

Confidentiality Requested:

Yes No

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

Form ACO-1

November 2016

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 Recompletion Date _____ 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 |
|--|---|

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

| 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: | |
|----------------|-------|---------|------------|--|

| | |
|-----------|----------------------------|
| Form | ACO1 - Well Completion |
| Operator | Mustang Energy Corporation |
| Well Name | Dechant Brothers 2 |
| Doc ID | 1276719 |

All Electric Logs Run

| |
|-----------------------------|
| |
| Micro |
| Dual Induction |
| Compensated/Neutron Density |
| Sonic |



Casedhole Solutions

MICRO LOG

| | | | |
|-------------------------------|-----------------------------|-------------------------------|-----------------------------|
| Company | MUSTANG ENERGY CORPORATION | AP# : | 15-135-25691-00-00 |
| Well | DECHANT BROTHERS #2 | Location: | 1870' SSL & 530' FML |
| Field | SCHWEIN NORTHEAST | County | NESS |
| County | NESS | State | KANSAS |
| Location: | SEC 2 TWP 20S RGE 22W | Permanant Datum | GROUND LEVEL Elevation 2254 |
| Well | SCHWEIN NORTHEAST | Log Measured From | KELLY BUSHING 8' A.G.L |
| County | NESS | Drilling Measured From | KELLY BUSHING |
| State | KANSAS | Date | 10-5-15 |
| AP# : | 15-135-25691-00-00 | Run Number | ONE |
| Location: | 1870' SSL & 530' FML | Depth Logger | 4500' |
| County | NESS | Depth Logged Interval | 4500' |
| State | KANSAS | Tool Joint Interval | 3000' |
| Permanant Datum | GROUND LEVEL Elevation 2254 | Casing Logger | 8.56 @ 221' |
| Log Measured From | KELLY BUSHING 8' A.G.L | BI Size | 7.75 |
| Drilling Measured From | KELLY BUSHING | Type Fluid in Hole | CHEMICAL MUD |
| Date | 10-5-15 | Density / Viscosity | 9.2/51 |
| Run Number | ONE | pH / Fluid Loss | 10.5/6.4 |
| Depth Logger | 4500' | Source of Sample | FLOWLINE |
| Depth Logged Interval | 4500' | Run @ Mass Temp | 0.95 @ 55F |
| Tool Joint Interval | 3000' | Run @ Mass Temp | 1.14 @ 55F |
| Casing Logger | 8.56 @ 221' | Source of Rm / Rmc | MEASUREMENT |
| BI Size | 7.75 | Run @ BHT | 0.67 @ 120F |
| Type Fluid in Hole | CHEMICAL MUD | Time Circulation Stopped | 2 HOURS |
| Density / Viscosity | 9.2/51 | Time Logged on Bottom | 120F |
| pH / Fluid Loss | 10.5/6.4 | Maximum Recorderd Temperature | 302F |
| Source of Sample | FLOWLINE | Equipment Number | 3802 |
| Run @ Mass Temp | 0.95 @ 55F | Location | HAYS, KANSAS |
| Run @ Mass Temp | 1.14 @ 55F | Recorded By | IAN MAMBA |
| Source of Rm / Rmc | MEASUREMENT | Witnessed By | JEFF LAWLER |
| Run @ BHT | 0.67 @ 120F | | |
| Time Circulation Stopped | 2 HOURS | | |
| Time Logged on Bottom | 120F | | |
| Maximum Recorderd Temperature | 302F | | |
| Equipment Number | 3802 | | |
| Location | HAYS, KANSAS | | |
| Recorded By | IAN MAMBA | | |
| Witnessed By | JEFF LAWLER | | |

<<< Fold Here >>>

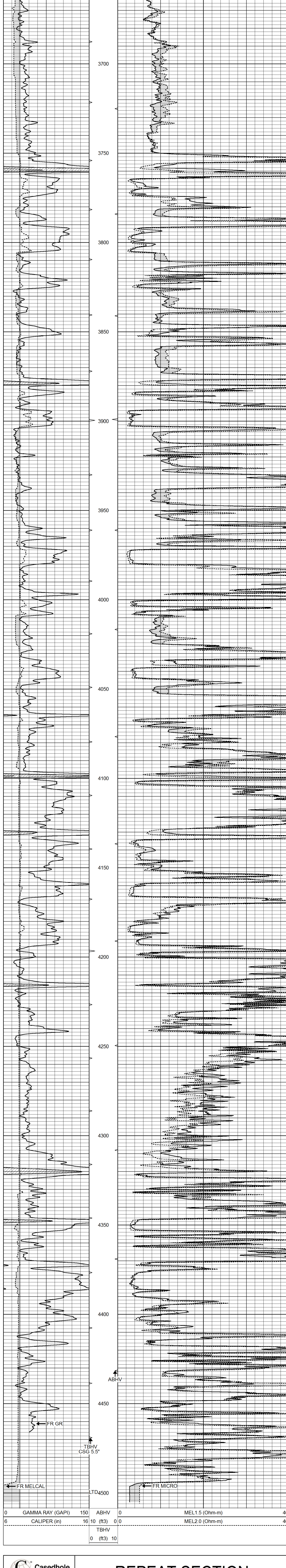
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR USING C & J CASED HOLE SOLUTIONS, HAYS, KS. (785) 628-6395
DIRECTIONS : BAZINE, KS. - 2 MILES WEST TO RD BB - SOUTH 7 1/2 MILES - EAST INTO

