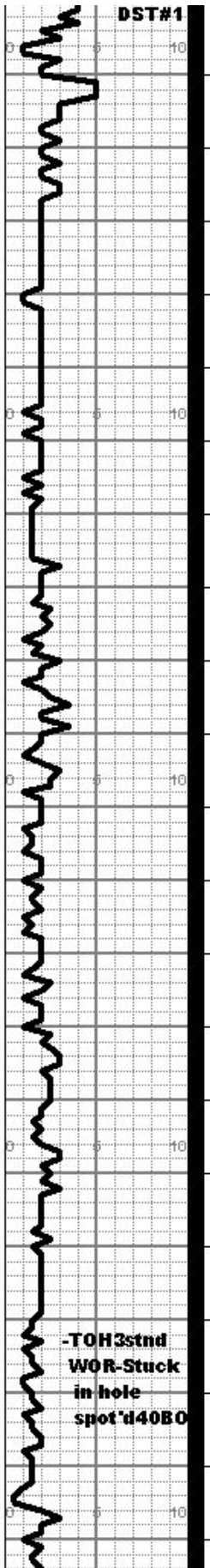
LS: tn-gy-wh, pred dn-ux, & argil Mdst.

SH: bk-carb & dk-gy- sm calc & Lmy.

FT.SCOTT] LS: wh-chky & tn-gy- dn-ux- fnXln- sm 2nd REX; sm Wkst-Pkst; SI Cherty; sm pr-Fr-IGr & pp & IXP; ~5% w/ spt d- subsat-FLR & VSI-SISFO & VLT-OSTN & SI milky-Cut, VSI Odor.

2595' (-1324) B/KC	
2676' (-1405) MARMATON	
2700' (-1429) ALTAMONT {Trc SFO}	
2740' (-1469) PAWNEE	
{Trc SFO}	
2779' (-1508) FT. SCOTT	
{VSL-SLSFO}	





SH: bk-subcarb to V.carb.

LS:AA; tn-gy-wh, dn-ux & argil Mdst.

CHEROKEE} SH: bk-carb- V.carb; Trc Coal; & SH:gy.

SH-SILTS: Vgf'd, sm calo- sndy; (abndt LS:AA).

AA; sl incrs SH:AA.

SH: gy & bk-carb; & SILTS:AA.

-2850 Sharp incrs in SH & SILTS: AA.

SH-SILTS: AA; (Trc Sd Clust:AA; NS & sm LS:AA).

SH: pred gy & bk-carb.  
& LS: dk-gy-bk, ux & argil Mdst

-2900 SH: bk-carb- V.carb.

SILTS-SH: Lt-dk-gy, micac

SH: pred dk-gy - bk-carb;  
sm LS: dn-chky.

SH: AA; sm dn & argil LS; Vrr Sd Clust:AA; NS.

-2950 SH: abndt gy & bk-carb, sm pyrte; & sm LS.

SH: dk-Lt-gy

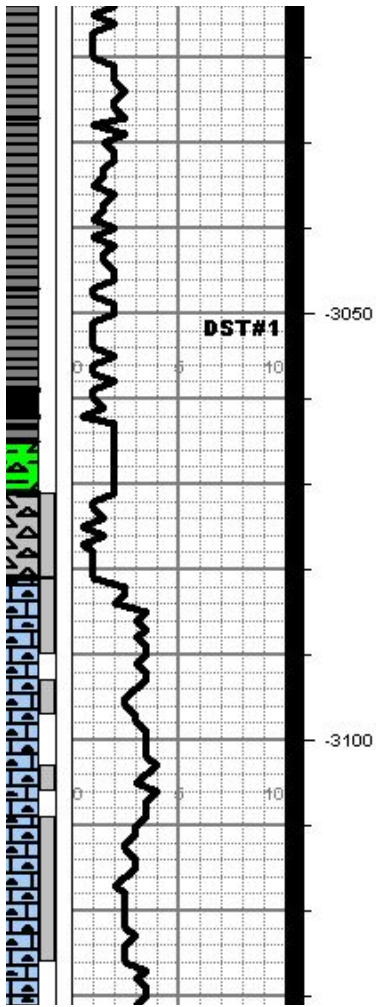
sm bk-carb SH.

Pred SH: dk-gy-bk & Vgf'd

-3000 Vrr Coal; sm pyrte; sm LS:argil-Mdst.

Pred SH: Vgf'd, sm mrr-rd.

<p>2813' (-1542) CHEROKEE</p>	
<p>-TOH 3 stands to Work on rig- Stuck in hole spot'd 40 bbls oil- pulled loose after ~4hrs then circ &amp; TIH 3 stnds, then back to drlg.</p>	<p>Mud-Co Report 12/18/19@11:30A Drlg @ 2958' (corrected depth) Wt:9.5+; Vis:47 PV:15; YP:15 pH:10.5; WL:7.2 CT:1/32; Alka:1.0 Cl: 1500 ppm Ca: 60 ppm Solids: 8.5% LCM: 1#bbl ECD: NC</p>



SH: Pred bk-carb & dk-gy.

