

# GEOLOGICAL REPORT

**John Jay Darrah, Jr.**

**Marshall #25**

**NW SE SW NW Section 1-T24S-R9E**

**Greenwood County, Kansas**

COMMENCED: 08-23-10

STATUS: Oil

COMPLETED: 08-28-10

A.P.I. #: 15-073-24143

CONTRACTOR: Rig 6 Drilling Company

OPERATOR LIC.: 5088

SIZE OF HOLE: 6 3/4"

FIELD: Thrall-Aagard

SURFACE PIPE: 8 5/8"

ELEVATION: 1359 G.L. Est.

CEMENTED WITH: N/A

LOGS: None

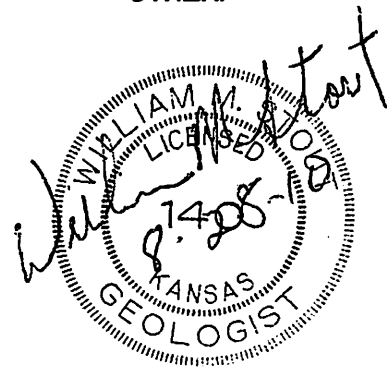
LONG STRING: 4 1/2"

MUD SYSTEM: Chemical

CEMENTED WITH: N/A

OTHER:

R.T.D.: 2380'



**William M. Stout**  
Geologist

# FORMATION TOPS

1359 G.L. Est.

	<u>Sample</u>
Ardmore	2159 -830
Bartlesville Sand	2309 -950
Base Bartlesville Sand	2320 -961
Total Depth	2380 -1021

## SAMPLE DESCRIPTIONS

Bartlesville Sand 2309' (-950)

2309' - 2320'

Sandstone - light brown, fine grain, micaceous, friable, some calcareous, fair odor, light stain, show free oil with gas bubbles, fair fluorescence, poor to fair porosity.

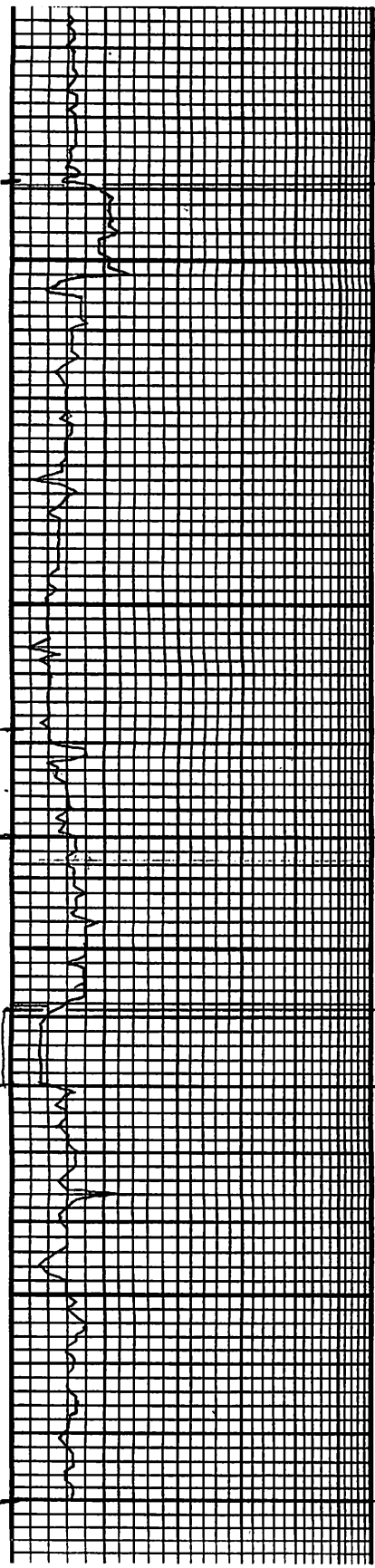
## CONCLUSIONS

The decision to run casing was made to further evaluate the Bartlesville Sand through perforations.

## LEGEND

Anhydrite	Salt	Sandstone	Shale	Carb sh	Limestone	Ool. Lime	Chert	Dolomite

DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases 	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
	2100		Ls-Lt. BEN, BEN, F-X, FOS. DNS. NS. NUP 2/SN. BCCARD.		1359 G.L.
			SN-Ly, LRM, W/SS. Lt. Gy F-G. GLO. HD. WS. NUP		
			SN-Ly LRM, S/SPY. WAXY.		
			SN-Ly GRN. DLGY.		
	50		SN-Ly DLGY GRN.		



