



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1183251
OIL & GAS CONSERVATION DIVISION

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

| | | |
|-----------------------------------|-----------------|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1183251

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 <i>(Attach Additional Sheets)</i> | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Log | Formation (Top), Depth and Datum | <input type="checkbox"/> Sample |
| Samples Sent to Geological Survey | <input type="checkbox"/> Yes <input type="checkbox"/> No | Name | Top | Datum |
| Cores Taken | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| Electric Log Run | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| List All E. Logs Run: | | | | |

| 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 | | | | |

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

| | | | | | | | |
|---|--|---------|-------------|---------------|---------|--|--|
| Date of First, Resumed Production, SWD or ENHR. | Producing Method: <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> <input type="checkbox"/> Other <i>(Specify)</i> _____ | PRODUCTION INTERVAL: _____ _____ |
|---|--|--|

OPERATOR

Company: TDI, INC.
 Address: 1310 BISON ROAD
 HAYS, KANSAS 67601

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-628-2593
 Well Name: DREILING D #9
 Location: SE NW NE NE Sec.21-14s-16w
 Pool: INFIELD
 State: KANSAS
 API: 15-051-26,630-00-00
 Field: DREILING
 Country: USA



Scale 1:240 Imperial

Well Name: DREILING D #9
 Surface Location: SE NW NE NE Sec.21-14s-16w
 Bottom Location:
 API: 15-051-26,630-00-00
 License Number: 4787
 Spud Date: 11/29/2013
 Region: ELLIS COUNTY
 Drilling Completed: 12/3/2013
 Surface Coordinates: 370' FNL & 960' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 1894.00ft
 K.B. Elevation: 1904.00ft
 Logged Interval: 2000.00ft
 Total Depth: 3537.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL
 Time: 2:30 PM
 Time: 9:54 AM
 To: 3537.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.09849
 N/S Co-ord: 370' FNL
 E/W Co-ord: 960' FEL
 Latitude: 38.8264412

LOGGED BY

Company: SOLUTIONS CONSULTING, INC.
 Address: 108 W 35TH
 HAYS, KS 67601
 Phone Nbr: (785) 639-1337
 Logged By: GEOLOGIST
 Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING INC.
 Rig #: 1
 Rig Type: MUD ROTARY
 Spud Date: 11/29/2013
 TD Date: 12/3/2013
 Rig Release: 12/4/2013
 Time: 2:30 PM
 Time: 9:54 AM
 Time: 11:00 AM

ELEVATIONS

K.B. Elevation: 1904.00ft
 K.B. to Ground: 10.00ft
 Ground Elevation: 1894.00ft

NOTES

DECISION TO RUN PRODUCTION CASING TO TEST TARKIO SANDS AND UPPER LANSING-KANSAS CITY
 OPEN HOLE LOGGING BY PIONEER ENERGY SERVICES: DUAL INDUCTION LOG, DUAL COMPENSATED
 POROSITY LOG, MICRORESISTIVITY LOG
 NO DRILL STEM TESTS WERE RAN

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

DREILING D # 9
SE NW NE NE
SEC.21-14S-16W
1894'GL 1904'KB

DREILING D # 8
SW SW NE NE
SEC.21-14S-16W

| <u>FORMATION</u> | <u>SAMPLE TOPS</u> | <u>LOG TOPS</u> | <u>COMPARISON</u> |
|-------------------|--------------------|-----------------|-------------------|
| Anhydrite | 1000 +904 | 993 +911 | + 909 |
| B-Anhydrite | 1040 +864 | 1040 +864 | + 869 |
| Stotler/Tarkio Lm | | 2632 -728 | - 726 |
| Topeka | 2873 -969 | 2876 -972 | - 968 |

| | | | |
|---------------|-----------|-----------|-------|
| Heebner Shale | 3095-1191 | 3094-1190 | -1185 |
| Toronto | 3113-1209 | 3113-1209 | -1203 |
| LKC | 3139-1235 | 3140-1236 | -1230 |
| BKC | 3381-1477 | 3382-1478 | -1469 |
| Arbuckle | 3450-1546 | 3467-1563 | -1517 |
| RTD | 3537-1633 | 3538-1634 | -1611 |

