

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time WOD		Projected Operations Continue Rig down and Rig Move.	
Operations Summary Rig Down on the University 23-18 B2 unspooled drawworks stroke and pin cylinders prepare and lower Derrick @ 1530 lower sub @ 1730. Hauled misc. loads to the University 16-18 B1		Comments Released Rig from University 23-18 B2 @ 0630 08/06/2013	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 17.50	Drilling Hours (hr)
Depth Start (MD) (ftKB) 0	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 0	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 0.00	Cum Percent Problem Time (%) 0.00

Mud Checks

Fluids Vendor	Depth (MD) (ft/kB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ³)
Chlorides (mg/L)	Gel 10 sec (lb/100ft ³)	Gel 10 min (lb/100ft ³)	Gel 30 min (lb/100ft ³)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
06:30	11.50	MOB, MOVEON	UNITMOV	Rig Down on the University 23-18 B2 unspooled drawworks stroke and pin cylinders prepare and lower Derrick @ 1530 lower sub @ 1730. Hauled misc. loads to the University 16-18 B1	
18:00	6.00	MOB, MOVEON	WOD	WOD	

Drill String/BHA

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

Survey Data

[illegible]

Well Name UNIVERSITY 16-18 'B' 1	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish WARD	State/Province TEXAS	Original Spud Date	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 1

8/7/2013, Rpt #2
Plan Days: 36.00, DFS:
46.00% WI, Progress: ft

Jobs

Primary Wellbore Affected Original Hole	Job Category Drill	Primary Job Type Drill and Suspend	SBU Drilling Well Category Drig Well Category 4
Business Unit Mid-Continent	Area Permian South Ops	Well Type Oil Producer	Directional Type Vertical

Daily Operations

Status at Reporting Time WOD	Projected Operations Continue with Moving Rig.		
Operations Summary Continued moving H&P rig 227 from the University 23-18 B2 to the new location University 16-18 B1	Comments Continued Moving H&P 227 from the University 23-18 B2 to the University 16-18 B1 Called TRRC for Spud Job # 10666		
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 24.00	Drilling Hours (hr)
Depth Start (MD) (ftKB) 0	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 0	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 0.00	Cum Percent Problem Time (%) 0.00

Mud Checks

Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ²)
Chlorides (mg/L)	Gel 10 sec (lb/100ft ²)	Gel 10 min (lb/100ft ²)	Gel 30 min (lb/100ft ²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	7.00	MOB, MOVEON	WOD	Waiting on Daylight to resume Rig move	
07:00	12.00	MOB, MOVEON	RURDDERK	Moving H&P 227 from the University 23018 B2 to the University 16-18 B1	
19:00	5.00	MOB, MOVEON	WOD	Waiting on Day light	

Drill String/BHA

BHA #<stringno>, <des>

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)

Well Name UNIVERSITY 16-18 'B' 1	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish WARD	State/Province TEXAS	Original Spud Date	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time WOD		Projected Operations Continue Rig Up	
Operations Summary Continued moving H&P rig 227 from the University 23-18 B2 to the new location University 16-18 B1		Comments Continued Moving H&P 227 from the University 23-18 B2 to the University 16-18 B1	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 24.00	Drilling Hours (hr)
Depth Start (MD) (ftKB) 0	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 0	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 0.00	Cum Percent Problem Time (%) 0.00

Mud Checks

Fluids Vendor	Depth (MD) (ft/kB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ³)
Chlorides (mg/L)	Gel 10 sec (lb/100ft ³)	Gel 10 min (lb/100ft ³)	Gel 30 min (lb/100ft ³)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	7.00	MOB, MOVEON	WOD	WOD	
07:00	12.00	MOB, MOVEON	RURDDERK	Continued with Rig move from the University 23-18 B2 to the University 16-18 B1.	
19:00	5.00	MOB, MOVEON	WOD	Waiting for Daylight	

Drill String/BHA

BHA #<stringno>, <des>			
Bit Run	Drill Bit	Make	TFA (incl Noz) (in ³)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)

Survey Data

[illegible]

Well Name UNIVERSITY 16-18 'B' 1	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish WARD	State/Province TEXAS	Original Spud Date	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time WOD		Projected Operations Continue rigging up.	
Operations Summary Continued Rig up of H&P 227 on the University 16-18 B1 Derrick in Air @1330.		Comments Derrick up @1330.	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 24.00	Drilling Hours (hr)
Depth Start (MD) (ftKB) 0	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 0	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 0.00	Cum Percent Problem Time (%) 0.00

Mud Checks

Fluids Vendor	Depth (MD) (ft/kB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft²)
Chlorides (mg/L)	Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Gel 30 min (lbf/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	7.00	MOB, MOVEON	WOD	Waiting on daylight	
07:00	12.00	MOB, MOVEON	RURDDERK	Continued Rigging up of H&P 227 on the University 16-18 B1 Derrick in air @ 1330	
19:00	5.00	MOB, MOVEON	WOD	WOD	

Drill String/BHA

BHA #<stringno>, <des>

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

[illegible]

Well Name UNIVERSITY 16-18 'B' 1	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish WARD	State/Province TEXAS	Original Spud Date	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time		Projected Operations	
Rigging up		SPUD well	
Operations Summary		Comments	
<p>Removed Ram blocks From old BOP stack install Rams in new BOP stack Installed blind rams Get camp on Rig Power Hook up Gaitronics, Unpin Boom Poles, Filled mud tanks with Fresh Water.</p>			
Target Formation	Target Depth (MD) (ftKB)	Time Log Total Hours (hr)	Drilling Hours (hr)
3rd Bone Spring/Wolfcamp Shale	12,650	24.00	
Depth Start (MD) (ftKB)	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB)	End Depth (TVD) (ftKB)
0		0	
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr)	Cum Percent Problem Time (%)
		0.00	0.00

Mud Checks

Fluids Vendor	Depth (MD) (ft/kB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ³)
Chlorides (mg/L)	Gel 10 sec (lb/100ft ³)	Gel 10 min (lb/100ft ³)	Gel 30 min (lb/100ft ³)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	24.00	MOB, MOVEON	RURDDERK	Removed Ram blocks From old BOP stack install Rams in new BOP stack Installed blind rams Get camp on Rig Power Hook up Gaitronics, Unpin Boom Poles, Filled mud tanks with Fresh Water.	

Drill String/BHA

BHA #<stringno>, <des>

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

[illegible]

Well Name UNIVERSITY 16-18 'B' 1	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish WARD	State/Province TEXAS	Original Spud Date	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 1

8/11/2013, Rpt #6
Plan Days: 36.00, DFS:
46.00% WI, Progress: ft

Jobs

Primary Wellbore Affected Original Hole	Job Category Drill	Primary Job Type Drill and Suspend	SBU Drilling Well Category Drig Well Category 4
Business Unit Mid-Continent	Area Permian South Ops	Well Type Oil Producer	Directional Type Vertical

Daily Operations

Status at Reporting Time Drilling 17.5 Surface Hole		Projected Operations Finish Surface hole	
Operations Summary Continued to rig up H&P 227 on the University 16-18 B1. Rigged up Bell Nipple, Flow line, rigged up all hoses and Lines, Made up slides and all other back yard.		Comments	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 24.00	Drilling Hours (hr)
Depth Start (MD) (ftKB) 0	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 0	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 0.00	Cum Percent Problem Time (%) 0.00

Mud Checks

Fluids Vendor Baroid Fluid Services	Depth (MD) (ftKB) 0.0	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ²)
Chlorides (mg/L)	Gel 10 sec (lb/100ft ²)	Gel 10 min (lb/100ft ²)	Gel 30 min (lb/100ft ²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	21.00	MOB, MOVEON	RURDDERK	Continued Rigging up of TDS pipr rangler, install of various Steps had electrician on location to address and fix communication with TDS, Calibrated hook load and weight on bit, Picked up cleaned up Completed Pre Spud Check list	
21:00	3.00	MOB, MOVEON	R/U	Continued rigging up slides PVC and hoses to resv. pits.	

Drill String/BHA

BHA #<stringno>, <des>

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ³)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)

Well Name UNIVERSITY 16-18 'B' 1	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish WARD	State/Province TEXAS	Original Spud Date	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 1

8/12/2013, Rpt #7

Plan Days: 36.00, DFS:

46.00% WI, Progress: 627 ft

Jobs										
Primary Wellbore Affected Original Hole		Job Category Drill		Primary Job Type Drill and Suspend		SBU Drilling Well Category Drig Well Category 4				
Business Unit Mid-Continent		Area Permian South Ops		Well Type Oil Producer		Directional Type Vertical				
Daily Operations										
Status at Reporting Time TOH				Projected Operations Run 13 3/8" CSG Rig up Cementers and Cement then Test BOPS						
Operations Summary Finished rigging up PVC and Hoses in backyard to resv. pit, Filled conductor and checked for leaks installed mouse hole Dressed out shaker and Spudded well @ 1000 on 08/12/2013 TD section @ 1900 circulate hole clean TOH				Comments						
Target Formation 3rd Bone Spring/Wolfcamp Shale		Target Depth (MD) (ftKB) 12,650		Time Log Total Hours (hr) 24.00		Drilling Hours (hr) 10.00				
Depth Start (MD) (ftKB) 102		Start Depth (TVD) (ftKB) 102.0		Depth End (MD) (ftKB) 729		End Depth (TVD) (ftKB)				
Cum Time Log Days From Spud (days)		Avg ROP (ft/hr) 62.7		Cum Problem Time Hours (hr) 0.00		Cum Percent Problem Time (%) 0.00				
Mud Checks										
Fluids Vendor Baroid Fluid Services		Depth (MD) (ftKB) 625.0		Mud/Brine Type		Fluid Density (lb/gal) 8.40				
Chlorides (mg/L) 2,000		Gel 10 sec (lb/100ft²) 1.0		Gel 10 min (lb/100ft²) 1.0		Gel 30 min (lb/100ft²) 1.0				
				API Filtrate (cc/30min) 90.0		API Filter Cake (1/32") 1				
				pH		Funnel Viscosity (s/qt) 26				
				PV Calc (cP) 2		YP Calc (lb/100ft²) 1				
				High Gravity Solids (%)		Low Gravity Solids (%) 0.4				
Time Log										
Start Time	Dur (hr)	Phase	Activity	Com			UE Time (hr)			
00:00	4.00	MOB, MOVEON	R/U	Completed rigging up of Mouse hole, installing all hoses and PVC to reserve pit. Dressed shakers,						
04:00	6.00	MOB, MOVEON	BHAP/U	Held safety meeting and went over JSA on picking up and strapping BHA.						
10:00	9.00	SURF, DRILL	DRLROT	Drilling 17.5" Surface start depth 102' staging up pumps untill out of 20" CSG. max weight 8-15 KLB GPM 315-400 Pump pressure 500-650 psi. TD Torque 8-9 ft-lbf TD was reached @ 1900 depth of 729'						
19:00	1.00	SURF, DRILL	CC	Circulate sweep around to clean hole.						
20:00	4.00	SURF, DRILL	TOH	TOH layed down shock sub and prodirft and Bit.						
Drill String/BHA										
BHA #1, Slick										
Bit Run 1	Drill Bit 17 1/2in, DP606X, 7036897			Make Baker Hughes		IADC Bit Dull -----	TFA (incl Noz) (in²) 0.99			
Nozzles (1/32") 12/12/12/12/12/12/12/12		String Length (ft) 829.74		Weight of String in Air (1000lbf) 21		BHA ROP (ft/hr) 62.7				
Survey Data										
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
275	0.30	235.20	275.00	-0.29	-0.42	-0.29	0.15	0.51	0.15	120.62
437	0.50	217.00	437.00	-1.10	-1.19	-1.10	0.14	1.62	0.12	-11.23
531	0.50	223.00	530.99	-1.73	-1.72	-1.73	0.06	2.44	0.00	6.38
Well Name UNIVERSITY 16-18 'B' 1		Lease University '16'		Field Name Caprito		Business Unit Mid-Continent				
County/ Parish WARD		State/Province TEXAS		Original Spud Date		Surface UWI 4247536428				
Rig/Unit Contractor Helmerich & Payne		Rig/Unit # / Name 227		Rig/Unit Start Date 8/6/2013 06:30		Rig/Unit Release Date				



