

GEOLOGICAL REPORT

DRILLING TIME

S.D. ANGLE - COPYRIGHT 2010

SAMPLE LOG

COMPANY Russell Oil, Inc.
LEASE McDaniel "D"
WELL NO. 1-24
LOCATION 2240' FSL + 2310' FEL
SEC 24 TWN 15S RNG 34W
COUNTY LOGAN STATE KANSAS
POOL Wildcat
API NO. 15-109-20941-00-00

ELEVATIONS
KB 2988'
DF _____
GL 2977'

MEASUREMENT FROM
Top Kelly Bushing
PIPE STRAP
Note Below

CONTRACTOR H2 Drilling Inc.
COMMENCED October 12, 2010
COMPLETED October 31, 2010
RTD October 31, 2010
MUD Mud-Co, Inc. Chemical
SAMPLES FROM 3400' TO 4780'
DRILLING TIME FROM 3400' TO 4780'
SUPERVISION FROM 3400' TO 4780'
GEOLOGIST STEVEN D. ANGLE

CASING RECORD
SURFACE 8 5/8" NEW
23" SCT @ 225'
w/165' ST COMM. +
370 CC + 270 gal.
Did not air.

PRODUCTION NONE
P+A

REMARKS Strap @ 3850' 4.25' long to board
@ 4780' LOG TO 12' long to RTD!

All formation tops, zones of interest, porosity, shows and sample time lag are based from the top of Kelly Bushing measurements. Any corrections in measurements during the drilling of this well have been incorporated into this report.

ORIGINAL
COPY

Sincerely,

Steven D. Angle
W.G.C.

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D R I L L I N G I N F O R M A T I O N

DRILLING CONTR: H2 Drilling Page # 2
 RIG PHONE: 620-290-6399
 TOOL PUSHER: Steve Craig
 PHONE: 620-770-2214
 DRILLERS - DAYLIGHT TOUR: Richard Beckers
 EVENING TOUR: JAN Mroczek et al
 MORNING TOUR: Wen Carnahan
 SPUD DATE: 10-18-2010 DATE OF RTD:
 SITE DIRECTIONS: Just N of Monarch Church, approx. 6 miles west into location.
 SURFACE PIPE: new 8 1/2" x 28 # set @ 225' w/ 6.5 SA COMB + 2.0cc + 2.0cc l. DiDuroTDR.
 WELL STATUS: DRY Hole - Plugged + Abandoned
 PRODUCTION CASING: None
 DRILLING MUD CONTR: MUD-Co, Inc., Chemical - Engineer.
 DRILL STEM TESTING: Talabite, Smecha Turkey, 1515 / rd. Sherris, Medina, 7375-3-785-623-1451
 CEMENTING: Surface - Allied Cementing, Inc.
 ELECTRIC LOGGING: LOG-Teach
Acas Rev: Microresistivity, Down Injection, Compensated Neutron - Density
Hydro-Carbon Detection: Kevin J. Bailey, GeoCentral, LLC

B I T R E C O R D

NO.	PURPOSE	SIZE	MAKE	TYPE	IN	OUT	JETS	PUMP
1	Surface	12 1/4	Varco	BTMS	0	227		100
1	Bore	7 7/8	Varco	At 21	227	4980	2/15/10	850-1000

DST NO. 1 INTERVAL 3794' TO 3850' TYPE Anchor 56' TIMES 5-60-60-60
 Blow: 1" built to 6" SI, No return blow. Give open Bottom of bucket in 18 minutes, No return blow.
 Rec: 129' WATER CUT MUD (10% WTR), 186' MUD CUT WATER (70% WTR), 248' MUD CUT WATER (80% WTR). Total of 523' of fluid.

I/F/F 418-97 SIF/SFF 103-269 IS/FSI 1132-1027 H/HF 1848-1892 Temp: 109°F
 DST NO. 2 INTERVAL 4116' TO 4154' TYPE Anchor 38' TIMES 5-60-60-60
 Blow: Built to 3" @ 5 minutes, SI, No return, surface to 8.08 in. 25 minutes, No return blow.
 Rec: 186' Water cut mud (40% WTR) + 244' MUD CUT WATER (80% WTR)

I/F/F 23-57 SIF/SFF 67-212 IS/FSI 1860-1228 H/HF 2157-2066 Temp: 113°F
 DST NO. 3 INTERVAL 4145' TO 4175' TYPE Anchor 30' TIMES 5-60-60-60
 Blow: 211 Blow, SI, No return, 8.08 in. 60 minutes, SI, No return.
 Rec: 172' Water cut mud (45% WTR), 68' MUD CUT WATER (75% WTR), 244' WATER. 28,000 P.P.M.