SUMMARY OF DAILY ACTIVITY

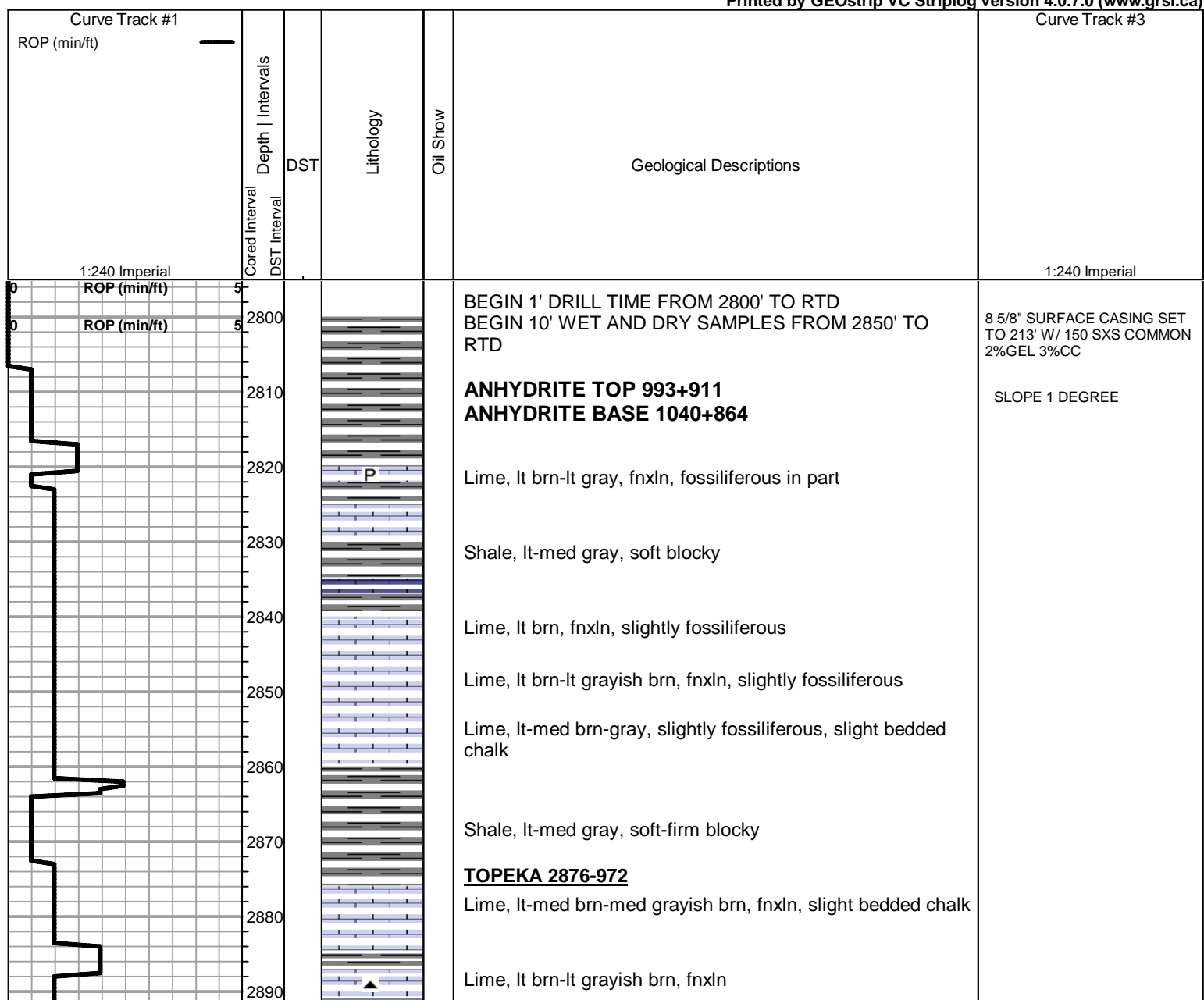
- 11-29-13** RU, Spud 2:30PM, set 8 5/8" surface casing to 213' w/ 150 sxs
Common 2%Gel 3%CC, WOC 8 hrs, slope @ 214' 1 degree
- 11-30-13** 320', drill plug at 4:30 AM
- 12-01-13** 1828', drilling
- 12-02-13** 2712', drilling, displaced 2687' to 2708'
- 12-03-13** 3402', drilling, RTD 3537' @9:54AM, short trip, CCH, TOWB, logs,
TIWB, slope @3537' 1 ¼ degree
- 12-04-13** 3537', finish LDDP, run production casing and cement, RD

