



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1206877  
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
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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: \_\_\_\_\_

1206877

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  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				

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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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> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

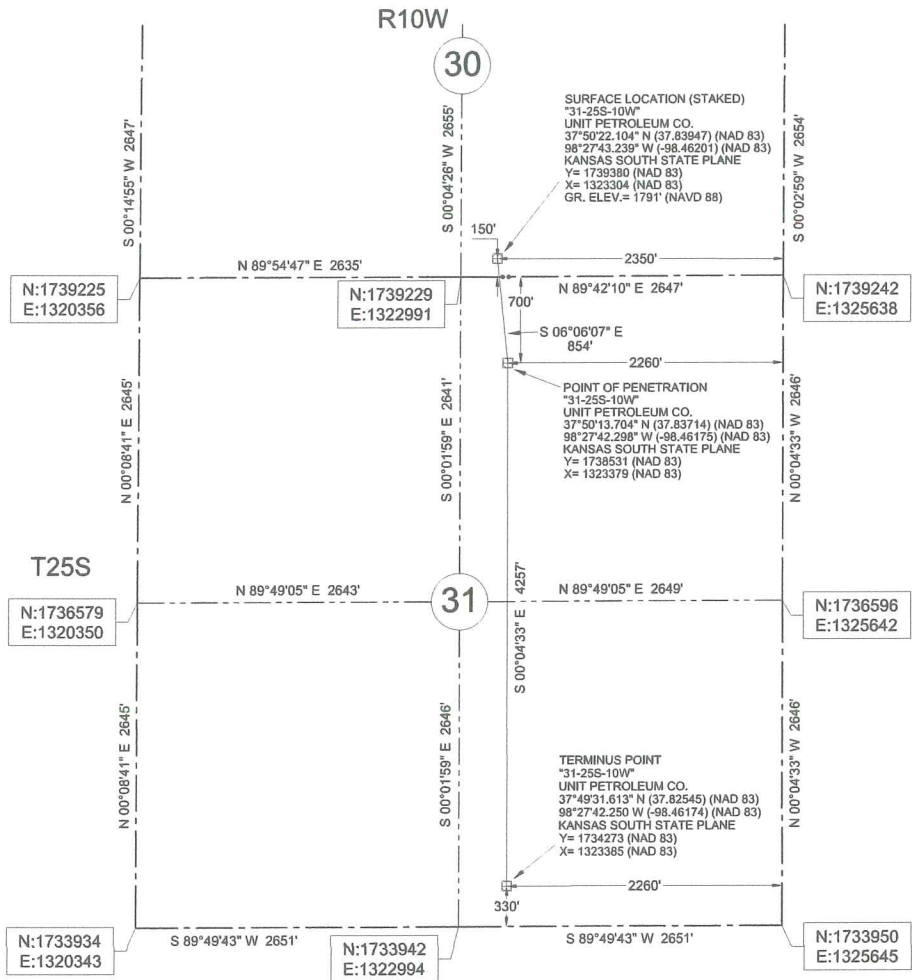
<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Unit Petroleum Company
Well Name	Weller 31 #1H
Doc ID	1206877

### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	28	16	65	160	Common	144	
Intermediate	12.25	9.625	36	1530	A	580	2% CC + 1/4# celloflake
Intermediate	8.75	7	26	4306	A	160	5% Gyp + 10% salt
Production	6.125	4.50	11.6	8830	Prem H	500	.2% SASL + 1/4# celloflake
Production	6.125	5.50	17	8830	Prem H	500	.2% SASL + 1/4# celloflake

# Section 30 & 31, T 25 S, R 10 W., Reno County, Kansas.



**LEGEND**

- SECTION LINE
- 1/4 SECTION LINE



Datum: NAD 83  
 Units: US Survey Feet  
 North: Grid  
 Coordinates: State Plane  
 Zone: 1502  
 State: Kansas  
 Region: South

Description: Surface Hole Location Stake "31-25S-10W" situated 150 feet from the south section line and 2350 feet from the east section line of Section 30, T 25 S, R 10 W., Reno County, Kansas.

Description: Point of Penetration "31-25S-10W" situated 700 feet from the north section line and 2260 feet from the east section line of Section 31, T 25 S, R 10 W., Reno County, Kansas.

Description: Terminus Point "31-25S-10W" situated 330 feet from the south section line and 2260 feet from the east section line of Section 31, T 25 S, R 10 W., Reno County, Kansas.



Survey is valid only if print has original seal and signature of surveyor present

Buried utilities are not necessarily shown. It is the contractor's responsibility to locate and preserve all utility services.

<b>JIVIDENS LAND SURVEY CO., INC.</b> 1210 19TH STREET / P.O. BOX 943 WOODWARD, OKLAHOMA 73802 Phone 580-256-7174 - Fax 580-256-3424 roger@jvidenslandsurvey.com mike@jvidenslandsurvey.com	Survey For: Unit Petroleum Co. P.O. Box 2726 Woodward, Oklahoma 73802 Attn: Jason Rummery	JOB 719-13	DATE OF PLAT 12-05-2013	SCALE 1"=1200'	SHEET 1 OF 5
		DRAWN BY C.M.G.	OKLA. CA #2064, EXP. 06/30/2015 KANSAS CA #143, EXP. 12/31/2014		

