

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	Bottom	From	To	Start Logging	End Logging	
						(ft)	(ft)	(ft)	(ft)			
2	2	8.500	PDC	3.00	AutoTrak Curve	1523.13	11970.40	1536.00	11977.10	2016-09-27 06:50	2016-09-30 03:31	56.29

Crew

Name		Arrive Wellsite	Depart Wellsite	Name		Arrive Wellsite	Depart Wellsite	Name		Arrive Wellsite	Depart Wellsite
Austin Small		2016-09-26	2016-09-30	Tien Bui		2016-09-26	2016-09-30				

Mud Properties Record

Date / Time	Run No.	Measured Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2016-09-26 14:38	2	1536.00	Water Based Mud	8.5	28	10.2	29.0	0/99	Suction	1500	0.00
2016-09-29 06:38	2	9909.69	Water Based Mud	10.1	41	9.8	5.7	1.5/90.1	Suction	1600	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)
2	ATC_SU	13993179	Near Bit Inclination	5.93	6.70	7.000	4.330
2	ATC_SU	13993179	Near Bit VSS	5.93	6.70	7.000	4.330
2	ATC_MWD	12398256	Gamma (single)	2.76	12.87	7.000	3.250
2	ATC_MWD	12398256	Directional (mag)	12.28	22.39	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
ATC_SU	ATC_SU	Auto Trak Curve Steering Unit
ATC_MWD	ATC_MWD	Auto Trak Curve MWD
ATC_LCPM	ATC_LCPM	Auto Trak Curve LCPM

Comments

1	Depth measurements 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.
2	Baker Hughes LWD Run 1 utilized 8 1/4 inch NaviTrak service (Directional only) behind a 13 1/2" inch bit and steerable assembly from surface to 1536 feet MD (surface to 1536 feet TVD).
3	Baker Hughes LWD Run 2 utilized 6 3/4 inch AziGamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1536 to 11975 feet MD (1539 to 7052 feet TVD).
4	Gamma Ray and Directional (GRD) services were provided by Baker Hughes.

Remarks				
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	1536.00	8.500	2	Gamma Ray logging operations began at 1536 feet (1536 feet TVD).
2	11962.00	8.500	2	The interval from 11962 to 11975 feet MD (7052 feet TVD) was not logged due to sensor offset at well TD.

Curve Mnemonics		
Presented Curves	Description	Units
ROPA	Depth Averaged ROP 3 ft Average	ft/h
GRADM	Azimuthal Gamma Ray - Apparent - Down Quadrant 3 ft Average	API
GRAM	Gamma Ray - Apparent 3 ft Average	API
GRAUM	Azimuthal Gamma Ray - Apparent - Up Quadrant 3 ft Average	API
TCDM	Downhole Temperature	degF
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb



