SH: Vgt'd - mrrn-rd & gy.

sm bk-carb SH.

SH: V-gt'd-gy & bk-carb, mrrn-wxy; & sm dn-LS & argil-LS; & Trc sharp Chert.

CHERT: wh-bf-gy, sm w/ tn-O, STN; pred sharp & prtlly Wth/d- sub-Tripole; ~30% Wth/d-Tripole w/ Fr-Gd Poro; pin point {pp} & vug & Inter-Granular {IGr} - Tripole Poro w/ spt'd to sat.FLR & tn-O, STN w/ Fr-Gd SFO-Gsy, Sl to Gd milky Cut; Frly Strong Odor.

LS: wh-chlky, & cm-bf, sub-chlky- Wkst-Pkst; & ux-fnX; Cherty; w/ V.rare(Vrr) pr Visbl Poro; pp-vug & u-IGr.Poro & u-Frad's Trc Fr Visbl.Poro; <5% w/ spt'd-subs at FLR & Lt.O, STN & VLSLFO & Cut, VSL Odor on brk; Trc Gd Visbl Poro w/ FLR-SFO-STN-Cut; (sm Chert:AA)(sm SH cavings).

LS: wh-chlky & subchlky; & cm-bf+tn & gy, Wkst-Pkst; & ux-fnX; Cherty (AA) sl incrs pr Fr- Visbl Poro- AA~5% <10% w/ spt'd FLR & Lt-tn-O, STN & VLSLFO & milky Cut, Trc Odor on brk; Cherty: AA; (Abndt SH cavings).

3071'(-1800)  
MISS.CHERT PORO.  
(Fr-Gd SFO)

3081'(-1810)  
MISS. LS

{VLSLFO}

{VLSLFO}

{VLSLFO}

{VLSLFO}

DST#1; MISS.  
2800'--3208'  
30-45-60-90min.  
IF: Wk blow; bldg  
to 3"; IS: NBB.  
FF: Wk blow; bldg  
to 1"; FS:NBB.  
Rec: 100'Drig Mud  
Tool Spl: Trc of  
OCM/Trc.Show Oil

IHP: 1489  
IFP: 24-39  
ISIP: 529  
FFP: 41-59  
FSIP: 488  
FHP: 1382  
Temp: 104deg.F.

810 E 7<sup>TH</sup>  
 PO Box 92  
 EUREKA, KS 67045  
 (620) 583-5561



**Cement or Acid Field Report**  
 Ticket No. 4882  
 Foreman David Gardner  
 Camp Eureka

API# 15-035-24715

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
1-16-20	1315	Jones # 1 A	31	33 S.	6 E.	Cowley	KS
Customer	Mailing Address		Safety Meeting	Unit #	Driver	Unit #	Driver
PA Energy LLC	11615 Rosewood St, Ste 100		DG JH JV	105	Jason		
City	State	Zip Code		110	Josh		
Leawood	KS	66211					

Job Type Surface Hole Depth 305' K.B. Slurry Vol. 48 Bbl Tubing \_\_\_\_\_  
 Casing Depth 294.85' G.L. Hole Size 12 1/4" Slurry Wt. 15# Drill Pipe \_\_\_\_\_  
 Casing Size & Wt. 8 5/8" 24# Cement Left in Casing 15' +/- Water Gal/SK 6.5 Other \_\_\_\_\_  
 Displacement 18 1/4 Bbl Displacement PSI \_\_\_\_\_ Bump Plug to \_\_\_\_\_ BPM \_\_\_\_\_

Remarks: Safety Meeting. Rig up to 8 5/8" casing. Break circulation w/ 10 Bbl fresh water. Mixed 200 sks Class A' Cement w/ 3% Cacl2, 2% Gel, 1/4" Floseal/sk @ 15#/gal, yield 1.35 = 48 Bbl slurry. Displace w/ 18 1/4 Bbl fresh water. Shut down. Close casing in. Good circulation @ all times while cementing. Good cement returns to surface = 8 Bbl slurry to pit. Job complete. Rig down.

Code	Qty or Units	Description of Product or Services	Unit Price	Total	
C101	1	Pump Charge	890.00	890.00	
C107	60	Mileage	4.20	252.00	
C200	200 sks	Class A' Cement	15.75	3150.00	
C205	565#	Cacl2 3%	.63	355.95	
C206	375#	Gel 2%	.21	78.75	
C209	50#	Floseal 1/4"/sk	2.35	117.50	
C108B	9.4 Tons	Ton Mileage - Bulk Truck	1.40	789.60	
<u>Thank You</u>					
			Sub Total	5,633.80	
			Sales Tax 6.5%	240.64	
Authorization <u>Dean Vasquez</u>	Title <u>Tool Pusher</u>			Total	5,874.44

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.

