



Gamma Ray

LWD REALTIME LOG

Scale:

1:1200

Measured Depth

Company: KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Well: Nelson 35-17HZ

Field: Wattenberg

County: Weld County Country: United States

State: Colorado

Driller's Depth

Status:

Final Print

Surface Location:

Latitude:

Longitude:

Other Services:

API No: 05-123-51250  
Job ID: 110760646

SEC:

35

TWN:

2N

RGE:

68W

Permanent Datum (P.D.):

Log Measured From:

Mean Sea Level

Rig Floor

Elevation:

Above P.D.:

0.00 ft

4975.00 ft

Elev. KB:

Elev. DF:

Elev. GL:

4975.00 ft

4955.00 ft

N/A

Dates

From: 2021-02-21  
To: 2021-02-23  
Spud: 2021-02-21

Drilled (ft)

Top: 1877.00

Bottom: 16071.00

Logged (ft)

Top: 1877.00

Bottom: 16025.00

Azi Reference North:

True

Dip Angle: (deg)

Total Magnetic Field Strength: (nT)

Mag to Reference North Correction: (deg)

66.44

51923

8.07

Borehole Record

Casing Record

Hole Size (in)

From (ft)

To (ft)

Size (in)

Weight (lb/ft)

From (ft)

To (ft)

12.500

20.00

1877.00

16071.00

9.625

36.00

20.00

1867.00

7.875

1877.00

16071.00

Mud Record

Deviation Record

Type

From (ft)

To (ft)

Hole Size (in)

Interval (ft)

Inc | Az (Start)

Inc | Az (End)

Diesel-Oil Based Mud

1877.00

16071.00

7.875

14194.00

9.31

230.22

89.52

2.49

Acquisition System

Software Version

Cadence

DeliverableGen

RT 5.9

5.9.9059.1

Rig:

Contractor:

PD 461

Precision Drilling

Other

RMA

Unit: D&E

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Log Run Summary

Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
1	1	7.875	PDC	2.50	Steerable	1877.00	16025.00	1877.00	16071.00	2021-02-21 22:30	2021-02-23 21:30	40.26

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
David Browning	2021-02-20	2021-02-24	John Moisan	2021-02-22	2021-02-24	Matt Leopold	2021-02-20	2021-02-21

Mud Properties Record

Date / Time	Run No.	Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2021-02-22 06:00	1	4779.00	Diesel-Oil Based Mud	8.8	15	0	9.8	65.8/26.5	Active Pit	38351	0.00

2021-02-22 16:00	1	7480.00	Diesel-Oil Based Mud	8.8	12	0	9.8	68.5/23.3	Active Pit	38351	0.00
2021-02-23 06:00	1	11956.00	Diesel-Oil Based Mud	9.0	12	0	9.8	66.8/24	Active Pit	37872	0.00
2021-02-23 16:00	1	15100.00	Diesel-Oil Based Mud	9.0	11	0	10.0	67/24	Active Pit	36913	0.00

Equipment and Service Data

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
1	EvoOne	14984402	Gamma (single)	8.29	46.15	6.500	0.000
1	EvoOne	14984402	Directional (mag)	9.45	47.31	6.500	0.000

Service and Tool Mnemonics

Mnemonic	Name	Description
MWD	EvoOne - Dir Gamma	EvoOne

Comments


1	Depths and depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified. These unverified depths are being used to represent logging data.
2	Baker Hughes LWD Run 1 utilized 6 ½ Inch NaviGamma services (Gamma Ray and Directional) behind a 7 7/8 inch bit and steerable assembly from 1877 to 16071 feet MD (1861 to 7567 feet TVD).
3	Gamma Ray Apparent (GRAX) is presented 0 to 200 API per customer request.

Remarks

Number	Depth (ft)	Hole Section (in)	Run No.	Remark
1	1877.00	7.875	1	BHI Logging services began at 1877 feet MD (1861 feet TVD).
2	16025.00	7.875	1	The interval from 16025 to 16071 feet MD (7567 feet TVD) was not logged due to sensor to bit offset at well TD.

Curve Mnemonics

Presented Curves	Description	Units
TCDX	Downhole Temperature	degF
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	Bit Vertical Depth - Projected	ft
WOBA	Weight on Bit - Average 1 ft Average	klb
GRAX	Gamma Ray - Apparent - Real-Time 3 ft Average	API

	Company	KERR-MCGEE OIL & GAS ONSHORE LP (WA)				
	Well	Nelson 35-17HZ				
	Interval	Date From:	2021-02-21 22:30	Interval Drilled: (ft)	1877.00	- 16071.00
		Date To:	2021-02-23 21:30	Interval Logged: (ft)	1877.00	- 16025.00
	Created	2021-02-23 22:35:17				

