



## Partner Drilling Report

### Well Name: UNIVERSITY 3-35 #102HB

Report Date: 6/11/2017  
Report #: 9.0, DFS: 7.48  
Time Log DFS: 7.48  
Depth Progress: 2,490.00

API/UWI No. 42461405920000	Surface Legal Location A-U47; SEC. 11; BLK. 4 CCSD&RGNG RR CO	Well License/Permit No. 826301	State/Province TEXAS
Original Spud/Spud Rig Date 6/3/2017 18:30	Rig Release Date	KB to GL (ft) 25.00	KB-Casing Flange Distance (ft)
Original Spud/Spud Rig Date 6/3/2017	Weather PARTLY CLOUDY/WINDY	Temperature (°F) 78.0	Road Condition GOOD
Current Status/OART DRILL AND SURVEY INTERMEDIATE HOLE		Hole Condition GOOD	
24 Hour Forecast DRILL 12 1/4" INTERMEDIATE HOLE TO 7792'. CIRCULATE AND CONDITION HOLE. WIPER TRIP, CIRCULATE AND CONDITION. POOH AND LAY DOWN DIRECTIONAL TOOLS. P/U AND RUN 9 5/8" INTERMEDIATE CASING. CEMENT 9 5/8" INTERMEDIATE CASING.			

Short Report  
DRILL AND SURVEY 12 1/4" INTERMEDIATE HOLE F/ 4995' TO 7020', CHANGE OUT ROTATING RUBBER  
ELEMENT. DRILL AND SURVEY 12 1/4" INTERMEDIATE HOLE F/ 7020' TO 7485'.

Mud Volumes						
Active Volume (bbl) 1,270.0	Var Active Vol (bbl) 269.1	Balance (bbl) 215.1	Tank Volume (bbl) 382.0	Additions (bbl) 54.0	Losses (bbl) 0.0	Hole Volume (bbl) 888.0

Time Log						
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code
06:00	23:30	17.50	10IHVD, Int Hole Vert Drill	DR	b	O
DRILL AND SURVEY 12 1/4" INTERMEDIATE F/ 4995' TO 7020'. AVG ROP: 115.7 FT/HR						
23:30	00:00	0.50	10IHVD, Int Hole Vert Drill	OT	e	O
CHANGE ROTATING HEAD RUBBER ELEMENT.						
00:00	06:00	6.00	10IHVD, Int Hole Vert Drill	DR	b	O
DRILL AND SURVEY 12 1/4" INTERMEDIATE F/ 7020' TO 7485'. AVG ROP: 77.5 FT/HR						

Mud Checks						
Time 17:00	Type Water Based Mud	Depth (ftKB) 6,400.0	Density (kg/m³) (lb/g... 9.40	Funnel Viscosity (s/qt) 39	PV Calc (cP) 8.0	YP Calc (lb/100ft²) 9.004
Gel 10 sec (kPa) (lb... 9.004	Gell 10 min (kPa) (l... 15.006	Gel 30 min (kPa) (lb... 19.008	Filtrate (mL/30min) 23.0	Filter Cake (1/32") 2	pH 10.0	Solids (%)
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%) 95.0	Chlorides (kg/m³) (... 40,000.000	Calcium (kg/m³) (m... Potassium (mg/L)	Electric Stab (V)	
Time 05:00	Type Water Based Mud	Depth (ftKB) 4,888.0	Density (kg/m³) (lb/g... 9.00	Funnel Viscosity (s/qt) 40	PV Calc (cP) 8.0	YP Calc (lb/100ft²) 6.002
Gel 10 sec (kPa) (lb... 8.003	Gell 10 min (kPa) (l... 13.005	Gel 30 min (kPa) (lb... 17.007	Filtrate (mL/30min) 30.0	Filter Cake (1/32") 2	pH 10.0	Solids (%)
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%) 96.5	Chlorides (kg/m³) (... 40,000.000	Calcium (kg/m³) (m... Potassium (mg/L)	Electric Stab (V)	

Mud Volumes			
Tank/Addition/Loss	Type	Volume (bbl)	Subtype
Addition	Water		
Hole	Hole	888.0	
Tank	Reserve		
Loss	SURFACE EQUIPMENT		
Tank	TOTAL CIRC	382.0	
Tank	INVERMUL		
Addition	CHEMICALS	54.0	