2200

50

2300

50

SH-DK Gy GRN.
SH-AA.
ls. Gy H. Ben F. X. Fos. DAN. N ST NU P N/ SH-DK Gy BLK.
SH-BLK CARB. w/ls. AA.
SH-Gy. DK Gy. GRN.
SH-AA. S/BLK.
SH-DK Gy, Gy. GRN.
SH-AA.
SH-DK Gy Gy. BLK. to MYR.
SH-AA. S/SDY
SH-DK Gy Gy. S/BLK. SDY.
SH-AA. H.d. CALL IMPX.
SH-AA.
SH-Lt. BRN F. G. MICA. FOL. FR OR. Lt. ST. S. F. ON/GB. FOL. V. P. P. 150/AA SH-AA. CARB. S. GRN. S. GRN.
SH-Gy. DK Gy. GRN.
SH-AA.
SH-AA. to COAL
SH-DK Gy Gy S/COAL
SH-AA
SH-DK Gy Gy GRN.

ARDMORE  
2189(-83c)

BARTLESVILLE  
STAN  
2309(-95c)

BASE  
BARTLESVILLE  
S  
2320(-96i)

R.T.D.  
2380(-102)



**CONSOLIDATED**  
Oil Well Services, LLC

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

TICKET NUMBER 50905  
FIELD TICKET REF # \_\_\_\_\_  
LOCATION Thayer  
FOREMAN Brett Busby

**TREATMENT REPORT  
FRAC & ACID**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
9-22-10		Marshall # 25	1	24S	9E	GW
CUSTOMER <u>John Jay Darragh</u>						
MAILING ADDRESS						
CITY		STATE	ZIP CODE			

TRUCK #	DRIVER	TRUCK #	DRIVER
476	Josh R	452T63	Eel Strickland
<del>476</del> 371	Landin	12W	SC
482	Eric		
453T91	Charles	710	
453T95	Trampis	459	Steve H-28
482T103	George	647	

**WELL DATA**

CASING SIZE <u>4 1/2</u>	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
<u>2311-24 (21)</u>	<u>Beardsville</u>

**TYPE OF TREATMENT**  
Frac

**CHEMICALS**  
Kelsub-Biocide-Stimul-Breaker

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
<u>1710</u>	<u>115</u>	<u>20.9</u>			<u>1400</u>	BREAKDOWN <u>N/A</u>
<u>20-40</u>		<u>21</u>	<u>1.5</u>		<u>↓</u>	START PRESSURE
<u>20-40</u>		<u>21</u>	<u>1.0</u>	<u>3,000#</u>	<u>↓</u>	END PRESSURE
<u>12-20</u>		<u>↓</u>	<u>1.0</u>		<u>1200</u>	BALL OFF PRESS
<u>12-20</u>		<u>↓</u>	<u>1.5</u>		<u>↓</u>	ROCK SALT PRESS
<u>12-20</u>		<u>↓</u>	<u>2.0</u>		<u>↓</u>	ISIP <u>823</u>
<u>12-20</u>		<u>↓</u>	<u>2.0</u>		<u>↓</u>	5 MIN <u>640</u>
<u>12-20</u>		<u>↓</u>	<u>2.5</u>		<u>1100</u>	10 MIN <u>610</u>
<u>12-20</u>		<u>↓</u>	<u>2.5</u>			15 MIN <u>594</u>
<u>12-20</u>		<u>21</u>	<u>3.0</u>	<u>↓</u>	<u>1250</u>	MIN RATE
<u>12-20</u>		<u>21</u>	<u>3.0</u>	<u>16,800#</u>	<u>6</u>	MAX RATE
<u>FLUSH CASING</u>	<u>30</u>	<u>21</u>			<u>1700</u>	DISPLACEMENT <u>37.5</u>
<u>TOTAL BBL'S</u>	<u>458</u>		<u>TOTAL SAND</u>	<u>19800#</u>		

REMARKS: setup equipment - hold safety meeting - \*well previously acidized  
shut down before complete flush + pack sand too tight