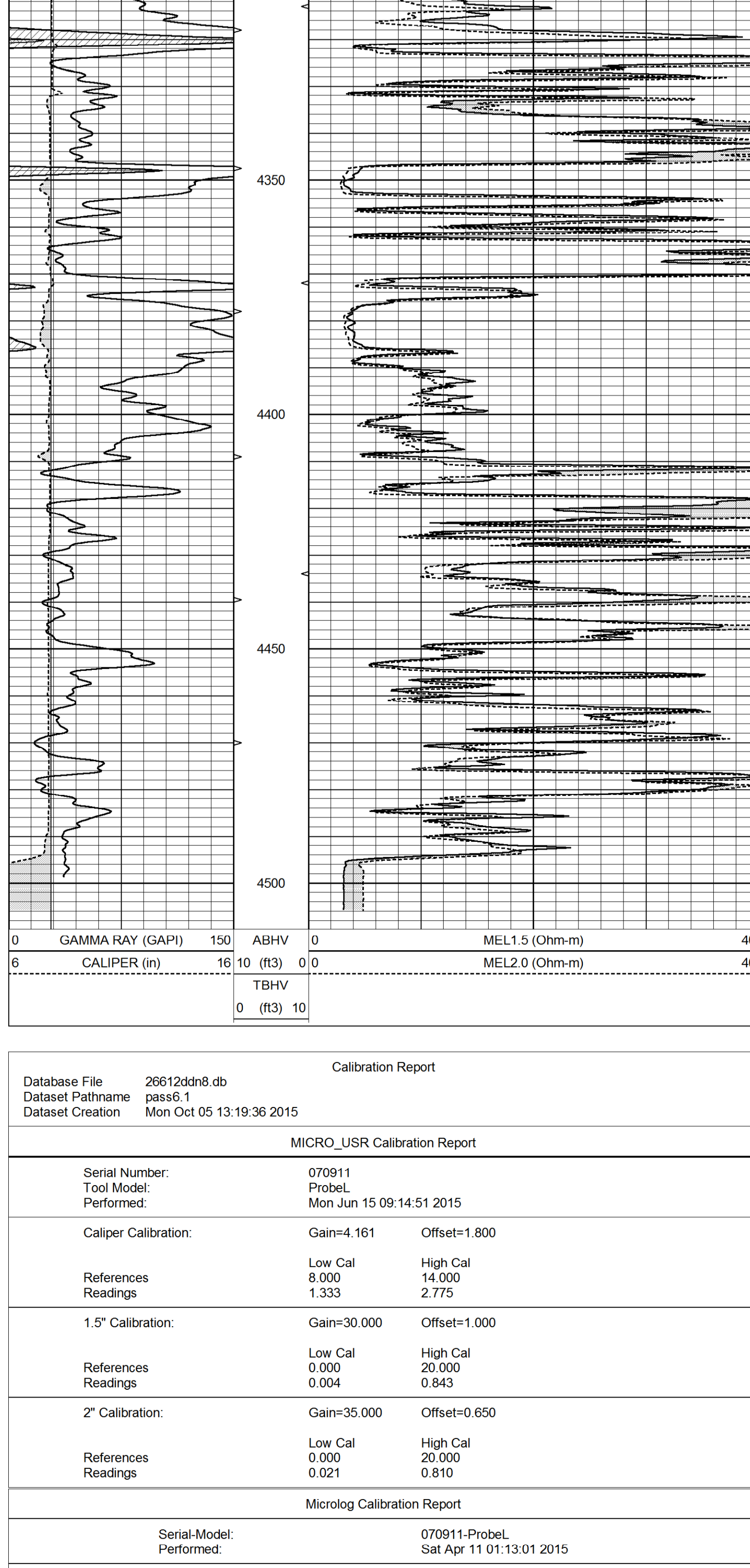
MAIN SECTION

| | |
|---------------------|----------------------------|
| Database File | 26612ddn8.db |
| Dataset Pathname | pass6.2 |
| Presentation Format | micro |
| Dataset Creation | Mon Oct 05 13:32:10 2015 |
| Charted by | Depth in Feet scaled 1:240 |



REPEAT SECTION

| | |
|---------------------|----------------------------|
| Database File | 26612ddn8.db |
| Dataset Pathname | pass5.1 |
| Presentation Format | _micro |
| Dataset Creation | Mon Oct 05 13:00:42 2015 |
| Charted by | Depth in Feet scaled 1:240 |



Calibration Report

| | |
|------------------|--------------------------|
| Database File | 26612ddn8.db |
| Dataset Pathname | pass6.1 |
| Dataset Creation | Mon Oct 05 13:19:36 2015 |