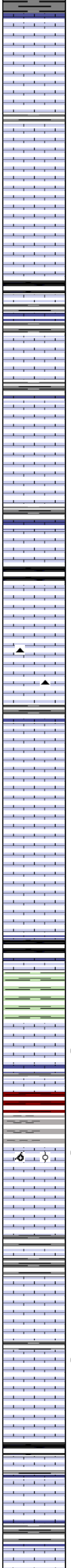
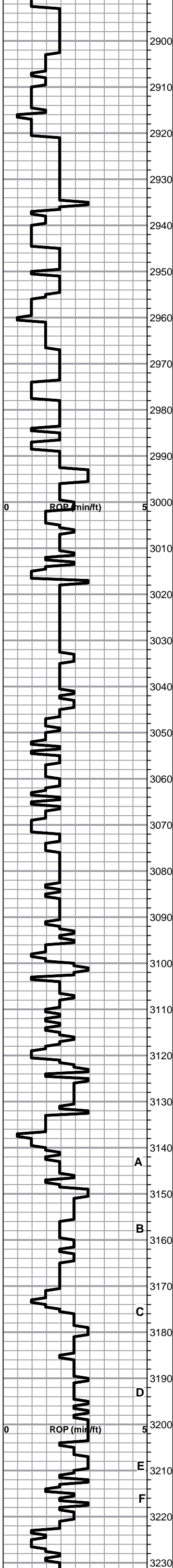
| |
|--|
| |
| |
| |
| |

| ROCK TYPES | | | | | |
|------------|----------|--|-----------|--|------------|
| | Clystgy | | Lmst fw<7 | | shale, grn |
| | Chtcongl | | Lmst fw7> | | shale, gry |
| | Dolprim | | Lscongl | | Carbon Sh |
| | | | | | shale, red |

| ACCESSORIES | |
|----------------|---------------|
| MINERAL | FOSSIL |
| ▲ Chert, dark | ⊙ Oolite |
| P Pyrite | ⊕ Oomoldic |
| △ Chert White | |

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





Lime, med brn-med grayish brn, fnxln, slight bedded chalk

Lime, tan-lt brn-lt grayish brn, fnxln-granular in part, lt chalk matrix in part

Lime, tan-lt grayish brn, granular-fnxln, fusulinids

Lime, lt-med brn-grayish brn, fnxln, hard on crush

Lime, lt-med brn, granular, chalky matrix

Lime, tan-lt brn, fnxln-granular, spotty gray mottling

Shale, black carbonaceous

Shale, med gray, firm blocky

Lime, tan-lt brn, fnxln-granular in part with scattered microxl chips in part

Lime, tan-lt brn, fnxln-granular in part, lt chalky matrix with bedded chalk

Lime, crm, fn-micro xln, lithographic, slight bedded chalk

Lime, tan-lt gray, fnxln

Lime, lt brn-lt grayish brn, fnxln

Shale, med gray-black carbonaceous

Lime, lt-med brn, fnxln-granular in part, slight bedded chalk

Lime, lt brn-lt grayish brn, fnxln
Chert, tan, fossiliferous-fusulinids

Lime, lt brn, granular, increasing bedded chalk content

Lime, lt brn, fnxln, soft on crush, bedded chalk with chalk matrix in part, slightly fossiliferous

Lime, lt brn, fnxln, decreasing chalk content, slightly fossiliferous

Lime, lt brn, fnxln

HEEBNER SHALE 3094-1190
Shale, black carbonaceous, fissile, firm blocky
Lime, lt brn, vfxln

Shale, lt gray-lime green, soft blocky-soft sticky mud clumps

TORONTO 3113-1209

Lime, white-crm, fnxln with firm bedded chalk, trace of spotty staining with very lite odor, NFO noted

Lime, lt-med brn, fnxln, bedded chalk

Shale, reddish brn, soft blocky

LKC 3140-1236

Lime, crm-lt brn, oolitic/oomoldic thin zone with lt scattered staining, lt odor, NFO