Location 2:00 PM - 3:50 PM 100 miles

AUTHORIZATION \_\_\_\_\_ TITLE Will Darragh DATE 9-22-10

Prepared by: Consolidated Oil Well Services

Company Name: John Jay Darrah Jr. Darrah Oil Company

Well Name: Marshall #25

Field: NW 1-24-9

Formation: Bville

County: GW

State: KS

Job Date: 09/22/10

Comments: Sand Frac

Perfs 2312-22, 21 shtsw

Fluids: 458 bbls, city, kcl, 25# gel, biocide

Proppants: 3000# 20/40, 16800# 12/20

Average Rate: 20.9

Average STP: 1250

Tubing:

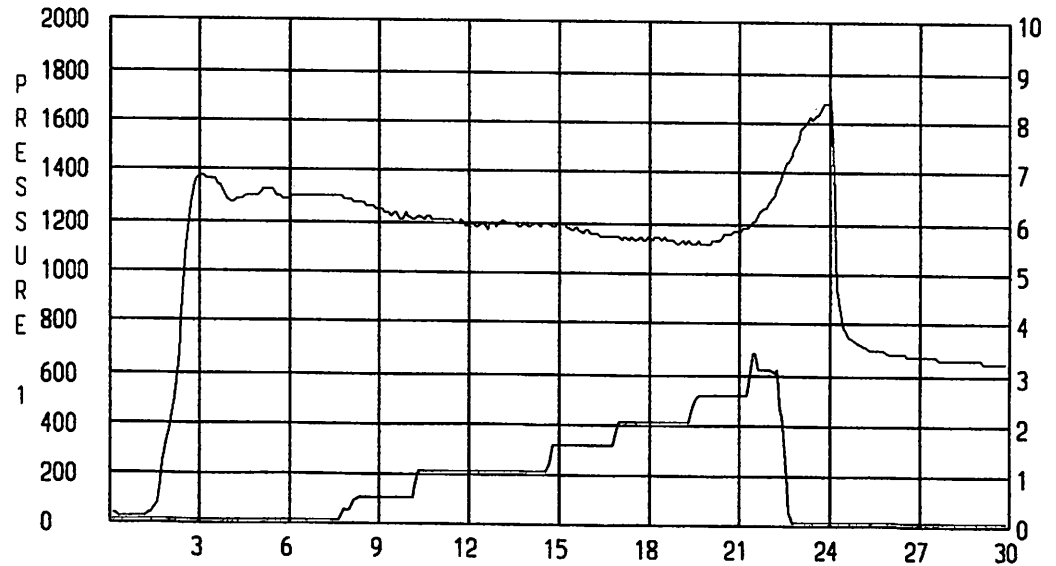
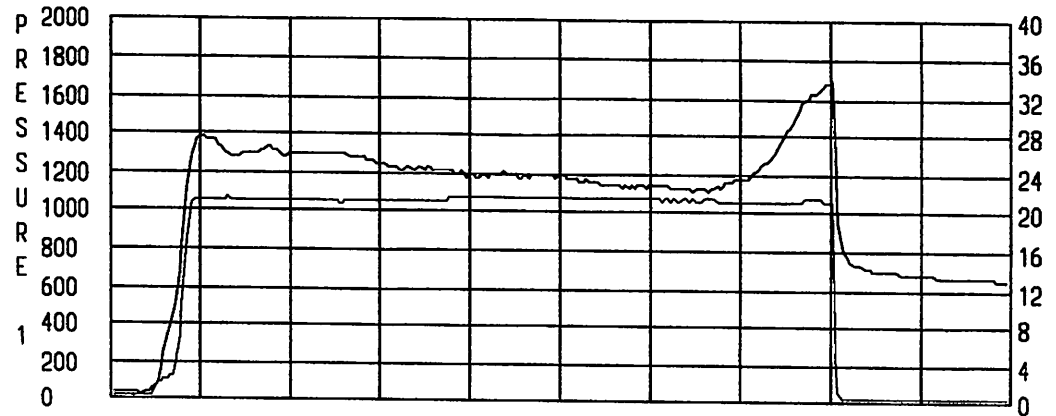
Casing: 4 1/2

Packer:

Filename: 08072501

Closure Pres: 4000

### LINEAR PLOT



Elapsed Time (min), Start at 14:39:41

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**CONSOLIDATED**  
Oil Well Services, LLC