Drill Strings			
BHA #2, Intermediate			
Bit Run 1	Drill Bit 12 1/4in, XS616S, JM9343	IADC Bit Dull -----	TFA (incl Noz) (in²) 0.78
Nozzles (1/32") 13/13/13/13/13		BHA Length (ft) 875.18	String Wt (1000lb) 114.2

Mud Motors		
Motor Bend 1.83 FIXED	Bit to Bend 6.21	Rotor Nozzle Diameter (in)

Drill String Components					
Item Des	Manual/Tally Jts	OD (in)	ID (in)	Len (ft)	Top Thread
XO Sub	1	7 5/8	3.88	2.81	IF
Drill Collar	7	6 1/2	2.50	213.97	NC46
Drilling Jars - Mechanical	1	6 1/2	2.25	31.78	NC46
Drill Collar	14	6 1/2	2.50	425.45	NC46

AFE Number DD.17.30779.CAP.DRL	AFE+Supp Amt (Cost) 2,177,000.00
Day Total (Cost) 65,102	Cum To Date (Cost) 689,090
Mud Field Est (Cost) 5,841	Cum Mud Field Est (Co... 39,754
Start Depth (ftKB) 4,995.0	End Depth (ftKB) 7,485.0
Planned Formation WOLFCAMP B	Planned TMD (ftKB) 19,216.0
Last Casing String Surface Casing, 684.0ftKB	

Daily Contacts	
Job Contact	Mobile
BRIAN ALLEMAN, Engineer	214-978-8000
CHRISTOPHER ABSHIRE, Foreman	281-220-5828
KEVIN GOTTE, Consultant	281-220-5828
TRAVIS PERSCHE, Rig Clerk/Logistics	281-220-5829

Personnel Log	
Head Count	21.0

Rigs	
HELMERICH & PAYNE DRILLING, 3	
Contractor HELMERICH & PAYNE DRILLING	Rig Number 394
Rig Supervisor THOMAS PENDERGRASS, Toolpusher	Phone Mobile 918-936-7394

1, Gardner-Denver, PZ-11			
Pump Number 1	Pwr (hp) 1,300.0	Rod Diameter...	
Liner Size (in) 6	Stroke (in) 11.00	Vol/Stk OR (b... 0.091	
P (psi) 3,626.0	Slow Spd No	Strokes (s... 105	Eff (%) 88

2, Gardner-Denver, PZ-11			
Pump Number 2	Pwr (hp) 1,300.0	Rod Diameter...	
Liner Size (in) 6	Stroke (in) 11.00	Vol/Stk OR (b... 0.091	
P (psi) 3,626.0	Slow Spd No	Strokes (s... 104	Eff (%) 88

Mud Additive Amounts		
Mud Additive Description	Field Est (Cost/unit)	Consumed
12 HR MUD ENGINEER	700.00	1.0
AQUAGEL	150.00	23.49
CAUSTIC SODA	29.40	18.0
EZ MUD	85.03	10.0
MF-55	89.00	1.0
PAC-R	149.00	1.0

Job Supplies		
Supply Item Description DIESEL FOR OBM	Unit Label Gal	
Total Received 4,003.9	Total Consumed 0.0	On Loc 4,003.9
Supply Item Description DRILLING CUTTINGS	Unit Label Cu. Yds	
Total Received 0.0	Total Consumed 0.0	On Loc 0.0
Supply Item Description DRILLING WATER	Unit Label Bbl	
Total Received 346.0	Total Consumed 346.0	On Loc 0.0



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### Drill String Components

Item Des	Manual/Tally Jts	OD (in)	ID (in)	Len (ft)	Top Thread
XO Sub	1	8	2.75	2.90	NC46
Drill Collar	3	8	2.81	93.21	NC56
XO Sub	1	7 15/16	3.13	2.99	NC56
Drill Collar - Non Mag	1	8 1/16	3.75	30.15	REG
Non-Mag Hangoff Sub	1	8 1/16	3.75	5.51	REG
Drill Collar - Non Mag	1	8	3.75	29.33	REG
Stabilizer	1	8 1/16	2.88	7.34	REG
Mud Motor - Bent Housing	1	8	2.88	28.44	REG

### Drilling Parameters

Wellbore UNIVERSITY 3-35 #102HB	Start Depth (ftKB) 4,995.0	End Depth (ftKB) 5,600.0	Cum Depth (ft) 4,880.00	Drilling Time (hr) 4.93	Cum Drill Time (hr) 40.69	Interval ROP (ft/hr) 122.7	Flow Rate (gpm) 795
WOB (1000lbf) 35	Rotary RPM (rpm) 70	SPP (psi) 3,320.0	Drill Str Wt (1000... 162	PU Str Wt (1000lbf) 189	SO Str Wt (1000lbf) 182	Drilling Torque 13.0	Off Btm Tq
Q Gas Inj (ft³/min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