# **Unit Petroleum**

**Reno County, Kansas [NAD 83]**

**Section 31 T25S-R10W**

**Weller 31 #1H**

**OH**

**Design: OH**

## **Standard Survey Report**

**12 March, 2014**





Unit Petroleum  
 Project: Reno County, Kansas [NAD 83]  
 Site: Section 31 T25S-R10W  
 Well: Weller 31 #1H  
 Wellbore: OH  
 Design: Design #3  
 Lat: 37° 50' 22.101 N  
 Long: 98° 27' 43.233 W  
 Pad GL: 1791.00  
 KB: 20' KB @ 1811.00usft (UDI 303)



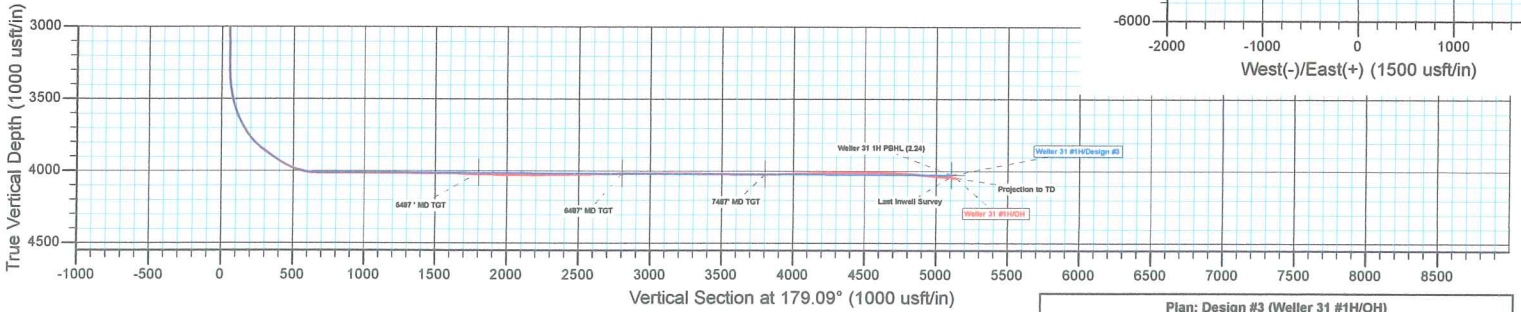
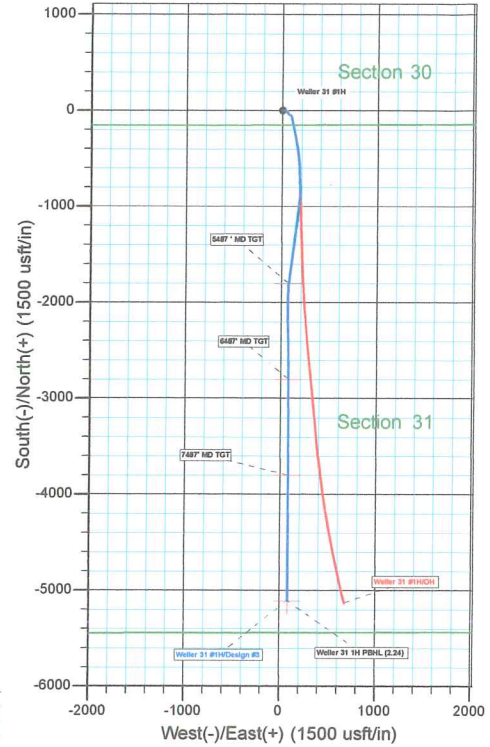
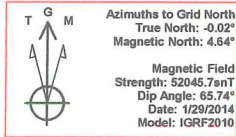
SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect
4444.00	90.60	178.10	4010.33	-765.03	183.34	0.00	0.00	767.84
4487.00	90.60	178.10	4009.88	-308.00	184.76	0.00	0.00	810.83
4872.22	89.93	187.34	4009.02	-992.81	175.99	5.00	94.11	995.48
5487.65	89.93	187.34	4010.00	-1801.57	71.86	0.00	0.00	1802.48
5655.32	89.89	178.96	4010.55	-1968.83	62.66	5.00	-91.64	1969.58
6487.75	89.89	178.96	4014.90	-2781.12	77.45	0.00	0.00	2782.00
6487.10	89.71	179.92	4015.00	-2800.46	77.64	5.00	88.80	2801.34
7487.10	89.71	179.92	4020.00	-3800.45	78.96	0.00	0.00	3801.22
7488.47	89.78	179.91	4020.01	-3801.82	78.97	5.00	-11.40	3802.60
8793.99	89.78	179.91	4025.00	-5107.32	81.01	0.00	0.00	5107.96

WELL DETAILS: Weller 31 #1H						
+N/-S	+E/-W	Northing	Ground Level: Easting	1791.00 Latitude	Longitude	Slot
0.00	0.00	1739380.00	1323304.00	37° 50' 22.101 N	98° 27' 43.233 W	

PROJECT DETAILS: Reno County, Kansas [NAD 83]  
 Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Kansas Southern Zone  
 System Datum: Mean Sea Level

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape Point
5487' MD TGT	4010.00	-1801.57	71.86	1737578.55	1323375.85	Point
6487' MD TGT	4015.00	-2800.46	77.64	1736579.71	1323381.63	Point
7487' MD TGT	4020.00	-3800.45	79.01	1735579.79	1323383.01	Point
Weller 31 1H PBHL (2.24)	4025.00	-5107.32	81.01	1734273.00	1323385.00	Point

**NOTE: All Lease lines and Hard lines are estimates only and are subject to the customers' approval.**



Plan: Design #3 (Weller 31 #1H/OH)  
 Created By: Derek Stephens Date: 7:14, March 12 2014





