



## Partner Drilling Report

Well Name: UNIVERSITY 3-35 #102HB

Report Date: 6/28/2017  
Report #: 26.0, DFS: 24.48  
Time Log DFS: 24.48  
Depth Progress: 0.00

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 P.CLOUDY	Temperature (°F) 70.0	Road Condition GOOD
Current Status/OART PREPARING TO LIFT STACK	24 Hour Forecast WOC, R/D CMT HEAD, FINISH CLEANING PITS, BEGIN TO PREP RIG FOR SKID, P/U STACK AND SET SLIPS, B/O LOWER ADAPTOR, RAISE STACK MAKE ROUGH CUT / FINAL CUT AND BEVEL, INSTALL C-22 BLIND CAP, R/D OPERATIONS CONTINUE TO PREP FOR SKID, RELEASE RIG.		

Short Report  
CIRC CSG VOLUME, R/D BYRD CSG CREW, R/U SCHLUMBERGER CMT HEAD AND LINES, WAIT ON BULK CMT TO ARRIVE, PJSM, RUN PRODUCTION CMT JOB, WOC, CLEAN PITS, BEGIN PREP FOR RIG DOWN OPERATION.

Mud Volumes						
Active Volume (bbl) 4,288.6	Var Active Vol (bbl) -409.3	Balance (bbl) -614.6	Tank Volume (bbl) 3,862.0	Additions (bbl) 502.1	Losses (bbl) 296.8	Hole Volume (bbl) 426.6

Time Log						
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code
06:00	08:00	2.00	24PHC, Prod Hole Csg	Cl	g	O
CONTINUE TO CIRCULATE 1-1/2 CASING VOLUME @ 5 BPM  R/D BYRD CASING CREW  NOTE: NO LOSSES OBSERVED DURING CIRCULATION.						
08:00	16:00	8.00	24PHC, Prod Hole Csg	TR	q	S
CONTINUE CIRCULATING WHILE WAITING ON SCHLUMBERGER BULK CEMENT TO ARRIVE ON LOCATION RECEIVED 2 LOADS CEMENTER INFORMED US THAT THE OTHER 3 LOADS ARE EN ROUTE TO LOCATION. ALL CEMENT ARRIVED ON LOCATION SHCLUMBERGER CEMENTERS STATED THAT THEY ARE 100% READY TO CONDUCT CEMENT JOB.  NOTE: RIG CREW CLEANED ON RIG WHILE WAITING FOR CEMENT TO ARRIVE.						

AFE Number DD.17.30779.CAP.DRL	AFE+Supp Amt (Cost) 2,177,000.00
Day Total (Cost) 138,298	Cum To Date (Cost) 2,358,116
Mud Field Est (Cost) 1,193	Cum Mud Field Est (Co... 122,308
Start Depth (ftKB) 19,215.0	End Depth (ftKB) 19,215.0
Planned Formation WOLFCAMP B	Planned TMD (ftKB) 19,216.0
Last Casing String Production Casing, 19,215.0ftKB	

Daily Contacts	
Job Contact	Mobile
BRIAN ALLEMAN, Engineer	214-978-8000
DAVID LANKFORD, Foreman	281-220-5828
MARTY ARREZOLA, Consultant	281-220-5828
DEAN DUFFY, Rig Clerk/Logistics	281-220-5829

Personnel Log	
Head Count	36.0

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) 5	Stroke (in) 11.00	Vol/Stk OR (b... 0.067	
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) 5	Stroke (in) 11.00	Vol/Stk OR (b... 0.067	
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
CALCIUM CHL 95 -98%	17.10	15.0
CON DET	59.00	4.0

Job Supplies		
Supply Item Description DIESEL FOR OBM	Unit Label Gal	
Total Received 40,295.4	Total Consumed 36,424.4	On Loc 3,871.0
Supply Item Description DRILLING CUTTINGS	Unit Label Cu. Yds	
Total Received 400.0	Total Consumed 400.0	On Loc 0.0
Supply Item Description DRILLING WATER	Unit Label Bbl	
Total Received 6,436.7	Total Consumed 6,436.7	On Loc 0.0
Supply Item Description DRILLING WATER	Unit Label Bbl	
Total Received 9,718.0	Total Consumed 9,718.0	On Loc 0.0