810 E 7<sup>TH</sup>  
 PO Box 92  
 EUREKA, KS 67045  
 (620) 583-5561



**Cement or Acid Field Report**  
 Ticket No. **4946**  
 Foreman Kevin McCoy  
 Camp EUREKA

API # 15-035-24715

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
1-23-20	1315	Jones #1 A	31	33S	6E	Cowley	Ks
Customer	Mailing Address	City	State	Zip Code	Safety Meeting	Unit #	Driver
RA Energy LLC	11615 Rosewood St., Ste 100	Leawood	Ks	66211	KM JH SM JV	105 110 112	JASON H. Steve M. Josh V.

Job Type Longstring Hole Depth 3457' Slurry Vol. 28 BBL LEAD 47 BBL TAIL Tubing \_\_\_\_\_  
 Casing Depth 3454' Hole Size 7 7/8" Slurry Wt. 13.3 - 13.8 # Drill Pipe \_\_\_\_\_  
 Casing Size & Wt. 5 1/2" 17 # Cement Left in Casing 41' Water Gal/SK 7.4 - 9.0 Other PBTD 3413'  
 Displacement 81.5 Displacement PSI 1800 Bump Plug to 2150 PSI BPM \_\_\_\_\_

Remarks: Safety Meeting: 5 1/2 17 # Casing Set @ 3454'. Rig up to 5 1/2 Casing. BREAK CIRCULATION w/ 5 BBL FRESH WATER. MIXED 100 SKS 60/40 Pozmix Cement w/ 6% Gel, 2# PhenoSeal/SK @ 13.3 #/GAL, yield 1.57 = 28 BBL SLURRY, TAIL IN w/ 150 SKS THICK Set Cement w/ 5# Kol-Seal/SK, 1# PhenoSeal/SK 1/3% CFL-115 @ 13.8 #/GAL, yield 1.75 = 47 BBL SLURRY. WASH OUT PUMP & LINES, SHUT DOWN. Release Latch Down Plug. Displace Plug to Seat w/ 81.5 BBL FRESH WATER (FIRST 40 BBL w/ KCL) FINAL Pump Pressure 1800 PSI, Bump Plug to 2150 PSI. wait 2 mins. Release Pressure. Float & Plug Held. Good CIRCULATION @ ALL times while Cementing. Job Complete. Rig down.

Plug RAT Hole w/ 25 SKS  
CENTRALIZERS on #1, 3, 5, 6, 7, 9, 10, 19, 25, 38 BASKETS on top of #9, 19, 30

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C 102	1	Pump Charge	1100.00	1100.00
C 107	60	Mileage	4.20	252.00
C 781	2	5 1/2 Stop Rings	30.00	60.00
C 203	125 SKS	60/40 Pozmix Cement	13.40	1675.00
C 206	645 #	6% Gel	.21 #	135.45
C 208	250 #	2# PhenoSeal	1.30 #	325.00
C 201	150 SKS	THICK Set Cement	20.50	3075.00
C 207	750 #	5# Kol-Seal	.47 #	352.50
C 208	150 #	1# PhenoSeal	1.30 #	195.00
C 211	50 #	1/3% CFL-115	11.00	550.00
C 108.B	13.62 Tons	Ton Mileage 60 miles	1.40	1144.08
C 222	5 Gals	KCL (FIRST 40 BBL Displacement water)	30.00	150.00
C 691	1	5 1/2 Guide Shoe	175.00	175.00
C 674	1	5 1/2 AFU FLOAT COLLAR w/ Latch down	359.00	359.00
C 604	3	5 1/2 Cement Baskets	236.00	708.00
C 504	10	5 1/2 x 7 7/8 Centralizers	50.00	500.00
C 421	1	5 1/2 Latch down Plug	242.00	242.00
			Sub Total	10,998.03
			Less 5%	577.53
			Sales Tax	552.63

Authorization Roger Martin Title Geo Total 10,973.13

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.



Conservation Division  
266 N. Main St., Ste. 220  
Wichita, KS 67202-1513



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Susan K. Duffy, Chair  
Shari Feist Albrecht, Commissioner  
Dwight D. Keen, Commissioner

Laura Kelly, Governor

May 28, 2020

Thomas Raney  
Raney Oil Company, LLC  
4665 BAUER BROOK CT.  
LAWRENCE, KS 66049-9013

Re: ACO-1  
API 15-035-24715-00-00  
JONES 1A  
SE/4 Sec.31-33S-06E  
Cowley County, Kansas

Dear Thomas Raney:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 01/15/2020 and the ACO-1 was received on May 28, 2020 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department