MICRO_USR Calibration Report

| | |
|----------------|--------------------------|
| Serial Number: | 070911 |
| Tool Model: | ProbeL |
| Performed: | Mon Jun 15 09:14:51 2015 |

| | | |
|----------------------|---------------|-----------------|
| Caliper Calibration: | Gain=4.161 | Offset=1.800 |
| References | Low Cal 8.000 | High Cal 14.000 |
| Readings | 1.333 | 2.775 |

| | | |
|------------|---------------|-----------------|
| 1.5\" | Gain=30.000 | Offset=1.000 |
| References | Low Cal 0.000 | High Cal 20.000 |
| Readings | 0.004 | 0.843 |

| | | |
|------------|---------------|-----------------|
| 2\" | Gain=35.000 | Offset=0.650 |
| References | Low Cal 0.000 | High Cal 20.000 |
| Readings | 0.021 | 0.810 |

Microlog Calibration Report

| | |
|---------------|--------------------------|
| Serial-Model: | 070911-ProbeL |
| Performed: | Sat Apr 11 01:13:01 2015 |

| | Readings | | | References | | Results | |
|---------|----------|--------|---|------------|---------|---------|-----------------|
| | Zero | Cal | | Zero | Cal | m | b |
| Normal | 0.0002 | 0.4836 | V | 0.0000 | 10.0000 | Ohm-m | 20.6908 -0.0051 |
| Inverse | 0.0018 | 0.6297 | V | 0.0000 | 10.0000 | Ohm-m | 15.9263 -0.0282 |
| Caliper | 0.0000 | 1.0000 | V | 0.0000 | 1.0000 | in | 1.0000 0.0000 |

Gamma Ray Calibration Report

| | |
|----------------|--------------------------|
| Serial Number: | 7 |
| Tool Model: | Probe1 |
| Performed: | Thu Jan 01 09:43:47 2015 |

| | | |
|---------------------|-----|------|
| Calibrator Value: | 1.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 1.0 | cps |

| | | |
|--------------|--------|----------|
| Sensitivity: | 0.5000 | GAPI/cps |
|--------------|--------|----------|

GLOBAL CEMENTING, L.L.C.

REMIT TO 18048 170RD
RUSSELL, KS 67665

SERVICE POINT
RUSSELL, KS

| | | | | | | | |
|--|------------------|----------------|-----------------|------------|--------------------|--------------------------|---------------------------|
| DATE <u>9-29-15</u> | SEC. <u>2</u> | TWP. <u>20</u> | RANGE <u>22</u> | CALLED OUT | ON LOCATION | JOB START <u>8:30 PM</u> | JOB FINISH <u>9:30 PM</u> |
| LEASE <u>Discovery</u> | WELL #. <u>2</u> | LOCATION | | | COUNTY <u>Ness</u> | STATE <u>KS</u> | |
| OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE) | | | | | | | |

CONTRACTOR Discovery Drilling Rig 3

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D.

CASING SIZE 8 5/8 DEPTH 2208

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 x 11 DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 20'

PERFS

DISPLACEMENT 12.75 BBL

EQUIPMENT

PUMP TRUCK CEMENTER Brian

P1 HELPER Brian

BULK TRUCK DRIVER Jason

B1 DRIVER

BULK TRUCK DRIVER

DRIVER

REMARKS:

Run in 5 ft 8 5/8 casing - hook up +
circulate mud - hook up cement - mix
150SX - add 10' + displace w/ 12.75 BBL H2O -
shut in @ 200 PSI - cement did circulate

CHARGE TO: MUSTANG ENERGY

STREET _____

CITY _____ STATE _____ ZIP _____

Global Cementing, L.L.C.,
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 GAIEN GASCHNER

SIGNATURE Gaien Gaschner

OWNER _____

CEMENT AMOUNT ORDERED 150 SX COM

3 BBL 2 RUSSELL

COMMON @ _____

POZMIX @ _____

GEL @ _____

CHLORIDE @ _____

ASC @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

HANDLING @ _____

MILEAGE @ _____

TOTAL _____

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



MUSTANG

ENERGY CORPORATION

Scale 1:240 Imperial

Well Name: DECHANT BROTHERS #2
Surface Location: NE SW NW SW Sec. 2 - 20S - 22W
Bottom Location:
API: 15-135-259891-00-00
License Number: 33922
Spud Date: 9/29/2015 Time: 1:45 AM
Region: NESS COUNTY KANSAS
Drilling Completed: 10/5/2015 Time: 12:34 AM
Surface Coordinates: 1870' FSL & 530' FWL
Bottom Hole Coordinates:
Ground Elevation: 2254.00ft
K.B. Elevation: 2262.00ft
Logged Interval: 0.00ft To: 0.00ft
Total Depth: 4500.00ft
Formation: BASIL PENNSYLVANIAN SAND
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

OPERATOR

Company: MUSTANG ENERGY CORPORATION
Address: P.O. BOX 1121
HAYS, KS 67601

Contact Geologist: ROD BRIN
Contact Phone Nbr: (785) 623-0533
Well Name: DECHANT BROTHERS #2
Location: NE SW NW SW Sec. 2 - 20S - 22W
API: 15-135-259891-00-00
Pool: State: KANSAS Field: SCHWEIN NORTHEAST
Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.7301393
Latitude: 38.3396855
N/S Co-ord: 1870' FSL
E/W Co-ord: 530' FWL