I/F/F 59-67 SIF/SFF 76-197 IS/FSI 1892-1278 H/HF 227-2053 Temp: 115°F

FORMATION TOPS

DATUM ELEVATION 2988 KB

FORMATION	SAMPLE ELOG	DATUM	WELL A	WELL B
Amshelrite	2355'	+ 633		
Base/Amshelrite	2378'	+ 610		
Topoka	3648'	- 660		
Hebburn sh.	3880'	- 892		
Tonawanda	3899'	- 909		
Amshelrite/Hebburn	3918'	- 930		
STARK SHALE	4189'	- 1201		
BASE/KC	4390'	- 1302		
MARMATION	4314'	- 1326		
Perrine	4407'	- 1419		
MYRIC STATION	44	- 1454		
Font Scott	4461'	- 1473		
Cherokee sh.	4489'	- 1501		
ATOKA Lime	4568'	- 1574		
Merrimac SA	4612'	- 1624		
MISSISSIPPI	4678'	- 1690		
Rotary TOTAL Depth	4780'	- 1792		
LOG TOTAL Depth	4792'	- 1804		
4555'	60 SX Gel, 2 SX Caustic Soda, 4 SX Soda Ash,			
4790'	1 SX Lignite, 1 SX Drispac, 2 SX hulls.			
	25 SX Gel, 2 SX Caustic Soda, 3 SX Soda Ash,			
	2 SX Lignite, 1 SX Drispac			

CORRELATION WELLS

- A. Citrus Serv. McDevine / 36-155-34W C-NE-NW 2mi. S
- B. Evcn McDevine / A-1 27-155-34W N2-SW-3/4-NE 2mi. SW

DAILY PENETRATION

DEPTH	@	TIME	ON	DATE
UNDER SURFACE				
1239'	8:00	A.M.		10-19-2010
2665'	7:00	A.M.		10-20-2010
3400'	7:00	A.M.		10-21-2010
3850'	7:00	A.M.		10-22-2010
3950'	7:00	A.M.		10-23-2010
4154'	7:00	A.M.		10-24-2010
4175'	7:00	A.M.		10-25-2010
4216'	7:00	A.M.		10-26-2010
4345'	7:00	A.M.		10-27-2010
4435'	7:00	A.M.		10-28-2010
4555'	7:00	A.M.		10-29-2010
4790'	7:00	A.M.		10-30-2010
4780'	7:39	A.M.		10-31-2010

MUD RECORD

DEPTH	TYPE & AMOUNTS
Surface	30 SX Gel, 2 SX Lime, 15 SX hulls.
1239'	10 SX Gel.
2665'	45 SX Gel, 45 SX hulls
3400'	140 SX Gel, 12 SX Caustic Soda, 18 SX Soda Ash
	12 SX Lignite, 6 SX Drispac, 34 SX hulls.
3950'	50 SX Gel, 2 SX Caustic Soda, 4 SX Soda Ash,
	2 SX Lignite, 1 SX Drispac, 10 SX hulls.
4154'	57 SX Gel, 2 SX Caustic Soda, 18 SX Soda Ash,
	2 SX Lignite, 1 SX Drispac, 14 SX hulls.
4216'	19 SX Gel, 2 SX Caustic Soda, 2 SX Soda Ash,
	1 SX Lignite, 1 SX Drispac, 3 SX hulls.
4345'	20 SX Gel, 2 SX Caustic Soda, 3 SX Soda Ash,
	1 SX Lignite, 1 SX Drispac, 5 SX hulls.
4435'	25 SX Gel, 2 SX Caustic Soda, 3 SX Soda Ash,
	1 SX Lignite, 1 SX Drispac, 5 SX hulls.

