



Partner Drilling Report

Well Name: UNIVERSITY SWD #1

Report Date: 9/15/2017
Report #: 8.0, DFS: 3.10
Time Log DFS: 3.10
Depth Progress: 1,183.00

API/UWI No. 42461406400000		Surface Legal Location A-U38; SEC. 2; BLK 4; UL SURVEY		Well License/Permit No. 828476		State/Province TEXAS		County UPTON	
Original Spud/Spud Rig Date 9/12/2017 03:30		Large Rig Spud Date		Rig Release Date		KB to GL (ft) 25.00		KB-CF (ft) 28.00	
Weather CLEAR		Temperature (°F) 68.0		Road Condition GOOD		Hole Condition GOOD			
Current Status/OART DRILLING INTERMEDIATE SECTION @ 2925'				24 Hour Forecast DRILL INTERMEDIATE SECTION TO +/- 5100'. PERFORM CLEAN UP CYCLE. POOH TO BHA. L/D INTERMEDIATE BHA. PULL WEAR BUSHING. R/U CASING TOOLS. RIH P/U INTERMEDIATE CASING					
Short Report FINISH N/U BOPS. TEST BOPS. N/U FLOWLINE. FINISH R/U BACKYARD PVC. LAY OUT INTERMEDIATE BHA. STRAP & CALIPER BHA. P/U & M/U INTERMEDIATE BHA. TIH TO FLOAT COLLAR. DRILL OUT CEMENT & FLOAT EQUIPMENT. DRILL INTERMEDIATE SECTION TO 2925'.									
Mud Volumes									
Active Volume (bbl) 956.8		Var Active Vol (bbl) -40.9		Balance (bbl) -676.8		Tank Volume (bbl) 579.0		Additions (bbl) 763.9	
						Losses (bbl) 128.0		Hole Volume (bbl) 377.8	
Time Log									
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code	Operation Summary		
06:00	09:00	3.00	09SHC, Surf Hole Csg	BO	f	O	FINISH INSTALLING BOP RAMS. CLOSE RAM DOORS & TIGHTEN BONNET BOLTS. REPOSITION ROTATING HEAD ASSEMBLY TO MATCH FLOWLINE. HOOK UP HCR & KILL LINE. OPEN CHECK VALVE FOR KILL LINE.		
09:00	12:00	3.00	09SHC, Surf Hole Csg	BO	a	O	PERFORM BOP TEST: TEST#11 - TEST TOP RAMS, HCR, & OUTSIDE KILL TO 250 PSI LOW / 5000 PSI HIGH. TEST#12 - TEST TOP RAMS, 4" MANUAL, & INSIDE KILL TO 250 PSI LOW / 5000 PSI HIGH. TEST#13 - TEST ANNULAR TO 250 PSI LOW / 3500 PSI HIGH. TEST#14 - TEST BLIND RAMS & SUPER CHOKE TO 250 PSI LOW / 5000 PSI HIGH. ALL TEST CHARTS HAVE BEEN UPLOADED IN WELLVIEW.		
12:00	12:30	0.50	09SHC, Surf Hole Csg	PT	a	O	PERFORM CASING TEST ON 13 3/8" SURFACE CASING TO 500 PSI FOR 30 MINUTES ON CHART. TEST GOOD. NOTE: CASING TEST CHART HAS BEEN UPLOADED INTO WELLVIEW.		
12:30	14:00	1.50	09SHC, Surf Hole Csg	BO	f	O	N/U FLOWLINE & FILL UP LINE. RE-INSTALL CHECK VALVE ON KILL LINE. FINISH R/U BACKYARD PVC.		
14:00	17:30	3.50	09SHC, Surf Hole Csg	TP	b	O	LAY OUT INERMEDIATE BHA. STRAP & CALIPER SAME. P/U & M/U INTERMEDIATE BHA. SCRIBE MOTOR & ORIENTATE TRUE SHOT TOOL. SHALLOW TEST TOOLS. TEST GOOD. M/U 12 1/4" XS616S PDC BIT. TIH WITH BHA IN DERRICK TO 1201'.		
17:30	18:30	1.00	09SHC, Surf Hole Csg	TP	a	O	TIH WITH INTERMEDIATE BHA ON 5" DRILL PIPE FROM 1201' TO 1677'. TAG CEMENT @ 1677'.		
18:30	19:00	0.50	09SHC, Surf Hole Csg	OT	e	O	INSTALL ROTATING HEAD RUBBER.		
19:00	20:30	1.50	09SHC, Surf Hole Csg	CS	d	O	DRILL OUT CEMENT & FLOAT EQUIPMENT FROM 1677' TO 1717' @ 500 GPM WITH 1102 PSI & 40 RPM. WASH TO BOTTOM FROM 1717' TO 1742'.		
20:30	23:00	2.50	10IHVD, Int Hole Vert Drill	DR	a	O	DRILL INTERMEDIATE SECTION FROM 1742' TO 1,966'. TAKE SURVEY EVERY CONNECTION WITH TRUESHOT TOOL. PUMP 15 BBLS HI-VIS SWEEPS EVERY 200' DRILLED. 224' @ 89 FT/HR		
23:00	23:30	0.50	10IHVD, Int Hole Vert Drill	OT	e	O	REPLACE GASKET IN ROTATING HEAD BOWL & REMOVE TOP PLUG RUBBER FROM FLOW LINE.		

