



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #102HB

Report Date: 6/14/2017
Report #: 12.0, DFS: 10.48
Time Log DFS: 10.48
Depth Progress: 10.00

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 WINDY	Temperature (°F) 77.0	Road Condition GOOD
Current Status/OART P/U DIRECTIONAL TOOLS @ REPORT TIME		24 Hour Forecast CONTINUE TO P/U DIRECTIONAL BHA. TIH TO SHOE. SLIP AND CUT DRILLING. DISPLACE HOLE WITH OBM. BUILD CURVE AND SURVEY.	

Short Report
 SET PACKOFF AND TEST. INSTALL WEAR BUSHING. MAKE UP BIT SUB AND BIT. TIH TO 5015'. PERFORM CASING TEST ABOVE DV TOOL. DRILL OUT CEMENT AND DV TOOL. TIH TO 7684'. PERFORM CASING TEST. DRILL OUT CEMENT AND SHOE TRACK. DRILL 10' OF NEW FORMATION. CIRCULATE BOTTOMS UP AND PUMP PILL. PERFORM F.I.T. TO EMW OF 11.0 PPG. DISPLACE HOLE WITH WATER. POOH AND LAY DOWN DRILL OUT ASSEMBLY. LAY OUT AND BEGIN P/U DIRECTIONAL ASSEMBLY.

Mud Volumes						
Active Volume (bbl)	Var Active Vol (bbl)	Balance (bbl)	Tank Volume (bbl)	Additions (bbl)	Losses (bbl)	Hole Volume (bbl)
951.5	-460.3	-472.1	65.0	11.8	0.0	886.5

Time Log							
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code	Operation Summary
06:00	08:30	2.50	12IHC, Int Hole Csg	WH	d	O	SET PACKOFF WITH 10K. TEST PACKOFF TO 5000 PSI. PULL 50K OVER ON PACKOFF TO VERIFY LATCH RING IS FULLY EXTENDED - LATCH RING FULLY EXTENDED. NOTE: CONTINUE TO CLEAN PITS.
08:30	09:00	0.50	12IHC, Int Hole Csg	WH	c	O	INSTALL SHORT WEAR BUSHING.
09:00	09:30	0.50	12IHC, Int Hole Csg	TP	b	O	MAKE UP BIT SUB AND 8 3/4" SMITH XR+C117 MILLTOOTH BIT.
09:30	12:00	2.50	12IHC, Int Hole Csg	TP	a	O	TIH TO DRILL OUT CASING. TAG TOP OF CEMENT @ 5015'.
12:00	13:00	1.00	12IHC, Int Hole Csg	CI	g	O	FILL PIPE AND CIRCULATE AIR OUT OF HOLE FOR CASING TEST.
13:00	13:30	0.50	12IHC, Int Hole Csg	PT	a	O	TEST CASING ABOVE DV TOOL. TEST TO 1500 PSI AND HOLD FOR TEN MINUTES - TEST GOOD.
13:30	15:00	1.50	12IHC, Int Hole Csg	CS	d	O	DRILL OUT CEMENT AND DV TOOL F/ 5015' TO 5031'. DRILL WITH 441 GPM, 609 PSI, 40 RPM AND 20 WOB. DV TOOL @ 5029'. RUN 1 STAND IN. TAG AND DRILL CONTINGENCY BAFFLE @ 5089'.
15:00	15:30	0.50	12IHC, Int Hole Csg	PT	a	O	TEST CASING TO 1500 PSI AND HOLD FOR 30 MINUTES. TEST GOOD.
15:30	17:00	1.50	12IHC, Int Hole Csg	TP	a	O	TIH F/ 5100' TO 7684'. TAG TOP OF CEMENT @ 7684'.
17:00	20:00	3.00	12IHC, Int Hole Csg	CS	d	O	DRILL OUT CEMENT AND FLOAT EQUIPMENT. NOTE: ADJUST CASING TALLY 14' DEEPEER. ADJUSTED SHOE DEPTH OF 7787'.
20:00	21:00	1.00	12IHC, Int Hole Csg	DR	a	O	DRILL 10' OF NEW FORMATION F/ 7793' TO 7803'.
21:00	21:30	0.50	12IHC, Int Hole Csg	CI	g	O	CIRCULATE 1 BOTTOMS UP.
21:30	22:30	1.00	12IHC, Int Hole Csg	CI	a	O	MIX LCM MUD PILL IN SLUG TANK.
22:30	23:00	0.50	12IHC, Int Hole Csg	CI	d	O	PUMP PILL AND CHASE WITH GEL MUD.
23:00	00:00	1.00	12IHC, Int Hole Csg	PT	b	O	PERFORM F.I.T. WITH 8.6 PPG WBM. PRESSURED UP 986 PSI, BLED TO 977 PSI IN 5 MINUTES. TEST GOOD. EMW 11.0 PPG.
00:00	01:30	1.50	12IHC, Int Hole Csg	CI	c	O	DISPLACE GEL MUD IN HOLE WITH WATER.
01:30	03:00	1.50	12IHC, Int Hole Csg	TP	c	O	POOH TO LAY DOWN DRILL OUT ASSEMBLY AND P/U DIRECTIONAL ASSEMBLY F/ 7803 TO 2352'.
03:00	03:30	0.50	12IHC, Int Hole Csg	RM	b	O	RIG SERVICE. NOTE: CHANGE ST-80 HOSE.