MCBU Drilling Report

UNIVERSITY 16-18 'B' 1

8/13/2013, Rpt #8

Plan Days: 36.00, DFS: 1.58

46.00% WI, Progress: 0 ft

Primary Wellbore Affected Original Hole	Job Category Drill	Primary Job Type Drill and Suspend	SBU Drilling Well Category Drig Well Category 4
Area Permian South Ops	Well Type Oil Producer	Directional Type Vertical	AFE Number UWDDPS-E3001-DRL
Ground Elevation (ft) 2,672.00	Current RKB Elevation 2,697.00, 7/9/2013	Current KB to Ground (ft) 25.00	Original RKB Elevation (ft) 2,697.00

HES Incidents

Emp. Category	Sub-Category	Cause	HES Incident Description	Caused NPT?
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Safety/Inspections

Time	Safety Check	Com
05:30	Pre-Tour Safety Meeting	Pre tour safety meeting with rig. Reviewed JSA and discussed hazards associated with running casing. Reviewed tenet of the day #3, TIF, SWA, E-Colors, HAZID of the day (mechanical). Discussed communication with third party contractors.
17:30	Pre-Tour Safety Meeting	Pre tour safety meeting with rig. Discussed hazards associated with rigging up BOP stack. Reviewed tenet of the day #3, TIF, SWA, E-Colors, HAZID of the day (mechanical).

Daily Operations

Status at Reporting Time N/U BOPE	Projected Operations Complete N/U & testing of BOPE, accumulator unit, and choke manifold.
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Operations Summary N/D conductor. R/U 13 3/8" Express power tongs and handling tools. TIH with 13 3/8" surface casing to 719'. C&C. Pump Halliburton cement schedule (168 bbls returned to surface). Conduct casing pressure test. R/D Halliburton cements. L/O landing joint and install wellhead outlet equipment. N/U DSA and spacer spool.	Comments Incident Free Operations Surface Casing & Cement TRRC# 10948
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Directions To Well
From Midland International Airport: Take I-20 going west for approximately 61 miles, Take exit 66 for TX-115/Farm to market 1927 toward Pyote/Kermit, Turn right onto TX-115 S/ Ranch Rd 1927 and take left onto Ranch Rd 2355/3rd St follow Ranch Rd 2355 for ~5.5 miles. Take left at blue gate labeled "Gate 2" with H&P 227 sign. Drive 0.6 miles and take left, follow H&P 227 sign. Drive 1.0 miles and take right, follow H&P 227 sign. Drive 1.8 miles to existing location and then drive an additional 1.5 miles down new lease road to location. Find signs at the entrance to Chevron/H&P 227, follow path way to University 16-18 B1

Mud Checks

729.0ftKB, 8/13/2013 18:00

Fluids Vendor Baroid Fluid Services	Mud/Brine Type Gel (10s) (lb/10...)	Fluid Type Detail Saturated Salt	Fluid Density (lb...) 9.95	pH 9.0	Vis (s/qt) 26	PV Calc (cP) 2	YP Calc (lb/100ft) 3
Chlorides (mg/L) 178,000	Gel (10s) (lb/10...) 1.0	Gel (10m) (lb/1...) 1.0	Gel (30m) (lb/1...) 1.0	API Filtrate (cc/3...) 90.0	API Filter Cake (...) 1	High Grav Solid... 0.5	Low Grav Solids... 0.5

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)	UE Ref No.
00:00	6.00	SURF, CSGCMT	CSGR/U	N/D conductor pipe. PJSM with Express and H&P. R/U 13 3/8" power tongs and handling tools to rig floor. Casing Collar: 14 5/8" Elevator ID: 13 1/2" Casing Body: 13 1/4"		
06:00	5.00	SURF, CSGCMT	CSGRUN	PJSM with Express and H&P. Run 13 3/8" 48# H-40 surface casing as follows: Float shoe 2 Float joints Float collar 14 Joints Tagged bottom at 729' Float shoe landed at 719' Float collar landed at 631' M/U wellhead assembly to last joint of 13 3/8" casing and lower through rotary table. Land baseplate on conductor pipe.		
11:00	0.50	SURF, CSGCMT	CSGR/D	R/D Express casing equipment.		
11:30	1.00	SURF, CSGCMT	CC	R/U circulating iron and swage. Circulate and condition hole 1-1/2 x casing volume.		
12:30	0.50	SURF, CSGCMT	CMTR/U	PJSM with Halliburton and H&P. R/U cementing iron and install cement head.		
13:00	2.50	SURF, CSGCMT	CMTCSG	Pump cement per Halliburton cement schedule: Pressure test lines to 3,500 psi. Pump 10 bbls FW spacer. Mix and pump 510 sxs (152 bbls) of ExtendaCem Lead (13.7 ppg, 1.67 ft3/sk), 520 sxs (124 bbl) of Halcem Tail (14.8 ppg, 1.34 ft3/sk). Drop top plug and displace cmt w/ 100 bbl of 10 ppg brine water. Bumped plug w/ 800 psi, FCP - 200 psi. Returned 168 bbls of cement to surface (577 total sacks). Checked floats, 1 bbl fluid returned. Conduct 30 minute casing pressure test to 1200 psi. Test good.		

AFE+Sup Amt (Cost) 4,178,940	AFE-Field est. (Cost) 3,676,020
Daily Field Est Total (Cost) 183,994	Cum To Date (Cost) 502,920
Daily Mud Field Est (Cost) 101	Cum Mud Cost (Cost) 1,141

Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650
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Depth Start (MD) (ftKB) 729	Depth End (MD) (ftKB) 729
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Start Depth (TVD) (ftKB)	End Depth (TVD) (ftKB)
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Avg ROP (ft/hr)	Cost/Depth (Cost/ft)
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Problem Time Hours (hr) 0.00	Cum Prob Hrs (hr) 0.00
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Time Log Total Hours (hr) 24.00	Drilling Hours (hr)
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Personnel / Safety

Head Count 41.0	Pers Reg Hrs (hr) 379.00
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Recordable Incident? No	Cum Pers Tot Hr (hr) 2,943.50
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Days Since Rec. 222	Days Since LTI 222
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Daily Cost by Tan/Int

Tan/Int	Rpt Fld Est (Cost)
Int	118,958
Tan	65,036

Safety Check Summary

Type	Last Date	Days Last Chk (days)
H2S Drill	8/11/2013	2

Daily Contacts

Contact	Title	Mobile
Jovanovic, Dan	Drilling Sup't	(832) 319-4079
Pinney, Ivan	Team Leader	(281) 796-9252
Ruiz, Vicente F	Drilling Engineer	(713) 898-5436
Holliday, Priscilla	Technical Assistant	(713) 372-1318
Calhoun, Andrea	Safety Specialist	(832) 588-0100
Colwell, Michael	Drill Site Manager	210-912-9065
Partida, David	Drill Site Manager	(281) 726-7757
Thibodeaux, Hayes	Drill Site Manager	281-726-9683
H&P 227 Rig Phone	CVX Onshore	(832) 461-4649

Personnel

Company	Total Headcount	Shift Duration (hr)
Helmerich & Payne	2	12.00
Helmerich & Payne	11	12.00
Chevron	3	12.00
Chevron	3	2.00
Basic Energy Services	2	1.00
Express Energy	3	12.00
Expro America's Inc	2	1.00
Globe Energy Services	3	8.00
Greene's Energy Group	3	6.00
HAL - Cement	3	16.00
Halliburton Baroid	1	12.00
Man Welding Service	1	1.00
Petro Safety Services	1	12.00
Schlumberger Drilling & Measure...	2	12.00
Trend Services Inc	1	2.00

Diesel Usage

Supply Item Des	Consumed	Cum Consumed
Diesel	839.0	2,875.0

Mud Additive Amounts

Des	Consumed	Cum Cons
CON DET - 5 GAL CAN	3.0	17.0

Well Name UNIVERSITY 16-18 'B' 1	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish WARD	State/Province TEXAS	Original Spud Date 4247536428	Surface ChevNo NV6102
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU Drilling Report

UNIVERSITY 16-18 'B' 1

8/13/2013, Rpt #8
Plan Days: 36.00, DFS: 1.58
46.00% WI, Progress: 0 ft

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)	UE Ref No.
15:30	1.50	SURF, CSGCMT	CMTR/D	R/D Halliburton cementing equipment from rig floor. L/O landing joint.		
17:00	4.50	SURF, BOP	WHDN/U	Install all outlet equipment on SH2 multi-bowl wellhead. Test wellhead, test good.		
21:30	2.50	SURF, BOP	BOPN/U	Install DSA and spacer spool.		

