



# Partner Drilling Report

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

Report Date: 6/27/2017  
 Report #: 25.0, DFS: 23.48  
 Time Log DFS: 23.48  
 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) 68.0		Road Condition GOOD	
Original Spud/Spud Rig Date 6/3/2017		Weather P. CLOUDY		Temperature (°F) 68.0		Hole Condition GOOD	
Current Status/OART CIRCULATING 1-1/2 CASING VOLUME @ R/T				24 Hour Forecast CIRC 1-1/2 CSG VOLUME, R/D CSG EQUIPMENT, R/U SCHLUMBERGER CMT HEAD, PJSM, RUN CMT JOB, WOC, R/D CMT HEAD, CLEAN 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  
 CONTINUE TO POOH, L/D DIRECTIONAL TOOLS, R/D & LD MOTOR, B/O BIT, R/D ELEVATORS AND LIFT SUBS, CLEAN RIG FLOOR, PJSM, R/U BYRD CSG EQUIPMENT, M/U 5 1/2" 20# P-110 GEO CONN CSG SHOE TRACK, R/U AND TEST CRT, TIH RUNNING PRODUCTION CASING CSG, BEGIN CIRCULATING CSG VOLUME AT REPORT TIME.

Mud Volumes						
Active Volume (bbl)	Var Active Vol (bbl)	Balance (bbl)	Tank Volume (bbl)	Additions (bbl)	Losses (bbl)	Hole Volume (bbl)
4,697.9	99.3	-669.0	2,154.3	768.3	0.0	2,543.6

Time Log							Operation Summary
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code	Operation Summary
06:00	07:00	1.00	24PHC, Prod Hole Csg	TP	c	O	CONTINUE TO POOH F/ 854' TO 99'
07:00	09:30	2.50	24PHC, Prod Hole Csg	TP	b	O	L/D DIRECTIONAL TOOLS, DRAIN MOTOR, MWD, B/O BIT R/D 100K TONGS, R/D ELEVATORS AND LIFT SUBS.
09:30	10:00	0.50	24PHC, Prod Hole Csg	RM	b	O	CLEAN RIG FLOOR AND PREP FOR CASING RUN.
10:00	11:30	1.50	24PHC, Prod Hole Csg	CS	a	O	PJSM, R/U BYRD CASING EQUIPMENT
11:30	18:00	6.50	24PHC, Prod Hole Csg	CS	b	O	M/U 5-1/2" 20# P-110 GEOCONN SHOE TRACK, CONSISTING OF 6 1/2" OD SUMMIT ECCENTRIC REAMER SHOE, 1 JT 5-1/2" CASING, 5 1/2" SUMMIT FLOAT COLLAR, 20' PUP JOINT, 5 -5/8" BAKER LANDING COLLAR, 1 JT 5-1/2" CASING, 10' PUP JOINT, 6-3/8" BAKER ALPHA FRAC SLEEVE, 10' PUP JOINT, 6-3/8" BAKER ALPHA FRAC SLEEVE AND 20' PUP JOINT TO 164.07'.  RIG UP CRT. PUMP THRU TO CHECK FLOATS. GOOD.  TIH RUNNING 5-1/2" 20# P-110 GEOCONN PRODUCTION CASING FROM 164.07' TO 6772'  NOTE: RECIEVED FIRST LOAD OF BULK CMT FROM SCHLUMBERGER CMT @ 2020 HRS, CEMENTERS REPORTED THAT THERE WERE A TOTAL OF 5 BULK LOADS TO DELIVER TO LOCATION.

AFE Number DD.17.30779.CAP.DRL	AFE+Supp Amt (Cost) 2,177,000.00
Day Total (Cost) 260,622	Cum To Date (Cost) 2,219,817
Mud Field Est (Cost) 700	Cum Mud Field Est (Co... 121,116
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	34.0

Rigs		
<b>HELMERICH &amp; PAYNE DRILLING, 3</b>		
Contractor HELMERICH & PAYNE DRILLING	Rig Number 394	
Rig Supervisor THOMAS PENDERGRASS, Toolpusher	Phone Mobile 918-936-7394	
<b>1, Gardner-Denver, PZ-11</b>		
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 (%)

<b>2, Gardner-Denver, PZ-11</b>		
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

Job Supplies		
Supply Item Description	Unit Label	
DIESEL FOR OBM	Gal	
Total Received	Total Consumed	On Loc
40,295.4	33,361.4	6,934.0
Supply Item Description	Unit Label	
DRILLING CUTTINGS	Cu. Yds	
Total Received	Total Consumed	On Loc
400.0	400.0	0.0
Supply Item Description	Unit Label	
DRILLING WATER	Bbl	
Total Received	Total Consumed	On Loc
6,436.7	6,436.7	0.0
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	Unit Label	
FUEL	Gal	
Total Received	Total Consumed	On Loc
48,192.4	39,311.4	8,881.0



