



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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- 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

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1086691

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> 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				

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:
 Flowing Pumping Gas Lift Other (Explain) _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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MAP EXPLORATION, INC.

MICHAEL ANTHONY POLLOK, PRES.

P.O. Box 106 ■ PURCELL, OKLAHOMA 73080
OFFICE 405/527-6038 ■ HOME 405/527-5200 ■ MOBILE 405/823-4493 ■ FAX 405/527-7629
■ E-MAIL: mapexpl@aol.com

GEOLOGICAL REPORT EINSEL 13-3H NE NW SW SECTION 13 – T33S – R17W COMANCHE COUNTY, KANSAS

SUMMARY

The above captioned well was drilled to a total measured depth of 7,490 feet on December 2, 2011. Horizontal drilling services were provided by Inwell. A one-man logging unit was on location from approximately 3,800 feet to TD. The well was under the geological supervision of the undersigned from 4,200 feet to TD. At TD, Weatherford electric logs were run that consisted of a Compact Well Shuttle Induction, Compact Well Shuttle Compensated Neutron-Density and a Compact Micro-Imager. From the data collected while drilling and analyzing, potential hydrocarbon shows were encountered in the Mississippian. A production liner was set in the horizontal lateral through the Mississippian.

MISSISSIPPIAN

The top of the Mississippi was encountered at 5,387 feet (MD) and 5,056 (-3,160) feet (TVD). Seven inch intermediate pipe was set approximately 140 feet into the Mississippian at a MD of 5,525 feet. The samples in the were described as buff, tan, off-white, to cream, moderately firm, very fine to micro crystalline limestone with a trace of free glauconite and slightly shaley. Sucrosic textured dolomites were observed as well. Good inter-crystalline and some fractured porosity were seen. An abundant bright yellow fluorescence, flash cut and fair streaming cut was observed. The gas chromatograph recorded numerous gas kicks ranging from 96 units to 702 units respectively. The electric logs indicated numerous productive zones porosity in excess of 20%.

MUDLOG & ELECTRIC LOG TOPS

REDLAND
EINSEL 13-3H
NE NW SW
13-T33S-R17W

REDLAND
RODNEY 13-5
C SW NW
13-T33S-R17W

STARK SH. (Subsea)	4699 (-2803)	4750 (-2856)
CHEROKEE SH. (Subsea)	4986 (-3090)	4986 (-3092)
MISS. UNCON. (Subsea)	5056 (-3160)	5046 (-3152)

CONCLUSION

The Einsel 13-3H was drilled as a developmental well of the Mississippian. After all data was analyzed it was determined that both the Mississippian should be commercially productive. A decision was made to run pipe and attempt completion in hopes of economical oil and gas production.

Respectfully submitted,



Chase Thomas
Geo-Tech
07/10/12

ALLIED CEMENTING CO., LLC. 036564

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Liberal, Ks

DATE <u>11-16-11</u>	SEC <u>13</u>	TWP <u>33S</u>	RANGE <u>17W</u>	CALLED OUT <u>4:30p.m.</u>	ON LOCATION <u>8:30p.m.</u>	JOB START <u>5:00AM</u>	JOB FINISH <u>5:30AM</u>
LEASE <u>EMUSEL</u>		WELL # <u>13-3H</u>	LOCATION <u>Collection Ks 2S</u>			COUNTY <u>Concord</u>	STATE <u>Ks</u>
OLD OR NEW (Circle one)			<u>10E 2S E# Loc</u>				