LOGGED BY



Company: BIG CREEK CONSULTING, INC.
 Address: 1909 MAPLE
 ELLIS, KS 67637

Phone Nbr: (785) 259-3737
 Logged By: GEOLGIST

Name: JEFF LAWLER

CONTRACTOR

Contractor: DISCOVERY DRILLING
 Rig #: 3
 Rig Type: MUD ROTARY
 Spud Date: 9/29/2015
 TD Date: 10/5/2015
 Rig Release:

Time: 1:45 AM
 Time: 12:34 AM
 Time:

ELEVATIONS

K.B. Elevation: 2262.00ft
 K.B. to Ground: 8.00ft
 Ground Elevation: 2254.00ft

NOTES

WELL COMPARISON SHEET

| FORMATION | DECHANT BROTHERS #2 | | | | DECHANT BROTHERS #1 | | | | MUSTANG ENERGY CORP. | | | | MUSTANG ENERGY CORP. | | | | REACH PETR. GROUP | | | | LEBEN DRILLING, INC. & SUNRAY | | | |
|---------------------|---------------------|-------|-------------|-------|---------------------|-----------|-------------|-------|----------------------|-----------|-------------|-------|----------------------|-----------|-------------|-------|-------------------|-----------|-------------|-------|-------------------------------|-----------|-------------|--|
| | KB | | GL | | KB | | GL | | KB | | GL | | KB | | GL | | KB | | GL | | KB | | GL | |
| | 2262 | | 2254 | | 2257 | | 2257 | | 2265 | | 2265 | | 2285 | | 2285 | | 2274 | | 2274 | | 2274 | | 2274 | |
| | LOG TOPS | | SAMPLE TOPS | | LOGS | | LOGS | | LOGS | | LOGS | | LOGS | | LOGS | | LOGS | | LOGS | | LOGS | | LOGS | |
| DEPTH | DATUM | DEPTH | DATUM | DEPTH | DATUM | LOG CORR. | SMPL. CORR. | DEPTH | DATUM | LOG CORR. | SMPL. CORR. | DEPTH | DATUM | LOG CORR. | SMPL. CORR. | DEPTH | DATUM | LOG CORR. | SMPL. CORR. | DEPTH | DATUM | LOG CORR. | SMPL. CORR. | |
| ANHYDRITE TOP | | 1503 | 759 | 1517 | 740 | | + 19 | 1501 | 764 | | - 5 | 1516 | 769 | | - 10 | | | | | | | | | |
| BASE | | 1538 | 724 | 1551 | 706 | | + 18 | 1506 | 759 | | - 35 | | | | | | | | | | | | | |
| HEEBNER SHALE | | 3758 | -1496 | 3764 | -1507 | | + 11 | 3743 | -1478 | | - 18 | 3762 | -1477 | | - 19 | 3760 | -1486 | | - 10 | | | | | |
| TORONTO | | 3773 | -1511 | | | | | 3762 | -1497 | | - 14 | | | | | 3770 | -1496 | | - 15 | | | | | |
| LKC | | 3812 | -1550 | 3813 | -1556 | | + 6 | 3793 | -1528 | | - 22 | 3812 | -1527 | | - 23 | 3850 | -1576 | | + 26 | | | | | |
| MUNCIE CREEK | | 3970 | -1708 | | | | | 3948 | -1683 | | - 25 | | | | | | | | | | | | | |
| STARK SHALE | | 4074 | -1812 | | | | | 4051 | -1786 | | - 26 | | | | | | | | | | | | | |
| BKC | | 4131 | -1869 | 4131 | -1874 | | + 5 | 4111 | -1846 | | - 23 | 4159 | -1874 | | + 5 | | | | | | | | | |
| PAWNEE | | 4244 | -1982 | 4238 | -1981 | | - 1 | 4226 | -1961 | | - 21 | 4241 | -1956 | | - 26 | | | | | | | | | |
| FT. SCOTT | | 4313 | -2051 | 4318 | -2061 | | + 10 | 4303 | -2038 | | - 13 | 4321 | -2036 | | - 15 | 4313 | -2039 | | - 12 | | | | | |
| CHEROKEE SHALE | | 4336 | -2074 | 4343 | -2086 | | + 12 | 4326 | -2061 | | - 13 | 4344 | -2059 | | - 15 | 4337 | -2063 | | - 11 | | | | | |
| BASIL CHEROKEE SAND | | | | 4390 | -2133 | | | 4362 | -2097 | | | | | | | | | | | | | | | |
| MISSISSIPPIAN | | 4437 | -2175 | 4460 | -2203 | | + 28 | 4415 | -2150 | | - 25 | | | | | | | | | | | | | |
| MISSISSIPPIAN OSAGE | | | | | | | | | | | | 4420 | -2135 | | | 4432 | -2158 | | | | | | | |
| GILMORE CITY | | 4490 | -2228 | | | | | 4471 | -2206 | | - 22 | | | | | 4558 | -2284 | | + 56 | | | | | |
| VIOLA | | | | | | | | | | | | | | | | 4616 | -2342 | | | | | | | |
| SIMPSON | | | | | | | | | | | | | | | | 4774 | -2500 | | | | | | | |
| ARBuckle | | | | | | | | | | | | | | | | 4836 | -2562 | | | | | | | |
| TOTAL DEPTH | | 4500 | -2238 | 4511 | -2254 | | + 16 | 4503 | -2238 | | + 0 | | | | | 4842 | -2568 | | + 330 | | | | | |