Lime, tan-lt brn, fnxln, increasing gray fnxln lime near shale boundary

Lime, tan-lt brn, fnxln
Shale, lt gray, soft blocky

Lime, tan, fnxln-granular, no shows or staining noted in samples

Lime, crm, mostly fnxln, thin bed of oolitic/oomoldic with interparticle porosity with lt spotty staining

Lime, crm-tan, fnxln, slight bedded chalk

Shale, gray-black carbonaceous
Lime, pale gray, fnxln

Lime, tan-lt brn, fnxln, cemented oolitic beds grading into fnxln chalky lime, NS

Lime, crm-lt brn, fnxln grading into granular

A

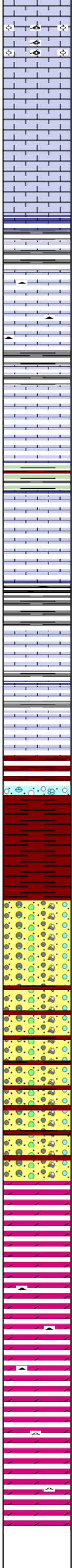
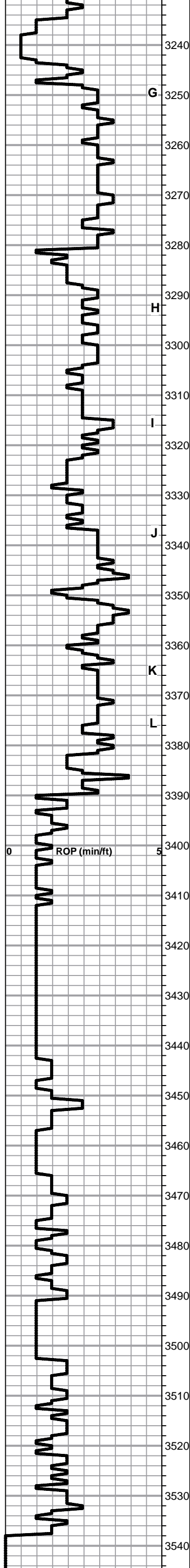
B

C

D

E

F



Lime, crm-lt brn, white chalk wash, few oolmoldic chips with spotty staining, no odor, NFO
 Lime, crm-offwhite, fn-micro xln, slight bedded chalk
 Lime, crm, fn-micro xln, slight bedded chalk
 Lime, crm-offwhite, crm-offwhite, fn-micro xln, slight bedded chalk
 Shale, lt gray, forming soft mud and clumps
 Lime, crm-offwhite, fn-micro xln, slight bedded chalk
 Chert, fossiliferous
 Lime, lt brn-offwhite, fnxln,
 Lime, lt gray, fnxln, slight bedded chalk
 Lime, crm-tan, fn-vfxln, thin zone with fine granular lime with inter xln porosity, spotty staining, NFO, No Odor
 Lime, offwhite-tan, fn-micro xln, slight bedded chalk
 Shale, tan, lime green, soft mud
 Lime, offwhite-crm, fn-micro xln, slight bedded chalk, NS
 Shale, med gray-black, soft blocky
 Lime, crm-tan, fn-micro xln, slight bedded chalk, NS
 Lime, crm-tan, fn-micro xln, increasing bedded chalk
 Lime, tan, fnxln, bedded chalk
BKC 3382-1478
 Shale, reddish brn-maroon, soft blocky
 Shale, red, soft with lt red wash
 Shale, red, soft blocky with red wash
 Shale, red, soft with vari color cherts, NS
 Shale, red and vari colored cherts
 Shale, red and vari colored cherts
 Shale, red and vari colored cherts
 Shale, red and vari colored cherts
 Shale, red and vari colored cherts
ARBUCKLE 3467-1563
 Dolomite, crm--tan, fnxln-granular in part, NS
 Dolomite, ivory-crm, fnxln-granular
 Dolomite, ivory, fnxln-granular
 Chert, med salmon, fresh, sharp
 Dolomite, ivory, granular
 Dolomite, ivory, fn-cxln
 Chert, bone white, fresh sharp
 Dolomite, Ivory-crm, granular, fn-cxln
RTD 3537-1633 LTD 3538-1634

