



Discovery Drilling

P.O. Box 763 • Hays, KS 67601 • OFFICE (785) 623-2920 • CELLULAR (785) 635-1511

DRILLER'S LOG

Operator: John O. Farmer, Inc. Lic# 5135 Contractor: Discovery Drilling Co., Inc. LIC#31548
370 West Wichita Avenue - P.O. Box 352 PO Box 763
Russell, KS 67665 Hays, KS 67601

Lease: SHU T 1 Twin # 11 Location: 2345 FSL & 925 FWL
NW/NE/NW/SW
Section 4/ 15S/ 12W
Russell County, KS

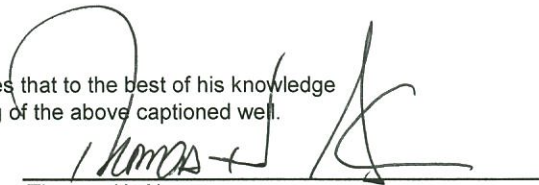
Loggers Total Depth: 3370' API#15- 167-23,884-00-00
Rotary Total Depth: 3370' Elevation: 1789 GL / 1797 KB
Commenced: 6/11/2013 Completed: 6/17/2013
Casing: 8 5/8" @ 721'W/325sks Status: Oilwell
5 1/2" @ 3367'W/130sks

DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Shale	<u>742'</u>
Dakota Sand	<u>211'</u>	Shale & Lime	<u>1341'</u>
Shale	<u>242'</u>	Shale	<u>1634'</u>
Cedar Hill Sand	<u>317'</u>	Shale & Lime	<u>1981'</u>
Red Bed Shale	<u>435'</u>	Lime & Shale	<u>3015'</u>
Anhydrite	<u>710'</u>	RTD	<u>3370'</u>
Base Anhydrite	<u>742'</u>		

STATE OF KANSAS)
) ss
COUNTY OF ELLIS)

Thomas H. Alm of Discovery Drilling states that to the best of his knowledge the above and foregoing is a true and correct log of the above captioned well.

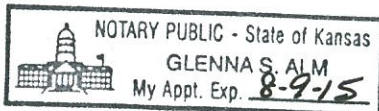

Thomas H. Alm

Subscribed and sworn to before me on 6-24-13

My Commission expires: 8-9-15

(Place stamp or seal below)


Notary Public



QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 6950

Date	6-12-13	Sec.	4	Twp.	15	Range	12	County	Russell	State	KS	On Location		Finish	8.15 AM											
Lease	SHU T1 1WN			Well No.	11			Location	Dunk Hill 5 to D.E. 2E																	
Contractor	Discovery 4			Owner	to 1951 5 E into																					
Type Job	Surface			To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.																						
Hole Size	12 1/4			T.D.	721			Charge To	J. O. Farmer Inc																	
Csg.	858			Depth																						
Tbg. Size				Depth																						
Tool				Depth	The above was done to satisfaction and supervision of owner agent or contractor.																					
Cement Left in Csg.	20 PL			Shoe Joint	20 FT			Cement Amount Ordered	375 3%CC																	
Meas Line				Displace	44.5 BBL			2% gel																		
EQUIPMENT													Common	325												
Pumptrk	5	No.		Cementer	Mitt			Poz. Mix																		
Bulktrk	4	No.		Driver	Brett			Gel.	6																	
Bulktrk	04	No.		Driver	Danie			Calcium	12																	
JOB SERVICES & REMARKS													Hulls													
Remarks:													Salt													
Rat Hole	SHU T1 1WN #11												Flowseal													
Mouse Hole													Kol-Seal													
Centralizers													Mud CLR 48													
Baskets													CFL-117 or CD110 CAF 38													
D/V or Port Collar													Sand													
Cement did Circulate													Handling	343												
													Mileage	57/8												
													FLOAT EQUIPMENT													
													Guide Shoe													
													Centralizer													
													Baskets													
													AFU Inserts													
													Float Shoe													
													Latch Down													
														2 Cup Rubber plugs												
	Pumptrk Charge Long Surface																									
	Mileage 16																									
													Tax													
													Discount													
													Total Charge													
X Signature	[Signature]																									

JOB LOG

SWIFT Services, Inc.

DATE 6-17-13 PAGE NO.

CUSTOMER John O Farmer WELL NO. 11 LEASE SHU TX JOB TYPE 5 1/2 Long string TICKET NO. 24436

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0700							on location
								TD 3370 SS 79.87
								TP 3367 Insert 3349
								5 1/2" x 14#
	0800							Start casing
	0930							Drop Ball Break Circulation Rotate
	1030		7/4					Plug RH 30 sks MH 25 sks
		5	12				200	Start Mud flush
		5	20				300	Start KCL flush
		5	32				200	Start cement
	1058							Drop Plug wash out Pump + Lines
	1100	6.5					200	Start O.3 placement
	1115	6.5	81.7				800 / 1500	land Plug
	1177							release Dry
								wash up Pack up
	1200							Job complete Thank You Josh, Brian, Rob

John O farmer Inc
SHU T1 Twin #11
Russell Co Ks.