### Hydraulic Calculations

Bit Hydraulic Power (hp) 434.6	HP/Area (hp/in²) 3.7	Bit Jet Velocity (ft/s) 328.3	Bit Pressure Drop (psi) 937.1	% P @ bit (%) 28
Max Casing AV (ft/min) 1,492.8	Max Open Hole AV (ft/min) 0.0	Min Casing AV (ft/min) 188.2	Min Open Hole AV (ft/min) 0.0	ECD End (lb/gal) 13.30

Error

Wellbore UNIVERSITY 3-35 #102HB	Start Depth (ftKB) 5,600.0	End Depth (ftKB) 5,695.0	Cum Depth (ft) 4,975.00	Drilling Time (hr) 1.30	Cum Drill Time (hr) 41.99	Interval ROP (ft/hr) 73.1	Flow Rate (gpm) 435
WOB (1000lbf) 33	Rotary RPM (rpm) 70	SPP (psi) 1,736.0	Drill Str Wt (1000... 184	PU Str Wt (1000lbf) 217	SO Str Wt (1000lbf) 214	Drilling Torque 15.0	Off Btm Tq
Q Gas Inj (ft³/min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

### Hydraulic Calculations

Bit Hydraulic Power (hp) 71.2	HP/Area (hp/in²) 0.6	Bit Jet Velocity (ft/s) 179.6	Bit Pressure Drop (psi) 280.6	% P @ bit (%) 16
Max Casing AV (ft/min) 816.8	Max Open Hole AV (ft/min) 0.0	Min Casing AV (ft/min) 103.0	Min Open Hole AV (ft/min) 0.0	ECD End (lb/gal) 10.96

Error

Wellbore UNIVERSITY 3-35 #102HB	Start Depth (ftKB) 5,695.0	End Depth (ftKB) 7,020.0	Cum Depth (ft) 6,300.00	Drilling Time (hr) 11.27	Cum Drill Time (hr) 53.26	Interval ROP (ft/hr) 117.6	Flow Rate (gpm) 795
WOB (1000lbf) 35	Rotary RPM (rpm) 70	SPP (psi) 3,601.0	Drill Str Wt (1000... 187	PU Str Wt (1000lbf) 216	SO Str Wt (1000lbf) 214	Drilling Torque 15.0	Off Btm Tq
Q Gas Inj (ft³/min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

### Hydraulic Calculations

Bit Hydraulic Power (hp) 425.5	HP/Area (hp/in²) 3.6	Bit Jet Velocity (ft/s) 328.3	Bit Pressure Drop (psi) 917.5	% P @ bit (%) 25
Max Casing AV (ft/min) 1,492.8	Max Open Hole AV (ft/min) 0.0	Min Casing AV (ft/min) 188.2	Min Open Hole AV (ft/min) 0.0	ECD End (lb/gal) 16.18

Error

Wellbore UNIVERSITY 3-35 #102HB	Start Depth (ftKB) 7,020.0	End Depth (ftKB) 7,227.0	Cum Depth (ft) 6,507.00	Drilling Time (hr) 2.62	Cum Drill Time (hr) 55.88	Interval ROP (ft/hr) 79.0	Flow Rate (gpm) 795
WOB (1000lbf) 35	Rotary RPM (rpm) 70	SPP (psi) 3,541.0	Drill Str Wt (1000... 219	PU Str Wt (1000lbf) 242	SO Str Wt (1000lbf) 231	Drilling Torque 15.0	Off Btm Tq
Q Gas Inj (ft³/min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

### Hydraulic Calculations

Bit Hydraulic Power (hp) 425.5	HP/Area (hp/in²) 3.6	Bit Jet Velocity (ft/s) 328.3	Bit Pressure Drop (psi) 917.5	% P @ bit (%) 26
Max Casing AV (ft/min) 1,492.8	Max Open Hole AV (ft/min) 0.0	Min Casing AV (ft/min) 188.2	Min Open Hole AV (ft/min) 0.0	ECD End (lb/gal) 16.19