ROCK TYPES

- Lmst fw7> shale, gry
- Carbon Sh shale, red
- Shcol

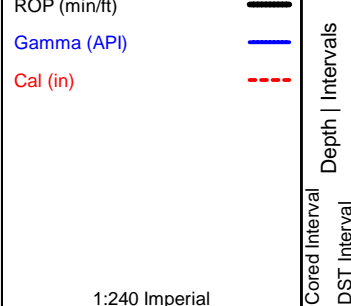
OTHER SYMBOLS

- MISC**

 - Daily Report
 - Digital Photo
 - Document
 - Folder
 - Link
 - Vertical Log File
 - Horizontal Log File
 - Core Log File
 - Drill Cuttings Rpt

DST

 - DST Int
 - DST alt



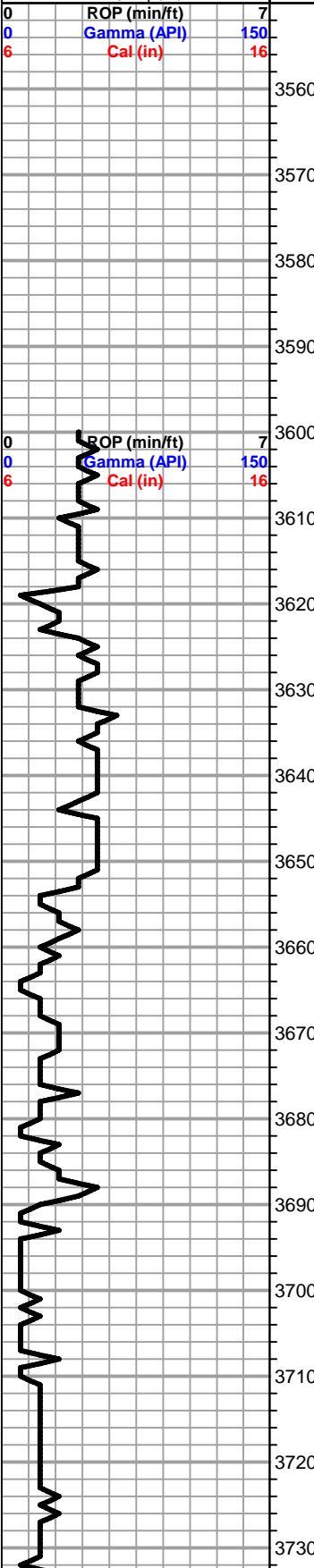
DST

Lithology

Oil Show

Geological Descriptions

1:240 Imperial



Lithology

1:240 Imperial

1' DRILL TIME THROUGH ANHYDRITE FROM 1480' - 1530'
1' DRILL TIME FROM 3600' - RTD
10' WET/DRY SAMPLES FROM 3650' - RTD

GEOLOGICAL SUPERVISION BY JEFF LAWLER FROM 3600' - RTD

8 5/8" SURFACE PIPE SET @ 221' SURVEY 3/4 dgr.

ANHYDRITE TOP 1503' (+759) E-LOG
ANHYDRITE BASE 1538' (+724) E-LOG

Lm- Tan Cream, VF-FXLN, fsl & oolitic, poorly dev. w/ dense XLN & micro XLN porosity, much loosely cemented mud supported matrix w/ no vis. porosity, barren

Sh- Black Maroon, fissile & carbonaceous, gritty & earthy

Lm- Cream Tan, VF-FXLN, dense, well cemented & poorly dev. oolitic Ls w/ dense micro XLN & XLN porosity, sctrd reXLN secondary porosity

Lm- Cream Buff, VFXLN, dense, well cemente & tight w/ min. vis. porosity

Lm- Cream Off White, FXLN, fsl & oolitic, mod. well dev. massive w/ dense XLN porosity, sctrd reXLN veins & secondary porosity, barren, much soft white chalk

Lm- A/A w/ black & gray fsl sl unconsolidated chert/cherty Ls w/o vis. porosity

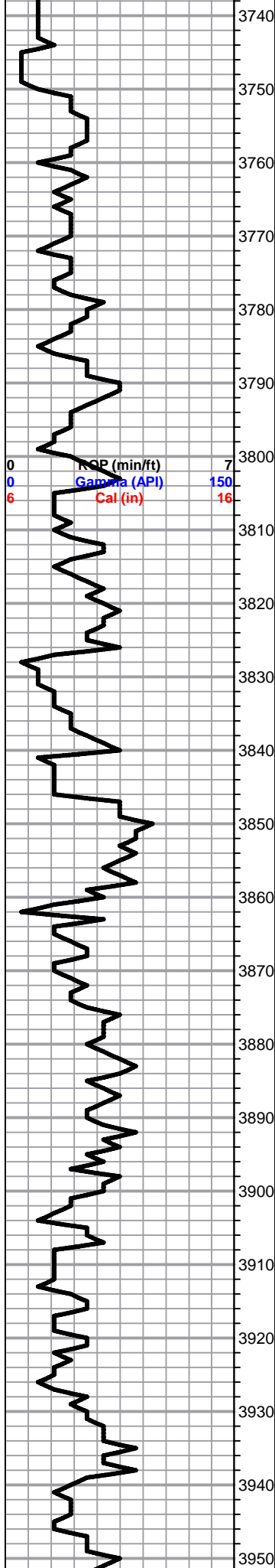
Lm- Cream Tan, FXLN, fsl w/ sctrd XLN porosity & few dense well cemented VFXLN w/ min. vis. porosity