<b>Company:</b>	Unit Petroleum	<b>Local Co-ordinate Reference:</b>	Well Weller 31 #1H
<b>Project:</b>	Reno County, Kansas [NAD 83]	<b>TVD Reference:</b>	20' KB @ 1811.00usft (UDI 303)
<b>Site:</b>	Section 31 T25S-R10W	<b>MD Reference:</b>	20' KB @ 1811.00usft (UDI 303)
<b>Well:</b>	Weller 31 #1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Reno County, Kansas [NAD 83]		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Kansas Southern Zone		Using geodetic scale factor

<b>Site</b>	Section 31 T25S-R10W				
<b>Site Position:</b>		<b>Northing:</b>	1,739,380.00 usft	<b>Latitude:</b>	37° 50' 22.101 N
<b>From:</b>	Map	<b>Easting:</b>	1,323,304.00 usft	<b>Longitude:</b>	98° 27' 43.233 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.02 °

<b>Well</b>	Weller 31 #1H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,739,380.00 usft	<b>Latitude:</b>	37° 50' 22.101 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	1,323,304.00 usft	<b>Longitude:</b>	98° 27' 43.233 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	1,791.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	1/29/2014	4.66	65.74	52,046

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	179.09	

<b>Survey Program</b>	<b>Date</b>	3/12/2014			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
69.00	3,261.57	Survey #1 (OH)	CB-GYRO-MS	Camera based gyro multishot	
3,323.00	8,846.00	Survey #2 (OH)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
69.31	0.69	98.70	69.31	-0.06	0.41	0.07	1.00	1.00	0.00	
257.09	1.75	64.22	257.05	1.01	4.11	-0.95	0.66	0.56	-18.36	
444.87	2.23	87.90	444.71	2.39	10.35	-2.23	0.50	0.26	12.61	
632.65	2.81	100.23	632.31	1.71	18.53	-1.42	0.42	0.31	6.57	
820.43	3.74	110.57	819.79	-1.26	28.79	1.72	0.58	0.50	5.51	
1,008.21	3.72	115.45	1,007.17	-6.03	40.02	6.66	0.17	-0.01	2.60	
1,195.99	3.02	147.82	1,194.64	-12.83	48.16	13.60	1.06	-0.37	17.24	
1,383.77	2.44	176.32	1,382.21	-21.01	51.05	21.82	0.78	-0.31	15.18	
1,571.55	2.18	147.04	1,569.85	-28.00	53.25	28.84	0.64	-0.14	-15.59	



<b>Company:</b>	Unit Petroleum	<b>Local Co-ordinate Reference:</b>	Well Weller 31 #1H
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<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

**Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,759.33	2.48	137.52	1,757.47	-33.99	57.94	34.90	0.26	0.16	-5.07
1,947.11	2.50	119.36	1,945.08	-38.99	64.25	40.01	0.42	0.01	-9.67
2,134.89	2.26	121.15	2,132.70	-42.92	70.99	44.04	0.13	-0.13	0.95
2,322.67	1.82	121.57	2,320.36	-46.39	76.70	47.60	0.23	-0.23	0.22
2,510.45	1.31	114.05	2,508.07	-48.83	81.20	50.11	0.29	-0.27	-4.00
2,698.23	0.87	109.89	2,695.81	-50.19	84.50	51.52	0.24	-0.23	-2.22
2,886.01	0.45	127.35	2,883.58	-51.12	86.43	52.48	0.25	-0.22	9.30
3,073.79	0.55	124.39	3,071.35	-52.08	87.76	53.46	0.05	0.05	-1.58
3,261.57	0.53	124.47	3,259.12	-53.08	89.22	54.49	0.01	-0.01	0.04
3,323.00	1.30	153.50	3,320.55	-53.86	89.76	55.28	1.42	1.25	47.26
3,354.00	3.50	160.80	3,351.52	-55.07	90.23	56.49	7.15	7.10	23.55
3,386.00	5.60	163.60	3,383.41	-57.49	90.99	58.93	6.60	6.56	8.75
3,417.00	7.30	164.70	3,414.22	-60.84	91.94	62.29	5.50	5.48	3.55
3,449.00	9.80	167.90	3,445.86	-65.47	93.05	66.93	7.95	7.81	10.00
3,480.00	11.90	168.60	3,476.30	-71.18	94.23	72.67	6.79	6.77	2.26
3,511.00	13.70	168.60	3,506.53	-77.91	95.59	79.42	5.81	5.81	0.00
3,542.00	16.00	168.60	3,536.49	-85.70	97.16	87.23	7.42	7.42	0.00
3,574.00	18.50	168.80	3,567.05	-95.00	99.02	96.56	7.81	7.81	0.63
3,602.00	21.10	168.70	3,593.40	-104.31	100.87	105.89	9.29	9.29	-0.36
3,635.00	23.70	168.50	3,623.90	-116.63	103.35	118.26	7.88	7.88	-0.61
3,666.00	26.60	167.90	3,651.96	-129.53	106.05	131.19	9.39	9.35	-1.94
3,698.00	29.40	167.60	3,680.21	-144.21	109.24	145.92	8.76	8.75	-0.94
3,730.00	32.10	168.50	3,707.71	-160.21	112.62	161.98	8.56	8.44	2.81
3,761.00	35.10	168.30	3,733.53	-177.01	116.07	178.83	9.68	9.68	-0.65
3,792.00	38.50	167.90	3,758.35	-195.18	119.90	197.06	10.99	10.97	-1.29
3,823.00	42.20	168.50	3,781.97	-214.83	124.00	216.76	12.00	11.94	1.94
3,855.00	45.70	169.00	3,805.00	-236.60	128.33	238.61	10.99	10.94	1.56
3,886.00	49.50	169.40	3,825.90	-259.09	132.62	261.16	12.29	12.26	1.29
3,918.00	53.30	169.90	3,845.86	-283.69	137.11	285.82	11.94	11.88	1.56
3,949.00	54.60	170.10	3,864.11	-308.37	141.46	310.57	4.23	4.19	0.65
3,980.00	55.40	170.10	3,881.89	-333.38	145.83	335.65	2.58	2.58	0.00
4,012.00	55.60	170.10	3,900.01	-359.36	150.36	361.70	0.63	0.63	0.00
4,043.00	56.20	170.10	3,917.39	-384.65	154.77	387.06	1.94	1.94	0.00
4,074.00	58.30	170.90	3,934.16	-410.36	159.07	412.83	7.11	6.77	2.58
4,106.00	61.80	172.10	3,950.14	-437.78	163.17	440.31	11.41	10.94	3.75
4,137.00	65.40	173.00	3,963.92	-465.31	166.76	467.90	11.90	11.61	2.90
4,168.00	68.80	174.00	3,975.98	-493.68	169.99	496.31	11.36	10.97	3.23
4,200.00	72.40	174.90	3,986.61	-523.71	172.91	526.39	11.56	11.25	2.81
4,231.00	76.00	175.80	3,995.05	-553.44	175.32	556.15	11.94	11.61	2.90
4,259.00	79.30	176.50	4,001.03	-580.73	177.16	583.46	12.04	11.79	2.50
4,348.00	88.80	178.80	4,010.25	-669.07	180.77	671.85	10.98	10.67	2.58
4,380.00	89.90	178.60	4,010.61	-701.06	181.50	703.85	3.49	3.44	-0.63
4,444.00	90.60	178.10	4,010.33	-765.03	183.34	767.84	1.34	1.09	-0.78



