



Real Time Log

Natural Formation Evaluation
Gamma Ray

Scale:

Company: Kerr-McGee Oil & Gas Onshore LP

1:240

Well: Wirkner-Vance 29N-36HZ

Measured Depth

Field: Weld County (Kerr McGee)

Region: Continental US Country: United States

Status:

Final Print

Surface Location:

Latitude: 40° 10' 30.979" N

Longitude: 104° 50' 42.875" W

Other Services:

API Number:

051233788100

Section:

TWN: 3N

Range: 67W

Directional
VSS

Permanent Datum (P.D.): Ground Level Elevation: 4822.00 ft.

Elevations: 4835.00 ft.

Log Measured From: Kelly Bushing 13.00 ft. Above P.D.

KB: 4835.00 ft.
DF: N/A
GL: 4822.00 ft.

Depth Reference:

Driller's Depth

GL: 4822.00 ft.

Interval Logged

Dates

Magnetic Field Reference

Top: 6572ft. Date From: 15/Dec/13 Date To: 21/Dec/13 Dip Angle: 66.98 ° Azi Reference North: True

Bottom: 11642 ft. Date To: 21/Dec/13 Total Mag to Reference

Spud Date: 15/Dec/13 Field Strength: 52713.0 nT North Correction: 8.58 °

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
8.750 in.	1015 ft.	7603 ft.	9.625 in.	36.00 lb/ft	Surface	1015 ft.
6.125 in.	7603 ft.	11696 ft.	7.000 in.	26.00 lb/ft	1015 ft.	7593 ft.

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Water Based - Fresh	1015 ft.	11696 ft.	8.750 in.	6588 ft.	0.2 ° / 225.7 °	88.8 ° / 358.8 °
			6.125 in.	4093 ft.	88.8 ° / 358.8 °	89.2 ° / 357.6 °
					/	/
					/	/
					/	/
					/	/
					/	/
					/	/

Acquisition System Software Version

Other

Advantage	2.20U4	Rig: / Contractor:	Ensign 138	/ Ensign Drilling
PATS	6.4.1.34	Job No:	5856991	
		District / Unit:	RMD	/ D & E

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Log Run Summary

LWD Run No.	BHA Run No.	Bit Run No.	Bit Size (in.)	Bit Type	Bit Gauge Length (in.)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time			Circ. Time (hrs.)
							Top (ft.)	Bottom (ft.)	From (ft.)	To (ft.)	Start		End	
1	1	2	8.750	PDC	3.000	Steerable	6572	7550	1015	7603	15/Dec/2013 17:35	18/Dec/2013 16:00		37.6
2	2	3	6.125	PDC	6.000	Steerable	7550	11642	7603	11696	19/Dec/2013 18:51	22/Dec/2013 10:00		27.7

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
David Browning	15/Dec/13	18/Dec/13	Andrew Overbey	15/Dec/13	22/Dec/13	Brad Jones	18/Dec/13	22/Dec/13
Will Drake	15/Dec/13	22/Dec/13	Steve Martinez	15/Dec/13	21/Dec/13	Peter Adebayo	15/Dec/13	17/Dec/13
Robert Bartlett	17/Dec/13	22/Dec/13						

Mud Properties Record

Date / Time		LWD Run No.	Measured Depth (ft.)	Mud Type	Density (ppg)	Viscosity (cp)	pH	Fluid Loss (cc)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
15/Dec/13	21:00	1	1018	Water Based - Fresh	8.4	29	8.5	N/A	99/0	Active Mud Pits	800	0.0
16/Dec/13	21:00	1	4524	Water Based - Fresh	8.5	29	8.5	N/A	99/0	Active Mud Pits	1000	0.0
17/Dec/13	21:00	1	6823	Water Based - Fresh	10.1	38	8.5	N/A	91/0	Active Mud Pits	1400	0.0
18/Dec/13	21:00	1	7603	Water Based - Fresh	10.2	37	8.4	N/A	91/0	Active Mud Pits	1800	0.0
19/Dec/13	21:00	2	7603	Water Based - Fresh	9.2	34	10.3	N/A	95/0	Active Mud Pits	1500	0.0
20/Dec/13	21:00	2	7822	Water Based - Fresh	9.3	38	9.7	N/A	94/1	Active Mud Pits	1200	0.0
21/Dec/13	21:00	2	11264	Water Based - Fresh	9.3	36	8.6	N/A	94/1	Active Mud Pits	1250	0.0

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg.	API
GRIX	Gamma Ray Data Density	points
GRSI	Gamma Ray Sliding Indicator	unitless
GRTX	Gamma Ray Time Since Drilled	mins
ROPA	Rate of Penetration, 3.0 ft. Avg	ft/hr
TCDX	Downhole Temperature	degF
TVD	True Vertical Depth	ft
WOBA	Surface Weight on Bit, 1.0 ft. Avg	klbs

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	12456778	Directional	58.56	6.750	3.250
1	SRIG	12673191	Gamma	55.18	6.750	3.250
2	DIR	13108409	Directional	54.27	4.750	2.750
2	SRIG	12595022	Gamma	50.89	4.750	2.750

Service and Tool Mnemonics

Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments

- 1.) Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
- 2.) Baker Hughes run 1 utilized 6 3/4 inch NaviTrak services (Directional only) behind an 8 3/4 inch bit and steerable assembly from 1015 to 6572 feet MD (1015 to 6501 feet TVD).
- 3.) Baker Hughes run 1 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 6572 to 7603

3.) Baker Hughes run 1 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 6572 to 7603 feet MD (6501 to 7132 feet TVD).

4.) The interval from 1015 to 6572 feet MD (1015 to 6501 feet TVD) was not logged due to directional only services being provided through the straight-hole and nudge section for Baker Hughes run 1.

5.) Baker Hughes run 2 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 7603 to 11696 feet MD (7132 to 7148 feet TVD).

6.) The interval from 11642 to 11696 feet MD (7147 to 7148 feet TVD) was not logged due gamma ray sensor to bit offset.



Company : Kerr-McGee Oil & Gas Onshore LP

Well : Wirkner-Vance 29N-36HZ

Interval : 6565.00 - 11706.00 feet

Created : 21/Dec/2013 10:46:39 PM















