LOG INTERVAL 3336-45
 SHOULD BE PERFORATED
 AND TESTED TO RULE OUT
 A FRACTURED ZONE. SP
 AND MICRO LOOK GOOD

SLOPE 1 1/4 DEGREES

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 7612

| | | | | | | | | | | | | | | | |
|------|----------|------|----|------|----|-------|----|--------|-------|-------|----|-------------|--------|--------|--------|
| Date | 11-29-13 | Sec. | 21 | Twp. | 14 | Range | 16 | County | Ellis | State | KS | On Location | 6:30pm | Finish | 8:30pm |
|------|----------|------|----|------|----|-------|----|--------|-------|-------|----|-------------|--------|--------|--------|

Lease Dreelings - D Well No. 9 Location W. 1/2 Sec 5 to mt pleasant

Contractor Stouthwind 1 Owner 1/2 W Sec 5 to
To Quality Oilwell Cementing, Inc.

Type Job Surface You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 12 1/4 T.D. 225 Charc To TDI

Csg. 8 5/8 Depth Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 20 FT Shoe Joint 20 FT Cement Amount Ordered 150 3%cc 2%gd

Meas Line Displace 13 BBL

EQUIPMENT

| | | | | | | |
|---------|-----------|-----|----------|-------------|----------|------------|
| Pumptrk | 15 | No. | Cementer | <u>Matt</u> | Common | <u>150</u> |
| | | | Helper | | Poz. Mix | |
| Bulktrk | 9 | No. | Driver | <u>Nate</u> | Gel. | <u>3</u> |
| | | | Driver | | Calcium | <u>5</u> |
| Bulktrk | <u>pu</u> | No. | Driver | <u>Dave</u> | | |
| | | | Driver | | | |

JOB SERVICES & REMARKS

Remarks: _____
 Rat Hole _____
 Mouse Hole _____
 Centralizers _____
 Baskets _____
 D/V or Port Collar _____
Cement did
Circulate

FLOAT EQUIPMENT

Guide Shoe _____
 Centralizer _____
 Baskets _____
 AFU Inserts _____
 Float Shoe _____
 Latch Down _____

Pumptrk Charge Surface
 Mileage 16

Tax _____
 Discount _____
 Total Charge _____

X Signature [Handwritten Signature]

JOB LOG

SWIFT Services, Inc.

DATE 12-7-13 PAGE NO.

CUSTOMER TOI WELL NO. 9 LEASE Dredging JOB TYPE 5 1/2 Two Stage TICKET NO. 25248

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) (GAL) | PUMPS | | PRESSURE (PSI) | | DESCRIPTION OF OPERATION AND MATERIALS |
|-----------|------|------------|--------------------|-------|---|----------------|------------|--|
| | | | | T | C | TUBING | CASING | |
| | 0330 | | | | | | | on location |
| | | | | | | | | TD 3537 SS 42 |
| | | | | | | | | TP 3530 Insect 3488 |
| | | | | | | | | DV TO: 59 987 |
| | | | | | | | | Centrifuges 1, 3, 5, 8, 10, 12, 13, 19, 21, 58 |
| | | | | | | | | Baskets 2, 14, 59, 72 |
| | 0415 | | | | | | | Start Pig |
| | 0610 | | | | | | | Drop Ball Break Circulation Refract |
| | 0730 | 5 | 12 | | | | 300 | Start Mud Flush |
| | | 5 | 20 | | | | 300 | Start KCL |
| | | 5 | 55 | | | | 200 | Start Cement 225 lbs @ A-2 |
| | 0730 | | | | | | | Drop Plug Wash out Pump Lines |
| | 0753 | 6.5 | | | | | | Start Displacement |
| | | 6.5 | 65 | | | | | Start KCL |
| | 0810 | 6.5 | 85 | | | | 850 / 1500 | Land Plug Release Dry |
| | 0815 | | | | | | | Drop open Plug |
| | 0820 | | 7/4 | | | | | Plug AH 30, AH 15 |
| | 0835 | | | | | | | open DV |
| | 0836 | | 61 | | | | | Start SMD 100 sks @ 11.2 20 sks @ 13.5 |
| | | | 6 | | | | | |
| | 0900 | | | | | | | Drop Plug Wash out Pump Lines |
| | | | 10 | | | | | Circulate cement 30 sks @ Pit |
| | | | | | | | | Close DV |
| | 0910 | | 24 | | | | 300 / 1500 | Land Plug Release Dry |
| | | | | | | | | Wash up back of |
| | 1000 | | | | | | | Job complete Thank You Josh, Brian, Jason |