<b>Company:</b>	Unit Petroleum	<b>Local Co-ordinate Reference:</b>	Well Weller 31 #1H
<b>Project:</b>	Reno County, Kansas [NAD 83]	<b>TVD Reference:</b>	20' KB @ 1811.00usft (UDI 303)
<b>Site:</b>	Section 31 T25S-R10W	<b>MD Reference:</b>	20' KB @ 1811.00usft (UDI 303)
<b>Well:</b>	Weller 31 #1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

**Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,540.00	91.10	177.80	4,008.91	-860.96	186.77	863.81	0.61	0.52	-0.31
4,635.00	89.60	178.20	4,008.33	-955.89	190.09	958.79	1.63	-1.58	0.42
4,731.00	89.90	177.70	4,008.75	-1,051.83	193.52	1,054.77	0.61	0.31	-0.52
4,827.00	89.40	178.30	4,009.33	-1,147.77	196.87	1,150.75	0.81	-0.52	0.63
4,922.00	89.70	178.30	4,010.08	-1,242.72	199.69	1,245.73	0.32	0.32	0.00
5,018.00	88.90	178.10	4,011.25	-1,338.67	202.70	1,341.71	0.86	-0.83	-0.21
5,114.00	89.80	178.00	4,012.34	-1,434.61	205.97	1,437.69	0.94	0.94	-0.10
5,210.00	91.20	178.00	4,011.50	-1,530.54	209.32	1,533.67	1.46	1.46	0.00
5,302.00	87.70	177.70	4,012.39	-1,622.46	212.77	1,625.63	3.82	-3.80	-0.33
5,394.00	87.50	177.30	4,016.24	-1,714.29	216.78	1,717.51	0.49	-0.22	-0.43
5,473.59	88.61	176.96	4,018.94	-1,793.74	220.77	1,797.01	1.46	1.40	-0.43
<b>5487' MD TGT</b>									
5,487.00	88.80	176.90	4,019.24	-1,807.12	221.48	1,810.40	1.46	1.40	-0.43
5,579.00	87.90	175.40	4,021.89	-1,898.87	227.66	1,902.24	1.90	-0.98	-1.63
5,672.00	88.90	175.90	4,024.49	-1,991.56	234.71	1,995.04	1.20	1.08	0.54
5,763.00	90.10	175.70	4,025.28	-2,082.32	241.37	2,085.88	1.34	1.32	-0.22
5,855.00	91.20	175.30	4,024.24	-2,174.02	248.59	2,177.69	1.27	1.20	-0.43
5,947.00	90.90	174.80	4,022.55	-2,265.67	256.53	2,269.45	0.63	-0.33	-0.54
6,040.00	90.20	174.90	4,021.66	-2,358.29	264.88	2,362.19	0.76	-0.75	0.11
6,134.00	90.80	174.30	4,020.84	-2,451.86	273.72	2,455.90	0.90	0.64	-0.64
6,224.00	91.40	174.40	4,019.11	-2,541.41	282.58	2,545.57	0.68	0.67	0.11
6,316.00	90.60	174.50	4,017.51	-2,632.96	291.48	2,637.25	0.88	-0.87	0.11
6,407.00	90.70	174.50	4,016.47	-2,723.54	300.20	2,727.96	0.11	0.11	0.00
6,461.06	90.82	174.15	4,015.76	-2,777.33	305.54	2,781.82	0.68	0.22	-0.65
<b>6487' MD TGT</b>									
6,500.00	90.90	173.90	4,015.18	-2,816.05	309.60	2,820.61	0.68	0.22	-0.65
6,591.00	90.90	173.70	4,013.75	-2,906.51	319.42	2,911.21	0.22	0.00	-0.22
6,683.00	89.80	174.10	4,013.18	-2,997.99	329.20	3,002.83	1.27	-1.20	0.43
6,776.00	90.00	174.00	4,013.35	-3,090.48	338.84	3,095.47	0.24	0.22	-0.11
6,869.00	88.90	174.30	4,014.24	-3,182.99	348.32	3,188.12	1.23	-1.18	0.32
6,962.00	89.20	174.60	4,015.78	-3,275.55	357.31	3,280.80	0.46	0.32	0.32
7,054.00	89.40	175.00	4,016.91	-3,367.16	365.65	3,372.53	0.49	0.22	0.43
7,146.00	90.40	174.50	4,017.07	-3,458.77	374.07	3,464.27	1.22	1.09	-0.54
7,237.00	88.90	174.10	4,017.62	-3,549.32	383.10	3,554.95	1.71	-1.65	-0.44
7,332.00	89.40	173.10	4,019.03	-3,643.71	393.69	3,649.50	1.18	0.53	-1.05
7,429.00	90.20	172.50	4,019.37	-3,739.95	405.85	3,745.91	1.03	0.82	-0.62
7,444.29	90.28	172.39	4,019.31	-3,755.10	407.86	3,761.10	0.90	0.52	-0.73
<b>7487' MD TGT</b>									
7,525.00	90.70	171.80	4,018.62	-3,835.04	418.96	3,841.21	0.90	0.52	-0.73
7,621.00	91.30	171.50	4,016.94	-3,930.01	432.90	3,936.38	0.70	0.63	-0.31
7,716.00	90.90	170.70	4,015.12	-4,023.85	447.59	4,030.44	0.94	-0.42	-0.84
7,812.00	91.40	170.80	4,013.19	-4,118.58	463.02	4,125.41	0.53	0.52	0.10
7,907.00	92.00	170.00	4,010.37	-4,212.21	478.86	4,219.27	1.05	0.63	-0.84
8,003.00	90.30	170.20	4,008.44	-4,306.76	495.36	4,314.07	1.78	-1.77	0.21