Lm- Cream Off White, FXLN, fsl w/ sctrd XLN porosity, heavily mottled

Lm- Cream Buff, Vf Grn, dense, mud supported matrix & soft white chalk, sl unsonsolidated, poor vis. porosity, barren

Lm- Cream Tan, Vf Grn VFXLN, dense tight mix of chalky mud supported matrix, loosely cemented & crumbly and poorly dev. sl fsl w/ sctrd XLN porosity, some soft white chalk

1:240 Imperial



Lm- Cream Off White, FXLN, fsl & few oomoldic pcs, mod. dev. w/ partial to full skeletal dissolution, poor intervugular connectivity, sctrd XLN porosity, barren

HEEBNER 3758' (-1496) E-LOG Sh- Black Gray Maroon, fissile & carbonaceous, silty & semi-calcareous, girty & earthy

TORONTO 3773' (-1511) E-LOG Lm- Gray Buff, VF-FXLN, dense, well cemented sl dolomitic Ls w/ sctrd micro to poor vis. porosity, some loosely cemented & chalky in part

Lm- Cream Off White, VF-FXLN, sl fsl, mostly tight & poorly dev. w/ micro XLN & XLN porosity, barren

LKC 3812' (-1550) E-LOG Lm- Cream Off White, FXLN, fsl, poorly dev., some loosely cemented & crumbly, poor vis. to sctrd XLN porosity, some soft white chalk

Lm- Cream, VFXLN, dense, well cemented tight w/ micro XLN porosity, vry clean & barren

Sh- Gray Mint Green, dense & waxy, soft & waxy

Lm- Tan Cream Off White, VF-FXLN, mix of tight, well cemented sl fsl w/ min. vis. porosity & mod. dev. semi-cherty Ls w/ sctrd ppt porosity, all vry clean & barren

Lm Cream Off White, FXLN, massive, fsl & oolitic w/ dense clear replacement cementation, dense XLN porosity, few pcs of fsl chert & much soft white chalk

Lm- Cream Off White, FXLN, oolitic, sctrd dev. w/ XLN & rare ppt inter oolite porosity, barren, much sctrd reXLN

Sh- Maroon Gray Lm Green, gritty & earthy, dense & waxy, silty & soft

Lm- Cream Off White, FXLN, massive, oolitic/oomoldic, poor vugular dev. dense XLN porosity & clear replacement cementation, barren

Lm- Cream, VF-FXLN, dense, well cemented, fsl & poorly dev. w/ sctrd XLN porosity & med XLN reXLN secondary porosity, barren

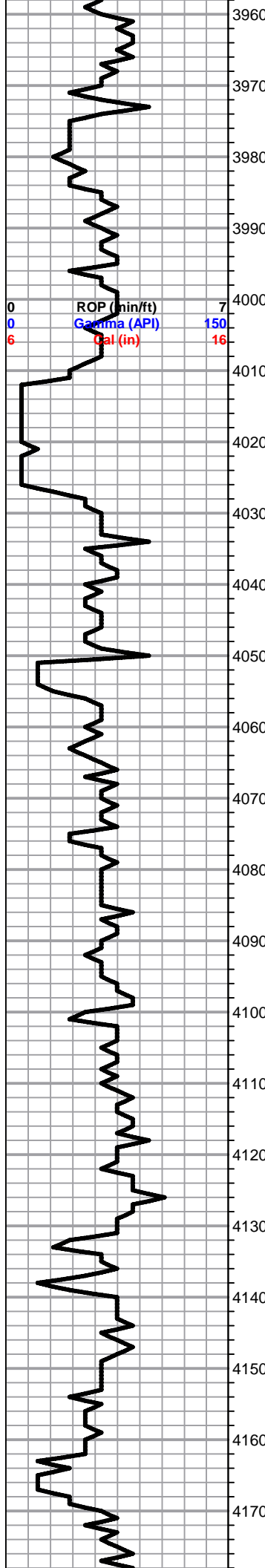
Lm- Cream Tan, FXLN, fsl & oolitic w/ sctrd clear replacement cementation, XLN porosity, barren, some loosely cemented & chalky in part

Lm- Cream Off White, VF-FXLN, mix of massive oolitic Ls w/ mostly clear replacement cementation & fsl near porcelain like cherty Ls w/o vis. porosity, barren

Lm- Cream Off White, VFXLN, dense, well cemented, poorly dev. & mostly tight w/ sctrd reXLN, XLN porosity,