AFE Number DD.17.30923.CAP.DRL		AFE+Supp Amt (Cost) 1,862,000.00	
Day Total (Cost) 81,448		Cum To Date (Cost) 780,989	
Mud Field Est (Cost) 4,198		Cum Mud Field Est (Co... 15,828	
Start Depth (ftKB) 1,742.0		End Depth (ftKB) 2,925.0	
Planned Formation		Planned TMD (ftKB) 12,860.0	
Last Casing String Surface Casing, 1,717.0ftKB			
Daily Contacts			
Job Contact		Mobile	
RAFAEL CACHUTT, Engineer		214-978-8634	
CHAD LEMAIRE, Consultant		281-220-5821	
CURTIS THOMAS, Consultant		281-272-7500	
Personnel Log			
Head Count		18.0	
Rigs			
PRECISION DRILLING, 590			
Contractor PRECISION DRILLING		Rig Number 590	
Rig Supervisor PHILLIP WALSWORTH, Rig Manager		Phone Mobile 432-557-8442	
1, Oilwell, FD-1600			
Pump Number 1	Pwr (hp) 1,600.0	Rod Diameter... 5 3/4	
Liner Size (in) 6	Stroke (in) 12.00	Vol/Stk OR (b... 0.100	
P (psi) 300.0	Slow Spd Yes	Strokes (s... 40	Eff (%) 95
P (psi) 3,700.0	Slow Spd No	Strokes (s... 97	Eff (%) 95
2, Oilwell, FD-1600			
Pump Number 2	Pwr (hp) 1,600.0	Rod Diameter... 5 3/4	
Liner Size (in) 6	Stroke (in) 12.00	Vol/Stk OR (b... 0.100	
P (psi) 360.0	Slow Spd Yes	Strokes (s... 50	Eff (%) 95
P (psi) 3,700.0	Slow Spd No	Strokes (s... 97	Eff (%) 95
Mud Additive Amounts			
Mud Additive Description		Field Est (Cost/unit)	Consumed
24 HR MUD ENGINEER		700.00	2.0
AQUAGEL		150.00	15.0
CAUSTIC SODA		29.40	1.0
CON DET		59.00	2.0
EZ MUD		85.03	2.0
MF-55		89.00	2.0
SODA ASH		13.25	4.0
Job Supplies			
Supply Item Description DRILLING WATER		Unit Label Bbl	
Total Received 960.0	Total Consumed 960.0	On Loc 0.0	
Supply Item Description FUEL		Unit Label Gal	
Total Received 17,400.0	Total Consumed 8,588.0	On Loc 8,812.0	



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Time Log DFS: 3.10
Depth Progress: 1,183.00