DST NO. 4 INTERVAL 4175' TO 4216' TYPE Anchor 41' TIMES 5-60-60-60
Blow: Bottom of bucket in 1 1/2 minutes. SI, no return blow.
B.O.B in 3 minutes. SI, no return.
Rec: 154' MUD CUT WATER (70% WTR), 2046' WATER.
Chlorides: 32,000 ppm.
IF/FF 182 - 306 SIF/SFF 350 - 1020 ISI/FSI 1278-1260 IH/FH 2129-1964 Temp: 118° F

DST NO. 5 INTERVAL 4216' TO 4271' TYPE Anchor 55' TIMES 5-60-90-60
Blow: 2" blow at 5 minutes. SI, no return. 10 1/2 inch blow
at 90 minutes. SI, no return.
Rec: 107' water cut mud (50% water), 620' mud cut water (75% water)
244' water.
IF/FF 42 - 69 SIF/SFF 75 - 222 ISI/FSI 1323-1243 IH/FH 2142-2073 Temp: 115° F

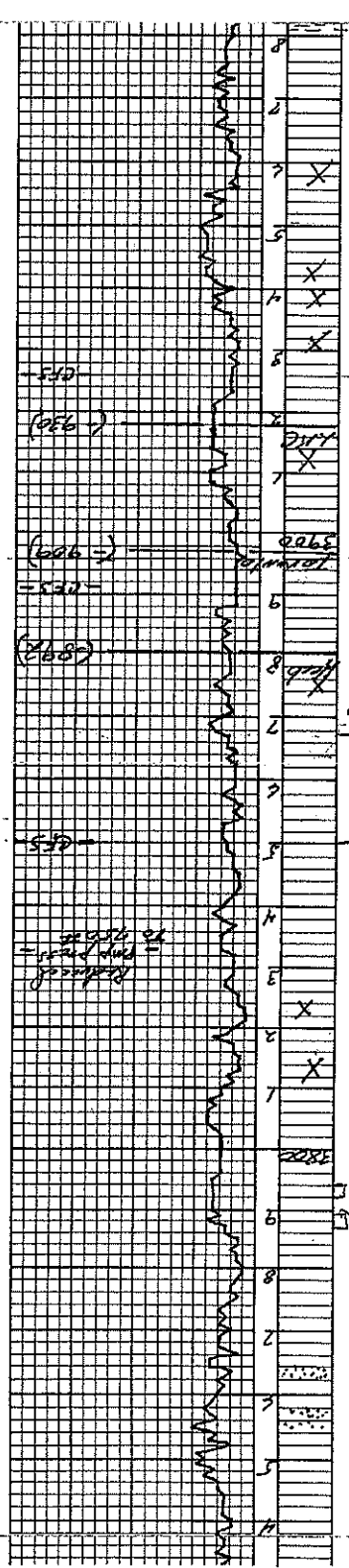
DST NO. 6 INTERVAL 4264' TO 4379' TYPE Anchor 115' TIMES 5-60-60-60
Blow: 1st = 11 inch blow. SI, no return. 2nd B.O.B in 8 1/2 minutes,
SI, no return.
Rec: 154' water cut mud (45% wtr.), 186' mud cut water (90% wtr.),
124' slightly mud cut water (90% wtr), 620' water.
TOTAL = 1084'. Chlorides 28,500 p.p.m.
IF/FF 148 - 224 SIF/SFF 193 - 514 ISI/FSI 1323-1191 IH/FH 2192-2129 Temp: 118° F

DST NO. 7 INTERVAL 4458' TO 4550' TYPE Anchor 92' TIMES 5-60-30-60
Blow: 1/4 inch Blow. SI, no return blow. Work surface blow
for 18 minutes, chgd. SI, no return blow.
Rec: 5' MUD
IF/FF 28 - 32 SIF/SFF 35 - 45 ISI/FSI 1283-1191 IH/FH 2254-2198 Temp: 114° F

DST NO. N/A INTERVAL _____ TO _____ TYPE _____ TIMES _____
Blow: _____
Rec: END
IF/FF _____ SIF/SFF _____ ISI/FSI _____ IH/FH _____ Temp: _____

DST NO. N/A INTERVAL _____ TO _____ TYPE _____ TIMES _____
Blow: _____
Rec: _____
IF/FF _____ SIF/SFF _____ ISI/FSI _____ IH/FH _____ Temp: _____

1 SMALL PIECE WHITE XPM 45 W/1
 WHITE XPM 45
 SAMPLE WITH XPM - 45
 WHITE XPM 45
 SOME BP - PLASTIC OIL NO ODOOR
 2 PIECES WHITE XPM 45 W/ESG
 3 PIECES XPM 45 W/ESG
 4 PIECES XPM 45 W/ESG
 5 PIECES XPM 45 W/ESG
 6 PIECES XPM 45 W/ESG
 7 PIECES XPM 45 W/ESG
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