Lm- A/A w/ much soft white chalk

Lm- Cream Buff, FXLN, fsl & sl oolitic, poorly dev. w/ sctrd XLN porosity, vry clean &



barren

Sh- Black Brown, fissile & carbonaceous, gritty & earthy

Sh- Maroon Gray Lm Green, gritty & earthy, silty & fsl, dense & waxy

Lm- Gray Buff, FXLN, dense, well cemented, poorly cemented & mostly tight w/ sctrd XLN porosity

Chert- Golden Brown, fsl fresh bedded vitreous chert w/o vis. porosity

Lm- Cream Off White, VFXLN Vf Grn, dense tight mix of gritty dolomitic Ls w/ micro XLN porosity & soft white chalk

Lm- Cream, FXLN, mod. dev. oolitic/oomoldic w/ sctrd vugular porosity, sctrd partial to full skeletal dissolution, no inter vugular connectivity, barren

Lm- Tan Cream, VF-FXLN, dense, well cemented, poorly dev. sl oolitic Ls w/ micro XLN porosity, tight

Sh- Gray Maroon, dense & waxy, gritty & earthy

Lm- Cream Off White, FXLN, oolitic/oomoldic, sctrd partial skeletal dissolution & partial vugular porosity, several pcs of golden brown & white fresh bedded chert w/o vis. porosity

Lm- Tan Cream, VFXLN, dense, well cemented, tight w/ min. vis. porosity

STARK SHALE 4074' (-1512) E-LOG Sh- Black Gray Maroon, fissile & carbonaceous, silty & gritty, gritty & earthy

Lm- Gray Buff, VFXLN, dense, mostly tight & well cemented, some sl fsl & trashy, all w/ poor vis. porosity, barren

Lm- A/A w/ some sl chalky in part, poor vis. porosity

Sh- Black Gray Maroon, fissile & carbonaceous, dense & waxy

Lm- Cream Off White, VF-FXLN, dense, sl fsl, poorly dev. w/ sctrd XLN porosity, some chalky in part and some soft white chalk

Lm- A/A

BKC 4131' (-1869) E-LOG Sh- Black Maroon Gray Brown, dense & carbonaceous, gritty & earthy, semi-waxy & pebbly, gritty & earthy

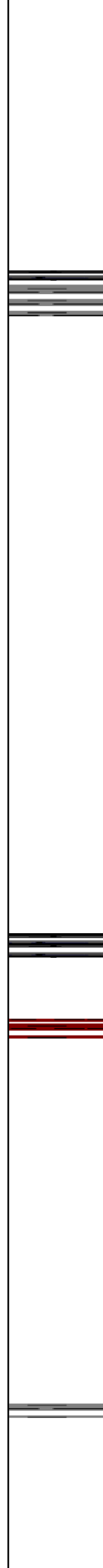
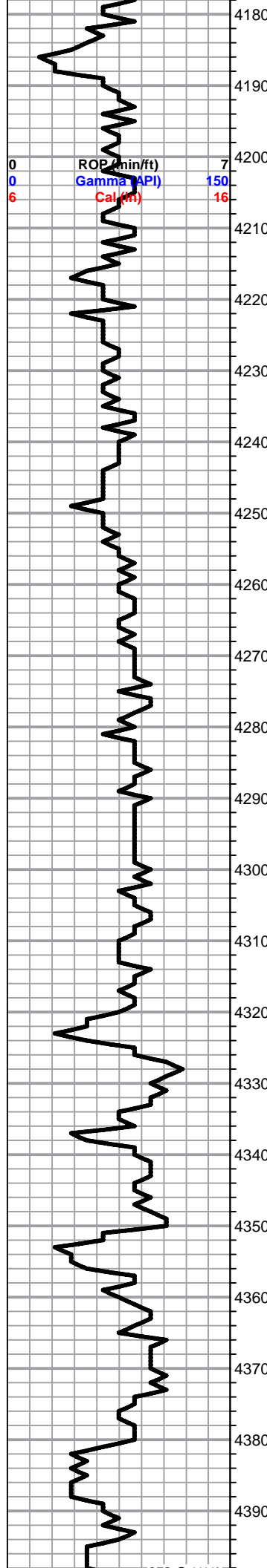
Lm- Tan Cream, FXLN, fsl, poorly dev., loosely cemented & crumbly w/ dense XLN porosity, some sl chalky in part

Sh- Maroon Gray, gritty & earthy, blocky & waxy

Lm- Off White, Vf Grn, dense, soft chalky & crumbly

Sh- Lt Gray, crumbly, sl pebbly, calcareous

Lm- Cream Buff. VFXLN. dense. well cemented & tight w/ min. vis. porosity



Sh- Gray Lm Green, dense & waxy, soft slivers

Sh- Gray Lm Green Maroon, silty & calcareous, arenaceous, pebbly & waxy, gritty & earthy

Lm- Cream Tan, VF-FXLN, mostly tight, sctrd to dense XLN porosity, some soft & chalky

Lm- A/A

Sh- Black Gray, waxy & carbonaceous, crumbly & arenaceous

Lm- Buff Cream, VFXLN, dense, well cemented & tight w/ min. vis. porosity, vry clean