Time Log													
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code	Operation Summary						
23:30	06:00	6.50	10IHVD, Int Hole Vert Drill	DR	a	O	DRILL INTERMEDIATE SECTION FROM 1,966' TO 2925'. TAKE SURVEY EVERY CONNECTION WITH TRUESHOT TOOL. PUMP 15 BBLS HI-VIS SWEEPS EVERY 200' DRILLED. 959' @ 147.5 FT/HR						
Mud Checks													
Time	Type	Depth (ftKB)	Density (kg/m³) (lb/g...	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)							
05:45	Cut-Brine	2,925.0	9.70	29	2.0	3.001							
Gel 10 sec (kPa) (lb...	Gell 10 min (kPa) (l...	Gel 30 min (kPa) (lb...	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)							
1.000	2.001	2.001	100.0	3	8.5								
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%)	Chlorides (kg/m³) (...)	Calcium (kg/m³) (m...	Potassium (mg/L)	Electric Stab (V)							
		90.0	156,000.000										
Mud Volumes													
Tank/Addition/Loss		Type	Volume (bbl)	Subtype									
Hole		HOLE	377.8										
Tank		ACTIVE	579.0										
Tank		RESERVE	0.0										
Loss		Surface	128.0										
Loss		Hole	0.0										
Addition		Water	730.0										
Addition		Additives	33.9										
Drill Strings													
BHA #2, Intermediate													
Bit Run	Drill Bit	IADC Bit Dull			TFA (incl Noz) (in²)								
1	12 1/4in, XS616S, JN0194	-----			1.18								
Nozzles (1/32")				BHA Length (ft)	String Wt (1000lbf)	Bit ROP (ft/hr)							
16/16/16/16/16/16				1,201.00	72	121.6							
Mud Motors													
Motor Bend			Bit to Bend	Rotor Nozzle Diameter (in)									
1.50 FIXED			7.0										
Drill String Components													
Item Des		Manual/Tally Jts	OD (in)	ID (in)	Len (ft)	Top Thread							
HWDP-Slick		21	5	3.00	655.90	IF							
XO Sub		1	6 1/2	2.75	2.02	IF							
Drill Collar		3	6 1/2	2.75	87.96	XH							
Drilling Jars - Hydraulic		1	6 1/2	2.75	28.28	XH							
Drill Collar		9	6 1/2	2.75	264.73	XH							
XO Sub		1	8	3.00	3.34	XH							
Drill Collar		3	8	3.00	90.51	Reg							
Teledrift		1	8	3.75	30.94	Reg							
Stabilizer - Near Bit		1	11 1/2	3.00	7.40	Reg							
Mud Motor - Bent Housing		1	8	2.50	28.42	Reg							
Drilling Parameters													
Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drill Time (hr)	Int ROP (ft/hr)	Q Flow (gpm)	WOB (1000lbf)	dP (SPP) (psi)	Rotary RPM (rpm)	Drill Tq	SPP (psi)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)
1,742.0	1,949.0	207.00	3.12	66.3	500	20	300.0	70	6,500.0	1,579.0	120	115	117
1,949.0	1,966.0	224.00	0.17	100.0	500	11	159.0	0		1,450.0	120	115	117
1,966.0	2,132.0	390.00	2.21	75.1	600	27	448.0	70	10,000.0	2,124.0	123	118	120
2,132.0	2,223.0	481.00	0.35	260.0	700	31	491.0	70	13,000.0	2,370.0	123	118	120
2,223.0	2,925.0	1,183.00	4.18	167.9	800	30	600.0	70	13,200.0	3,950.0	128	113	125
Hydraulic Calculations													
Start Depth (ftKB)	End Depth (ftKB)	ECD End (lb/gal)	Max Casing AV (ft/min)	Min Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Open Hole AV (ft/min)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	P Drop Annular (psi)				
1,742.0	1,949.0	8.41	102.6	34.5	688.0	18.8	41.2	0.3	1.5				
1,949.0	1,966.0	8.41	102.6	34.5	688.0	18.8	41.2	0.3	1.5				
1,966.0	2,132.0	8.42	123.1	41.4	825.6	22.6	71.1	0.6	2.0				
2,132.0	2,223.0	8.42	143.7	48.3	963.2	26.4	112.9	1.0	2.5				
2,223.0	2,925.0	9.74	143.5	55.2	1,100.8	30.1	194.7	1.7	5.7				
Kicks													
Kick Date		Kick Depth (ftKB)		Control Date		Control Depth (ftKB)		Kick Class					
Kill Notes													