Drill String/BHA

BHA #<stringno>, <des>

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS ('/100ft)	Depart (ft)	Build ('/100ft)	Turn ('/100ft)

Last Casing String

Casing Description	OD (in)	Wt/Len (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	H 40		719

Cement

Surface, Planned?-N, 719ftKB

Description	Type	Vendor	Cement Evaluation Results
Surface Casing Cement	Casing	Halliburton	168 bbls of cement to surface (577 total sacks)

Stage # 1

Comment

Top Depth (ftKB)	Btm (ftKB)	P Pump Final (psi)	P Plug Bump (psi)	Full Return?	Vol Cement Ret...	Evaluation Method	Technical Result
25.0	729.0	200.0	800.0	Y	168.0	Returns to Surface	Success

Fluid Type	Class	Quantity (sacks)	Vol Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (...)	Excess (%)
Spacer			10.0	8.40			

Fluid Description

Fresh Water

Fluid Type	Class	Quantity (sacks)	Vol Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (...)	Excess (%)
Lead	C	510	152.0	13.70	1.67	8.68	300.0

Fluid Description

ExtendaCem CZ

4% Bentonite

1% CaCl

Fluid Type	Class	Quantity (sacks)	Vol Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (...)	Excess (%)
Tail	C	520	124.0	14.80	1.34	6.36	300.0

Fluid Description

HalCem-C

1% CaCl

Fluid Type	Class	Quantity (sacks)	Vol Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (...)	Excess (%)
Displacement			100.0				

Fluid Description

10 ppg Brine Water

Mud Pumps

1 , Gardner-Denver , PZ-11

Pump Rating (hp)	Rod Diameter (in)	Stroke (in)
1,000.0	2 1/2	11.00
Liner Size (in)	Vol/Sik OR (bbl/...)	P Max (psi)
6	0.091	4,500.0

2 , Gardner-Denver , PZ-11

Pump Rating (hp)	Rod Diameter (in)	Stroke (in)
1,000.0	2 1/2	11.00
Liner Size (in)	Vol/Sik OR (bbl/...)	P Max (psi)
6	0.091	4,500.0

UNIVERSITY 16-18 'B' 1

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time Pressure testing choke manifold		Projected Operations Complete R/U choke manifold. Pressure test manifold with Greene's. M/U 12 1/4" Intermediate BHA #1 and TIH to TOC. Perform choke drill. Drill cement, float equipment, and 10' of new formation. Perform FIT to 12 ppg. Drill 12 1/4" Intermediate hole section to +/- 5200'.		
Operations Summary N/U BOP stack and begin pressure testing. Repair leaks to gland nuts, TIW valve, wellhead/DSA connection flange, standpipe, manual IBOP. All BOPE and floor valves tests passed after repair. Perform accumulator function test. Test good. Rebuild choke manifold with replacement valves.		Comments Incident Free Operations H&P exceeded 18 hour time frame for N/U and testing BOPE at 19:00 hrs. Rig's day rate was prorated and recorded at 19 hrs.		
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB)	12,650	Time Log Total Hours (hr)	24.00
Drilling Hours (hr)				
Depth Start (MD) (ftKB)	729	Start Depth (TVD) (ftKB)	729	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days)	2.58	Avg ROP (ft/hr)	6.50	Cum Percent Problem Time (%)
		3.10		

Mud Checks

Fluids Vendor	Depth (MD) (ft/KB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	729.0		9.95	9.0	26	2	3
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
178,000	1.0	1.0	1.0	90.0	1	0.0	0.4

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	1.00	SURF, BOP	BOPN/U	Finish N/U spacer spool & DSA.	
01:00	4.00	SURF, BOP	BOPN/U	Install 13 5/8" 10M BOP stack and torque bolts.	
05:00	12.50	SURF, BOP	BOPST	PJSM with Greene's BOP testers and H&P. Install test plug. Pressure test BOP stack. Repaired leaks to gland nuts, TIW valve, manual IBOP, DSA/wellhead flanged connection, standpipe. All BOP tests passed 250/5000 psi after repairs. Annular tested to 250/3500 psi. Perform accumulator function test, test good. Replace valves on choke manifold.	
17:30	6.50	SURF, BOP	UNITRPR	Continue replacing valves and N/U choke manifold. Greene's pressure testers on standby to test manifold.	6.50

Unscheduled Events

Event Reference No.	Event Description
1	Replace gate valves and pressure test choke manifold.

Drill String/BHA

BHA #<stringno>, <des>				
Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

[illegible]

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	H 40		719

Well Name UNIVERSITY 16-18 'B' 1	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish WARD	State/Province TEXAS	Original Spud Date	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

UNIVERSITY 16-18 'B' 001

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time TIH to TOC				Projected Operations Perform choke drill with rig crew at 580'. TIH with 12 1/4" directional BHA to TOC. Drill cement, float equipment, and 10' of new formation. Perform FIT to 12 ppg. Drill 12 1/4" intermediate hole section from 739' to +/- 5200'.			
Operations Summary Installed remaining gate valves in choke manifold and pressure tested (tests good). R/U kill line and choke line. R/U misc. BOPE. Install flare line & panic line. Move returns line to inner reserve pit. P/U 12 1/4" directional BHA and TIH to 400'.				Comments Incident Free Operations Flint Trucking rig move cost estimate of \$87,500 provided by H&P and included in today's costs.			
Target Formation 3rd Bone Spring/Wolfcamp Shale		Target Depth (MD) (ftKB) 12,650		Time Log Total Hours (hr) 24.00		Drilling Hours (hr)	
Depth Start (MD) (ftKB) 729		Start Depth (TVD) (ftKB) 729.0		Depth End (MD) (ftKB) 729		End Depth (TVD) (ftKB) 729.0	
Cum Time Log Days From Spud (days) 3.58		Avg ROP (ft/hr)		Cum Problem Time Hours (hr) 16.50		Cum Percent Problem Time (%) 7.07	

Mud Checks

Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	729.0		9.95	9.0	26	2	3
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
178,000	1.0	1.0	1.0	90.0	1	0.0	0.4

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	1.50	SURF, BOP	UNITRPR	Continue installing replacement gate valves on choke manifold.	1.50
01:30	8.00	SURF, BOP	BOPST	Pressure test choke manifold with Greene's pressure testers. R/U kill line and choke line to BOP stack. Pressure test same, tests good.	8.00
09:30	6.50	SURF, BOP	BOPN/U	R/U flare line and panic line and stake down, install 3" fill up line from manifold to shakers, install turnbuckles on BOP stack, install trip nipple, mousehole, install dump line going to inner reserve pit.	
16:00	1.00	SURF, BOP	WHDWB	Install long wear bushing.	
17:00	5.50	SURF, CSGCMT	BHAP/U	Stage directional tools to rig floor. Begin M/U Schlumberger 12.25" directional BHA. 12.25" PDC Bit (Baker Hughes) 1.25 deg Mud Motor = 0.246 rev/gal	
22:30	0.50	SURF, CSGCMT	HESDWN	Shut down operations due to severe lightning in the area.	0.50
23:00	1.00	SURF, CSGCMT	TIH	Continue TIH with 12.25" directional BHA from surface to 400'.	

Unscheduled Events	
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Event Reference No. 2	Event Description 18 hr time frame for N/U and pressure testing BOPE exceeded at 19:00 hrs 8/14. Wait on H&P to finish replacing gate valves on choke manifold. Pressure test choke manifold, install choke and kill lines.
Event Reference No. 3	Event Description Suspend operations due to sever lightning in the area.

Drill String/BHA

BHA #<stringno>, <des>				
Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
729	0.40	224.20	728.99	-2.85	-2.79	-2.85	0.05	3.99	-0.05	0.61

[illegible]

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	H 40		719

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time		Projected Operations	
Drilling 12 1/4" Interm. hole section at 2650'		Continue drilling 12 1/4" Intermediate hole section from 2246' to +/- 5200'. Maintain vertical per SLB DD. Pump high visc sweeps as needed.	
Operations Summary		Comments	
TIH with 12 1/4" directional BHA from 400' to 580'. Conduct choke drill with rig crew. TIH from 580' to TOC @ 627'. Drill cement, float equipment, and 10' of new formation to 739'. Conduct FIT to 12 ppg. Drill from 739' to 2246'.		Incident Free Operations	
Target Formation	Target Depth (MD) (ftKB)	Time Log Total Hours (hr)	Drilling Hours (hr)
3rd Bone Spring/Wolfcamp Shale	12,650	24.00	14.50
Depth Start (MD) (ftKB)	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB)	End Depth (TVD) (ftKB)
729	729.0	2,446	2,445.6
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr)	Cum Percent Problem Time (%)
4.58	118.4	16.50	6.41

Mud Checks

Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	1,583.0		9.80	10.1	26	2	3
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
162,000	1.0	1.0	1.0	90.0	1		0.3

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	1.00	SURF, CSGCMT	TIH	TIH with 12 1/4" directional BHA from 400' to 580'. 12.25" PDC Bit (Baker Hughes) 1.25 deg Mud Motor (0.246 rpg)	
01:00	3.50	SURF, CSGCMT	CC	Rack back one stand of HWDP. P/U joint of drill pipe to conduct choke drill. Fill up drill pipe, choke manifold, and gas buster. Rig crew found that the annular and drill pipe pressure gauges were not rigged up to the super choke. Trouble shoot choke gauges. Conduct choke drill with each crew member. L/D joint of drill pipe and M/U stand of HWDP.	
04:30	1.50	SURF, CSGCMT	TIH	TIH with 12 1/4" directional BHA from 580' to 627' (TOC). Repair leak on flowline.	
06:00	3.00	SURF, CSGCMT	DRLFTEQ	Drill cement, float equipment, and 10' of new formation from 627' to 739'. Circulate MWI/MWO=9.8 ppg. WOB= 3-9 klbs TD= 15 RPM GPM= 445 SPP= 950 psi Torque= 2000 ft*lbs	
09:00	0.50	SURF, CSGCMT	FIT	Perform FIT to 12 ppg: 83 psi surface pressure with 9.8 ppg brine.	
09:30	14.50	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 739' to 2246'. Pump high visc sweeps as needed. AROP= 103 FPH. WOB= 15-22 klbs TD= 35-40 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 4-8 Kft*lbs. SPP= 2500-2900 psi Differential= 250-400 psi	

Drill String/BHA

BHA #2, Hold assy.

