Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

1252227

Form ACO-1 August 2013 Form must be Typed Form must be Signed All blanks must be Filled

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

| OPERATOR: License # | API No. 15 |
|--|---|
| Name: | Spot Description: |
| Address 1: | SecTwpS. R 🗌 East 🗌 West |
| Address 2: | Feet from North / South Line of Section |
| City: State: Zip: + | Feet from _ East / _ West Line of Section |
| Contact Person: | Footages Calculated from Nearest Outside Section Corner: |
| Phone: () | □NE □NW □SE □SW |
| CONTRACTOR: License # | GPS Location: Lat:, Long: |
| Name: | (e.g. xx.xxxxx) (e.gxxx.xxxxx) |
| Wellsite Geologist: | Datum: NAD27 NAD83 WGS84 |
| Purchaser: | County: |
| Designate Type of Completion: | Lease Name: Well #: |
| New Well Re-Entry Workover | Field Name: |
| 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: | Producing Formation: Kelly Bushing: Total Vertical Depth: Plug Back Total Depth: Feet Multiple Stage Cementing Collar Used? Yes No If yes, show depth set: Feet If Alternate II completion, cement circulated from: sx cmt. |
| □ Deepening □ Re-perf. □ Conv. to ENHR □ Conv. to SWD □ Plug Back □ Conv. to GSW □ Conv. to Producer | Drilling Fluid Management Plan (Data must be collected from the Reserve Pit) |
| Commingled Permit #: | Chloride content: ppm Fluid volume: bbls Dewatering method used: |
| Dual Completion Permit #: | |
| SWD Permit #: ENHR Permit #: | Location of fluid disposal if hauled offsite: |
| GSW Permit #: | Operator Name: |
| | Lease Name: License #: |
| Spud Date or Date Reached TD Completion Date or Recompletion Date | QuarterSec. TwpS. 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: |