Job Supplies		
Supply Item Description		Unit Label
LIQUID DRILLING WASTE		Bbl
Total Received	Total Consumed	On Loc
60.0	60.0	0.0
Supply Item Description		Unit Label
RIG WATER		Bbl
Total Received	Total Consumed	On Loc
0.0	0.0	0.0
Supply Item Description		Unit Label
SEWAGE		Gal
Total Received	Total Consumed	On Loc
3,800.0	3,800.0	0.0
Supply Item Description		Unit Label
TRASH/GENERAL WASTE		Cu. Yds
Total Received	Total Consumed	On Loc
0.0	0.0	0.0
Safety Checks		
Time	Type	Safety Topic
12:00	BOP Pressure Test	BOP TEST
17:45	Pre-Tour	DRILLING CEMENT OPERATIONS
05:45	Pre-Tour	HAND & FEET PLACEMENT S
Wellbores		
Wellbore Name		
UNIVERSITY SWD #1		
Kick Offs & Key Depths		
Type	Top Depth (ftKB)	
13 3/8" CASING SHOE	1,717.0	



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Lost Circulation

Start Date	Top Depth (ftKB)	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	OD (in)	Set Depth (ft...	Set Depth (T...	Comment	MACP Press...
9/13/2017	13 3/8	1,717.0	1,717.0		1,350.0
Test Date	Test Type	Fluid Density (lb/gal)	EMW (lb/gal)		
9/14/2017	Casing Test	8.33	13.94		

Survey Data

MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
1,798.00	1.80	273.80	1,797.94	-3.37	-3.37	-2.50	0.88
1,892.00	1.90	283.70	1,891.89	-2.90	-2.90	-5.48	0.36
1,988.00	0.70	279.50	1,987.86	-2.43	-2.43	-7.61	1.25
2,085.00	0.30	284.60	2,084.86	-2.26	-2.26	-8.44	0.41
2,178.00	0.80	284.10	2,177.86	-2.04	-2.04	-9.30	0.54
2,270.00	0.70	276.60	2,269.85	-1.82	-1.82	-10.48	0.15
2,362.00	0.70	276.70	2,361.84	-1.69	-1.69	-11.60	0.00
2,455.00	0.30	247.90	2,454.84	-1.72	-1.72	-12.39	0.50
2,547.00	0.50	294.30	2,546.84	-1.64	-1.64	-12.98	0.40
2,639.00	0.00	77.00	2,638.83	-1.48	-1.48	-13.35	0.54
2,731.00	0.30	285.30	2,730.83	-1.42	-1.42	-13.58	0.33
2,810.00	0.50	37.70	2,809.83	-1.09	-1.09	-13.57	0.85



Partner Drilling Report

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Report Date: 9/16/2017
Report #: 9.0, DFS: 4.10
Time Log DFS: 4.10
Depth Progress: 2,225.00

API/UWI No. 42461406400000	Surface Legal Location A-U38; SEC. 2; BLK 4; UL SURVEY	Well License/Permit No. 828476	State/Province TEXAS	County UPTON
Original Spud/Spud Rig Date 9/12/2017 03:30	Large Rig Spud Date	Rig Release Date	KB to GL (ft) 25.00	KB-CF (ft) 28.00
Weather PARTLY CLOUDY	Temperature (°F) 72.0	Road Condition GOOD	Hole Condition GOOD	
Current Status/OART POOH L/D BHA	24 Hour Forecast FINISH POOH & L/D 8" DRILL COLLARS, DIRECTIONAL TOOLS & BIT. PULL WEAR BUSHING. R/U CASING TOOLS. RIH WITH INTERMEDIATE CASING. CIRCULATE 1 1/2 CASING VOLUME. PERFORM INTERMEDIATE CASING CEMENT JOB.			

Short Report
DRILL INTERMEDIATE SECTION FROM 2925' TO 5150'. PERFORM CLEAN UP CYCLE. POOH TO BHA. POOH
RACK BACK HWDP & 6 1/2" DRILL COLLARS. POOH L/D 8" DRILL COLLARS.