Bit Run 2	Drill Bit 12 1/4in, T606X, 7145241	Make Baker Hughes	ADC Bit Dull -----	TFA (incl Noz) (in) 0.78
Nozzles (1/32") 13/13/13/13/13/13	String Length (ft) 950.19	Weight of String in Air (1000lb) 67	SHA ROP (ft/hr) 71.7	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
729	0.40	224.20	728.99	-2.85	-2.79	-2.85	0.05	3.99	-0.05	0.61
893	0.30	13.68	892.98	-2.85	-3.09	-2.85	0.41	4.20	-0.06	-128.37
1,082	0.45	31.74	1,081.98	-1.73	-2.58	-1.73	0.10	3.11	0.08	9.56
1,272	0.72	39.27	1,271.97	-0.18	-1.43	-0.18	0.15	1.44	0.14	3.96
1,460	1.05	31.02	1,459.95	2.22	0.20	2.22	0.19	2.22	0.18	-4.39
1,649	1.34	47.40	1,648.91	5.20	2.72	5.20	0.24	5.87	0.15	8.67
1,838	1.59	52.91	1,837.84	8.27	6.44	8.27	0.15	10.48	0.13	2.92
2,027	1.65	54.62	2,026.77	11.43	10.75	11.43	0.04	15.69	0.03	0.90
2,216	2.38	46.43	2,215.65	15.71	15.81	15.71	0.41	22.29	0.39	-4.33
2,405	0.83	346.52	2,404.58	19.75	18.34	19.75	1.11	26.95	-0.82	158.78

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	H 40		719

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU 'Outside' Drilling Report

8/17/2013, Rpt #12

Plan Days: 36.00, DFS: 5.58

UNIVERSITY 16-18 'B' 001

46.00% WI, Progress: 1,279 ft

Jobs							
Primary Wellbore Affected Original Hole		Job Category Drill		Primary Job Type Drill and Suspend		SBU Drilling Well Category Drig Well Category 4	
Business Unit Mid-Continent		Area Permian South Ops		Well Type Oil Producer		Directional Type Vertical	
Daily Operations							
Status at Reporting Time Drilling ahead at 4050'				Projected Operations Drill ahead to projected TD of +/- 5200'			
Operations Summary Drill 12 1/4" Intermediate hole section from 2246' to 3725'.				Comments Incident Free Operations			
Target Formation 3rd Bone Spring/Wolfcamp Shale		Target Depth (MD) (ftKB) 12,650		Time Log Total Hours (hr) 24.00		Drilling Hours (hr) 22.00	
Depth Start (MD) (ftKB) 2,446		Start Depth (TVD) (ftKB) 2,445.6		Depth End (MD) (ftKB) 3,725		End Depth (TVD) (ftKB) 3,724.3	
Cum Time Log Days From Spud (days) 5.58		Avg ROP (ft/hr) 58.1		Cum Problem Time Hours (hr) 16.50		Cum Percent Problem Time (%) 5.86	
Mud Checks							
Fluids Vendor Baroid Fluid Services		Depth (MD) (ftKB) 3,460.0		Mud/Brine Type Gel 10 min (lb/100ft³) 1.0		Fluid Density (lb/gal) 10.00	
Chlorides (mg/L) 184,000		Gel 10 sec (lb/100ft³) 1.0		Gel 30 min (lb/100ft³) 1.0		API Filtrate (cc/30min) 90.0	
				pH 10.0		Funnel Viscosity (s/qt) 26	
				API Filter Cake (1/32") 1		PV Calc (cP) 2	
						YP Calc (lb/100ft³) 3	
						High Gravity Solids (%) 0.0	
						Low Gravity Solids (%) 0.4	
Time Log							
Start Time	Dur (hr)	Phase	Activity	Com			UE Time (hr)
00:00	0.50	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 2246' to 2282'. Pump high visc sweeps as needed. AROP= 72 FPH WOB= 15-22 klbs TD= 35-40 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 4-8 Kft*lbs. SPP= 2500-2900 psi Differential= 250-400 psi			
00:30	0.50	INTCSG1, DRILL	DRLSLD	Slide drill 12 1/4" Intermediate hole section from 2282' to 2307'. AROP= 50 FPH WOB= 5-7 klbs Mud Motor= 185 RPM Mud Pumps= 752 GPM SPP= 2600 psi Differential= 200-225 psi			
01:00	11.00	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 2307' to 3131'. Pump high visc sweeps as needed. AROP= 75 FPH WOB= 18-25 klbs TD= 40 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 5-8 Kft*lbs. SPP= 2800-2900 psi Differential= 250-300 psi			
12:00	1.50	INTCSG1, DRILL	DRLSLD	Slide drill 12 1/4" Intermediate hole section from 3131' to 3155'. AROP= 16 FPH WOB= 15-20 klbs Mud Motor= 185 RPM Mud Pumps= 752 GPM SPP= 2700-2900 psi Differential= 200-300 psi			
13:30	1.50	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 3155' to 3221'. Pump high visc sweeps as needed. AROP= 44 FPH WOB= 18-25 klbs TD= 40 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 5-8 Kft*lbs. SPP= 2800-2900 psi Differential= 300-375 psi			
15:00	0.50	INTCSG1, DRILL	UNITMAIN	Rig service.			
15:30	8.50	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 3221' to 3725'. Pump high visc sweeps as needed. AROP= 59 FPH WOB= 22-25 klbs TD= 40 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 5-8 Kft*lbs. SPP= 2900-3000 psi Differential= 250-400 psi			
Well Name UNIVERSITY 16-18 'B' 001		Lease University '16'		Field Name Caprito		Business Unit Mid-Continent	
County/ Parish Ward		State/Province Texas		Original Spud Date 8/16/2013 09:30		Surface UWI 4247536428	
Rig/Unit Contractor Helmerich & Payne		Rig/Unit # / Name 227		Rig/Unit Start Date 8/6/2013 06:30		Rig/Unit Release Date	



MCBU 'Outside' Drilling Report

8/17/2013, Rpt #12

UNIVERSITY 16-18 'B' 001

Plan Days: 36.00, DFS: 5.58

46.00% WI, Progress: 1,279 ft

Drill String/BHA

BHA #2, Hold assy.

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
2	12 1/4in, T606X, 7145241	Baker Hughes	-----	0.78
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	
13/13/13/13/13/13	950.19	67		71.7

Survey Data

MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS ("/100ft)	Depart (ft)	Build ("/100ft)	Turn ("/100ft)
2,594	1.23	359.14	2,593.55	23.11	17.99	23.11	0.24	29.28	0.21	6.68
2,783	1.35	348.93	2,782.50	27.32	17.53	27.32	0.14	32.46	0.06	-5.40
2,972	1.80	350.07	2,971.43	32.43	16.59	32.43	0.24	36.42	0.24	0.60
3,161	0.83	355.68	3,160.38	36.72	15.98	36.72	0.52	40.04	-0.51	2.97
3,350	0.40	318.81	3,349.37	38.58	15.44	38.58	0.30	41.55	-0.23	-19.51
3,539	0.71	355.75	3,538.36	40.24	14.92	40.24	0.24	42.92	0.16	19.54

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	H 40		719



MCBU 'Outside' Drilling Report

8/18/2013, Rpt #13

Plan Days: 36.00, DFS: 6.58

UNIVERSITY 16-18 'B' 001

46.00% WI, Progress: 1,093 ft

Jobs							
Primary Wellbore Affected Original Hole		Job Category Drill		Primary Job Type Drill and Suspend		SBU Drilling Well Category Drig Well Category 4	
Business Unit Mid-Continent		Area Permian South Ops		Well Type Oil Producer		Directional Type Vertical	
Daily Operations							
Status at Reporting Time Drilling at 4994'				Projected Operations Drill ahead from 4818' to TD at 5202'. C&C hole clean. TOH with 12 1/4" BHA, L/D drill collars and stabilizers. R/U and run 9 5/8" Intermediate casing.			
Operations Summary Rotate and slide drill 12 1/4" Intermediate hole section from 3725' to 4818' per Schlumberger DD. Pumped high visc sweeps to clean hole.				Comments Spill: 2 bbl brine water spill to ground			
Target Formation 3rd Bone Spring/Wolfcamp Shale		Target Depth (MD) (ftKB) 12,650		Time Log Total Hours (hr) 24.00		Drilling Hours (hr) 20.50	
Depth Start (MD) (ftKB) 3,725		Start Depth (TVD) (ftKB) 3,724.3		Depth End (MD) (ftKB) 4,818		End Depth (TVD) (ftKB) 4,817.1	
Cum Time Log Days From Spud (days) 6.58		Avg ROP (ft/hr) 53.3		Cum Problem Time Hours (hr) 16.50		Cum Percent Problem Time (%) 5.40	
Mud Checks							
Fluids Vendor Baroid Fluid Services		Depth (MD) (ftKB) 4,605.0		Mud/Brine Type 10.00		Fluid Density (lb/gal) 10.00	
Chlorides (mg/L) 184,000		Gel 10 sec (lb/100ft²) 1.0		Gel 10 min (lb/100ft²) 1.0		Gel 30 min (lb/100ft²) 1.0	
				pH 10.1		Funnel Viscosity (s/qt) 26	
				API Filtrate (cc/30min) 90.0		API Filter Cake (1/32") 1	
				PV Calc (cP) 2		YP Calc (lb/100ft²) 3	
				High Gravity Solids (%) 0.0		Low Gravity Solids (%) 0.4	
Time Log							
Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)		
00:00	6.00	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 3725' to 4086'. Pump high visc sweeps as needed. AROP= 60 FPH WOB= 20-26 klbs TD= 40-45 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 4-7 Kft*lbs. SPP= 2900-3100 psi Differential= 200-300 psi			
06:00	1.00	INTCSG1, DRILL	DRLSLD	Drill 12 1/4" Intermediate hole section from 4086' to 4097'. Pump high visc sweeps as needed. AROP= 11 FPH WOB= 8-12 klbs TD= 45 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM SPP= 2600-2900 psi Differential= 300 psi			
07:00	1.00	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 4097' to 4167'. Pump high visc sweeps as needed. AROP= 70 FPH WOB= 22-25 klbs TD= 45 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 5-8 Kft*lbs. SPP= 2800-3000 psi Differential= 250-350 psi			
08:00	0.50	INTCSG1, DRILL	UNITMAIN	Rig Service.			
08:30	9.00	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 4167' to 4640'. Pump high visc sweeps as needed. AROP= 53 FPH WOB= 22-25 klbs TD= 45 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 5-8 Kft*lbs. SPP= 3000-3100 psi Differential= 325-400 psi			
17:30	1.00	INTCSG1, DRILL	DRLSLD	Drill 12 1/4" Intermediate hole section from 4640' to 4660'. Pump high visc sweeps as needed. AROP= 20 FPH WOB= 15-20 klbs Mud Motor= 185 RPM Mud Pumps= 752 GPM SPP= 2700-2900 psi Differential= 250 psi			
18:30	5.50	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 4660' to 4818'. Pump high visc sweeps as needed. AROP= 28.8 FPH WOB= 22-25 klbs TD= 45 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 5-8 Kft*lbs. SPP= 3000-3100 psi Differential= 325-400 psi			
Well Name UNIVERSITY 16-18 'B' 001							
Lease University '16'							
Field Name Caprito							
Business Unit Mid-Continent							
County/ Parish Ward							
State/Province Texas							
Original Spud Date 8/16/2013 09:30							
Surface UWI 4247536428							
Rig/Unit Contractor Helmerich & Payne							
Rig/Unit # / Name 227							
Rig/Unit Start Date 8/6/2013 06:30							
Rig/Unit Release Date							



MCBU 'Outside' Drilling Report

8/18/2013, Rpt #13

UNIVERSITY 16-18 'B' 001

Plan Days: 36.00, DFS: 6.58

46.00% WI, Progress: 1,093 ft

Drill String/BHA

BHA #2, Hold assy.