<b>Company:</b>	Unit Petroleum	<b>Local Co-ordinate Reference:</b>	Well Weller 31 #1H
<b>Project:</b>	Reno County, Kansas [NAD 83]	<b>TVD Reference:</b>	20' KB @ 1811.00usft (UDI 303)
<b>Site:</b>	Section 31 T25S-R10W	<b>MD Reference:</b>	20' KB @ 1811.00usft (UDI 303)
<b>Well:</b>	Weller 31 #1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,099.00	89.90	169.50	4,008.28	-4,401.25	512.28	4,408.82	0.84	-0.42	-0.73	
8,194.00	89.30	168.80	4,008.94	-4,494.55	530.16	4,502.39	0.97	-0.63	-0.74	
8,289.00	89.60	168.40	4,009.85	-4,587.67	548.93	4,595.80	0.53	0.32	-0.42	
8,384.00	88.90	168.00	4,011.10	-4,680.66	568.36	4,689.08	0.85	-0.74	-0.42	
8,479.00	86.40	167.70	4,014.99	-4,773.44	588.34	4,782.17	2.65	-2.63	-0.32	
8,575.00	86.00	167.70	4,021.35	-4,867.03	608.74	4,876.07	0.42	-0.42	0.00	
8,671.00	84.40	166.40	4,029.39	-4,960.26	630.18	4,969.63	2.14	-1.67	-1.35	
8,673.47	84.41	166.34	4,029.63	-4,962.64	630.76	4,972.02	2.34	0.42	-2.32	
<b>Weller 31 1H PBHL (2.24)</b>										
8,766.00	84.80	164.20	4,038.33	-5,051.73	654.18	5,061.47	2.34	0.42	-2.32	
8,801.00	85.10	164.50	4,041.41	-5,085.31	663.58	5,095.19	1.21	0.86	0.86	
<b>Last Inwell Survey</b>										
8,846.00	85.10	164.50	4,045.25	-5,128.51	675.56	5,138.58	0.00	0.00	0.00	
<b>Projection to TD</b>										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
8,801.00	4,041.41	-5,085.31	663.58	Last Inwell Survey	
8,846.00	4,045.25	-5,128.51	675.56	Projection to TD	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# ALLIED OIL & GAS SERVICES, LLC 062856

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Market Blvd 12

DATE <u>3-9-14</u>	SEC. <u>30</u>	TWP. <u>25</u>	RANGE <u>10</u>	CALLED OUT <u>1:30 AM</u>	ON LOCATION <u>6:00 AM</u>	JOB START <u>9:00 AM</u>	JOB FINISH <u>11:00 AM</u>
LEASE <u>W-222</u>		WELL # <u>31-1 #</u>		LOCATION <u>Zanith 7S, 1E, 1S, 1/2E,</u>		COUNTY <u>Parmer</u>	STATE <u>Ks</u>
OLD OR NEW (Circle one)							

