

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

**ORIGINAL**

Form ACO-1

June 2009

Form Must Be Typed

Form must be Signed

All blanks must be Filled

OPERATOR: License # 7564  
Name: R & W Energies  
Address 1: % Diana Smith Accounting  
Address 2: P.O. Box 427 203 W. Main  
City: Madison State: Ks Zip: 66860  
Contact Person: Kevin F. Hough  
Phone: (620) 583 4785  
CONTRACTOR: License # 33217  
Name: Three Rivers Exploration Company Inc.  
Wellsite Geologist: Jack Berentz  
Purchaser: Maclaskey Oilfield Service

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 #: \_\_\_\_\_

11/12/11    11/16/11  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date    Recompletion Date

API No. 15 - 073-24164-0000  
Spot Description: C of the East Line NW NW  
e2 e2 nw nw    Sec. 23    Twp. 24    S. R. 9     East  West  
660    Feet from  North /  South Line of Section  
1100    Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Greenwood  
Lease Name: Gray-Divine    Well #: 1  
Field Name: Thrall- Aggard  
Producing Formation: Bartlesville  
Elevation: Ground: 1175    Kelly Bushing: 1179  
Total Depth: 2238    Plug Back Total Depth: 2228  
Amount of Surface Pipe Set and Cemented at: 40    Feet  
Multiple Stage Cementing Collar Used?     Yes     No  
If yes, show depth set: \_\_\_\_\_    Feet  
If Alternate II completion, cement circulated from: 2238  
Ground Level    385  
feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

(Data must be collected from the Reserve Pit)

Chloride content: 500    ppm    Fluid volume: 300    bbls  
Dewatering method used: Let Dry and Backfill

Location of fluid disposal if hauled offsite:

Operator Name: n/a  
Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Permit #: \_\_\_\_\_

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**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

**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.

Signature: Kevin F. Hough  
Title: Affiant    Date: 5/23/2012

**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: DG    Date: 5/24/12

Operator Name: R & W Energies Lease Name: Gray-Divine Well #: 1  
 Sec. 23 Twp. 24 S. R. 9  East  West County: Greenwood

**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 checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run: <b>Gamma Ray Neutron</b>	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample  <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Name</td> <td style="width:20%;">Top</td> <td style="width:20%;">Datum</td> </tr> <tr> <td>Douglas Sand</td> <td>1032-</td> <td>+143</td> </tr> <tr> <td>Lansing</td> <td>1153</td> <td>+22</td> </tr> <tr> <td>Kansas City</td> <td>1463</td> <td>-288</td> </tr> <tr> <td>Pawnee</td> <td>1769</td> <td>-594</td> </tr> <tr> <td>Bartlesville Sand</td> <td>2129</td> <td>-954</td> </tr> </table>	Name	Top	Datum	Douglas Sand	1032-	+143	Lansing	1153	+22	Kansas City	1463	-288	Pawnee	1769	-594	Bartlesville Sand	2129	-954
Name	Top	Datum																	
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Pawnee	1769	-594																	
Bartlesville Sand	2129	-954																	

CASING RECORD <input checked="" 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
Surface	12 1/4	8 5/8	24	40'	common	50	3% c.c.
Production	7 7/8	4 1/2	11.5	2238	Poz mix	385	

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
— Perforate	N/A			
— Protect Casing				
— Plug Back TD	N/A			
— 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
1 shots/ft	2152-2164 13 shots	750 gal 15% HCL Acid	2152-
2 shots/ft	2172-2185 27 shots total 40 shots	792 bbl total fluid and 35000 lbs sand	2185
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TUBING RECORD: Size: <u>2 3/8</u> Set At: <u>2154</u> Packer At: <u>n/a</u>			Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>1/26/2012</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls. <u>5 bbl</u>	Gas Mcf	Water Bbls. <u>100 bbl</u> Gas-Oil Ratio _____ Gravity <u>40</u>

DISPOSITION OF GAS: <input checked="" 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 checked="" 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: <u>2152--2185</u>
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**CONSOLIDATED**  
Oil Well Services, LLC

TICKET NUMBER 33420  
LOCATION EUREKA  
FOREMAN KEVIN M<sup>c</sup>COY

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**

CEMENT API \*15-073-24164

KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
11-15-11	7263	GRAY-DIVINE #1	23	24S	9E	GW

CUSTOMER  
R & W Energies

MAILING ADDRESS  
P.O. Box 427

CITY  
MADISON

STATE  
KS

ZIP CODE  
66860

Three Rivers Explor.

TRUCK #	DRIVER	TRUCK #	DRIVER
520	John S.		
515	SHANNON F		
479	CHRIS B		
452 T-63	JIM M.		