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Time Log							Operation Summary
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code	
18:00	05:30	11.50	24PHC, Prod Hole Csg	CS	b	O	CONTINUE RUNNING 5-1/2" 20# P-110 GEOCONN PRODUCTION CASING FROM 6772.' TO 19215'.  NOTABLE DEPTHS AND ACCESSORIES AS FOLLOWS:  - 6-1/2" REAMER SHOE @ 19215' - 1 JOINT OF 5-1/2" CASING - 5 1/2" FLOAT COLLAR @ 19166.4' - 20 FT 5-1/2" PUP JOINT - 5-1/2" LANDING COLLAR @ 19144.2' - 1 JOINT OF 5-1/2" CASING - 10 FT 5-1/2" PUP JOINT - 6-1/2" BAKER FRAC POINT ALPHA SLEEVE @ 19085.1' - 10 FT 5-1/2" PUP JOINT - 6-1/2" BAKER FRAC POINT ALPHA SLEEVE @ 19071' - 20 FT 5-1/2" PUP JOINT - 78 JOINTS OF 5-1/2" CASING - 20 FT 5-1/2" MARKER JOINT "A" @ 15663' - 79 JOINTS OF 5-1/2" CASING - 20 FT 5-1/2" MARKER JOINT "B" @ 12135.3' - 99 JOINTS OF 5-1/2" CASING - 20 FT 5-1/2" MARKER JOINT "C" @ 7679.4' - 172 JOINTS OF 5-1/2" CASING - 20 FT 5-1/2" MARKER JOINT "D" @ 40.1' - 1JOINTS OF 5-1/2" CASING TO SURFACE. (TOTAL 5-1/2" CASING RAN: 434 JOINTS and (3 MARKER JTS).  NOTE: FILL UP CASING ON THE FLY. DID NOT OBSERVE ANY DRAG OR TIGHT SPOTS AND HOLE GIVING PROPER DISPLACEMENT DURING CASING RUN.  INSTALL 5-1/2" X 7-1/4" X 8" SOLID BODY CENTRALIZERS EVERY JOINT ON THE LATERAL AND CURVE TO INSIDE 9-5/8" CASING, 5-1/2" X 8" CENTEK BOWSPRING CENTRALIZERS EVERY OTHER JOINT INSIDE THE 9-5/8" CASING TO 3,977.3'  NOTE: CURRENTLY ONLY RECIEVED 2 OF 5 LOADS FROM SCHLUMBERGER CMT AT REPORT TIME. CMT CREW ARRIVED @ 0515 HRS.
05:30	06:00	0.50	24PHC, Prod Hole Csg	Cl	g	O	BEGIN CIRCULATE 1-1/2 CASING VOLUME @ 8 BPM  BEGIN R/D BYRD CASING CREW  NOTE: NO LOSSES OBSERVED DURING CIRCULATION.

Job Supplies		
Supply Item Description		Unit Label
LIQUID DRILLING WASTE		Bbl
Total Received	Total Consumed	On Loc
590.0	590.0	0.0
Supply Item Description		Unit Label
POTABLE WATER		Gal
Total Received	Total Consumed	On Loc
21,300.0	21,300.0	0.0
Supply Item Description		Unit Label
SEWAGE		Gal
Total Received	Total Consumed	On Loc
33,400.0	33,400.0	0.0
Supply Item Description		Unit Label
THREAD PROTECTORS		Box
Total Received	Total Consumed	On Loc
1.0	1.0	0.0
Supply Item Description		Unit Label
TRASH/GENERAL WASTE		Ea
Total Received	Total Consumed	On Loc
2.0	2.0	0.0
Safety Checks		
Time	Type	Safety Topic
17:30	Pre-Tour	CASING OPERATIONS
05:30	Pre-Tour	CMT OPERATIONS
Wellbores		
Wellbore Name		
UNIVERSITY 3-35 #102HB		
Kick Offs & Key Depths		
Type	Top Depth (ftKB)	

Mud Checks						
Time	Type	Depth (ftKB)	Density (kg/m³) (lb/g...	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
15:00	INVERMUL	19,215.0	9.70	72	14.0	14.006
Gel 10 sec (kPa) (lb...	Gell 10 min (kPa) (l...	Gel 30 min (kPa) (lb...	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)
11.005	17.007	19.008				12.3
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%)	Chlorides (kg/m³) (...	Calcium (kg/m³) (m...	Potassium (mg/L)	Electric Stab (V)
	68.8	19.0	40,000.000	20,000.000		751.0
Time	Type	Depth (ftKB)	Density (kg/m³) (lb/g...	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
05:00	INVERMUL	19,215.0	9.70	72	14.0	14.006
Gel 10 sec (kPa) (lb...	Gell 10 min (kPa) (l...	Gel 30 min (kPa) (lb...	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)
11.005	17.007	19.008				12.3
MBT (lb/bbl)	Percent Oil (%)	Percent Water (%)	Chlorides (kg/m³) (...	Calcium (kg/m³) (m...	Potassium (mg/L)	Electric Stab (V)
	68.8	19.0	39,000.000	20,000.000		745.0

Mud Volumes			
Tank/Addition/Loss	Type	Volume (bbl)	Subtype
Addition	ANNULUS	513.2	
Addition	PIPE CAP	255.1	
Hole	Hole	1,309.6	
Tank	ACTIVE PITS	465.7	
Hole	TOTAL CIRC	1,234.0	
Tank	RESERVE	379.0	
Tank	INVERMUL	1,309.6	



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Drill Strings							
BHA #<stringno>, <des>							
Bit Run	Drill Bit	IADC Bit Dull			TFA (incl Noz) (in <sup>2</sup> )		
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 (ft <sup>3</sup> /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/in <sup>2</sup> )		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)	
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...		
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			
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	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.	986.0		
Test Date	Test Type			Fluid Density (lb/gal)	EMW (lb/gal)		
6/13/2017	F.I.T.			8.60	11.03		
Survey Data							
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)