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
2	12 1/4in, T606X, 7145241	Baker Hughes	-----	0.78
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	
13/13/13/13/13/13	950.19	67		71.7

Survey Data

MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS ("/100ft)	Depart (ft)	Build ("/100ft)	Turn ("/100ft)
3,728	0.86	347.85	3,727.34	42.80	14.53	42.80	0.10	45.20	0.08	-4.18
3,917	1.41	349.02	3,916.30	46.47	13.79	46.47	0.29	48.47	0.29	0.62
4,106	1.04	10.63	4,105.26	50.43	13.66	50.43	0.31	52.25	-0.20	-179.04
4,295	1.03	11.73	4,294.23	53.78	14.32	53.78	0.01	55.66	-0.01	0.58
4,484	1.66	19.81	4,483.18	58.02	15.60	58.02	0.35	60.08	0.33	4.28
4,673	1.29	22.51	4,672.11	62.56	17.34	62.56	0.20	64.92	-0.20	1.43

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	H 40		719



MCBU 'Outside' Drilling Report

8/19/2013, Rpt #14

Plan Days: 36.00, DFS: 7.58

UNIVERSITY 16-18 'B' 001

46.00% WI, Progress: 384 ft

Jobs							
Primary Wellbore Affected Original Hole		Job Category Drill		Primary Job Type Drill and Suspend		SBU Drilling Well Category Drig Well Category 4	
Business Unit Mid-Continent		Area Permian South Ops		Well Type Oil Producer		Directional Type Vertical	
Daily Operations							
Status at Reporting Time TIH with 9 5/8" Intermediate Csg at 3600'				Projected Operations TIH with 9 5/8" intermediate casing, tag bottom at 5202', L/O tag joint, P/U landing joint and land hanger in wellhead. C&C 1-1/2 x csg vol. R/U Halliburton cementing equipment. Pump cement schedule. B/O landing joint, install packoff and test. Prepare to P/U 8 3/4" directional BHA.			
Operations Summary Drill 12 1/4" Intermediate hole section from 4818' to 5202' TD. C&C hole clean. TOH with 12 1/4" Intermediate BHA and L/D directional tools. Clean rig floor and level derrick. PJSM with Frank's casing crew. R/U casing handling equipment and TIH with 9 5/8" intermediate casing to 773'.				Comments Incident Free Operations			
Target Formation 3rd Bone Spring/Wolfcamp Shale		Target Depth (MD) (ftKB) 12,650		Time Log Total Hours (hr) 24.00		Drilling Hours (hr) 7.00	
Depth Start (MD) (ftKB) 4,818		Start Depth (TVD) (ftKB) 4,817.1		Depth End (MD) (ftKB) 5,202		End Depth (TVD) (ftKB)	
Cum Time Log Days From Spud (days) 7.58		Avg ROP (ft/hr) 54.9		Cum Problem Time Hours (hr) 16.50		Cum Percent Problem Time (%) 5.01	
Mud Checks							
Fluids Vendor Baroid Fluid Services		Depth (MD) (ftKB) 5,202.0		Mud/Brine Type		Fluid Density (lb/gal) 10.00	
Chlorides (mg/L) 183,000		Gel 10 sec (lb/100ft²) 1.0		Gel 10 min (lb/100ft²) 1.0		Gel 30 min (lb/100ft²) 1.0	
				pH 10.0		Funnel Viscosity (s/qt) 26	
				API Filtrate (cc/30min) 90.0		API Filter Cake (1/32") 1	
				PV Calc (cP) 2		YP Calc (lb/100ft²) 3	
				High Gravity Solids (%) 0.0		Low Gravity Solids (%) 0.5	
Time Log							
Start Time	Dur (hr)	Phase	Activity	Com			UE Time (hr)
00:00	4.50	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 4818' to 4994'. AROP= 39 FPH WOB= 22-25 klbs TD= 45 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 5-8 Kft*lbs. SPP= 3000-3100 psi Differential= 325-400 psi			
04:30	0.50	INTCSG1, DRILL	UNITMAIN	Change out plunger on #2 mud pump.			
05:00	2.50	INTCSG1, DRILL	DRLROT	Drill 12 1/4" Intermediate hole section from 4994' to 5202'. AROP= 83 FPH WOB= 22-25 klbs TD= 45 RPM Mud Motor= 185 RPM Mud Pumps= 752 GPM Torque= 5-8 Kft*lbs. SPP= 3000-3100 psi Differential= 350-400 psi			
07:30	1.50	INTCSG1, DRILL	CC	Circulate and condition hole clean. Pumped 2 high visc sweeps - 45 bbl ea. Theoretical stks: 7687 Actual stks: 8650 Est. washout OD in OH: 13"			
09:00	7.00	INTCSG1, DRILL	TOH	TOH with 12 1/4" Intermediate BHA from 5202' to surface. L/D 8" DC, directional BHA, motor, and bit. Hole pulled slick. Hole took proper fill. Pumped slug at 4547'. 12 1/4" Baker Hughes (S/N: 7145241): 1-1-CT-S-0-I-NO-TD			
16:00	1.50	INTCSG1, DRILL	UNITMAIN	Level derrick to prepare for casing run.			
17:30	1.50	INTCSG1, DRILL	WHDWB	Attempt to pull wear bushing. Found the running tool to damaged and had trouble latching into the wear bushing. Latch into and pull wear bushing.			
19:00	1.50	INTCSG1, CSGCMT	CSGR/U	PJSM with Frank's casing crew and H&P. R/U power tongs, bails, side door elevators, slips, collar clamp. Caliper casing collar, tube OD, elevator ID and document on IADC & Elevator Log Collar OD: 10.625" Casing OD: 9.625" Elevator ID: 9.875"			
20:30	1.00	INTCSG1, CSGCMT	CSGR/U	PJSM with Frank's and H&P for running 9 5/8" casing. Hoist circulating swage and circulating iron to rig floor. Stage centralizers to rig floor. R/U CRT.			
21:30	2.50	INTCSG1, CSGCMT	CSGRUN	TIH with 9 5/8" intermediate casing as follows to 773': Float shoe 2 Joints Float collar 18 Joints Established circulation through float collar and shoe at surface. Fill up pipe every 10 joints.			
Well Name UNIVERSITY 16-18 'B' 001		Lease University '16'		Field Name Caprito		Business Unit Mid-Continent	
County/ Parish Ward		State/Province Texas		Original Spud Date 8/16/2013 09:30		Surface UWI 4247536428	
Rig/Unit Contractor Helmerich & Payne		Rig/Unit # / Name 227		Rig/Unit Start Date 8/6/2013 06:30		Rig/Unit Release Date	



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

8/19/2013, Rpt #14

Plan Days: 36.00, DFS: 7.58

46.00% WI, Progress: 384 ft

Drill String/BHA

BHA #2, Hold assy.

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
2	12 1/4in, T606X, 7145241	Baker Hughes	1-1-CT-S-0-I-NO-TD	0.78
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	
13/13/13/13/13/13	950.19	67	69.9	

Survey Data

MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS ("/100ft)	Depart (ft)	Build ("/100ft)	Turn ("/100ft)
4,862	1.46	10.29	4,861.06	66.90	18.58	66.90	0.18	69.43	0.09	-6.47
5,050	1.62	3.29	5,048.99	71.91	19.17	71.91	0.13	74.42	0.09	-3.72
5,138	1.75	11.05	5,136.96	74.47	19.49	74.47	0.30	76.98	0.15	8.82

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	H 40		719

UNIVERSITY 16-18 'B' 001

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time Lay and strap directional bha		Projected Operations P/U 8 3/4" directional BHA. TIH to toc and perform choke drill. Drill float equipment and 10 ft formation and perform fit to 12.5 ppg. Drill to 10,700' taking directional surveys every 200'	
Operations Summary Ran 9 5/8 casing and landed @5,193'. Cemented casing and set pack off and psi test the casing.		Comments Incident Free Operations	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 24.00	Drilling Hours (hr)
Depth Start (MD) (ftKB) 5,202	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 5,202	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days) 8.58	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 16.50	Cum Percent Problem Time (%) 4.67

Mud Checks

Fluids Vendor Halliburton	Depth (MD) (ft/KB)	Mud/Brine Type Brine	Fluid Density (lb/gal) 0.08	pH 10.0	Funnel Viscosity (s/qt) 26	PV Calc (cP)	YP Calc (lb/100ft²)
Chlorides (mg/L) 183,000	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min) 90.0	API Filter Cake (1/32")	High Gravity Solids (%) 0.0	Low Gravity Solids (%) 0.5

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	10.00	INTCSG1, CSGCMT	CSGRUN	<p>TIH with 9 5/8" intermediate casing as follows to 5202, tag bottom and lay down tagging jt, p/u landing jt and land casing @ 5193":</p> <p>Float shoe 2 Joints Float collar 18 Joints</p> <p>Established circulation through float collar and shoe at surface. Fill up pipe every 10 joints.</p>	
10:00	2.00	INTCSG1, CSGCMT	CC	Circulate 1.5 casing capacity while rigging down Franks casing crew, crt tool.	
12:00	0.50	INTCSG1, CSGCMT	LNRR/D	L/D casing running tool	
12:30	0.50	INTCSG1, CSGCMT	HESUP	PJSM with cementers & rig up cementers.	
13:00	4.50	INTCSG1, CSGCMT	CMTCSG	<p>Perform cmt job as follows W/ Halliburton:</p> <p>Pressure test lines to 2,000 psi. Pump 10 BBLs Red Dye Spacer followed by 20 bbls of Mud Flush spacer. Mix and pump 1005 sxs (338 bbl) of Lead (12.9 ppg, 1.89 ft3/sk), 480 sxs (114 bbl) of Halcem Tail (14.8 ppg, 1.33 ft3/sk). Drop top plug and displace cmt w/ 387 bbl of 10 ppg brine. Bumped plug w/2167 psi, FCP - 1671 psi @ 2 BPM. Returned 67 bbls of cement to surface. Checked floats, 2 bbls fluid returned - floats held. Perform CsgTest @ 1500 psi</p>	
17:30	2.50	INTCSG1, CSGCMT	CMTR/D	PJSM with cementers & rig down cementers. Pump fw thru bope, cellar, and valves on flowline	
20:00	1.00	INTCSG1, CSGCMT	WELLTSTE Q	Install GE pack off on 9 5/8" casing into SH-2 well Head. Test packoff to 5000 psi - good test.	
21:00	1.00	INTCSG1, CSGCMT	WHDWB	Install wear bushing	
22:00	0.50	INTCSG1, CSGCMT	UNITCLN	Clean rig floor of trip & slip hazards	
22:30	0.50	INTCSG1, CSGCMT	UNITMAIN	Service Rig	
23:00	1.00	INTCSG1, CSGCMT	BHAP/U	Lay out & strap bha	

Drill String/BHA

BHA #<stringno>, <des>			
Bit Run	Drill Bit	Make	TFA (incl Noz) (in³)
Nozzles (1/32")		String Length (ft)	BHA ROP (ft/hr)
		Weight of String in Air (1000lbf)	

Survey Data

[illegible]