| wo | | |
|----|---------|--|
| | 1252227 | |

| Sec. Top, S. R. | Operator Name: | | | Lease Name: | | | _ Well #: | |
|--|---------------------------|---------------------------|-----------------------------|-------------------------|---------------------|-----------------------|-------------------|--------------------------|
| popen and closed, flowing and shul-in pressures, whether shuf-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recover and flow rate is given to under sets, along with final hardy. Attach extra sheet if more space is needed. Final Baddectivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs @kcc ks.gov. Digital electronic libes must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF). Dial Stem Treats Talvan (Attach Additions/ Sheets) Samples Sent to Geological Survey (Attach Additions/ Sheets) Additions/ Sheets Additions/ Sheets Additions/ Sheets (Attach Additions/ Sheets) Additions/ Sheets (Attach Additions/ Sheets) Additions/ Sheets (Attach Additions/ Sheets) Sheets Ferotal Sheets (Attach Additions/ | Sec Twp | S. R | East West | County: | | | | |
| CASING RECORD New Used Name Top Datum Sample | open and closed, flow | ing and shut-in press | sures, whether shut-in p | ressure reached sta | tic level, hydrosta | atic pressures, bot | | |
| ADDITIONAL CEMENTING / SOUEEZE RECORD Purpose of String ADDITIONAL CEMENTING / SOUEEZE RECORD Purpose ADDITIONAL CEMENTING / SOUEEZE RECORD Purpose ADDITIONAL CEMENTING / SOUEEZE RECORD Purpose Top Bottom ADDITIONAL CEMENTING / SOUEEZE RECORD Purpose Perforate Protect Casing Pup Bott To Pup Bottom Protect Casing Pup Bott To Pup Bottom Protect Casing Pup Bott To Pup Bott To Pup Bottom Protect Casing Pup Bott To Pup Bottom Protect Casing Pup Bott To Pup Bottom Protect Casing Pup Bott To Pup Bott To Pup Bottom Protect Casing Pup Bottom Protect Casing Pup Bottom Protect Casing Pup Bottom Pup Bottom Protect Casing Pup Bottom Pup Bo | | | | | | ailed to kcc-well-lo | gs@kcc.ks.go | v. Digital electronic lo |
| Samples Sent to Geological Survey Yes | | | Yes No | | | on (Top), Depth ar | | |
| CASING RECORD New Used Report all strings set-conductor, surface, intermediate, production, etc. Purpose of String Size Hole Set (in O.D.) Size Casing Weight Setting Type of Jr Sacks Type and Percent Additives ADDITIONAL CEMENTING / SQUEEZE RECORD Purpose: Perforate Product Casing Product Casing Production and String Product Casing Product Casin | Samples Sent to Geo | logical Survey | ☐ Yes ☐ No | Nar | ne | | Тор | Datum |
| CASING RECORD New | | | | | | | | |
| Purpose of String | List All E. Logs Run: | | | | | | | |
| Purpose of String Size Hote | | | | | | tion etc | | |
| ADDITIONAL CEMENTING / SQUEZE RECORD Purpose: | Purpose of String | | Size Casing | Weight | Setting | Type of | | |
| Purpose: Perforate Protect Casing Prug Back TD Prug Off Zone Did you perform a hydraulic fracturing treatment on this well? Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Shots Per Foot PERFORATION RECORD - Bridge Plugs SetType Specify Footage of Each Interval Perforated Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth Date of First, Resumed Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Lift Other (Explain) DISPOSITION OF GAS: METHOD OF COMPLETION: PRODUCTION INTERVAL: METHOD OF COMPLETION: PRODUCTION INTERVAL: | | Drilled | Set (In O.D.) | Lbs. / Ft. | Depth | Cement | Used | Additives |
| Purpose: Perforate Protect Casing Pilug Back TD Pilug Oif Zone Did you perform a hydraulic fracturing treatment on this well? Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Shots Per Foot PERFORATION RECORD - Bridge Plugs SetType Specify Footage of Each Interval Perforated Date of First, Resumed Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Lift Other (Explain) PESITIAN OF GAS: METHOD OF COMPLETION: PRODUCTION INTERVAL: PRODUCTION INTERVAL: | | | | | | | | |
| Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone Did you perform a hydraulic fracturing treatment on this well? Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Vas the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Shots Per Foot PERFORATION RECORD - Bridge Plugs SetTtype Specify Footage of Each Interval Perforated Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth TUBING RECORD: Size: Set At: Packer At: Liner Run: Producing Method: Flowing Pumping Gas Lift Other (Explain) Production Per 24 Hours PRODUCTION INTERVAL: | | | | | | | | |
| Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone Did you perform a hydraulic fracturing treatment on this well? Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Vas the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Shots Per Foot PERFORATION RECORD - Bridge Plugs SetTtype Specify Footage of Each Interval Perforated Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth TUBING RECORD: Size: Set At: Packer At: Liner Run: Producing Method: Flowing Pumping Gas Lift Other (Explain) Production Per 24 Hours PRODUCTION INTERVAL: | | | | | | | | |
| Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone Did you perform a hydraulic fracturing treatment on this well? Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Vas the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Shots Per Foot PERFORATION RECORD - Bridge Plugs SetTtype Specify Footage of Each Interval Perforated Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth TUBING RECORD: Size: Set At: Packer At: Liner Run: Producing Method: Flowing Pumping Gas Lift Other (Explain) Production Per 24 Hours PRODUCTION INTERVAL: | | | ADDITIONA | AL CEMENTING / SC | UEEZE RECORD |) | | I |
| Perforate Protect Casing Plug Back TD Plug Off Zone Did you perform a hydraulic fracturing treatment on this well? Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No | Purpose: | | | | | | Percent Additives | |
| Plug Back TD Plug Off Zone Plug Zone Plug Off Zone Plug Zone Plug Off Zo | | Top Bottom | 71 | | | | | |
| Did you perform a hydraulic fracturing treatment on this well? Oces the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes | Plug Back TD | | | | | | | |
| Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? | Plug Off Zone | | | | | | | |
| Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? | Did vou perform a hvdrau | ulic fracturing treatment | on this well? | | Yes | □ No (If No. sk | ip questions 2 ar | nd 3) |
| Shots Per Foot | | _ | | exceed 350,000 gallon | | | | , |
| Specify Footage of Each Interval Perforated (Amount and Kind of Material Used) Depth TUBING RECORD: Size: Set At: Packer At: Liner Run: TUBING RECORD: Size: Set At: Packer At: Liner Run: Producing Method: Flowing Pumping Gas Lift Other (Explain) Estimated Production Per 24 Hours DISPOSITION OF GAS: METHOD OF COMPLETION: PRODUCTION INTERVAL: | Vas the hydraulic fractur | ing treatment information | n submitted to the chemica | al disclosure registry? | Yes | No (If No, fill | out Page Three | of the ACO-1) |
| TUBING RECORD: Size: Set At: Packer At: Liner Run: Yes No Date of First, Resumed Production, SWD or ENHR. Producing Method: Gas Lift Other (Explain) Estimated Production Oil Bbls. Gas Mcf Water Bbls. Gas-Oil Ratio Gravity DISPOSITION OF GAS: METHOD OF COMPLETION: PRODUCTION INTERVAL: Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | Shots Per Foot | | | | | | | |
| Date of First, Resumed Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Lift Other (Explain) Estimated Production Per 24 Hours DISPOSITION OF GAS: WETHOD OF COMPLETION: Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | | <u> </u> | Footage of Each Interval Po | errorated | (2 | Amount and Kind of Ma | iteriai Used) | Depth |
| Date of First, Resumed Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Lift Other (Explain) Estimated Production Per 24 Hours DISPOSITION OF GAS: WETHOD OF COMPLETION: Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | | | | | | | | |
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| Date of First, Resumed Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Lift Other (Explain) Estimated Production Per 24 Hours DISPOSITION OF GAS: METHOD OF COMPLETION: Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | | | | | | | | |
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| Date of First, Resumed Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Lift Other (Explain) Estimated Production Per 24 Hours DISPOSITION OF GAS: METHOD OF COMPLETION: Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | | | | | | | | |
| Date of First, Resumed Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Lift Other (Explain) Estimated Production Per 24 Hours DISPOSITION OF GAS: WETHOD OF COMPLETION: Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | TURING RECORD | Size [.] | Set At: | Packer Δ+· | Liner Run | | | |
| Estimated Production Per 24 Hours Oil Bbls. Gas Mcf Water Bbls. Gas-Oil Ratio Gravity DISPOSITION OF GAS: Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | . SSING FILOURD. | 0.20. | ourn. | I donot At. | Line Hun. | Yes No | | |
| Per 24 Hours DISPOSITION OF GAS: METHOD OF COMPLETION: PRODUCTION INTERVAL: Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | Date of First, Resumed | Production, SWD or EN | | | Gas Lift | Other (Explain) | | |
| Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | | Oil | Bbls. Gas | Mcf Wa | ater E | Bbls. (| Gas-Oil Ratio | Gravity |
| Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled | DISPOSITIO | ON OF GAS: | | METHOD OF COMP | ETION. | | PRODUCTIO | ON INTERVAL: |
| (Cubmit ACO 5) (Cubmit ACO 4) | | | Open Hole | Perf. Dua | ly Comp. Co | | 1110000110 | ZIT IITI EI IVAE. |
| (Submit ACO-4) (Submit ACO-4) (Submit ACO-4) | | | Other (Specify) | (Submi | t ACO-5) (Sul | bmit ACO-4) | | |