6-16-13

Moved in 5 ½ casing.

6-17-13

Ran 80 jts of 5 ½ casing 14# new R-3 . Installed centerlizers at
3346 3265 3195 3110 3025 2938 2811. Baskets at 3305 and 2810.

Welded scratchers thru sand and LK-C zones. Set 3' off bottom at 3367

Cir and rotated for ½ hr. Rigged up Swift and cemented rat hole w/ 30 sxs
and mouse hole w/ 15 sxs. Pumped 500 gal mud flush and 20 bbls KCL

flush. Pumped 130 EA-2 good cir at all times. 800# pumping

1500 landing plug Plug down at 11.15 AM Released rig 11:45 AM

5 ½ cement guide shoe	1.00	3367
5 ½ shoe jt	19.87	
Total shoe jt	20.87	3346
5 ½ 14# new R-3	79jts	3340.59
Landing jt	8.00	
Total pipe	3369.46	
RTD LTD	3370	
Pipe set 3' off bottom	3367	8' KB

DISCOVERY DRILLING

P. O. BOX 763 HAYS, KANSAS 67601



Contractor: Nicoletty Drilling Co., Inc. Fig No. 4
 Company: John O. Fanning, Inc.
 Lease: SHU T1 Twin Well No. 11
 State: Kansas County: Russell Field: Bill Gunn
 API # 167-23-884 Elevation: 1795 K.B. R.T.D. 3370 Spot: WJN/AJ/SK/D Section: 4 Township: 15S RN 12E2
 Tool Joint Conn: XH Drill Pipe Size: 4 1/2 Drill Collars No.: 17 O.D. 6 1/2" I.D. 2 1/4" Pump No.: 1 EMSCO D33K
 Tool Pusher: Mike Baschler Driller: Max Baizer Driller: Jerry Wilson Driller: Kevin Dinkel

Run No.	Size	Make	Type	Jet Size	Serial	From	Depth To	Feet	Hours	Feet Per Hour	Weight 1000 Lbs.	RPM	Vert. Dev.	Pump Press.	Formation Tops
1	12 1/4	Label	1517	3/4	05417	0	721	721	9 3/4	73.95	4113000	100	3 1/2	800	Dakota Sand
2	7 7/8	ATC	6202	3/4	5225888	721	330	2649	66 1/2	39.83	2640000	1000	3 1/2	800	Cedar Hills Sand
(330' ± 76.25 WS = 44,20' PH)															
Casing Crew: <u>Maximus Torque</u>															
Fuel: <u>Proxier 89.0%</u>															
Mud Company: <u>Andy's Mud</u> Type: <u>Aspac</u>															
Surface Mud Used: <u>20 Gal ± 3 keils</u>															
Mud Up @: <u>2068'</u>															
1' Dig. Time @: <u>2300'</u> 10' Wet & Dry @: <u>2300'</u>															
Mud Cost - \$: <u>8451.30</u>															
Surface Pipe - Co. Trucks: <u>Other</u>															
No Service Mud - Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>															
Well <u>11</u>															
Frac Tank: <u>Nicoletty Drilling</u>															
Motel: <u>None</u>															
Back Hoe: <u>Schmidtberger Construction</u>															
Welder: <u>Weld Tech</u>															
Reserve Pit Chlorides: <u>25000 lbs - 30 lbs</u>															
Pit Liner: <u>R Pin</u>															

Plugging Report: Not Done (Plug)
 Scale Plugger: Edmund Williams (Prod)
 Plugger: Ken B. D. P. (Ken D. P. 14 1/2" 5 1/2")
 Surface Pipe: Using 20 Gal 3359 Set @ 3367'
 Cemented w/ 525 set @ 721 K.B.
 Spud @: 215 AM
 Drilled Plug @: 415 AM
 Job By: Quality O.I. Company
 WATER INFORMATION: Quality O.I. Company
 Name: 30 s/s @ 40 s/s @ 15 s/s @ 175 s/s (Total)
 Address: None
 City: None
 Social Security #: None
 Amount: 1145 AM
 Section: None
 Township: None
 Range: None
 FSL: None
 Water Well: None
 Other: None
 Geo. Name: Wanda Klaus
 Phone: (888) 50-3029
 Dst #1: (918) 528(30)
 Dst #2: None
 Dst #3: None
 Dst #4: None
 Dst #5: None
 Dst #6: None
 Dst #7: None
 Dst #8: None
 Dst #9: None
 Dst #10: None
 Dst #11: None
 Dst #12: None