CONTRACTOR David 303 OWNER Same

TYPE OF JOB <u>liner</u>	CEMENT
HOLE SIZE _____ T.D. <u>8846'</u>	AMOUNT ORDERED <u>Small Class H, 0.25 SA51</u>
CASING SIZE <u>4 1/2 x 5 1/2</u> DEPTH <u>8830'</u>	<u>1000 gal Air/Mor. Se.# Sugar</u>
TUBING SIZE _____ DEPTH _____	
DRILL PIPE _____ DEPTH _____	
TOOL _____ DEPTH _____	
PRES. MAX <u>2000#</u> MINIMUM <u>1000#</u>	
MEAS. LINE _____ SHOE JOINT <u>78.60'</u>	
CEMENT LEFT IN CSG. <u>78.60'</u>	
PERFS. _____	
DISPLACEMENT <u>11.5' (40 Min Sugar H<sub>2</sub>O - 125 H<sub>2</sub>O)</u>	

EQUIPMENT				
PUMP TRUCK	CEMENTER <u>Tom Anderson</u>			
# <u>597</u>	HELPER <u>Kevin Gady</u>			
BULK TRUCK				
# <u>870-844</u>	DRIVER <u>Don Cooper</u>			
BULK TRUCK				
# _____	DRIVER <u>Charles Rangan</u>			

COMMON <u>Class H 5005# @ 21.30</u>	<u>10,000.00</u>
POZMIX _____ @ _____	
GEL _____ @ _____	
CHLORIDE _____ @ _____	
ASC _____ @ _____	
<u>FL-160 288</u>	<u>@ 18.90 5443.20</u>
<u>SA51 96</u>	<u>@ 17.55 1684.80</u>
<u>Sugar 50</u>	<u>@ 2.00 100.00</u>
<u>Air/Mor 1000 gal</u>	<u>@ 58.70 1409.80</u>
_____ @ _____	
_____ @ _____	
_____ @ _____	
_____ @ _____	
HANDLING <u>520.31</u>	<u>@ 2.48 1270.37</u>
MILEAGE <u>1288.09</u>	<u>@ 2.10 3141.03</u>
TOTAL	<u>27,668.70</u>

**REMARKS:**

Don 478' @ 4 1/2 in 4045' @ 5 1/2 in. Set at 8830'. Holes to be a Bore circulation. Press test to 2000# pumped 1000 gal Air/Mor. 5 H<sub>2</sub>O. Mixed 500 lb Class H. 0.25 SA51. Pumped 2 H<sub>2</sub>O from H<sub>2</sub>O. Worked up. Released plug. Displaced with H<sub>2</sub>O. Landed plug at 2000'. Released and float held.

**SERVICE**

DEPTH OF JOB _____	<u>8530'</u>
PUMP TRUCK CHARGE _____	<u>5899.75</u>
EXTRA FOOTAGE _____ @ _____	
MILEAGE <u>50</u> @ <u>7.70</u>	<u>385.00</u>
MANIFOLD _____ @ _____	
<u>1 in 50</u> @ <u>4.40</u>	<u>220.00</u>
_____ @ _____	

TOTAL 6503.75

CHARGE TO: David Petrolina

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

_____ @ _____	
_____ @ _____	
_____ @ _____	
_____ @ _____	
_____ @ _____	

TOTAL \_\_\_\_\_

To: Allied Oil & Gas Services, 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 30,171.95

DISCOUNT 12,068.78 IF PAID IN 30 DAYS

PRINTED NAME X Glen Monday

SIGNATURE X [Signature]

\$ 18,103.17

# ALLIED OIL & GAS SERVICES, LLC 062650

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Forest Road 14

DATE <u>2-23-14</u>	SEC. <u>30</u>	TWP. <u>25</u>	RANGE <u>10</u>	CALLED OUT <u>3:30 AM</u>	ON LOCATION <u>7:00 AM</u>	JOB START <u>1:00 AM</u>	JOB FINISH <u>12:00 PM</u>
LEASE <u>Waller</u>	WELL# <u>31-1H</u>		LOCATION <u>Zenith 7S, 1E, 1S, 1/2E</u>		COUNTY <u>Rock</u>	STATE <u>Ki</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR Dwit 303 OWNER Some

TYPE OF JOB Water

HOLE SIZE 8 1/4 T.D. 4306' CEMENT

CASING SIZE 7" DEPTH 4306' AMOUNT ORDERED 11600 lbs Cement

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_ 5% Gyp sand, 10% salt

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX 11600 MINIMUM 500

MEAS. LINE \_\_\_\_\_ SHOE JOINT 2'

CEMENT LEFT IN CSG. 2'

PERFS. \_\_\_\_\_

DISPLACEMENT 1164.9

**EQUIPMENT**

PUMP TRUCK CEMENTER Tom Newham

# 597 HELPER Kevin Gady

BULK TRUCK \_\_\_\_\_

# 603 DRIVER Brian Long

BULK TRUCK \_\_\_\_\_

# \_\_\_\_\_ DRIVER \_\_\_\_\_

COMMON 11600 @ 12.90 2864.00

POZMIX \_\_\_\_\_ @ \_\_\_\_\_

GEL \_\_\_\_\_ @ \_\_\_\_\_

CHLORIDE \_\_\_\_\_ @ \_\_\_\_\_

ASC \_\_\_\_\_ @ \_\_\_\_\_

Gyp sand 116 @ 32.60 601.60

Salt 32 @ 26.35 843.20

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

HANDLING 159.84 @ 2.49 470.30

MILEAGE 414.39 @ 2.60 1077.42

TOTAL 5957.02

**REMARKS:**

Ran 4306' of 7" cas. Bore simulation  
Pressure test to 2000 # Pumped 10 bbls  
H3O mixed 100% clay + 5% Gyp sand  
10% salt Released plug. Displaced  
with H3O. Loaded plug at 1500 #  
Released and floated plug. Pump plug  
back down. Shut in 200 #.  
Frank