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	H 40		719

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time DRLG AHEAD @ 6,600'		Projected Operations DRILL TO PLANNED TD @ 10,700' TAKING DIRECTIONAL SURVEYS	
Operations Summary FINISHED TIH, DRILLED CMT AND SHOE TRACK, PERFORMED FIT TO 12.1 PPG. ROT & SLIDE DRLG F/ 5,202'-6,000'		Comments Incident Free Operations 85% SANDSTONE, 15% LIMESTONE	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 24.00	Drilling Hours (hr) 10.50
Depth Start (MD) (ftKB) 5,202	Start Depth (TVD) (ftKB) 5,200.9	Depth End (MD) (ftKB) 6,600	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days) 9.58	Avg ROP (ft/hr) 133.1	Cum Problem Time Hours (hr) 17.00	Cum Percent Problem Time (%) 4.50

Mud Checks

Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	5,723.0		9.30	11.3	26	2	3
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
92,000	1.0	1.0	1.0	90.0	1	0.1	0.9

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	2.50	INTCSG2, DRILL	BHAP/U	P/U DIRECTIONAL BHA SCRIBE & TEST SAME. SURFACE TEST GOOD	
02:30	4.50	INTCSG2, DRILL	TIH	P/U 3 6.25 DC and TIH TO 5108" " TAG CEMENT"	
07:00	2.50	INTCSG2, DRILL	CC	CIRC & CONDITION MUD	
09:30	0.50	INTCSG2, DRILL	HESPDRL	PERFORM CHOKE DRILL	
10:00	0.50	INTCSG2, DRILL	BOPMAINT	PULL TRIP NIPPLE AND INSTALL ROT HEAD	
10:30	0.50	INTCSG2, DRILL	DRLCMT	DRILL CEMENT AND SHOE TRACK F/ 5108'-5202'.	
11:00	0.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 5202'- 5,211' = 9', 18 FPH, WOB= 20, TDRPM 40, MRPm=127,TRPM=167, TD TRQ=8000 GPM= 570, @ 2500 psi	
11:30	1.50	INTCSG2, DRILL	FIT	PERFORM FIT TO 800 PSI= EMW OF 12.15 PPG	
13:00	1.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 5,211'- 5,410' = 199', 199 FPH, WOB= 20, TDRPM 40, MRPm=127,TRPM=167, TD TRQ=8000 GPM= 570, @ 2500 psi	
14:00	0.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/5,410' - T/5,435'; 25' @ 50 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPm - 138.	
14:30	0.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 5,435'- 5,461' = 26', 52 FPH, WOB= 20, TDRPM 40, MRPm=127,TRPM=167, TD TRQ=8000 GPM= 570, @ 2500 psi	
15:00	0.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/5,461' - T/5,476'; 15' @ 30 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPm - 138.	
15:30	0.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 5,476'- 5,490' = 14', 28 FPH, WOB= 20, TDRPM 40, MRPm=127,TRPM=167, TD TRQ=8000 GPM= 570, @ 2500 psi	
16:00	0.50	INTCSG2, DRILL	CC	C/O VALVE AND SEAT #1 MP, #1 POT	0.50
16:30	7.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 5,490'- 6,600' = 1110', 148 FPH, WOB= 20, TDRPM 40, MRPm=127,TRPM=167, TD TRQ=8000 GPM= 570, @ 2500 psi	

Unscheduled Events	
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Event Reference No.	Event Description
4	C/O VALVE & SEAT ON MP #1, POT #1

Drill String/BHA

BHA #3, Hold assy.					
Bit Run 3	Drill Bit 8 3/4in, DP607X, 7035971	Make Baker Hughes	IADC Bit Dull -----	TFA (incl Noz) (in²) 0.91	
Nozzles (1/32") 13/13/13/13/13/13	String Length (ft)	956.20	Weight of String in Air (1000lb/ft)	53	BHA ROP (ft/hr) 133.1

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
5,241	1.98	7.37	5,239.90	77.78	20.02	77.78	0.25	80.31	0.22	-3.57
5,430	1.11	37.65	5,428.83	82.46	21.56	82.46	0.62	85.24	-0.46	16.02
5,619	1.36	160.15	5,617.81	81.80	23.44	81.80	1.15	85.10	0.13	64.81
5,807	1.14	155.47	5,805.77	78.00	24.97	78.00	0.13	81.90	-0.12	-2.49
5,996	0.66	146.61	5,994.74	75.38	26.35	75.38	0.26	79.86	-0.25	-4.69
6,185	0.88	132.63	6,183.73	73.49	28.02	73.49	0.15	78.65	0.12	-7.40
6,374	0.59	114.69	6,372.71	72.10	29.97	72.10	0.19	78.09	-0.15	-9.49

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 1	9 5/8	40.00	HC K-55	LT&C	5,191

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time ROT DRLG @ 7943'		Projected Operations DRILL TO PLANNED TD OF 10,700' +/-	
Operations Summary ROT & SLIDE DRLG F/ 6,600'-7,943'. REPLACE COMMUNICATION LINES TO TENSION LINKS ON DRAWWORKS. 90%LS,10%SS		Comments No Safety or Environmental Issues. TRRC Job # 147862	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB)	Time Log Total Hours (hr)	Drilling Hours (hr)
	12,650	24.00	21.00
Depth Start (MD) (ftKB)	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB)	End Depth (TVD) (ftKB)
6,600	6,598.7	7,943	
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr)	Cum Percent Problem Time (%)
10.58	64.0	19.50	4.86

Mud Checks

Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	7,729.0	Brine	9.10	10.2	26	2	3
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
72,000	1.0	1.0	1.0	90.0	1		0.4

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	2.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 6,600'- 6,813' = 213', 106.5 FPH, WOB= 20, TDRPM 40, MRPM=127,TRPM=167, TD TRQ=8000 GPM= 570, @ 2500 psi	
02:00	0.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/6,813'- T/6,836'; 23' @ 46 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 138.	
02:30	2.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 6,836'- 7,010' = 174', 69.6FPH, WOB= 20, TDRPM 40, MRPM=127,TRPM=167, TD TRQ=8000 GPM= 570, @ 2500 psi	
05:00	1.00	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 7,010' - T/ 7,040'; 30' @ 60 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 138.	
06:00	9.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 7,040'- 7,729' = 689', 76.55 FPH, WOB= 30, TDRPM 40, MRPM=127,TRPM=167, TD TRQ=8500 GPM= 570, @ 2500 psi	
15:00	0.50	INTCSG2, DRILL	UNITMAIN	SERVICE RIG & TOP DRIVE	
15:30	2.50	INTCSG2, DRILL	UNITRPR	REPLACE COMMUNICATION LINES TO TENSION LINKS ON DRAWWORKS	2.50
18:00	0.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 7,729'- 7,756' = 27', 54 FPH, WOB= 30, TDRPM 40, MRPM=127,TRPM=167, TD TRQ=8500 GPM= 570, @ 2500 psi	
18:30	2.00	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 7,756' - T/ 7,781'; 25' @ 12.5 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 138.	
20:30	3.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 7,781'- 7,943' = 162', 46.28 FPH, WOB= 30, TDRPM 40, MRPM=127,TRPM=167, TD TRQ=8500 GPM= 570, @ 2500 psi	

Unscheduled Events

Event Reference No.	Event Description
5	REPLACE COMMUNICATION LINETO TENSION LINKS ON DRAWWORKS

Drill String/BHA

BHA #3, Hold assy.

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (Incl Noz) (in ³)
3	8 3/4in, DP607X, 7035971	Baker Hughes	-----	0.91
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	
13/13/13/13/13/13	956.20	53	87.0	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
6,752	1.04	104.29	6,750.67	70.68	35.06	70.68	0.13	78.90	0.13	0.63
6,940	2.15	122.29	6,938.60	68.38	39.69	68.38	0.64	79.06	0.59	9.57
7,129	1.32	199.83	7,127.53	64.44	41.95	64.44	1.20	76.89	-0.44	41.03
7,318	0.79	300.62	7,316.51	63.05	40.09	63.05	0.88	74.72	-0.28	53.33
7,507	1.21	330.33	7,505.48	65.45	37.98	65.45	0.35	75.67	0.22	15.72
7,695	2.14	322.17	7,693.40	69.95	34.85	69.95	0.51	78.15	0.49	-4.34
7,884	1.24	266.66	7,882.33	72.61	30.64	72.61	0.93	78.81	-0.48	-29.37

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 1	9 5/8	40.00	HC K-55	LT&C	5,191

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time ROT DRLG @ 8,157'		Projected Operations DRILL TO PLANNED TD OF 10,700' +/-	
Operations Summary ROT & SLIDE DRLG F/ 7,943'-8,063'. TOH L/D, P/U BHA. TIH TO 8,063'. ROT DRLG F/ 8,063'-8,157'. 100% SS		Comments No Safety or Environmental Issues. TRRC Job # 10948	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB)	12,650	
Depth Start (MD) (ftKB)	7,943	Start Depth (TVD) (ftKB)	7,941.3
Cum Time Log Days From Spud (days)	11.58	Avg ROP (ft/hr)	29.0
		Cum Problem Time Hours (hr)	19.50
		Drilling Hours (hr)	24.00
		End Depth (TVD) (ftKB)	8,155.3
		Cum Percent Problem Time (%)	4.58

Mud Checks

Fluids Vendor	Depth (MD) (ft/KB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft²)
Baroid Fluid Services	8,063.0	Brine	9.20	10.9	26	2	3
Chlorides (mg/L)	Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Gel 30 min (lbf/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
86,000	1.0	1.0	1.0	90.0	1	0.0	0.6

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	1.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 7,943'- 8,040' = 97', 64.66 FPH, WOB= 30, TDRPM 40, MRPM=127, TRPM=167, TD TRQ=8500 GPM= 570, @ 2500 psi	
01:30	2.00	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 8,040' - T/ 8,060'; 20' @ 10 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 138.	
03:30	0.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 8,060'- 8,063' = 3', 6 FPH, WOB= 30, TDRPM 40, MRPM=127, TRPM=167, TD TRQ=8500 GPM= 570, @ 2500 psi	
04:00	2.50	INTCSG2, DRILL	CC	CIRC BOTTOMS UP 1.5X PUMPING SWEEPS TO CLEAN HOLE	
06:30	1.00	INTCSG2, DRILL	FLOWCHK	CHECK FOR FLOW, WELL FLOWING .25 BBL HR, SHUT WELL IN, 0 CASING PSI	
07:30	2.00	INTCSG2, DRILL	CC	CIRC AND RAISE MUD WT FROM 9.1 PPG TO 9.2 PPG. CHECK FOR FLOW. WELL STATIC, PUMP SLUG	
09:30	1.00	INTCSG2, DRILL	TOH	TOH F/ 8063'-4320' MONITORING WELL THRU TRIP TANK	
10:30	0.50	INTCSG2, DRILL	BOPMAINT	PULL ROT HEAD & INSTALL TRIP NIPPLE	
11:00	2.00	INTCSG2, DRILL	TOH	TOH F/ 8063'-4320' MONITORING WELL THRU TRIP TANK	
13:00	2.00	INTCSG2, DRILL	BHAL/D	L/D BHA " MM WAS DRAINED DUE TO BEING WEAK "	
15:00	1.50	INTCSG2, DRILL	BHAP/U	P/U DIRECTIONAL BHA SCRIBE & TEST SAME. SURFACE TEST GOOD	
16:30	0.50	INTCSG2, DRILL	UNITMAIN	SERVICE RIG & TOP DRIVE	
17:00	3.50	INTCSG2, DRILL	TIH	TIH F/ 80'-6526' MONITORING WELL THRU TRIP TANK	
20:30	0.50	INTCSG2, DRILL	BOPMAINT	PULL TRIP NIPPLE & INSTALL ROT HEAD	
21:00	1.50	INTCSG2, DRILL	TIH	TIH F/ 6526'-8063" MONITORING WELL THRU TRIP TANK	
22:30	1.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 8,063'- 8,157' = 94', 62.66 FPH, WOB= 20, TDRPM 40, MRPM=127, TRPM=167, TD TRQ=8500 GPM= 570, @ 2500 psi	

Drill String/BHA

BHA #3, Hold assy.