## Partner Drilling Report

Well Name: UNIVERSITY 3-35 #102HB

Report Date: 6/28/2017  
Report #: 26.0, DFS: 24.48  
Time Log DFS: 24.48  
Depth Progress: 0.00

### Time Log

Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code	Operation Summary
16:00	21:00	5.00	24PHC, Prod Hole Csg	CE	a	O	HELD PJSM WITH HOC - H&P - BAKER AND SLB CEMENTERS ON PRODUCTION CEMENT JOB. RIG UP SLB CEMENT LINES TO RIG FLOOR.  PERFORM CEMENT JOB FOR PRODUCTION CASING AS FOLLOWS:  SWAPPED TO SCHLUMBERGER CEMENT LINES PRESSURE TESTED SAME TO 1000 PSI LOW AND 5000 HIGH: TEST GOOD,  - SPACER: MIX & PUMP 60 BBL'S OF MUD PUSH EXPRESS SPACER @ 10.5 PPG. MIX AND PUMP 117.56 BBL MRF SPACER @ 10.5 PPG  - LEAD SLURRY: MIX & PUMP 141.51 BBL'S (371 SK'S) OF TXI LIGHTWEIGHT BLEND CEMENT @ 11.5 PPG, YIELD 2.29 FT3/SK, MIX WATER 13.10 GAL/SK  - TAIL SLURRY: MIX & PUMP 585.40 BBL'S (2110 SK'S) OF D909 CEMENT @ 13.20 PPG, YIELD 1.56 FT3/SK, MIX WATER 7.59 GAL/SK  - FLUSH LINES WITH 20 BBL OF 20% ACETIC ACID TO RESERVE PIT TO MAKE SURE THE LINE IS FILLED UP WITH ACID.  - DROP DART PLUG AND PUMP 20 BBL OF 20% ACETIC ACID AHEAD FOLLOWED BY 20 BBL TREATED FRESH WATER.  - TOTAL DISPLACEMENT PUMPED 424.7 BBL. FIELD CALCULATED TOP OF CEMENT @ 4000'.  - BUMP PLUG AT 2100 HRS . PRESSURE UP TO 3238 PSI (500 PSI OVER CIRCULATING PSI) AND HOLD FOR 5 MINUTES. BLEED BACK 5 BBL. FLOAT EQUIPMENT HELD. 7  WOC. (8 HOURS) RIG DOWN CEMENTERS AND EQUIPMENT.  FLUSH THROUGH LINES, BOP STACK, CHOKE MANIFOLD AND BACK TO MUD PUMPS AND STAND PIPE.  TRANSFER REMAINING MUD FROM MUD TANKS TO FRAC TANKS. BEGIN CLEANING PITS. R/D FLOW LINE, SLIPPED AND CUT DRILL LINE(10 WRAPS) CALIBRATED BLOCK, CLEANED RIG FLOOR.  PREPARING TO LIFT STACK AT REPORT TIME.
21:00	05:00	8.00	24PHC, Prod Hole Csg	CE	c	O	REMOVE TURN BUCKLES FROM BOPS AND HOOK UP BOP WRANGLER  PREPARING TO LIFT STACK AT REPORT TIME.
05:00	06:00	1.00	24PHC, Prod Hole Csg	BO	f	O	

### Mud Checks

Time	Type	Depth (ftKB)	Density (kg/m³) (lb/g...	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
05:00	INVERMUL	19,205.0	9.10	62	10.0	8.003
Gel 10 sec (kPa) (lb...	Gell 10 min (kPa) (l...	Gel 30 min (kPa) (lb...	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)
9.004	13.005	15.006				10.0
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%)	Chlorides (kg/m³) (...	Calcium (kg/m³) (m...	Potassium (mg/L)	Electric Stab (V)
	71.0	19.0	38,000.000	19,200.000		805.0