AFE Number DD.17.30779.CAP.DRL	AFE+Supp Amt (Cost) 2,177,000.00
Day Total (Cost) 52,558	Cum To Date (Cost) 1,090,733
Mud Field Est (Cost) 1,814	Cum Mud Field Est (Co... 44,967
Start Depth (ftKB) 7,793.0	End Depth (ftKB) 7,803.0
Planned Formation WOLFCAMP B	Planned TMD (ftKB) 19,216.0
Last Casing String Intermediate Casing, 7,787.0ftKB	

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	23.0

Rigs

HELMERICH & PAYNE DRILLING, 3	
Contractor HELMERICH & PAYNE DRILLING	Rig Number 394
Rig Supervisor JARED CARPENTER, 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)	Slow Spd	Strokes (s...)	Eff (%)

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)	Slow Spd	Strokes (s...)	Eff (%)

Mud Additive Amounts		
Mud Additive Description	Field Est (Cost/unit)	Consumed
12 HR MUD ENGINEER	700.00	1.0
AQUAGEL	150.00	4.0
BARACARB 150	13.30	20.0
CAUSTIC SODA	29.40	1.0
SODA ASH	13.25	2.0
WALNUT PLUG MED	13.75	14.0

Job Supplies		
Supply Item Description DIESEL FOR OBM	Unit Label Gal	
Total Received 11,019.5	Total Consumed 0.0	On Loc 11,019.5
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



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #102HB

Report Date: 6/14/2017
Report #: 12.0, DFS: 10.48
Time Log DFS: 10.48
Depth Progress: 10.00

Time Log									
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code	Operation Summary		
03:30	05:30	2.00	12IHC, Int Hole Csg	TP	c	O	POOH TO LAY DOWN DRILL OUT ASSEMBLY AND P/U DIRECTIONAL ASSEMBLY F/ 2352' TO BHA. L/D BIT AND BIT SUB. CLEAN FLOOR.		
05:30	06:00	0.50	12IHC, Int Hole Csg	TP	b	O	LAY OUT AND BEGIN P/U DIRECTIONAL TOOLS @ REPORT TIME.		

Mud Checks							
Time	Type	Depth (ftKB)	Density (kg/m³) (lb/g...)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)	
05:00	Fresh Water	7,803.0	8.80	28	1.0	3.001	
Gel 10 sec (kPa) (lb...)	Gel 10 min (kPa) (l...	Gel 30 min (kPa) (lb...	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	
1.000	1.000	1.000	100.0		10.0		
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%)	Chlorides (kg/m³) (...)	Calcium (kg/m³) (m...	Potassium (mg/L)	Electric Stab (V)	
		97.8	7,000.000				

Mud Volumes			
Tank/Addition/Loss	Type	Volume (bbl)	Subtype
Addition	Water		
Hole	Hole	886.5	
Tank	Reserve		
Loss	SURFACE EQUIPMENT		
Tank	TOTAL CIRC	65.0	
Tank	INVERMUL		
Addition	CHEMICALS	11.8	
Loss	MISC. OTHER		