Mud Volumes

Active Volume (bbl) 1,477.2	Var Active Vol (bbl) 520.4	Balance (bbl) 164.1	Tank Volume (bbl) 780.0	Additions (bbl) 484.3	Losses (bbl) 128.0	Hole Volume (bbl) 697.2
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Time Log

Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code	Operation Summary
06:00	00:00	18.00	10IHVD, Int Hole Vert Drill	DR	a	O	DRILL INTERMEDIATE SECTION FROM 2925' TO 5150'. TAKE SURVEY EVERY CONNECTION WITH TRUESHOT TOOL. PUMP 15 BBLS HI-VIS SWEEPS EVERY 200' DRILLED. 2225' @ 124 FT/HR NOTE: CALLED TRRC, DISTRICT 7C, @ 1215 HRS TO INFORM THE INTENT TO RUN & CEMENT INTERMEDIATE CASING. TALKED WITH MIRIAM @ TRRC.
00:00	01:00	1.00	12IHC, Int Hole Csg	CI	g	O	PERFORM CLEAN UP CYCLE. PUMP FIRST 25 BBL HI-VIS SWEEP & CIRCULATE TO THE BIT. PUMP SECOND 25 BBL HI- VIS SWEEP & CIRCULATE SAME OUT THE HOLE. WHILE CIRCULATING WORK DRILL STRING & ROTATE @ 80 RPM WITH 800 GPM. SPOT 80BBL HI VIS PILL OUT OF BIT
01:00	03:30	2.50	12IHC, Int Hole Csg	TP	c	O	POOH FIRST 5 STANDS FROM 5150' TO 4,700' @ 50 FT/MIN. MONITOR OVER PULL. MAX OVER PULL OFF BOTTOM 10K. CONTINUE TO POOH FROM 4,700' TO BHA @ 120 FT/MIN. NO TIGHT SPOTS OBSERVED. MONITOR FILL UPS ON TRIP TANK. HOLE TAKING PROPER FILL.
03:30	04:30	1.00	12IHC, Int Hole Csg	OT	e	O	PULL ROTATING HEAD RUBBER & INSTALL TRIP NIPPLE.
04:30	06:00	1.50	12IHC, Int Hole Csg	TP	b	O	POOH & RACK BACK 5" HWDP & 6 1/2" DRILL COLLARS. LAY DOWN 8" DRILL COLLARS.

Mud Checks

Time 18:00	Type Cut-Brine	Depth (ftKB) 4,567.0	Density (kg/m³) (lb/g... 10.60	Funnel Viscosity (s/qt) 30	PV Calc (cP) 3.0	YP Calc (lb/100ft²) 2.001
Gel 10 sec (kPa) (lb... 1.000	Gell 10 min (kPa) (l... 1.000	Gel 30 min (kPa) (lb... 2.001	Filtrate (mL/30min) 100.0	Filter Cake (1/32") 3	pH 9.0	Solids (%)
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%) 86.0	Chlorides (kg/m³) (... 175,000.000	Calcium (kg/m³) (m... 	Potassium (mg/L)	Electric Stab (V)
Time 05:00	Type Cut-Brine	Depth (ftKB) 5,150.0	Density (kg/m³) (lb/g... 10.60	Funnel Viscosity (s/qt) 30	PV Calc (cP) 3.0	YP Calc (lb/100ft²) 2.001
Gel 10 sec (kPa) (lb... 1.000	Gell 10 min (kPa) (l... 1.000	Gel 30 min (kPa) (lb... 2.001	Filtrate (mL/30min) 100.0	Filter Cake (1/32") 	pH 9.0	Solids (%)
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%) 86.0	Chlorides (kg/m³) (... 	Calcium (kg/m³) (m... 	Potassium (mg/L)	Electric Stab (V)

Mud Volumes

Tank/Addition/Loss	Type	Volume (bbl)	Subtype
Hole	HOLE	697.2	
Tank	ACTIVE	780.0	
Tank	RESERVE	0.0	
Loss	Surface	128.0	
Loss	Hole	0.0	
Addition	Water	455.2	
Addition	Additives	29.1	