| Form | ACO1 - Well Completion | | |
|-----------|--------------------------------|--|--|
| Operator | O'Brien Energy Resources Corp. | | |
| Well Name | Atkinson 1-3 | | |
| Doc ID | 1252227 | | |

Tops

| Name | Тор | Datum |
|----------------|-------|-------|
| Heebner | 4412' | -1772 |
| Toronto | 4436' | -1796 |
| Lansing | 4550' | -1910 |
| Marmaton | 5188' | -2548 |
| Cherokee | 5364' | -2724 |
| Atoka | 5608' | -2968 |
| Morrow | 5660 | -3020 |
| Chester | 5706 | -3066 |
| Ste. Genevieve | 6006 | -3366 |
| St. Louis | 6124' | -3484 |
| Spergen | 6362' | -3572 |

| Form | ACO1 - Well Completion | | |
|-----------|--------------------------------|--|--|
| Operator | O'Brien Energy Resources Corp. | | |
| Well Name | Atkinson 1-3 | | |
| Doc ID | 1252227 | | |

Casing

| Purpose Of String | Size Hole Drilled | Size Casing Set | Weight | Setting Depth | Type Of Cement | Type and Percent Additives |
|----------------------|----------------------|-----------------------|--------|------------------|-------------------|----------------------------------|
| Surface | 12.25 | 8.625 | 24 | 1482 | aconn blend | 2%CaCl & 1/4# floseal |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | BA | SERVICES | | | | | | Cement Report | | |
|-------------|----------------------------------|--------------------|-----------------------|--------------|--------------|-------------|---|-------------------|--|--|
| Customer | Λ , | , Kansas | | Lease No. | | | Date | 27 5 | | |
| Lease / | 213010 | Λ | | | | | Service Receip | Service Receipt | | |
| Casing | t KILLSC | epth | | County Meads | | | State KS | (00)341) | | |
| Job Type | 8 04 | 15 | | 100 | Leg | al Descript | | | | |
| 2 | 47-6 | (%) | Formation (| | Po | rforation | na Data | Cement Data | | |
| 0 | Pipe Data asing size Tubing Size | | | | Pe | | ng Data | Lead 400 St | | |
| Casing size | 85/2" | 24# | Depth | | From | Shots | To | 1/4 | | |
| Depth (| 5001 | | Volume | | From | | То | Acon | | |
| Volume D | 50-90 | 661 | Max Press | | From | | То | Toil in 1600 di | | |
| Max Press | 1000 | 4 | | | From | | To | Tail in (50 4) | | |
| Well Connec | tion | 1000# | Annulus Vol. | | | | То | - frem, Plus | | |
| Plug Depth | <u>43</u> | <i>C</i> | Packer Depth | | From | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | |
| Time | Casing Pressure | Tubing Pressure | Bbls. Pumbed | Rate | | | Service | e Log | | |
| 4:00 | | | | ļ | on | DC | 1 | | | |
| | | | | | 500t | truck | 3 | | | |
| | | | | | Start | CSX | | | | |
| 1000 | | | | | CSR & | u b | tu, bre | ak che | | |
| 10:30 | | | | | Safe | y in | ivetily - | <u>(TSA)</u> | | |
| | | | | | Mess | De_ | test Ud | 000# | | |
| | 200 | | 710 | 5_ | MAX | + a) | 120 40 | osk Aconcly4 | | |
| | 200 | | 36 | 5 | Switch | to | Fill 18 | Dish Class C. C14 | | |
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| VV23/1 | 1000 | | 90 | 0 | Jama | 0 | in Place | t held | | |
| V 10 | 000 | | | | 1000 | | 7 | | | |
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| | 10-3 | | 1002 102- | 3 .000 | - Walder | 1,981; | LOBALT . | | | |
| Service Uni | - 169 6 C | 0 | 57223-3772 G Edwar | 4 1472 | -1488 | <u> </u> | 190 / 2 | | | |
| Driver Name | es / | UY ZL | 16 6 War | J EM | morn/ | 1 Hut | age | | | |

Customer Representative

Station Manager

A Own

Taylor Printing, Inc.