JOB TYPE Longstring O HOLE SIZE 7 7/8" HOLE DEPTH 2240' G.L. CASING SIZE & WEIGHT 4 1/2 11.60# New

CASING DEPTH 2238' G.L. DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_

SLURRY WEIGHT 12.5-13.6 SLURRY VOL 128 BBL WATER gal/sk 9.0 CEMENT LEFT In CASING 10.30'

DISPLACEMENT 35 BBL DISPLACEMENT PSI 1000 MAX PSI 1500 Bump Plug RATE 5 BPM

REMARKS: Safety Meeting: Rig up to 4 1/2 casing. BREAK Circulation w/ 10 BBL Fresh water. Mixed 285 sks 60/40 Pozmix Cement w/ 8% Gel, 1" Pheno Seal /sk @ 12.5" /gal, yield 1.85. Tail in w/ 100 sks Thick Set Cement w/ 5" Kol-Seal /sk, 1" Pheno Seal /sk @ 13.6" /gal, yield 1.85. Wash out Pump & Lines. Shut down. Release Latch down Plug. Displace to Seat w/ 35 BBL Fresh water. Final Pumping Pressure 1000 psi. Bump Plug to 1500 psi. wait 2 minutes. Release Pressure. Float & Plug Held. Good Cement Returns to Surface = 12 BBL Slurry to Pit. Annulus Standing Full. No Fall Back. Job Complete. Rig down.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	975.00	975.00
5406	15	MILEAGE	4.00	60.00
4311	1	4 1/2 weld on COLLAR	70.00	70.00
1131	285 sks	60/40 Pozmix Cement	11.95	3405.75
1118 B	1960 *	Gel 8% } Lead Cement	.20	392.00
1107 A	285 *	Pheno Seal 1" /sk	1.22	347.70
1126 A	100 sks	THICK Set Cement	18.30	1830.00
1110 A	500 *	Kol-SEAL 5" /sk } Tail Cement	.44	220.00
1107 A	100 *	Pheno Seal 1" /sk	1.22	122.00
5407	17.75 Tons	15 miles BULK DELV. RECEIVED	1.26	335.48
5502 C	3 HRS	WATER TRANSPORT MAY 24 2012	112.00	336.00
1123	6000 gals	City water	15.60/1000	93.60
4201	1	4 1/2 Guide Shoe KCC WICHITA	115.00	115.00
4453	1	4 1/2 LATCH down Plug	232.00	232.00
4226	1	4 1/2 AFU INSERT FLOAT Valve	161.00	161.00
4103	1	4 1/2 Cement BASKET	218.00	218.00
4129	5	4 1/2 x 7 7/8 CENTRALIZERS	42.00	210.00
		Sub Total		9123.53
		THANK You 7.3%	SALES TAX	541.44
			ESTIMATED TOTAL	9664.97

Ravin 3737

AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

GEOLOGICAL REOPRT

R&W ENERGIES

GRAY DIVINE WELL #1

LOCATION E/2 E/2 NW NW 1100' FWL & 660' FROM NORTH LINE

SECTION 23-24S-9E

ELEVATION GL--1175      KB—1180'

PERMANENT DATUM GL 1175'

SURFACSE CASING 8 5/8" SET AT 50' & CEMENTEDWITH 50 SACKS

CIRCULATED CEMENT TO SURFACE

PRODUCTION CASING 4 1/2" 11.5 # SET @ 2238' CEMENTED WITH 385 SACKS

CIRCULATED CEMENT TO CELLAR

CONSOLATED CEMENTING COMPANY CEMENTED CASING

CONTRACTOR      THREE RIVERS DRILLING COMPANY

COMMENCED DRILLING UNDER SURFACE    11/12/11

COMPLETED WITH ROTARY TOOLS            11/16/11

FORMATION TOPS

Douglas Sand	900'	+ 275'
Base of Douglas	950'	+ 225'
Stalnaker Sand	1032'	+ 143'
Base Sand	1116'	+ 59'
Lansing	1153'	+ 22'
Base	1327'	- 152'
Kansas City	1463'	- 288'
Base KC	1617'	- 442'
Pawnee	1769'	- 594'
Bartlesville Sand	2129'	- 954'

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Bartlesville Sand	2129'	- 954'
Base BV	2190'	- 1015'
Plug back TD	2228'	- 1053'
Rotary Total Depth	2240'	-1065'

The only zone of interest in this well is the Bartlesville Sandstone. The top of the Bartlesville is at 2129' picked from drilling time. The samples were not washed clean but I did find in the 2140' sample a slight odor in gray tight sand clusters. The 2150' sample same as above, little better odor and cleaner sand gray in color. 2160' sample light gray to tan sandstone w/ slight odor and when I broke open sand clusters noticed a waxiness and found very few pieces with small drops of oil. The 2170' sample was cleaner sand friable small amt. of oil popping from clusters broken open. The 2180' sample cleaner, drilling time broke to 1/2 min per foot; sand clusters show waxiness and when clusters are broken open there are small spots of clean light gravity oil. The 2190' sample was the cleanest friable sand yet with porosity fair odor with small amount of free oil, drilled 1/2 min per foot. The base of the Bartlesville is 2190'. The top 40' of sand was tighter than lower section but it had slight, grading in to fair odor with depth. The real good sand was found at 2170' to 2190'. I am sure most of the oil and sand flooded was from 2175' to 2190'. Most of the wells in this field were perforated in the lower cleaner sandstone. The zone I have last above described. This lower sand drilled soft and had some loose grains in tray with good porosity. Below this sand was gray shale. This well was not drilled to the Mississippi.