AFE Number DD.17.30923.CAP.DRL	AFE+Supp Amt (Cost) 1,862,000.00
Day Total (Cost) 45,205	Cum To Date (Cost) 826,195
Mud Field Est (Cost) 5,263	Cum Mud Field Est (Co... 21,091
Start Depth (ftKB) 2,925.0	End Depth (ftKB) 5,150.0
Planned Formation	Planned TMD (ftKB) 12,860.0

Last Casing String
Surface Casing, 1,717.0ftKB

Daily Contacts

Job Contact	Mobile
RAFAEL CACHUTT, Engineer	214-978-8634
CHAD LEMAIRE, Consultant	281-220-5821
CURTIS THOMAS, Consultant	281-272-7500

Personnel Log

Head Count	28.0
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Rigs

PRECISION DRILLING, 590	
Contractor PRECISION DRILLING	Rig Number 590
Rig Supervisor PHILLIP WALSWORTH, Rig Manager	Phone Mobile 432-557-8442

1, Oilwell, FD-1600

Pump Number 1	Pwr (hp) 1,600.0	Rod Diameter... 5 3/4
Liner Size (in) 6	Stroke (in) 12.00	Vol/Stk OR (b... 0.100
P (psi) 3,950.0	Slow Spd No	Strokes (s... Eff (%) 97 95

2, Oilwell, FD-1600

Pump Number 2	Pwr (hp) 1,600.0	Rod Diameter... 5 3/4
Liner Size (in) 6	Stroke (in) 12.00	Vol/Stk OR (b... 0.100
P (psi) 3,950.0	Slow Spd No	Strokes (s... Eff (%) 97 95

Mud Additive Amounts

Mud Additive Description	Field Est (Cost/unit)	Consumed
24 HR MUD ENGINEER	700.00	1.0
AQUAGEL	150.00	12.13
CAUSTIC SODA	29.40	2.0
CON DET	59.00	4.0
EZ MUD	85.03	4.0
LIME	6.00	1.0
PAC-L	154.00	9.0
SCALE CHARGE	10.00	2.0
SODA ASH	13.25	9.0
TRANSPORTATI ON	1.75	329.8

Job Supplies

Supply Item Description	Unit Label
DRILLING WATER	Bbl
Total Received 960.0	Total Consumed 960.0
On Loc 0.0	
Supply Item Description	Unit Label
FUEL	Gal
Total Received 17,400.0	Total Consumed 8,588.0
On Loc 8,812.0	



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Drill Strings

BHA #2, Intermediate

Bit Run	Drill Bit	IADC Bit Dull	TFA (incl Noz) (in ²)
1	12 1/4in, XS616S, JN0194	-----	1.18
Nozzles (1/32")		BHA Length (ft)	String Wt (1000lbf)
16/16/16/16/16/16		1,201.00	72
		Bit ROP (ft/hr)	
		121.6	

Mud Motors

Motor Bend	Bit to Bend	Rotor Nozzle Diameter (in)
1.50 FIXED	7.0	

Drill String Components

Item Des	Manual/Tally Jts	OD (in)	ID (in)	Len (ft)	Top Thread
HWDP-Slick	21	5	3.00	655.90	IF
XO Sub	1	6 1/2	2.75	2.02	IF
Drill Collar	3	6 1/2	2.75	87.96	XH
Drilling Jars - Hydraulic	1	6 1/2	2.75	28.28	XH
Drill Collar	9	6 1/2	2.75	264.73	XH
XO Sub	1	8	3.00	3.34	XH
Drill Collar	3	8	3.00	90.51	Reg
Teledrift	1	8	3.75	30.94	Reg
Stabilizer - Near Bit	1	11 1/2	3.00	7.40	Reg
Mud Motor - Bent Housing	1	8	2.50	28.42	Reg

Drilling Parameters

Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drill Time (hr)	Int ROP (ft/hr)	Q Flow (gpm)	WOB (1000lbf)	dP (SPP) (psi)	Rotary RPM (rpm)	Drill Tq	SPP (psi)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)
2,925.0	5,150.0	3,408.00	18.00	123.6	780	25	550.0	80	16,000.0	3,600.0	171	159	163