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

TICKET NUMBER 29076  
LOCATION \_\_\_\_\_  
FOREMAN \_\_\_\_\_

**FIELD TICKET & TREATMENT REPORT  
CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER <u>oil</u>	SECTION	TOWNSHIP	RANGE	COUNTY
9-14-10	2476	Marshall 25	1	24	4	GN
CUSTOMER John Jay Darrah JR			TRUCK # DRIVER TRUCK # DRIVER			
MAILING ADDRESS 225 N Market St Ste 300			443 J.P			
CITY STATE ZIP CODE Wichita KS						

JOB TYPE Acid HOLE SIZE 6 7/8 HOLE DEPTH 2380 CASING SIZE & WEIGHT 4 1/2 9.5  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT \_\_\_\_\_ SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT 66 BBLs DISPLACEMENT PSI 800 MIX PSI \_\_\_\_\_ RATE 5 BPM

REMARKS: Safety meeting - Rig up to 4 1/2 casing - Slob down to bottom perfs (2312-2322) 21 shots (Drop 40 Ball Sealers) - pump 250 Gallons 15% HCL Acid 30.2 BBLs KCL water hole loaded 30.2 - Stage well 500' - 750' well broke at 850' over flush 50 BBLs KCL water - shutdown. Rig down swob well down to 1500' - Rig up to 4 1/2 again pump 950 gallons 15% HCL Acid w/INH - prop 40 Ball Sealers well balled off 2600' Release Ball Sealers wait 15 mins continue flush 66 BBLs KCL water at 5 BPM 800' shutdown. 750' 5-mins 700' 10-min 680' Close well in. Job complete Rig down.

Thank you  
Ed J.P. Scott

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5303	1	PUMP CHARGE	790.00	790.00
5306	10	MILEAGE	3.65	36.50
3107	1200 Gallons	15% HCL Acid w/INH	1.70	2040.00
3171	6 Gallons	Iron CONTROL	40.00	240.00
3175	6 Gallons	non Emul	33.00	198.00
3134	3 Gallons	Surface Tension Reducer	36.00	108.00
3172	3 Gallons	KCL	32.00	96.00
5311	1	Ball Gun Rental	100.00	100.00
4326	40	Ball sealers	3.00	120.00
3129	4500 Gallons	City Water 14.90/1000	14.90	67.05
	4"	Water Truck (RS) mcdory Trucking	100.00	400.00
			<b>SUBTOTAL</b>	<b>4026.50</b>
			SALES TAX	
			ESTIMATED TOTAL	

AUTHORIZATION [Signature] TITLE W.J. Darrah DATE 9-14-10

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.



**CONSOLIDATED**  
Oil Well Services, LLC

WELL NUMBER 29112

LOCATION Eureka

FOREMAN Russell McCoy

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

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-28-2010	2470	Marshall # 25	1	24	4	GW
CUSTOMER John Jay Darrah JR			TRUCK #		DRIVER	
MAILING ADDRESS 225 N. Market ST STE 300			520		CLIFF	
CITY Wichita			479		DAVE	
STATE KS			543		DAVE	
ZIP CODE			452 T-63		ED	

JOB TYPE Longstring 0 HOLE SIZE 6 3/4 HOLE DEPTH 2380 CASING SIZE & WEIGHT 4 1/2 9.5  
 CASING DEPTH 2770 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 12.5 13.5 SLURRY VOL \_\_\_\_\_ WATER gal/sk 8.0 CEMENT LEFT in CASING 0  
 DISPLACEMENT 39 Bbl DISPLACEMENT PSI 800 MIX PSI Bump Plug 1300 RATE \_\_\_\_\_

REMARKS: Safety meeting. Rig up to 4 1/2 casing. Break circulation w/ 10 Bbl fresh water, mix 150 SK's 60/40 B/Gel 1/2 # Phenoseal at 12.5 # PT/GALLON TAIL IN w/ 60 SK's T.S. cement w/ 5 # Kolseal at 13.5 # SHUT DOWN, WASH OUT Pump + Lines, Release 4 1/2 TOP Rubber Plug. Displace w/ 39 Bbl water. Final pump PSI 800 # Bump Plug to 1300 # check FLOAT, FLOAT HELD. GOOD Circulation During cementing procedure. Job complete, TRAC Down.