Cement Report

| | | | Cement Report | | | | | | | |
|------------------------------|--------------------|--------------------|---------------------|-----------------------|----------|-------------------|-----------------|---|----------|--|
| Customer | (Brien Energy | | | Lease No. | | | Date 2 | 1 2 (01) | | |
| | -Kinson | · ′ | | Well # /- 3 Service | | | Service Receipt | ce Receipt 5973 | | |
| Casing 8 | To | Depth 15 | 70 | County Meade State K5 | | | | | | |
| Job Type Z | 42 PT. | A | Formation | | | Legal Description | 7-37- | 29 | | |
| | | Pipe D | ata | | | Perforatin | g Data | Cement Da | ta | |
| Casing size Tubing Size 4//2 | | D.P. | | Shots | /Ft | Lead | | | | |
| Depth | | | Depth 1570 | | From | | То | | | |
| Volume | | | Volume 18,565 | | From | | То | | | |
| Max Press | | | Max Press 500 | | From | | То | Tail in 170 1,5F+3-5K | 5K 60/40 | |
| Well Connec | tion | | Annulus Vol. 8051 | r | From | | То | | | |
| Plug Depth | | | Packer Depth | | From | | То | 7.56d-51C | 13.5# | |
| Time | Casing Pressure | Tubing Pressure | Bbls. Pumbed | Rate | | | Service L | .og | | |
| 1500 | | | | <u> </u> | | | Arrive Ond | Lacitus | | |
| 1600 | | | | | | 54 | Feb Means | Mylls. | | |
| 1630 | | 800 | 1 | | | | sure Tes | | | |
| 1635 | | 500 | 13.3 | 4 | , | lum | crit @ 1. | 3.5# @ 150 | 70' | |
| 1645 | | 500 | 18.5 | 4 | | | Displace | <u> </u> | | |
| 1720 | | 170 | 13.3 | 4 | | Pung | out @ 13 | 1.5x@ 510 |)′ | |
| 1730 | | 120 | 5.4 | 3 | | | Displace | 7.5#@ 510 3.5#@ 6D Mase Hole eti | | |
| 1915 | | 65 | 5.3 | 3 | <u> </u> | Pory | cont@1. | 3.546 60 | <u> </u> | |
| 1930 | | 50 | 13.3 | 3 | | P | lug Pot to | Masse Hole | | |
| 2030 | | | | | | | 05 Comple | ete | | |
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| Service Unit | s 789. | 38 | 70897-19570 Form | 14354-1 | 9578 | | <u> </u> | | | |
| Driver Name | 5 120 | 4 | Form | Salzo | 2 | <u></u> | | | | |
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O'Brien Energy Resources, Inc. Atkinson No. 1-3 Section 3, T33S, R29W

Meade County, Kansas February 2015

Well Summary

The O'Brien Energy Resources, Atkinson No. 1-3 was drilled to a total depth of 6400' in the Mississippian Spergen Formation. It offset the Borchers No. 1-34 by approximately 1200' to the Southwest. The Heebner, Toronto and Lansing ran 2' high relative to this offset. The Marmaton, Cherokee and Atoka came in 8', 7' and 10' low respectively. The Morrow 19' low and the Chester and Ste. Genevieve 8' and 10' low. Just minor hydrocarbon shows were documented in the upper Chester and Basal Chester. The St. Louis porosity zone was not developed nor was a Morrow reservoir sandstone. The Atkinson No. 1-3 was plugged and abandoned on 2/11/15.

Respectfully Submitted,

Peter Debenham

WELL DATA

Operator: O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH

Geologist: Paul Wiemann – Denver, CO

Prospect Geologist: David Ward, Ed Schuett, Denver

Well: Atkinson No. 1-3, Borchers Northwest Field

API: 15-119-21387

Location: 660' FNL & 1820' FEL, Section 3, T33S, R29W, Meade County, Kansas

Southeast of Plains.

Elevation: Ground Level 2628', Kelly Bushing 2640'

Contractor: Duke Drilling Rig No. 9, Type: Double jacknife, double stand, Toolpusher

Emidgio Rojas, Drillers: Victor Martinez, Alejandro V., Fernando Juroeb

Company Man: Roger Pearson – Liberal, Kansas

Spud Date: 2/5/15

Total Depth: 2/11/15, Driller 6400', Logger 6402', Spergen Formation

Casing Program: 35 joints of new 8 5/8", J-55, 24Lbs/ft, set at 1483' with 400 sacks A Com

Blend(3% cc, ¼ lb Floseal) and 150 sacks tail. Plug down 11:45 AM

2/7/15.

Mud Program: Service Mud/MudcCo. Engineer Brad Bortz, displaced 2800', Chem.

gel/LCM.

Wellsite Consultant: Peter Debenham with mudlogging trailer, Call depth 3000', Box 350,

Drake, CO 80515, 720/220-4860.

Samples: 30' to 5700', 20' to TD.

Electric Logs: Weatherford, engineer Ben Weldin, Array Induction, Compensated

Neutron/Density, Microlog, Hi Res.

Status: Plugged and abandoned 2/12/15.

WELL CHRONOLOGY

| DAT | DATE DEPTH FOOTAGE | | RIG ACTIVITY | | | |
|-----|--------------------|------|--|--|--|--|
| 2/5 | 335' | 335' | move Rig and rig up rotary tools. Pump water and | | | |

6 AM

2/5 335' move Rig and rig up rotary tools. Pump water and mix spud mud. Drill rat hole and mouse hole. Spud in 12 1/4" surface hole to 335'.