Hydraulic Calculations

Start Depth (ftKB)	End Depth (ftKB)	ECD End (lb/gal)	Max Casing AV (ft/min)	Min Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Open Hole AV (ft/min)	Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	P Drop Annular (psi)
2,925.0	5,150.0	10.64	139.9	53.8	1,073.3	29.4	197.2	1.7	10.3

Kicks

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

Kill Notes

Lost Circulation

Start Date	Top Depth (ftKB)	Bottom Depth (ftKB)	Ops In Prog	Vol Lost Tot (bbl)	End Date

Interval Problems

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

Action Taken

Interval Lessons

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

Comment

Safety Incidents

Time	Category	Type	Subtype	Cause	Lost time?	Severity

Leak Off and Formation Integrity Tests

Run Date	OD (in)	Set Depth (ft...)	Set Depth (T...)	Comment	MACP Press...
9/13/2017	13 3/8	1,717.0	1,717.0		1,350.0
Test Date	Test Type	Fluid Density (lb/gal)	EMW (lb/gal)		
9/14/2017	Casing Test	8.33	13.94		

Survey Data

MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
2,916.00	0.90	79.10	2,915.83	-0.56	-0.56	-12.47	0.59
3,008.00	0.10	80.60	3,007.82	-0.42	-0.42	-11.68	0.87
3,100.00	0.00	237.90	3,099.82	-0.40	-0.40	-11.60	0.11
3,193.00	0.70	268.20	3,192.82	-0.42	-0.42	-12.17	0.75
3,285.00	0.40	113.50	3,284.82	-0.57	-0.57	-12.43	1.17
3,377.00	0.70	61.60	3,376.81	-0.43	-0.43	-11.64	0.60

Job Supplies

Supply Item Description	Unit Label
LIQUID DRILLING WASTE	Bbl
Total Received	Total Consumed
60.0	60.0
On Loc	
0.0	

Supply Item Description	Unit Label
RIG WATER	Bbl
Total Received	Total Consumed
0.0	0.0
On Loc	
0.0	

Supply Item Description	Unit Label
SEWAGE	Gal
Total Received	Total Consumed
3,800.0	3,800.0
On Loc	
0.0	

Supply Item Description	Unit Label
TRASH/GENERAL WASTE	Cu. Yds
Total Received	Total Consumed
0.0	0.0
On Loc	
0.0	

Safety Checks

Time	Type	Safety Topic
17:45	Pre-Tour	MAKING CONNECTIONS
05:45	Pre-Tour	HANDLING BHA

Wellbores

Wellbore Name
UNIVERSITY SWD #1

Kick Offs & Key Depths

Type	Top Depth (ftKB)
13 3/8" CASING SHOE	1,717.0



Partner Drilling Report

Report Date: 9/16/2017
Report #: 9.0, DFS: 4.10
Time Log DFS: 4.10
Depth Progress: 2,225.00

Well Name: UNIVERSITY SWD #1

Survey Data

MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,470.00	0.90	61.20	3,469.80	0.20	0.20	-10.50	0.22
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,562.00	0.90	31.90	3,561.79	1.16	1.16	-9.49	0.49
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,655.00	0.40	3.60	3,654.79	2.10	2.10	-9.08	0.62
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,755.00	0.70	13.00	3,754.78	3.04	3.04	-8.92	0.31
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,843.00	0.70	41.30	3,842.78	3.97	3.97	-8.45	0.39
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,936.00	0.60	9.70	3,935.77	4.88	4.88	-7.99	0.39
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,030.00	0.90	5.70	4,029.76	6.10	6.10	-7.83	0.32
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,220.00	1.10	358.30	4,219.73	9.41	9.41	-7.74	0.13
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,311.00	1.00	25.70	4,310.72	11.00	11.00	-7.42	0.56
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,489.00	1.20	24.90	4,488.69	14.09	14.09	-5.96	0.11
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,679.00	0.60	19.10	4,678.66	16.83	16.83	-4.80	0.32
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,864.00	0.80	354.10	4,863.65	19.03	19.03	-4.62	0.19
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
5,050.00	0.90	358.40	5,049.63	21.78	21.78	-4.79	0.06
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
5,150.00	0.90	358.40	5,149.62	23.35	23.35	-4.83	0.00