CONTRACTOR David P. Riley OWNER SAWY

TYPE OF JOB 9 5/8 SUBSEA

HOLE SIZE 12 1/4 T.D. 640

CASING SIZE 9 5/8 36" DEPTH 631

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX 500# MINIMUM _____

MEAS. LINE _____ SHOE JOINT 42.85

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT 45'k BBS Case

CEMENT AMOUNT ORDERED 150 65/35 68CEL

3900 4 1/2 FLO SEAL

150 A 3900 2 1/2 00L

COMMON 150 A @ 1625 2437.50

POZMIX _____ @ _____ _____

GEL 35K @ 2125 6375

CHLORIDE PC 100SK @ 5000 58200

ASC _____ @ _____ _____

150 GTE @ 1500 225000

_____ @ _____ _____

_____ @ _____ _____

FLO SEAL 75'k @ 270 20250

_____ @ _____ _____

_____ @ _____ _____

_____ @ _____ _____

HANDLING 3/6 @ 225 71100

MILEAGE SK 200 x 11 @ _____ 1738.00

TOTAL 7984.25

EQUIPMENT

PUMP TRUCK CEMENTER Bob / CEASAL

372 HELPER BETO

BULK TRUCK _____

_____ DRIVER John Lemay

BULK TRUCK _____

_____ DRIVER _____

REMARKS:

mix 150 SK 105135116 + 3/6" + 1/4" # Hosed

mix 150 SK A + 3900 + 2 1/2" x 1

stop release plug

Displacement 100# over.

Bump plug 100# over.

CHARGE TO: REDLAND RES

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB 631'

PUMP TRUCK CHARGE _____ 112500

EXTRA FOOTAGE 331 @ .95 314.95

MILEAGE 100 @ 7.00 700.00

MANIFOLD + HEAD _____ @ _____ _____

CT VEH with 100m @ 400 40000

_____ @ _____ _____

TOTAL 2739.45

PLUG & FLOAT EQUIPMENT

9 5/8

_____ @ _____ _____

Barfite Plate @ _____ 11200

Wooden Plug @ _____ 9400

_____ @ _____ _____

_____ @ _____ _____

TOTAL 20600

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

PRINTED NAME _____

SIGNATURE Alan Watson

SALES TAX (If Any) _____

TOTAL CHARGES 10,929.70

DISCOUNT 2185.94 IF PAID IN 30 DAYS

\$8743.76

ALLIED CEMENTING CO., LLC. 037846

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Medicine Lodge

DATE <u>11-27-11</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Enrol</u>	WELL #	LOCATION <u>US 160#</u> ^{cont.} <u>24, 15, 1w, 5 1/2 S, E-</u>			COUNTY <u>Groves</u>		STATE <u>KS</u>
OLD OR <u>NEW</u> (Circle one)		into at Rig Sign,					

CONTRACTOR Dan D #5 OWNER Redland Res.

TYPE OF JOB Production

HOLE SIZE 8 1/4 TD. 5525 CEMENT AMOUNT ORDERED 300 sy class H ASC + 5#

CASING SIZE 7" DEPTH 5523 Kolscol + .5% FL-160 + 1/4 # Floreal

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX 1700 MINIMUM —

MEAS. LINE SHOE JOINT 39.53

CEMENT LEFT IN CSG. 40'

PERFS.

DISPLACEMENT 211 Bbls Fresh H₂O

EQUIPMENT

PUMP TRUCK CEMENTER D. Felio

360-265 HELPER J. Thinesch

BULK TRUCK

421- DRIVER E. Piper

BULK TRUCK

DRIVER

COMMON @
POZMIX @
GEL @
CHLORIDE @
ASC @
Class H - 300 sy @ 21.25 6375.00
Kolscol 1500 # @ .89 1335.00
FL-160 141 # @ 17.20 2425.20
Floreal 75 # @ 2.70 202.50

HANDLING 390 @ 2.25 877.50
MILEAGE 390 x .11 x 30 @ 1.287.00

TOTAL \$12,502.20

REMARKS:

Pipe on Bttm, Break Cill, Pump 50 sy Scavenger
Cement Mix 250 sy H ASC cement, Stop Pump
Wash Pump & Lines, Release Plug, Start Disp w/
Fresh H₂O. See increase in PST, Slow Rate, Slow
again, Bump Plug at 211 Bbls total Disp., At 1700 #
Release PST, Floats Did Hold

SERVICE

DEPTH OF JOB 5523'

PUMP TRUCK CHARGE 2125.00

EXTRA FOOTAGE @

MILEAGE W @ 7.00 420-

MANIFOLD Head rental @ 200-

Light Vehicle W @ 4.00 240-

Sledge rental @ 250-

Plus charge over collar

TOTAL 3805.00

PLUG & FLOAT EQUIPMENT

1- Sure Seal Float Shoe @ 609.00

1- Sure Seal Float Collar @ 758.00

1- TRP @ 85.00

TOTAL 1452.00

CHARGE TO: Redland Resources

STREET _____

CITY _____ STATE _____ ZIP _____

7"