Error

### Job Supplies

Supply Item Description DRILLING WATER	Unit Label Bbl
Total Received 9,718.0	Total Consumed 9,718.0
On Loc 0.0	
Supply Item Description FUEL	Unit Label Gal
Total Received 23,936.5	Total Consumed 12,654.5
On Loc 11,282.0	
Supply Item Description LIQUID DRILLING WASTE	Unit Label Bbl
Total Received 0.0	Total Consumed 0.0
On Loc 0.0	
Supply Item Description POTABLE WATER	Unit Label Gal
Total Received 5,300.0	Total Consumed 5,300.0
On Loc 0.0	
Supply Item Description SEWAGE	Unit Label Gal
Total Received 9,900.0	Total Consumed 9,900.0
On Loc 0.0	
Supply Item Description THREAD PROTECTORS	Unit Label Box
Total Received 0.0	Total Consumed 0.0
On Loc 0.0	
Supply Item Description TRASH/GENERAL WASTE	Unit Label Ea
Total Received 0.0	Total Consumed 0.0
On Loc 0.0	

### Safety Checks

Time	Type	Safety Topic
17:30	Pre-Tour	FORKLIFT OPERATIONS
05:30	Pre-Tour	FALL PROTECTIO N

### Wellbores

Wellbore Name  
UNIVERSITY 3-35 #102HB

### Kick Offs & Key Depths

Type	Top Depth (ftKB)



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Time Log DFS: 7.48  
Depth Progress: 2,490.00

### Drilling Parameters

Wellbore UNIVERSITY 3-35 #102HB	Start Depth (ftKB) 7,227.0	End Depth (ftKB) 7,230.0	Cum Depth (ft) 6,510.00	Drilling Time (hr) 0.30	Cum Drill Time (hr) 56.18	Interval ROP (ft/hr) 10.0	Flow Rate (gpm) 802
WOB (1000lbf) 12	Rotary RPM (rpm) 0	SPP (psi) 3,194.0	Drill Str Wt (1000... 225	PU Str Wt (1000lbf) 262	SO Str Wt (1000lbf) 239	Drilling Torque 0.0	Off Btm Tq
Q Gas Inj (ft³/min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

### Hydraulic Calculations

Bit Hydraulic Power (hp) 436.9	HP/Area (hp/in²) 3.7	Bit Jet Velocity (ft/s) 331.2	Bit Pressure Drop (psi) 933.8	% P @ bit (%) 29
Max Casing AV (ft/min) 1,505.9	Max Open Hole AV (ft/min) 0.0	Min Casing AV (ft/min) 189.9	Min Open Hole AV (ft/min) 0.0	ECD End (lb/gal) 16.29

Error

Wellbore UNIVERSITY 3-35 #102HB	Start Depth (ftKB) 7,230.0	End Depth (ftKB) 7,485.0	Cum Depth (ft) 6,765.00	Drilling Time (hr) 3.08	Cum Drill Time (hr) 59.26	Interval ROP (ft/hr) 82.8	Flow Rate (gpm) 802
WOB (1000lbf) 31	Rotary RPM (rpm) 70	SPP (psi) 3,778.0	Drill Str Wt (1000... 225	PU Str Wt (1000lbf) 262	SO Str Wt (1000lbf) 239	Drilling Torque 15.0	Off Btm Tq
Q Gas Inj (ft³/min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

### Hydraulic Calculations

Bit Hydraulic Power (hp) 418.3	HP/Area (hp/in²) 3.5	Bit Jet Velocity (ft/s) 331.2	Bit Pressure Drop (psi) 894.0	% P @ bit (%) 24
Max Casing AV (ft/min) 1,505.9	Max Open Hole AV (ft/min) 0.0	Min Casing AV (ft/min) 189.9	Min Open Hole AV (ft/min) 0.0	ECD End (lb/gal) 16.12

Error

### Kicks

Kick Date	Kick Depth (ftKB)	Control Date	Control Depth (ftKB)	Kick Class
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Kill Notes

### Lost Circulation

Start Date 6/3/2017 20:30	Top Depth (ftKB) 192.0	Bottom Depth (ftKB)	Ops In Prog	Vol Lost Tot (bbl)	End Date
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### Interval Problems

Problem Type	Problem Subtype	Start Date	Start Depth (ftKB)	End Depth (ftKB)	Est Cost (Cost)	Est Lost Time (hr)
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Action Taken

### Interval Lessons

Lesson Type	Start Date	End Date	Start Depth (ftKB)	End Depth (ftKB)	Est Cost Saving (Co..	Est Time Saving (hr)
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Comment