PAWNEE 4244' (-1982) E-LOG Lm- Off White, Vf Grn, dense, loosely cemented mud supported matrix, vry clean & poor vis. porosity

Lm- Buff Cream, VFXLN, A/A w/ dense tight well cemented w/ min. vis. porosity

Lm- Buff, VFXLN, dense, well cemented, tight w/ min. vis. porosity

Lm- A/A

Lm- A/A w/ some soft loosely cemented buff/gray siltstone w/o vis. porosity

Lm- A/A

Sh- Black, fissile & carbonaceous

FT SCOTT 4313' (-2051) E-LOG Lm- Buff Cream, VFXLN, dense, well cemented & tight w/ poor vis. porosity, some soft white chalk

Lm- A/A, barren & tight

CHEROKEE SHALE 4336' (-2074) E-LOG Sh- Black Gray Maroon, fissile & carbonaceous, gummy argillaceous clumps, gritty & earthy

Chert/Lm- Semi-Translucent Golden Brown, sl fsl fresh bedded vitreous chert w/o vis. porosity, few pcs of unconsolidated arenaceous Ls spkld w/ glauconite, loosely cemented & crumbly, barren

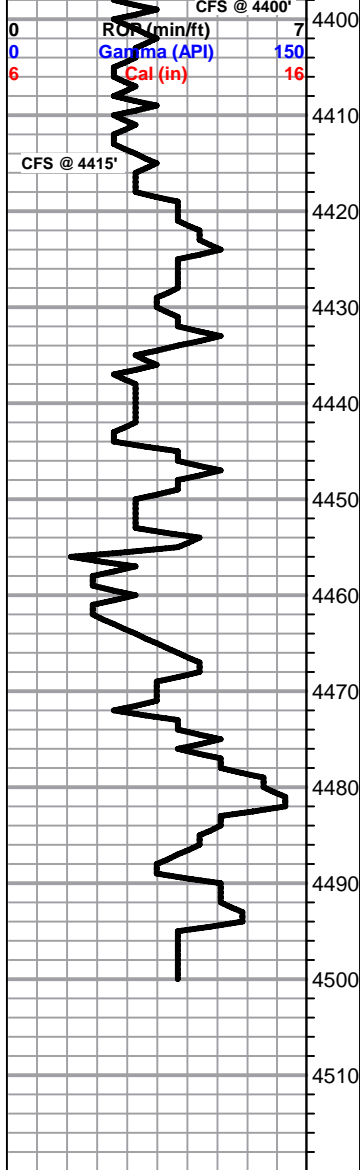
Sh- Gray, silty & soft, few calcareous pcs.

Lm- Tan Buff, VFXLN, dense, well cemented, tight w/ min. vis. porosity

Lm/Dol- mix of FXLN, sl fsl, poorly dev. w/ dense XLN porosity & spkld w/ pyrite, several pcs of VFXLN dolomitic Ls, well cemented w/ XLN porosity, barren, sl influx of white fresh bedded chert

Sh- Gray Maroon Black, argillaceous clumps & fsl carboaceous trashy shale

4400' CFS 20" - Cherty Congl- mustard yllw mix of fresh bedded & detritial white & yllw chert, arenaceous shale & (1 PCS) arenaceous Ls, mod. well cemented, dense XLN & sctrd fn ppt porosity, DRK STN, NSFO, NO ODR, BRT FLOR & IMMEDIATE STRM WET CUT



4400' 40" - Chert- Mustard Yellow/White, massive detrital chert, gritty no vis. porosity, few pcs w/ sl trace of Ca/Mg cementation, barren

60" - Chert- A/A

4415' 20" - Lm- Cream Off White, VF-FXLN, sl fsl, poorly dev. & loosely cemented, dense XLN porosity, some crumbly & chalky in part, barren

4415' 40" - Sh- Maroon Gray, argillaceous clumps, gritty & earthy, unconsolidated, pebbly and striated

Lm Conglomerate- Buff w/ Red Shale, unconsolidated loosely cemented & crumbly w/ shale veins

Lm- Cream Off White Yellow, unconsolidated w/ some detrital chert incursions, some loosely cemented & crumbly, dense XLN porosity, some chalky arenaceous Ls w/ consistent intergranular porosity, all barren, unconsolidated & pebbly shale

MISSISSIPPIAN 4437' (-2175) E-LOG Dolomite/Chert- Buff VFXLN, dense, well cemented dolomite w/ consistent XLN porosity, some sl chalky in part, vitreous fresh bedded off white chert w/o vis. porosity

Chert- White Salmon & Translucent, vitreous fresh bedded fsl chert w/o vis. porosity, several pcs of VFXLN dolomitic chert/cherty dolomite w/ micro XLN porosity, barren

Chert- Translucent White Salmon Mustard Yellow, vitreous fresh bedded, some fsl, no vis. porosity

Chert- A/A w/ white cream VFXLN dolomitic chert w/ poor vis. porosity, all vry clean and barren

GILMORE CITY 4490' (-2228) Chert- Bone White, massive tripolitic chert w/ no vis. porosity, clena & barren

RTD 4500' (-2238) LTD @ 12:34 10/4/2015

SHORT TRIP
CTCH
SURVEY
TOH FOR LOG