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

PRINTED NAME _____

SIGNATURE _____

SALES TAX (if Any) _____

TOTAL CHARGES \$17,759.20

DISCOUNT 20% IF PAID IN 30 DAYS

Net \$14,207.36

ALLIED CEMENTING CO., LLC. 037903

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Medicine Lodge, KS

DATE <u>12-3-2011</u>	SEC <u>13</u>	TWP <u>33S</u>	RANGE <u>17W</u>	CALLED OUT <u>10:00 AM</u>	ON LOCATION <u>12:30 PM</u>	JOB START <u>4:30 PM</u>	JOB FINISH <u>6:30 PM</u>
LEASE <u>Finse</u>		WELL # <u>3-13</u>	LOCATION <u>160 & CR 24, 1 South, 1 West</u>		COUNTY <u>Comanche</u>	STATE <u>KS</u>	
OLD OR <u>(NEW)</u> (Circle one)			<u>5 1/2 South, east side</u>				

CONTRACTOR <u>Den D #5</u>	OWNER <u>Redign Resources</u>
TYPE OF JOB <u>Production</u>	CEMENT
HOLE SIZE <u>7 7/8</u> T.D. <u>7500'</u>	AMOUNT ORDERED <u>50s x 60' 40' 40' 60'</u>
CASING SIZE <u>4 1/2"</u> DEPTH <u>2151'</u>	<u>200s x CASS H ASC + 5# Kalsol + 1.5% C-18 + .10% C-51 + 1/4# C-41P + 1/4# Polysos</u>
TUBING SIZE DEPTH	COMMON <u>A 30 s x @ 16.25 487.50</u>
DRILL PIPE <u>3 1/2"</u> DEPTH <u>5366'</u>	POZMIX <u>20 s x @ 8.50 170.00</u>
TOOL DEPTH	GEL <u>2 s x @ 21.25 42.50</u>
PRES. MAX MINIMUM	CHLORIDE @
MEAS. LINE SHOE JOINT <u>43'</u>	ASC <u>H 200 s x @ 21.25 4250.00</u>
CEMENT LEFT IN CSG.	<u>Kalsol 1000# @ .89 890.00</u>
PERFS.	<u>floseal 50# @ 2.70 135.00</u>
DISPLACEMENT <u>68 bbls of Fresh water</u>	<u>C-18 282# @ 13.78 3885.96</u>

EQUIPMENT

PUMP TRUCK CEMENTER <u>Derin F. [Signature]</u>
<u>360-265</u> HELPER <u>Jason T</u>
BULK TRUCK
<u>363-290</u> DRIVER <u>Adam M.</u>
BULK TRUCK
DRIVER <u>Carl B. Nesl R.</u>

<u>Kalsol 1000# @ .89 890.00</u>	
<u>floseal 50# @ 2.70 135.00</u>	
<u>C-18 282# @ 13.78 3885.96</u>	
<u>C-51 18.8# @ 20.64 388.03</u>	
<u>C-41P 50# @ 8.90 445.00</u>	
<u>Stop loss LCM 100# @ 2.27 227.00</u>	
<u>Stop loss Polymer 100# @ 11.90 1190.00</u>	
HANDLING <u>318 @ 2.25 715.50</u>	
MILEAGE <u>30 / 318 / .11 @ 2.25 1049.40</u>	
TOTAL <u>14,159.29</u>	

REMARKS:
 Pipe on bottom & break circulation, pump 20 bbls of stop loss spacer, mix 200s of cement, shut down, wash pump & lines, Release plus, start displacement, lift pressure 9+26 bbls, slow rate to 3hpm at 60 bbls, bump plus 6+68 bbls @ 1400 psi, float did hold, mix 50s of cement for ret & more holes, Reverse out with 80 bbls plug down 9+5:15pm