2/6 1232' 997' To 1183' and lost circulation. Trip out and mix mud and LCM. Trip in and circulate and ream 90' to 1183' and work on trash pump.

2/7 1520' 288' Clean mud pump and suction pit. To 1490' and circulate and trip out and run and cement 35 joints of new 8 5/8" 24 Lbs/ft J55 set at 1483 by Basic with 400 sacks of A-Com(3%cc, ½/4/bbl floseal) tailed with 150 sacks Class A. Plug down 11:45 am – did circulate. Wait on cement. Nipple up BOP and trip in with Bit No. 2 and pressure test BOP to 300 PSI/15 min. Drill plug and cement and new hole to 1520'.

| 2/8 2997'. | 2997' Survey(1 deg.) | 1477' | Service rig and hold safety meeting. Displace mudsystem at |
|---------------|--|-------|--|
| 2/9 | 4750' | 1753' | Surveys(1 ¼ - 1 deg.). |
| 2/10 | 5730' | 980' | To 5021' and circulate and wiper trip 55 stands. |
| • | 6400'TD (1 ¾ deg.) and and plug and ab | 1 0 | To 6400'TD and circulate and short trip 60 stands. Drop s and run Elogs. Trip in and circulate and trip out laying g down. |

BIT RECORD

| <u>NO.</u> | MAKE HOURS | TYPE | SIZE | <u>OUT</u> | FOOTAGE | |
|------------|---------------|-----------------|-----------------|--------------------------------------|----------------|--------------|
| 1 2 | STC HTC | PH616 PLT616 | 12 ½" 7 7/8" | 1490' 6400' | 1490' 4910' | 18 67 ½ |
| | | | | Total Rotating Hours: Average: Ft/hr | | 85 ½ 94.8 |

DEVIATION RECORD - degree

2524' 1, 3536' 1 1/4, 4578' 1, 6400' 1 3/4

MUD PROPERTIES

| DATE LBS/BBL | <u>DEPTH</u> | <u>WT</u> | <u>VIS</u> | <u>PV</u> | <u>YP</u> | <u>pH</u> | <u>WL</u> | <u>CL</u> | LCM- |
|-----------------|--------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|------|
| 2/6 | 1205' | 9.0 | 42 | Water | | | | | |
| 2/7 | 1490' | Water | | | | | | | |
| 2/8 | 2101' | 9.1 | 28 | | | 7.0 | nc | 48K | tr |
| 2/9 | 3950' | 9.1 | 50 | 15 | 15 | 11.0 | 8.8 | 5K | 2 |
| 2/10 | 5140' | 9.2 | 64 | 16 | 17 | 11.5 | 8.8 | 3K | 4 |
| 2/11 | 6155' | 9.4 | 55 | 15 | 16 | 11.5 | 8.8 | 3k | 5 |
| | | | | | | | | | |

ELECTRIC LOG FORMATION TOPS- KB Elev. 2640'

| | | | *Borchers No. 1-34 | |
|---------------------|--------------|--------------|--------------------|-----------------|
| FORMATION | DEPTH | DATUM | DATUM | POSITION |
| Casing | 1483' | | | |
| Heebner | 4412' | -1772' | -1774' | +2' |
| Toronto | 4436' | -1796' | -1796' | 0' |
| Lansing | 4550' | -1910' | -1912' | +2' |
| Marmaton | 5188' | -2548' | -2540' | -8' |
| Cherokee | 5364' | -2724' | -2717' | -7' |
| Atoka | 5608' | -2968' | -2958' | -10' |
| Morrow | 5660' | -3020' | -3001' | -19' |
| Mississippi Chester | 5706' | -3066' | -3058' | -8' |
| Ste. Genevieve | 6006' | -3366' | -3356' | -10' |
| St. Louis | 6124' | -3484' | | |
| Spergen | 6362' | -3572-' | | |
| TD | 6400' | | | |

^{*}O'Brien Energy Resources, Boarchers No. 1-34, 300'FSL & 1110'FEL, Sec. 34 – app. 1200' to the NE, K.B. Elev. 2654'.