Bit Run 3	Drill Bit 8 3/4in, T607X, 7035971	Make Baker Hughes	IADC Bit Dull 1-1-CT-S-X-I-NO-PR	TFA (incl Noz) (in²) 0.91
Nozzles (1/32") 13/13/13/13/13/13	String Length (ft) 955.35	Weight of String in Air (1000lbf) 53	BHA ROP (ft/hr) 71.8	

BHA #4, Hold assy.

Bit Run 4	Drill Bit 8 3/4in, T607X, 7035970	Make Baker Hughes	IADC Bit Dull 8-5-CR-N-X-I-CT-PR	TFA (incl Noz) (in ²) 1.04
Nozzles (1/32") 13/13/13/13/13/13/13/13	String Length (ft) 955.85	Weight of String in Air (1000lbf)	BHA ROP (ft/hr) 53	31.5

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
8,072	1.49	207.51	8,070.28	70.33	27.48	70.33	0.73	75.51	0.13	-31.46

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 1	9 5/8	40.00	HC K-55	LT&C	5,191

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU 'Outside' Drilling Report

8/24/2013, Rpt #19

UNIVERSITY 16-18 'B' 001

Plan Days: 36.00, DFS: 12.58

100.00% WI, Progress: 846 ft

Jobs										
Primary Wellbore Affected Original Hole	Job Category Drill	Primary Job Type Drill and Suspend	SBU Drilling Well Category Drig Well Category 4							
Business Unit Mid-Continent	Area Permian South Ops	Well Type Oil Producer	Directional Type Vertical							
Daily Operations										
Status at Reporting Time ROT DRLG @ 9,003'		Projected Operations DRILL TO PLANNED TD OF 10,700' +/-								
Operations Summary ROT & SLIDE DRLG F/ 8,157' - 9,003' . 90% LS, 10% SHALE		Comments No Safety or Environmental Issues. TRRC Job # 10948								
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB)	12,650	Time Log Total Hours (hr)	24.00	Drilling Hours (hr)	24.00				
Depth Start (MD) (ftKB)	8,157	Start Depth (TVD) (ftKB)	8,155.3	Depth End (MD) (ftKB)	9,003	End Depth (TVD) (ftKB)	9,001.0			
Cum Time Log Days From Spud (days)	12.58	Avg ROP (ft/hr)	35.3	Cum Problem Time Hours (hr)	19.50	Cum Percent Problem Time (%)	4.34			
Mud Checks										
Fluids Vendor Baroid Fluid Services	Depth (MD) (ftKB)	8,913.0	Mud/Brine Type Brine	Fluid Density (lb/gal)	9.30	pH	10.4			
Chlorides (mg/L)	90,000	Gel 10 sec (lb/100ft²)	1.0	Gel 30 min (lb/100ft²)	1.0	API Filtrate (cc/30min)	90.0			
						API Filter Cake (1/32")	1			
						High Gravity Solids (%)	0.0			
						Low Gravity Solids (%)	1.2			
Time Log										
Start Time	Dur (hr)	Phase	Activity	Com			UE Time (hr)			
00:00	16.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 8,157' - 8,888' = 731', 45.68 FPH, WOB= 20, TDRPM 40, MRPM=127, TRPM=167, TD TRQ=8500 GPM= 570, @ 2500 psi						
16:00	2.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 8,888' - T/ 8,920'; 32' @ 12.8 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 138.						
18:30	0.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 8,920' - 8,951' = 31', 62 FPH, WOB= 20, TDRPM 40, MRPM=127, TRPM=167, TD TRQ=8500 GPM= 570, @ 2500 psi						
19:00	2.00	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 8,951' - T/ 8,966'; 15' @ 7.5 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 138.						
21:00	3.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 8,966' - 9,003' = 37', 12.33 FPH, WOB= 33, TDRPM 15, MRPM=121, TRPM=136, TD TRQ=6500 GPM= 570, @ 2500 psi						
Drill String/BHA										
BHA #4, Hold assy.										
Bit Run	Drill Bit	Make		IADC Bit Dull		TFA (incl Noz) (in²)				
4	8 3/4in, T607X, 7035970	Baker Hughes		8-5-CR-N-X-I-CT-PR		1.04				
Nozzles (1/32")		String Length (ft)		Weight of String in Air (1000lb/ft)		BHA ROP (ft/hr)				
13/13/13/13/13/13/13		955.85		53		31.5				
Survey Data										
MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS ("/100ft)	Depart (ft)	Build ("/100ft)	Turn ("/100ft)
8,261	1.68	195.86	8,259.21	65.48	25.59	65.48	0.20	70.31	0.10	-6.16
8,449	0.84	209.24	8,447.16	61.63	24.16	61.63	0.47	66.20	-0.45	7.12
8,638	0.53	248.00	8,636.15	60.09	22.68	60.09	0.29	64.23	-0.16	20.51
8,827	2.21	332.60	8,825.10	63.00	20.19	63.00	1.18	66.16	0.89	44.76
8,977	1.34	265.02	8,975.04	65.42	17.11	65.42	1.40	67.62	-0.58	-45.05
Last Casing String										
Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)					
Intermediate Casing 1	9 5/8	40.00	HC K-55	LT&C	5,191					
Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'		Field Name Caprito	Business Unit Mid-Continent						
County/ Parish Ward	State/Province Texas		Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428						
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227		Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date						

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time ROT DRLG @ 9,125'		Projected Operations DRILL TO PLANNED TD OF 10,700' +/-		
Operations Summary ROT & SLIDE DRLG F/ 9,040' - 9,125' . 90% LS, 10% SHALE		Comments No Safety or Environmental Issues. TRRC Job # 10948		
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB)	12,650	Time Log Total Hours (hr)	24.00
Depth Start (MD) (ftKB)	9,003	Start Depth (TVD) (ftKB)	9,001.0	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days)	13.58	Avg ROP (ft/hr)	14.4	Cum Problem Time Hours (hr)
			35.00	Cum Percent Problem Time (%)
				7.39

Mud Checks

Fluids Vendor	Depth (MD) (ft/KB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	9,040.0	Brine	9.35	9.6	26	2	3
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
71,000	1.0	1.0	1.0	90.0	1	0.1	2.7

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	5.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 9,003'- 9,040' = 37', 6.7 FPH, WOB= 33, TDRPM 15, MRPM=121,TRPM=136, TD TRQ=6500 GPM= 570, @ 2500 psi	
05:30	1.00	INTCSG2, DRILL	CC	CIRC BOTTOMS UP1.5X TO CLEAN HOLE	1.00
06:30	0.50	INTCSG2, DRILL	FLOWCHK	CHECK FOR FLOW "WELL STATIC" PUMP SLUG	0.50
07:00	1.50	INTCSG2, DRILL	TOH	TOH F/ 9,040'-4,695' MONITORING WELL THRU TT, HOLE TAKING PROPER FILL	1.50
08:30	0.50	INTCSG2, DRILL	BOPMAINT	PULL ROT HEAD & INSTALL TRIP NIPPLE	0.50
09:00	1.50	INTCSG2, DRILL	TOH	TOH F/ 4,695'- 129' MONITORING WELL THRU TT, HOLE TAKING PROPER FILL	1.50
10:30	1.50	INTCSG2, DRILL	BHAHDL	L/D & P/U DIRECTIONAL BHA SCRIBE & TEST SAME. SURFACE TEST GOOD	1.50
12:00	0.50	INTCSG2, DRILL	UNITRPR	SERVICE RIG AND TOP DRIVE	0.50
12:30	5.50	INTCSG2, DRILL	TIH	TIH F/ 129'-7,000' MONITORING WELL IN TT	5.50
18:00	0.50	INTCSG2, DRILL	BOPMAINT	PULL TRIP NIPPLE AND INSTALL ROT HEAD	0.50
18:30	1.50	INTCSG2, DRILL	TIH	TIH F/ 7,000'- 8,889' MONITORING WELL IN TT	1.50
20:00	1.00	INTCSG2, DRILL	REAM	REAM HOLE F/ 8,889'-9,039' WOB= 5, TDRPM 20, MRPM=139,TRPM=159, TD TRQ=6500 GPM= 576, @ 2500 psi	1.00
21:00	3.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 9,040'- 9,125' = 85', 28 FPH, WOB= 15, TDRPM 20, MRPM=139,TRPM=159, TD TRQ=6800 GPM= 576, @ 2500 psi	

Unscheduled Events

Event Reference No.	Event Description
6	Cored bit due to abrasive formation

Drill String/BHA

BHA #4, Hold assy.					
Bit Run 4	Drill Bit 8 3/4in, T607X, 7035970	Make Baker Hughes	IADC Bit Dull 8-5-CR-N-X-I-CT-PR	TFA (incl Noz) (in³) 1.04	
Nozzles (1/32") 13/13/13/13/13/13/13	String Length (ft) 955.85	Weight of String in Air (1000lb) 53		BHA ROP (ft/hr) 31.5	

BHA #5, Hold Assy.