SERVICE

DEPTH OF JOB <u>7517'</u>	
PUMP TRUCK CHARGE <u>2695.00</u>	
EXTRA FOOTAGE @	
MILEAGE <u>60 @ 7.00 420.00</u>	
MANIFOLD @	
<u>Light Vehicle 60 @ 4.00 240.00</u>	
TOTAL <u>3355.00</u>	

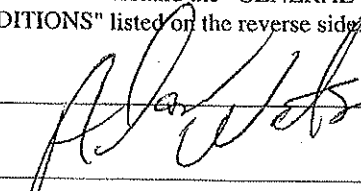
CHARGE TO: Redign Resources
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

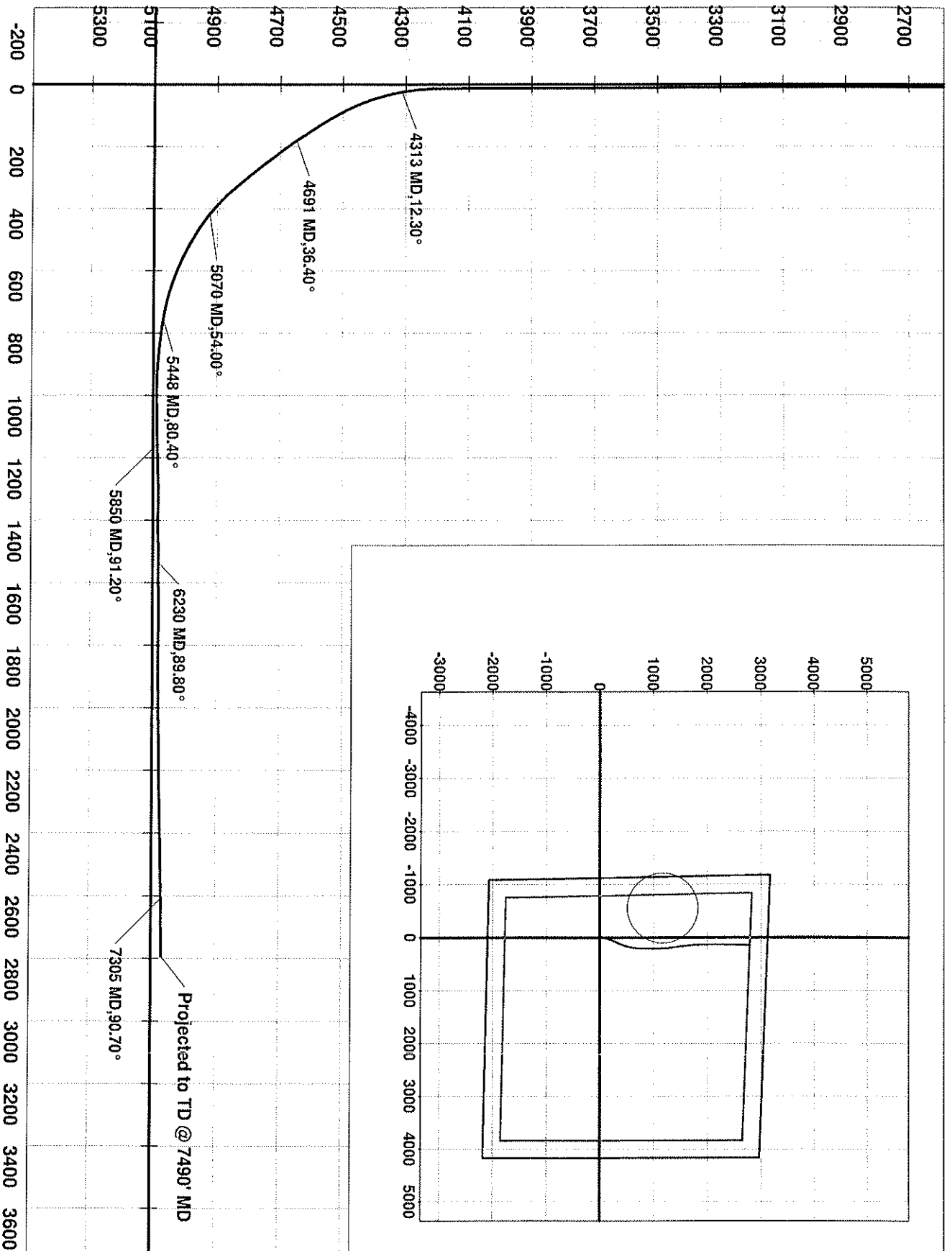
<u>4- spiralizers @ 115.36 461.44</u>	
@	
@	
@	
@	
TOTAL <u>461.44</u>	

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

SALES TAX (If Any) _____
TOTAL CHARGES <u>17,975.73</u>
DISCOUNT <u>20%</u> IF PAID IN 30 DAYS
NET <u>14,380.58</u>

PRINTED NAME X _____
 SIGNATURE X 
 Thank you!!!