Cornish Wireline Service ran a Gamma Ray- Neutron, Cement Bond and Completion Log on 11/22/11

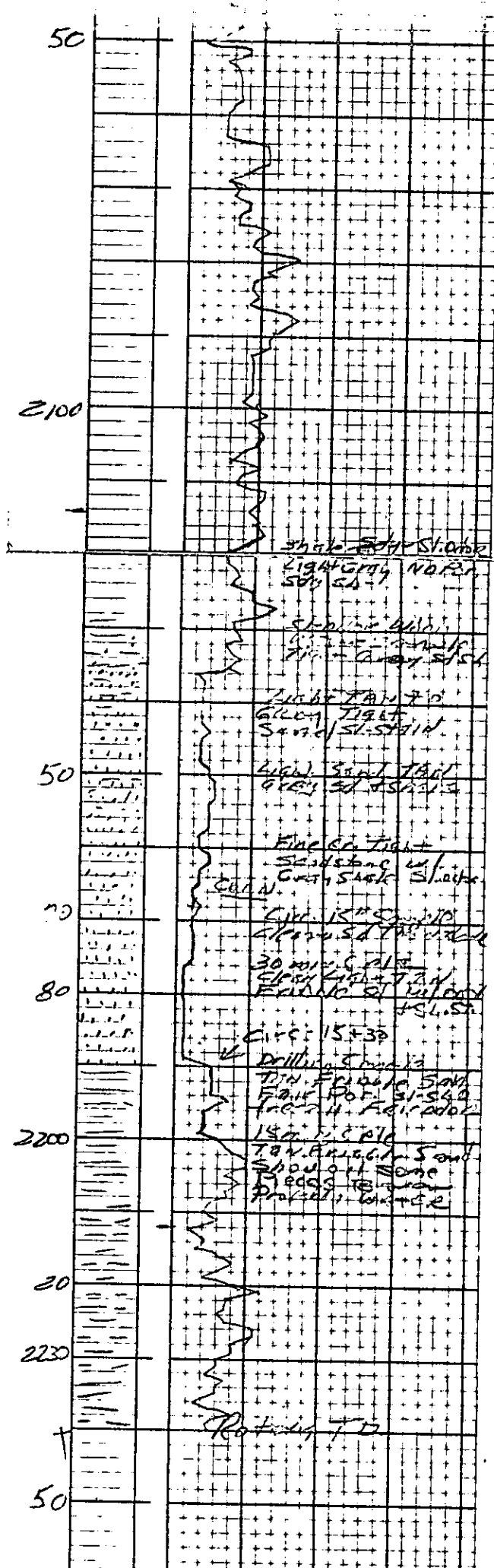
I think it would be interesting to perforate from 2160' to 2170'. Then frac w/ 35 to 40,000# of sand, cross link gel and maintain an injection rate 8 to 10 bbl pm, trying to extend the fracture as far from bore hole as possible. By perforating the interval I have set out you would be fracing the tighter sand that has not been produced to the extent that the lower sand has been produced. You need to spend a lot of time and figure the economics as to where to perforate and which zone you want to frac. If you decide to perforate and frac as I have suggested. I would displace 30,000# of sand at the low rate of 8 to 10 bbl per minute and the increase the injection rate to 25, to 30 bbl per minute bbl per minute for the last 10,000# sand, or use a diverting agent, this might help give you a more vertical frac to get some sand in the lower, higher porosity zone.

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I think it would be ideal to get a little sand in both zones. This should help the cumulative production.



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WIRELINE SERVICES, INC. CHANUTE, KANSAS

GAMVIVA KAT  
NEUTRON  
CEMENT BOND  
COMPLETION LOG

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Company R & W ENERGIES  
 Well GRAY - DIVINE #1  
 Field THRALL - AGARD  
 County GREENWOOD State KANSAS

Company R & W ENERGIES  
 Well GRAY - DIVINE #1  
 Field THRALL - AGARD  
 County GREENWOOD State KANSAS

Location: API #: E2 E2 - NW 1/4 NW 24S RGE 9E  
 Other Services: Elevation 1175'

Permanent Datum G.L. Elevation 1175'  
 Log Measured From G.L.  
 Drilling Measured From K.B. G.L. 1190'  
 G.L. 1175'

Date	11-22-2011
Run Number	1-NEW WELL
Depth Driller	GR-N-CCL-CBL
Depth Logger	2228.3'
Top Log Interval	SURFACE
Bottom Logged Interval	2228.3'
Fluid Level	FULL
Type Fluid	WATER
Production Casing	4.5" @ 2238' 8 5/8" @ 40' @
Max Recorded Temp.	
Estimated Cement Top	27'
Calculated Cement Top	
Amount & Type Cement	
Amount & Type Admix	
Drilling Contractor	THREE RIVERS
Equipment Number	107
Location	UDEN, D.
Recorded By	