### Mud Volumes

Tank/Addition/Loss	Type	Volume (bbl)	Subtype
Addition	ANNULUS	0.0	
Addition	PIPE CAP	0.0	
Hole	Hole	426.6	
Tank	ACTIVE PITS	0.0	
Hole	TOTAL CIRC	0.0	
Tank	RESERVE	1,931.0	
Tank	INVERMUL	1,931.0	
Addition	FRESH WATER	426.6	

### Job Supplies

Supply Item Description	Unit Label
FUEL	Gal
Total Received 48,192.4	Total Consumed 40,083.4 On Loc 8,109.0
LIQUID DRILLING WASTE	Bbl
Total Received 790.0	Total Consumed 790.0 On Loc 0.0
POTABLE WATER	Gal
Total Received 21,300.0	Total Consumed 21,300.0 On Loc 0.0
SEWAGE	Gal
Total Received 38,200.0	Total Consumed 38,200.0 On Loc 0.0
THREAD PROTECTORS	Box
Total Received 1.0	Total Consumed 1.0 On Loc 0.0
TRASH/GENERAL WASTE	Ea
Total Received 2.0	Total Consumed 2.0 On Loc 0.0

### Safety Checks

Time	Type	Safety Topic
17:30	Pre-Tour	PROPPER PPE / WORKING AROUND HIGH PRESSURE CMT LINES
05:30	Pre-Tour	PROPPER PPE / WK AROUND HIGH PRESSURE CMT LINES/ R/D OPERATIONS

### Wellbores

Wellbore Name  
UNIVERSITY 3-35 #102HB

### Kick Offs & Key Depths

Type	Top Depth (ftKB)



## Partner Drilling Report

Report Date: 6/28/2017  
Report #: 26.0, DFS: 24.48  
Time Log DFS: 24.48  
Depth Progress: 0.00

Well Name: UNIVERSITY 3-35 #102HB

Mud Volumes							
Tank/Addition/Loss	Type	Volume (bbl)		Subtype			
Loss	SURFACE	60.0					
Loss	OTHER	196.8					
Loss	PIT RESIDUAL	40.0					
Addition	BASE	72.9					
Addition	CHEMICALS	2.6					

Drill Strings							
BHA #<stringno>, <des>							
Bit Run	Drill Bit	IADC Bit Dull			TFA (incl Noz) (in²)		
Nozzles (1/32")		BHA Length (ft)		String Wt (1000lbf)	Bit ROP (ft/hr)		

Drill String Components					
Item Des	Manual/Tally Jts	OD (in)	ID (in)	Len (ft)	Top Thread

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)
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	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)	HP/Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
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)
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)
Other	WAITING ON BULK CMT TO ARRIVE	6/27/2017	19,215.0	19,215.0		
Action Taken WAIT ON CMT TO ARRIVE ON LOCATION.						

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...	
6/4/2017	13 3/8	684.0	684.0		500.0	
Test Date	Test Type	Fluid Density (lb/gal)	EMW (lb/gal)			
6/8/2017	Casing Test	9.10	23.17			
Run Date	OD (in)	Set Depth (ft...	Set Depth (T...	Comment	MACP Press...	
6/12/2017	9 5/8	7,787.0	7,781.9	9 5/8" INTERMEDIATE CASING TEST ABOVE DV TOOL.	1,500.0	
Test Date	Test Type	Fluid Density (lb/gal)	EMW (lb/gal)			
6/13/2017	Casing Test	8.80				
Run Date	OD (in)	Set Depth (ft...	Set Depth (T...	Comment	MACP Press...	
6/12/2017	9 5/8	7,787.0	7,781.9	9 5/8" INTERMEDIATE CASING TEST ABOVE SHOE TRACK.	1,500.0	
Test Date	Test Type	Fluid Density (lb/gal)	EMW (lb/gal)			
6/13/2017	Casing Test	8.80				



## Partner Drilling Report

Report Date: 6/28/2017  
Report #: 26.0, DFS: 24.48  
Time Log DFS: 24.48  
Depth Progress: 0.00

Well Name: UNIVERSITY 3-35 #102HB

### Leak Off and Formation Integrity Tests

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)
-----------	-----------------	-------------	------------	---------	---------	---------	---------------