### Safety Incidents

Time	Category	Type	Subtype	Cause	Lost time?	Severity
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### Leak Off and Formation Integrity Tests

Run Date 6/4/2017	OD (in) 13 3/8	Set Depth (ft... 684.0	Set Depth (T... 684.0	Comment	MACP Press. 500.0
Test Date 6/8/2017	Test Type Casing Test			Fluid Density (lb/gal) 9.10	EMW (lb/gal) 23.17

### Survey Data

MD (ftKB) 4,977.00	Inclination (°) 1.62	Azimuth (°) 243.15	TVD (ftKB) 4,972.30	VS (ft) -76.66	NS (ft) -75.84	EW (ft) -138.02	DLS (°/100ft) 0.19
MD (ftKB) 5,072.00	Inclination (°) 1.54	Azimuth (°) 237.16	TVD (ftKB) 5,067.27	VS (ft) -77.97	NS (ft) -77.14	EW (ft) -140.29	DLS (°/100ft) 0.19
MD (ftKB) 5,166.00	Inclination (°) 1.38	Azimuth (°) 238.74	TVD (ftKB) 5,161.24	VS (ft) -79.26	NS (ft) -78.41	EW (ft) -142.32	DLS (°/100ft) 0.18
MD (ftKB) 5,261.00	Inclination (°) 1.12	Azimuth (°) 231.88	TVD (ftKB) 5,256.21	VS (ft) -80.43	NS (ft) -79.58	EW (ft) -144.03	DLS (°/100ft) 0.32
MD (ftKB) 5,356.00	Inclination (°) 0.84	Azimuth (°) 225.85	TVD (ftKB) 5,351.20	VS (ft) -81.50	NS (ft) -80.64	EW (ft) -145.26	DLS (°/100ft) 0.31
MD (ftKB) 5,451.00	Inclination (°) 0.89	Azimuth (°) 226.66	TVD (ftKB) 5,446.19	VS (ft) -82.49	NS (ft) -81.63	EW (ft) -146.30	DLS (°/100ft) 0.05
MD (ftKB) 5,545.00	Inclination (°) 0.70	Azimuth (°) 225.92	TVD (ftKB) 5,540.18	VS (ft) -83.40	NS (ft) -82.53	EW (ft) -147.24	DLS (°/100ft) 0.20
MD (ftKB) 5,640.00	Inclination (°) 0.40	Azimuth (°) 206.20	TVD (ftKB) 5,635.17	VS (ft) -84.11	NS (ft) -83.23	EW (ft) -147.80	DLS (°/100ft) 0.37



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MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
5,735.00	0.47	210.94	5,730.17	-84.74	-83.86	-148.15	0.08
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
5,830.00	0.70	228.46	5,825.17	-85.46	-84.58	-148.79	0.30
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
5,924.00	0.53	220.46	5,919.16	-86.18	-85.29	-149.50	0.20
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,018.00	0.41	234.93	6,013.16	-86.71	-85.82	-150.05	0.18
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,113.00	0.10	73.16	6,108.16	-86.88	-85.99	-150.25	0.53
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,208.00	0.32	24.94	6,203.16	-86.61	-85.72	-150.06	0.28
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,302.00	0.44	9.77	6,297.15	-86.02	-85.13	-149.89	0.17
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,396.00	0.38	20.20	6,391.15	-85.37	-84.48	-149.72	0.10
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,491.00	0.38	33.11	6,486.15	-84.81	-83.92	-149.44	0.09
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,585.00	0.47	50.68	6,580.15	-84.30	-83.42	-148.97	0.17
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,679.00	0.51	23.98	6,674.14	-83.67	-82.79	-148.50	0.24
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,774.00	0.65	29.50	6,769.14	-82.81	-81.93	-148.07	0.16
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,868.00	1.00	18.34	6,863.13	-81.57	-80.69	-147.55	0.41
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,963.00	1.10	16.64	6,958.11	-79.90	-79.03	-147.02	0.11
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
7,057.00	1.55	14.06	7,052.09	-77.80	-76.93	-146.46	0.48
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
7,152.00	1.43	22.59	7,147.06	-75.46	-74.59	-145.69	0.27
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
7,246.00	1.22	28.62	7,241.03	-73.49	-72.63	-144.76	0.27
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
7,341.00	1.32	30.78	7,336.01	-71.65	-70.80	-143.72	0.12
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
7,485.00	1.32	30.78	7,479.97	-68.79	-67.95	-142.02	0.00