**SERVICE**

DEPTH OF JOB 4306

PUMP TRUCK CHARGE \_\_\_\_\_ 2765.75

EXTRA FOOTAGE \_\_\_\_\_ @ \_\_\_\_\_

MILEAGE 50 @ 7.70 385.00

MANIFOLD \_\_\_\_\_ @ \_\_\_\_\_

Head Rent @ 275.00 275.00

LVM 50 @ 4.40 220.00

TOTAL 3645.75

CHARGE TO: Dwit Petroleum

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

AFE # 1400500

**PLUG & FLOAT EQUIPMENT**

Screened float shoe @ 712.53 712.53

2. Thread lock @ 83.07 166.14

Reel-in Plug @ 99.45 99.45

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL 978.12

To: Allied Oil & Gas Services, 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 \$ 10,480.89

DISCOUNT \$ 4192.35 IF PAID IN 30 DAYS

\$ 6288.54

PRINTED NAME X Max Lopez

SIGNATURE X [Signature]



# ALLIED OIL & GAS SERVICES, LLC 062649

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Academy Road K

DATE <u>2-18-14</u>	SEC.	TWP.	RANGE	CALLED OUT <u>3:00 PM</u>	ON LOCATION <u>6:15 PM</u>	JOB START	JOB FINISH <u>9:00 PM</u>
LEASE <u>Weller</u>	WELL# <u>31-1H</u>	LOCATION <u>Zenith 7 South 15 East</u>			COUNTY <u>Renew</u>	STATE <u>Ks</u>	
OLD OR <u>NEW</u> (Circle one)				<u>1 South 1/2 East</u>			

CONTRACTOR <u>Unit #303</u>	OWNER <u>Same</u>
TYPE OF JOB <u>Seal</u>	
HOLE SIZE <u>12 1/4"</u>	T.D. <u>1530</u>
CASING SIZE <u>9 5/8</u>	DEPTH <u>1530</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX <u>700 #</u>	MINIMUM <u>400 #</u>
MEAS. LINE	SHOE JOINT <u>2'</u>
CEMENT LEFT IN CSG. <u>2'</u>	
PERFS.	
DISPLACEMENT <u>118.63</u>	
EQUIPMENT	
PUMP TRUCK CEMENTER <u>Tom Anderson</u>	
# <u>597</u> HELPER <u>Charles Kenyon</u>	
BULK TRUCK	
# <u>599</u> DRIVER <u>Don Cooper</u>	
BULK TRUCK	
# <u>603</u> DRIVER <u>Mike Southern</u>	

CEMENT		
AMOUNT ORDERED <u>300 lbs AND 275 Supp</u>		
<u>2 1/2 NAMS, 2 1/2 cc, 1/4 # Flamed/oh</u>		
<u>280 lbs cement, 2 1/2 cc, 1/4 # Flamed/oh</u>		
COMMON <u>280</u>	@ <u>12.90</u>	<u>512.00</u>
POZMIX	@	
GEL	@	
CHLORIDE <u>15</u>	@ <u>64.00</u>	<u>960.00</u>
ASC	@	
<u>AND 300</u>	@ <u>25.90</u>	<u>7770.00</u>
<u>Flamed 145</u>	@ <u>2.97</u>	<u>430.65</u>
<u>Sugar 200 #</u>	@ <u>2.00</u>	<u>424.00</u>
	@	
	@	
	@	
	@	
HANDLING <u>633.42</u>	@ <u>2.48</u>	<u>1570.87</u>
MILEAGE <u>1422.09</u>	@ <u>2.10</u>	<u>3002.42</u>
TOTAL		<u>19864.99</u>

REMARKS:

Run 1530 of 9 5/8" csg. Back circulation  
Pumped 5 bbls H<sub>2</sub>O. Mixed 300 lbs AND  
2 1/2 NAMS, 2 1/2 cc, 1/4 # Flamed/oh  
Followed by 280 lbs cement 2 1/2 cc,  
1/4 # Flamed/oh 1 Release Plug. Displaced  
with H<sub>2</sub>O. Landed Plug at 700 #.  
Release & float Hold.  
Cement did circulate (Approx 80 bbls)  
To PCT

SERVICE

DEPTH OF JOB <u>1530'</u>		
PUMP TRUCK CHARGE		<u>2213.75</u>
EXTRA FOOTAGE	@	
MILEAGE <u>50</u>	@ <u>7.20</u>	<u>360.00</u>
MANIFOLD	@	
<u>Head Rent</u>	@ <u>275.00</u>	<u>275.00</u>
<u>1 VM 50</u>	@ <u>4.40</u>	<u>220.00</u>

TOTAL 3093.75

CHARGE TO: Unit Petroleum  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

<u>Rubber Plug</u>	@ <u>184.86</u>	<u>184.86</u>
<u>General Float Shoe</u>	@ <u>1213.29</u>	<u>1213.29</u>
<u>S- Controlizer</u>	@ <u>87.25</u>	<u>438.75</u>
<u>2 Thread Lock</u>	@ <u>83.07</u>	<u>166.14</u>
<u>1 Bucket</u>	@ <u>594.36</u>	<u>594.36</u>

TOTAL 2597.40

To: Allied Oil & Gas Services, 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 \$ 25,552.09  
DISCOUNT \$ 9220.29 IF PAID IN 30 DAYS

PRINTED NAME X [Signature]  
SIGNATURE X [Signature]