Company: Redland Resources
 Lease/Well: Einsel 13-3H
 Location: Comanche County
 State/Country: Kansas





Job Number: 11-223
 Company: Redland Resources
 Lease/Well: Einsel 13-3H
 Location: Comanche County
 Rig Name: Dan D # 5
 RKB:
 G.L. of M.S.L.:

State/Country: Kansas
 Declination: 5.05
 Grid: 0.32
 File name: P:\SURVEYS\REDLAND\11223.SVY
 Date/Time: 07-Dec-11 07:52
 Curve Name: as drilled

Inwell Inc

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Deg	True Depth	Course Length FT	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	Grid X FT	Grid Y FT
.00	.00	.00	.00	617.00	.00	.00	.00	.00	1418477.00	501729.00
617.00	.10	217.00	617.00	617.00	-.43	-.32	-.43	.02	1418476.68	501728.57
1086.00	.60	271.50	1085.99	469.00	-.69	-3.03	-.69	.12	1418473.97	501728.31
1788.00	1.20	300.10	1787.90	702.00	3.09	-13.06	3.09	.10	1418463.94	501732.09
2704.00	.20	9.40	2703.83	916.00	9.48	-21.10	9.48	.12	1418455.90	501738.48
3492.00	.30	294.00	3491.82	788.00	11.67	-22.76	11.67	.04	1418454.24	501740.67
4123.00	.70	291.80	4122.80	631.00	13.78	-27.84	13.78	.06	1418449.16	501742.78
4155.00	.80	290.80	4154.80	32.00	13.93	-28.23	13.93	.32	1418448.77	501742.93
4186.00	.90	286.10	4185.79	31.00	14.07	-28.67	14.07	.39	1418448.33	501743.07
4218.00	2.00	12.70	4217.79	32.00	14.69	-28.79	14.69	6.70	1418448.21	501743.69