Drill Strings			
BHA #3, Clean Out			
Bit Run	Drill Bit	IADC Bit Dull	TFA (incl Noz) (in²)
2	8 3/4in, XR+C117, RJ1939	-----	1.11
Nozzles (1/32")	BHA Length (ft)	String Wt (1000lb)	Bit ROP (ft/hr)
22/22/22	661.47	32	40.0

Drill String Components					
Item Des	Manual/Tally Jts	OD (in)	ID (in)	Len (ft)	Top Thread
HWDP		5	3.00	658.14	IF
Bit Sub		6 1/2	2.50	2.52	IF

Drilling Parameters							
Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #102HB	7,793.0	7,803.0	10.00	0.25	0.25	40.0	438
WOB (1000lb)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lb)	SO Str Wt (1000lb)	Drilling Torque	Off Btm Tq
8	50	685.0					
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)	HP/Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
31.7	0.5	126.1	124.0	18
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
202.7	99.6	78.5	85.8	8.64
Error				

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
6/3/2017 20:30	192.0				

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						

Job Supplies		
Supply Item Description	Unit Label	
DRILLING WATER	Bbl	
Total Received	Total Consumed	On Loc
9,718.0	9,718.0	0.0
Supply Item Description		
FUEL	Gal	
Total Received	Total Consumed	On Loc
23,936.5	16,215.5	7,721.0
Supply Item Description		
LIQUID DRILLING WASTE	Bbl	
Total Received	Total Consumed	On Loc
0.0	0.0	0.0
Supply Item Description		
POTABLE WATER	Gal	
Total Received	Total Consumed	On Loc
9,300.0	9,300.0	0.0
Supply Item Description		
SEWAGE	Gal	
Total Received	Total Consumed	On Loc
14,800.0	14,800.0	0.0
Supply Item Description		
THREAD PROTECTORS	Box	
Total Received	Total Consumed	On Loc
0.0	0.0	0.0
Supply Item Description		
TRASH/GENERAL WASTE	Ea	
Total Received	Total Consumed	On Loc
0.0	0.0	0.0

Safety Checks		
Time	Type	Safety Topic
17:30	Pre-Tour	FALL PROTECTIO N
05:30	Pre-Tour	HAND PLACEMENT TRIPPING PIPE

Wellbores	
Wellbore Name	
UNIVERSITY 3-35 #102HB	
Kick Offs & Key Depths	
Type	Top Depth (ftKB)



Partner Drilling Report

Report Date: 6/14/2017
Report #: 12.0, DFS: 10.48
Time Log DFS: 10.48
Depth Progress: 10.00

Well Name: UNIVERSITY 3-35 #102HB

Safety Incidents

Time	Category	Type	Subtype	Cause	Lost time?	Severity

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
Run Date 6/12/2017	OD (in) 9 5/8	Set Depth (ft... 7,787.0	Set Depth (T... 7,781.9	Comment 9 5/8" INTERMEDIATE CASING TEST ABOVE DV TOOL.	MACP Press... 1,500.0
Test Date 6/13/2017		Test Type Casing Test		Fluid Density (lb/gal) 8.80	EMW (lb/gal)
Run Date 6/12/2017	OD (in) 9 5/8	Set Depth (ft... 7,787.0	Set Depth (T... 7,781.9	Comment 9 5/8" INTERMEDIATE CASING TEST ABOVE SHOE TRACK.	MACP Press... 1,500.0
Test Date 6/13/2017		Test Type Casing Test		Fluid Density (lb/gal) 8.80	EMW (lb/gal)
Run Date 6/12/2017	OD (in) 9 5/8	Set Depth (ft... 7,787.0	Set Depth (T... 7,781.9	Comment PERFORM F.I.T. AS FOLLOWS: MW USED WBM @ 8.6 PPG. PUMPED 12.5 BBLS @ .5 BPM. PRESSURE UP TO 975 PSI 11.0 PPG EMW. HELD FOR 5 MINUTES.	MACP Press... 986.0
Test Date 6/13/2017		Test Type F.I.T.		Fluid Density (lb/gal) 8.60	EMW (lb/gal) 11.03

Survey Data

MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)