NOTE Rotate casing during cementing procedure.

THANK YOU  
Russell McCoy

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	925.00	925.00
5406	10	MILEAGE	3.65	36.50
1126 A	60 SK's	Thick set cement	17.00	1020.00
1110 A	300 #	Kolseal 5 # PT/SK	.42	126.00
1131	150 SK's	60/40 Pozmix	11.35	1702.50
1118 B	1050 #	= B/Gel	.20	210.00
1107 A	80 #	Phenoseal	1.15	92.00
5611	1	4 1/2 Rotating Head	100.00	100.00
5407	9.75 Tons	Ton mileage Bulk Trucks x 2	315	630.00
4404	1	4 1/2 TOP Rubber Plug	45.00	45.00
4156	1	4 1/2 FLAPER TYPE FLOAT SHOE	227.00	227.00
4129	2	4 1/2 x 6 3/4 Centralizer	40.00	80.00
	5,000 gallons	CITY WATER	14.50	72.50
5501C	4 hr	150 Bbl Transport	112.00	448.00
		SubTOTAL		5,714.50
		SALES TAX		
		ESTIMATED TOTAL		

Ravin 3737

AUTHORIZATION W. J. Darrah

TITLE Boss

DATE 8-28-2010

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**CONSOLIDATED**  
Oil Well Services, LLC

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

TICKET NUMBER 29046

LOCATION EUTEKA

FOREMAN Kevin McCoy

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY																
8-21-10	2410	MARSHALL # 25	1	24S	4E	6W																
CUSTOMER <u>John Jay DARRAH JR.</u>			<table border="1"> <thead> <tr> <th>TRUCK #</th> <th>DRIVER</th> <th>TRUCK #</th> <th>DRIVER</th> </tr> </thead> <tbody> <tr> <td>445</td> <td>Justin</td> <td></td> <td></td> </tr> <tr> <td>479</td> <td>Troy</td> <td></td> <td></td> </tr> <tr> <td>436</td> <td>ALAN M.</td> <td></td> <td></td> </tr> </tbody> </table>				TRUCK #	DRIVER	TRUCK #	DRIVER	445	Justin			479	Troy			436	ALAN M.		
TRUCK #	DRIVER	TRUCK #					DRIVER															
445	Justin																					
479	Troy																					
436	ALAN M.																					
MAILING ADDRESS <u>225 N. MARKET ST. STE 300</u>																						
CITY STATE ZIP CODE <u>WICHITA KS 67100</u>																						
Rig 6 D-19.																						

JOB TYPE SURFACE HOLE SIZE 12 1/4 HOLE DEPTH 203' CASING SIZE & WEIGHT 8 5/8" 23"  
 CASING DEPTH 200' DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 15" SLURRY VOL 24 BBL WATER gal/sk 6.5 CEMENT LEFT in CASING 15'  
 DISPLACEMENT 11.7 BBL DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety Meeting: Rig up to 8 5/8 Casing. BREAK CIRCULATION w/ 5 BBL Fresh water. MIXED 100 SKS CLASS "A" Cement w/ 3% CaCl2, 2% Gel, 1/4" Floccle @ 15"/gal @ 1.35 yield. Displace w/ 11.7 BBL fresh water. Shut casing in. Good Cement Returns to SURFACE. Job Complete. Rig down.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	700.00	700.00
5406	10	MILEAGE	3.55	35.50
11045	100 SKS	CLASS "A" Cement	13.10	1310.00
1102	280 "	CaCl2 3%	.73	204.40
1118 B	200 "	Gel 2%	.20	40.00
1107	25 "	Floccle 1/4"/sk	2.00	50.00
5407	4.7 Tons	Ton Mileage BULK TRUCK	M/c	305.00
5502 C	3 Hrs	80 BBL VAC TRUCK	96.00	288.00
1123	2500 gals	City water	14.50/1000	36.25
<p>pd CC # 29046 # 2918.88</p> <p>Discount = \$ 110.04</p>				
			Sub Total	2969.15
THANK You			SALES TAX 7.3%	119.77
A 23641			ESTIMATED TOTAL	3088.92

Ravin 3737

AUTHORIZATION Witnessed By Bub

TITLE Owner Rig 6 Delg.

DATE 8-21-10

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.