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	Grid X FT	Grid Y FT
4250.00	5.50	28.20	4249.71	32.00	16.58	-27.94	16.58	11.29	1418449.06	501745.58
4281.00	9.10	30.90	4280.46	31.00	20.00	-25.98	20.00	11.66	1418451.02	501749.00
4313.00	12.30	31.00	4311.90	32.00	25.09	-22.92	25.09	10.00	1418454.08	501754.09
4344.00	15.40	30.10	4341.99	31.00	31.49	-19.16	31.49	10.02	1418457.84	501760.49
4376.00	18.00	28.40	4372.64	32.00	39.51	-14.68	39.51	8.27	1418462.32	501768.51
4408.00	20.30	25.70	4402.87	32.00	48.87	-9.92	48.87	7.70	1418467.08	501777.87
4439.00	22.70	20.90	4431.71	31.00	59.30	-5.45	59.30	9.59	1418471.55	501788.30
4471.00	25.40	17.40	4460.93	32.00	71.62	-1.19	71.62	9.54	1418475.81	501800.62
4502.00	27.90	16.40	4488.64	31.00	84.93	2.84	84.93	8.19	1418479.84	501813.93
4534.00	29.90	16.80	4516.65	32.00	99.74	7.26	99.74	6.28	1418484.26	501828.74
4566.00	32.00	17.80	4544.09	32.00	115.45	12.16	115.45	6.76	1418489.16	501844.45
4597.00	34.00	19.30	4570.09	31.00	131.46	17.54	131.46	6.97	1418494.54	501860.46
4628.00	34.90	20.40	4595.65	31.00	147.95	23.49	147.95	3.53	1418500.49	501876.95
4660.00	35.00	20.40	4621.88	32.00	165.13	29.88	165.13	.31	1418506.88	501894.13
4691.00	36.40	20.90	4647.05	31.00	182.06	36.26	182.06	4.61	1418513.26	501911.06
4723.00	38.10	21.30	4672.53	32.00	200.13	43.24	200.13	5.37	1418520.24	501929.13
4754.00	39.10	21.70	4696.75	31.00	218.12	50.33	218.12	3.32	1418527.33	501947.12
4786.00	40.10	22.80	4721.41	32.00	237.00	58.05	237.00	3.82	1418535.05	501966.00
4817.00	40.30	23.00	4745.09	31.00	255.43	65.84	255.43	.77	1418542.84	501984.43
4849.00	40.80	23.20	4769.40	32.00	274.57	74.00	274.57	1.61	1418551.00	502003.57
4880.00	41.60	23.60	4792.73	31.00	293.31	82.11	293.31	2.72	1418559.11	502022.31
4912.00	42.40	23.70	4816.51	32.00	312.92	90.70	312.92	2.51	1418567.70	502041.92
4943.00	43.20	24.20	4839.25	31.00	332.17	99.25	332.17	2.80	1418576.25	502061.17
4975.00	45.60	23.90	4862.11	32.00	352.61	108.37	352.61	7.53	1418585.37	502081.61
5007.00	48.30	23.80	4883.96	32.00	374.00	117.83	374.00	8.44	1418594.83	502103.00
5038.00	51.30	23.00	4903.96	31.00	395.73	127.23	395.73	9.88	1418604.23	502124.73
5070.00	54.00	21.80	4923.38	32.00	419.25	136.91	419.25	8.95	1418613.91	502148.25
5101.00	56.10	20.60	4941.13	31.00	442.93	146.10	442.93	7.48	1418623.10	502171.93
5132.00	58.50	18.90	4957.88	31.00	467.49	154.91	467.49	9.01	1418631.91	502196.49
5163.00	60.80	17.10	4973.54	31.00	492.93	163.17	492.93	8.95	1418640.17	502221.93

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	Grid X FT	Grid Y FT
5195.00	62.90	14.90	4988.64	32.00	520.05	170.94	520.05	8.93	1418647.94	502249.05
5227.00	64.90	13.50	5002.72	32.00	547.90	177.98	547.90	7.38	1418654.98	502276.90
5258.00	66.70	12.20	5015.43	31.00	575.47	184.27	575.47	6.95	1418661.27	502304.47
5290.00	68.70	10.00	5027.57	32.00	604.52	189.97	604.52	8.92	1418666.97	502333.52
5321.00	71.20	8.10	5038.20	31.00	633.27	194.54	633.27	9.91	1418671.54	502362.27
ENTERED MISSISSIPPIAN										
5353.00	73.50	6.50	5047.90	32.00	663.52	198.41	663.52	8.62	1418675.41	502392.52
5384.00	75.90	5.30	5056.08	31.00	693.26	201.49	693.26	8.60	1418678.49	502422.26
TVD-5,056'	78.50	3.30	5063.17	32.00	724.37	203.82	724.37	10.16	1418680.82	502453.37
MD-5,384'	80.40	1.90	5069.03	32.00	755.79	205.25	755.79	7.33	1418682.25	502484.79
5448.00	82.00	.60	5073.16	27.00	782.47	205.83	782.47	7.60	1418682.83	502511.47
5475.00										
1 ST PERFORATION										
5533.00	84.50	.40	5079.98	58.00	840.06	206.33	840.06	4.32	1418683.33	502569.06
5564.00	84.70	.50	5082.89	31.00	870.92	206.57	870.92	.72	1418683.57	502599.92
5596.00	85.30	.00	5085.68	32.00	902.80	206.71	902.80	2.44	1418683.71	502631.80
5627.00	87.70	.10	5087.58	31.00	933.74	206.74	933.74	7.75	1418683.74	502662.74
5659.00	89.20	.10	5088.44	32.00	965.73	206.80	965.73	4.69	1418683.80	502694.73
5691.00	90.00	.10	5088.66	32.00	997.73	206.85	997.73	2.50	1418683.85	502726.73
5723.00	90.80	.20	5088.44	32.00	1029.72	206.94	1029.72	2.52	1418683.94	502758.72
5754.00	91.10	.50	5087.93	31.00	1060.72	207.12	1060.72	1.37	1418684.12	502789.72
5786.00	91.20	.50	5087.29	32.00	1092.71	207.15	1092.71	2.83	1418684.15	502821.71
5818.00	91.10	.50	5086.64	32.00	1124.70	206.71	1124.70	2.52	1418683.71	502853.70
5850.00	91.20	.50	5086.00	32.00	1156.69	205.92	1156.69	1.29	1418682.92	502885.69
5882.00	91.20	.50	5085.33	32.00	1188.67	205.00	1188.67	.31	1418682.00	502917.67
5913.00	91.50	.50	5084.60	31.00	1219.64	204.06	1219.64	1.02	1418681.06	502948.64
5945.00	91.60	.50	5083.73	32.00	1251.62	203.14	1251.62	.99	1418680.14	502980.62
5977.00	91.00	.50	5083.01	32.00	1283.57	201.63	1283.57	7.73	1418678.63	503012.57
6008.00	89.50	.50	5082.87	31.00	1314.42	198.63	1314.42	11.69	1418675.63	503043.42
6040.00	89.70	.50	5083.10	32.00	1346.14	194.40	1346.14	2.58	1418671.40	503075.14
6072.00	89.60	.50	5083.29	32.00	1377.83	189.97	1377.83	.44	1418666.97	503106.83
6103.00	90.10	.50	5083.37	31.00	1408.54	185.71	1408.54	1.61	1418662.71	503137.54
6135.00	91.00	.50	5083.07	32.00	1440.25	181.45	1440.25	3.22	1418658.45	503169.25