\$ 15,835.80

# Mid-Continent Conductor, LLC

P.O. Box 1570, Woodward, OK 73802  
Ph. 580-254-5400 Fax 580-254-3242

## CEMENTING REPORT

Operator: Unit Corporation
Well Name: Weller 31-1H
Legal Description: Reno Cnty, KS

Cement Casing Data	
Cementing Date	1/20/14
Size of Drill Bit (Inches)	28
Size of Casing (Inches O.D.)	16
Setting Depth of Casing (ft.) from ground level	160
Type of Cement	Common Cement
Sacks of Cement Used	144
Was cement circulated?	Yes
Job witnessed by: Jamie Lane	



Jeff M. Owen  
Mid-Continent Conductor, LLC



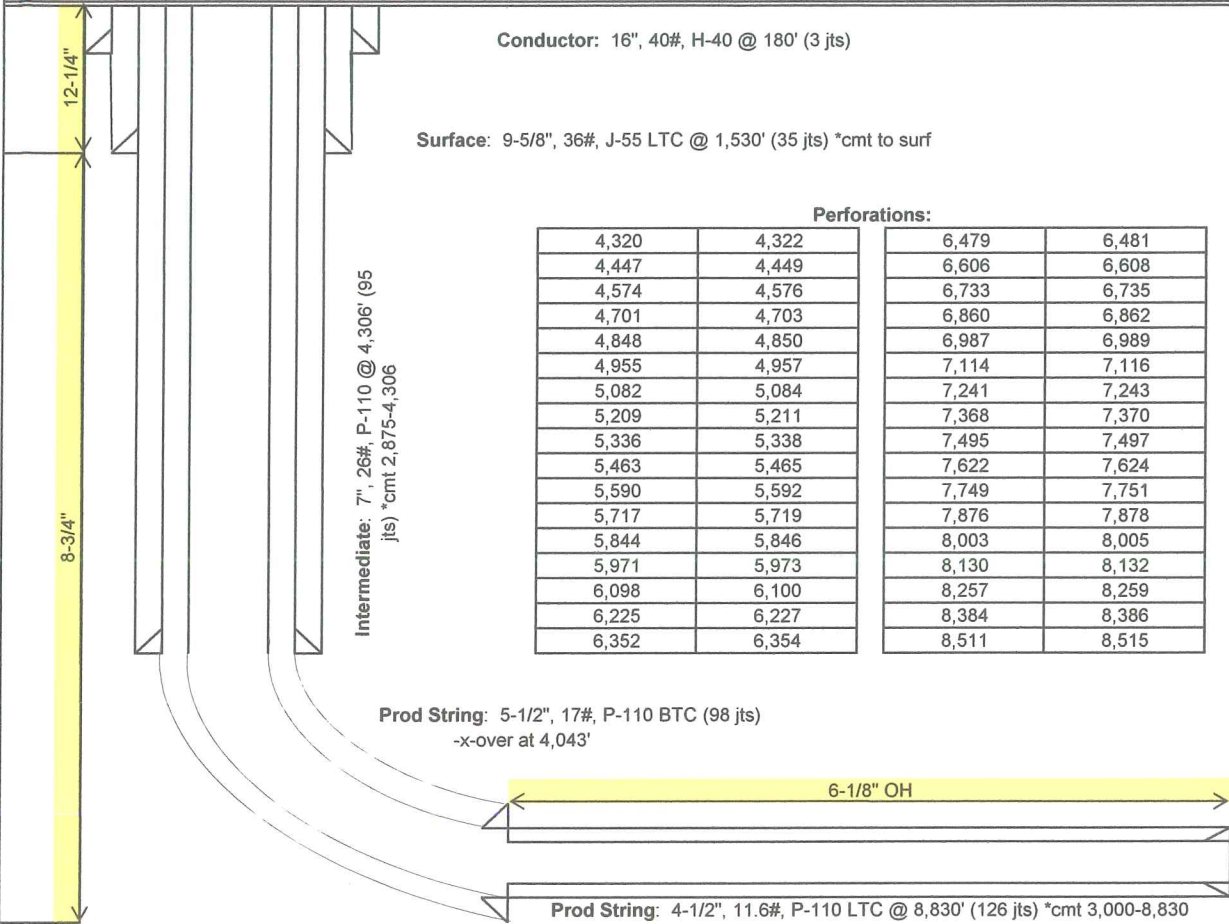
**Unit Petroleum Company**

Date of Last Revision:  
**27-May-14**

**Well:** Weller 31 #1H  
**Location:** 30-25S-10W  
**County, State:** Reno County, KS  
**Surface Location:** 150' FSL and 2350' FEL

**API No.:** 1515521677  
**Rig:** Unit Drilling #303  
**Engineer:** Brent Keys (918) 477-4510  
**Geology:** Rob Wilson (928) 477-5728

**OH Size**



**Perforations:**

4,320	4,322	6,479	6,481
4,447	4,449	6,606	6,608
4,574	4,576	6,733	6,735
4,701	4,703	6,860	6,862
4,848	4,850	6,987	6,989
4,955	4,957	7,114	7,116
5,082	5,084	7,241	7,243
5,209	5,211	7,368	7,370
5,336	5,338	7,495	7,497
5,463	5,465	7,622	7,624
5,590	5,592	7,749	7,751
5,717	5,719	7,876	7,878
5,844	5,846	8,003	8,005
5,971	5,973	8,130	8,132
6,098	6,100	8,257	8,259
6,225	6,227	8,384	8,386
6,352	6,354	8,511	8,515