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	Grid X FT	Grid Y FT
6166.00	91.40	352.80	5082.42	31.00	1470.99	177.51	1470.99	1.44	1418654.51	503199.99
6198.00	90.20	352.80	5081.97	32.00	1502.74	173.50	1502.74	3.75	1418650.50	503231.74
6230.00	89.80	352.90	5081.97	32.00	1534.49	169.52	1534.49	1.29	1418646.52	503263.49
6261.00	90.30	352.40	5081.94	31.00	1565.23	165.56	1565.23	2.28	1418642.56	503294.23
6356.00	90.80	355.30	5081.03	95.00	1659.67	155.38	1659.67	3.10	1418632.38	503388.67
6451.00	89.40	356.10	5080.87	95.00	1754.40	148.26	1754.40	1.70	1418625.26	503483.40
6545.00	90.10	356.80	5081.28	94.00	1848.22	142.44	1848.22	1.05	1418619.44	503577.22
6640.00	90.30	357.90	5080.94	95.00	1943.11	138.04	1943.11	1.18	1418615.04	503672.11
6735.00	90.80	359.40	5080.03	95.00	2038.08	135.81	2038.08	1.66	1418612.81	503767.08
6830.00	90.80	359.80	5078.71	95.00	2133.07	135.14	2133.07	.42	1418612.14	503862.07
6925.00	91.30	.50	5076.96	95.00	2228.05	135.39	2228.05	.91	1418612.39	503957.05
7020.00	91.50	.90	5074.64	95.00	2323.02	136.55	2323.02	.47	1418613.55	504052.02
7115.00	91.40	1.40	5072.24	95.00	2417.97	138.46	2417.97	.54	1418615.46	504146.97
7210.00	90.90	1.00	5070.33	95.00	2512.93	140.45	2512.93	.67	1418617.45	504241.93
7305.00	90.70	1.30	5069.01	95.00	2607.90	142.35	2607.90	.38	1418619.35	504336.90
7400.00	90.50	1.10	5068.01	95.00	2702.87	144.34	2702.87	.30	1418621.34	504431.87
7444.00	90.60	.90	5067.59	44.00	2746.86	145.11	2746.86	.51	1418622.11	504475.86
Projected to TD										
7490.00	90.60	.90	5067.11	46.00	2792.85	145.83	2792.85	.00	1418622.83	504521.85

LAST PERFORMANCE
MD-7,410'