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
5	8 3/4in, T607X, 7144630	Baker Hughes	-----	1.04
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	
13/13/13/13/13/13/13	955.94	53	28.3	

Survey Data

MD (ft/KB)	Incl (°)	Azm (°)	TVD (ft/KB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
9.015	1.07	252.86	9.013.03	65.27	16.33	65.27	0.97	67.29	-0.71	-32.00

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 1	9 5/8	40.00	HC K-55	LT&C	5,191

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

8/26/2013, Rpt #21

Plan Days: 36.00, DFS: 14.58

100.00% WI, Progress: 919 ft

Jobs

Primary Wellbore Affected Original Hole	Job Category Drill	Primary Job Type Drill and Suspend	SBU Drilling Well Category Drilg Well Category 4
Business Unit Mid-Continent	Area Permian South Ops	Well Type Oil Producer	Directional Type Vertical

Daily Operations

Status at Reporting Time SLIDE DRLG @ 10,044'		Projected Operations DRILL TO PLANNED TD OF 10,700' +/-	
Operations Summary ROT & SLIDE DRLG F/ 9,125' - 10,044'. . 40% SANDSTONE, 60% SHALE		Comments No Safety or Environmental Issues. TRRC Job # 10948	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 24.00	Drilling Hours (hr) 24.00
Depth Start (MD) (ftKB) 9,125	Start Depth (TVD) (ftKB) 9,123.0	Depth End (MD) (ftKB) 10,044	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days) 14.58	Avg ROP (ft/hr) 38.3	Cum Problem Time Hours (hr) 35.00	Cum Percent Problem Time (%) 7.04

Mud Checks

Fluids Vendor Baroid Fluid Services	Depth (MD) (ftKB) 9,862.0	Mud/Brine Type Gel 10 min (lb/100ft³) 1.0	Fluid Density (lb/gal) 9.50	pH 9.8	Funnel Viscosity (s/qt) 28	PV Calc (cP) 2	YP Calc (lb/100ft³) 3
Chlorides (mg/L) 84,000	Gel 10 sec (lb/100ft³) 1.0	Gel 10 min (lb/100ft³) 1.0	Gel 30 min (lb/100ft³) 1.0	API Filtrate (cc/30min) 90.0	API Filter Cake (1/32") 1	High Gravity Solids (%)	Low Gravity Solids (%) 3.2

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	8.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 9,125'- 9,452' = 327', 40.87 FPH, WOB= 25, TDRPM 30, MRPM=139,TRPM=169, TD TRQ=6800 GPM= 576, @ 2500 psi	
08:00	1.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 9,452' - T/ 9,485'; 33' @ 22 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 139.	
09:30	0.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 9,485'- 9,516' = 31', 62 FPH, WOB= 25, TDRPM 30, MRPM=139,TRPM=169, TD TRQ=6800 GPM= 576, @ 2500 psi	
10:00	1.00	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 9,516' - T/ 9,542'; 26' @ 26 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 139.	
11:00	0.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 9,542'- 9,546' = 4', 8 FPH, WOB= 25, TDRPM 30, MRPM=139,TRPM=169, TD TRQ=6800 GPM= 576, @ 2500 psi	
11:30	0.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 9,546' - T/ 9,561'; 15' @ 30 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 139.	
12:00	9.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 9,561'- 10,020' = 459', 48.31 FPH, WOB= 25, TDRPM 30, MRPM=139,TRPM=169, TD TRQ=6800 GPM= 576, @ 2500 psi	
21:30	2.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 10,020' - T/ 10,044'; 24' @ 9.6 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 139.	

Drill String/BHA

BHA #5, Hold Assy.

Bit Run 5	Drill Bit 8 3/4in, T607X, 7144630	Make Baker Hughes	IADC Bit Dull -----	TFA (incl Noz) (in²) 1.04
Nozzles (1/32") 13/13/13/13/13/13/13	String Length (ft) 955.94	Weight of String in Air (1000lbf) 53	BHA ROP (ft/hr) 37.2	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
9,204	0.19	5.15	9,202.02	65.07	14.67	65.07	0.61	66.70	-0.47	-131.06
9,393	1.89	23.05	9,390.98	68.25	15.92	68.25	0.90	70.08	0.90	9.47
9,582	0.55	271.89	9,579.95	71.14	16.23	71.14	1.14	72.97	-0.71	131.66
9,770	0.71	324.77	9,767.94	72.13	14.66	72.13	0.31	73.60	0.09	28.13
9,959	1.85	359.13	9,956.89	76.13	13.94	76.13	0.70	77.40	0.60	18.18

Last Casing String

Casing Description Intermediate Casing 1	OD (in) 9 5/8	Weight/Length (lb/ft) 40.00	String Grade HC K-55	Top Connection LT&C	Set Depth (MD) (ftKB) 5,191
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Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time CIR & COND TOOH F/ 10,730		Projected Operations DRILL TO PLANNED TD OF 10,730' , CIR & COND MUD , TOOH L/D D.P. IN PREP FOR LOGS	
Operations Summary ROT & SLIDE DRLG F/ 10,044' - 10,585' . 75% LIMESTONE, 25% SHALE		Comments No Safety or Environmental Issues. TRRC Job # 10948	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,650	Time Log Total Hours (hr) 24.00	Drilling Hours (hr) 22.00
Depth Start (MD) (ftKB) 10,044	Start Depth (TVD) (ftKB) 10,041.9	Depth End (MD) (ftKB) 10,585	End Depth (TVD) (ftKB) 10,582.7
Cum Time Log Days From Spud (days) 15.58	Avg ROP (ft/hr) 24.6	Cum Problem Time Hours (hr) 35.00	Cum Percent Problem Time (%) 6.71

Mud Checks

Fluids Vendor	Depth (MD) (ft/KB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	10,435.0		9.50	9.7	27	2	3
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
83,000	1.0	1.0	1.0	90.0	1	0.0	3.2

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	1.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 10,044'- 10,116' = 72', 48.0 FPH, WOB= 25, TDRPM 30, MRPM=139,TRPM=169, TD TRQ=6800 GPM= 576, @ 2500 psi	
01:30	2.00	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 10,116' - T/ 10,146'; 30' @ 15.0 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 139.	
03:30	1.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 10,146'- 10,208' = 62', 41.33 FPH, WOB= 25, TDRPM 30, MRPM=139,TRPM=169, TD TRQ=6800 GPM= 576, @ 2500 psi	
05:00	3.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 10,208' - T/ 10,239'; 31' @ 8.85 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 139.	
08:30	1.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 10,239'- 10,303' = 64', 64.0 FPH, WOB= 25, TDRPM 30, MRPM=139,TRPM=169, TD TRQ=6800 GPM= 576, @ 2500 psi	
09:30	2.50	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 10,303' - T/ 10,321'; 18' @ 7.2 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 139.	
12:00	1.50	INTCSG2, DRILL	UNITRPR	CLEAN SUCTION CHAMBERS ON MUD PUMPS	
13:30	2.00	INTCSG2, DRILL	DRLSLD	SLIDE DRILL F/ 10,321' - T/ 10,343'; 22' @ 11.0 FPH. WOB - 25-30 KLBS, SPP - 2500 psi, DIFF - 300 psi, GPM - 570, MRPM - 139.	
15:30	6.00	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 10,343'- 10,585' = 242', 40.33 FPH, WOB=18- 25, TDRPM 30-45. MRPM=139,TRPM=169-184, TD TRQ=6800 GPM= 576, @ 2500 psi	
21:30	0.50	INTCSG2, DRILL	UNITMAIN	RIG SERVICE	
22:00	0.50	INTCSG2, DRILL	UNITRPR	CLEAN SUCTION CHAMBERS ON MUD PUMPS AND GO THROUGH VALVES AND SEATS	
22:30	1.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 10,585'- 10,650' = 65.0', 43.33 FPH, WOB=18- 25, TDRPM 30-45. MRPM=139,TRPM=169-184, TD TRQ=6800 GPM= 576, @ 2550 psi	

Drill String/BHA

BHA #5, Hold Assy.

Bit Run 5	Drill Bit 8 3/4in, T607X, 7144630	Make Baker Hughes	IADC Bit Dull -----	TFA (incl Noz) (in²) 1.04
Nozzles (1/32") 13/13/13/13/13/13/13		String Length (ft) 955.94	Weight of String in Air (1000lbf) 53	BHA ROP (ft/hr) 31.5

Survey Data	
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MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
10,053	1.65	350.64	10,050.85				0.35		-0.21	-9.03
10,147	2.27	7.42	10,144.79				0.89		0.66	-365.13
10,242	1.85	24.15	10,239.73				0.77		-0.44	17.61
10,336	1.38	108.55	10,333.71				2.34		-0.50	89.79
10,430	0.90	133.22	10,427.69				0.72		-0.51	26.24
10,525	0.47	180.09	10,522.68				0.71		-0.45	49.34

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 1	9 5/8	40.00	HC K-55	LT&C	5,191

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

UNIVERSITY 16-18 'B' 001

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time		Projected Operations	
Operations Summary		Comments	
Target Formation	Target Depth (MD) (ftKB)	Time Log Total Hours (hr)	Drilling Hours (hr)
3rd Bone Spring/Wolfcamp Shale	12,650	5.50	
Depth Start (MD) (ftKB)	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB)	End Depth (TVD) (ftKB)
10,585	10,582.7	10,585	10,582.7
Cum Time Log Days From Spud (days)	Avg ROP (ft/hr)	Cum Problem Time Hours (hr)	Cum Percent Problem Time (%)
15.81		35.00	6.64

Mud Checks

Fluids Vendor	Depth (MD) (ft)(KB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ³)
Chlorides (mg/L)	Gel 10 sec (lb/100ft ³)	Gel 10 min (lb/100ft ³)	Gel 30 min (lb/100ft ³)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	1.50	INTCSG2, DRILL	DRLROT	ROT DRLG F/ 10,650'- 10,730' = 65.0', 43.33 FPH, WOB=18- 25, TDRPM 30-45. MRPM=139,TRPM=169-184, TD TRQ=6800 GPM= 576, @ 2550 psi	
01:30	4.00	INTCSG2, DRILL	CC	CIR & COND MUD IN PREPARATION FOR OPEN HOLE LOGS	

Drill String/BHA

BHA #<stringno>, <des>				
Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")		String Length (ft)		Weight of String in Air (1000lbf)
				BHA ROP (ft/hr)

Survey Data

[illegible]

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 1	9 5/8	40.00	HC K-55	LT&C	5,191

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

UNIVERSITY 16-18 'B' 001

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time RIH with 7" Production #1 Csg			Projected Operations RIH with 7" Production #1 casing, tag bottom at 10730', L/O tag joint, P/U landing joint and land hanger in wellhead. C&C 1-1/2 x csg vol. R/U Halliburton cementing equipment. Pump cement schedule. B/O landing joint, install packoff and test. Prepare to P/U 6 1/8" Production #2 BHA.		
Operations Summary R/U LUBRICATOR AND WIRELINE TRUCK & LOG 8.75 HOLE SECTION R/D LOGGERS, R/U CASING CREW AND RUN 7" CSG TO/ 3,739'			Comments No Safety or Environmental Issues. TRRC Job # 10948 Notified TTRC @19:00 hrs Cindy Operator #4		
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB)	12,350	Time Log Total Hours (hr)	24.00	
Depth Start (MD) (ftKB)	10,650	Start Depth (TVD) (ftKB)	10,647.7	Depth End (MD) (ftKB)	10,650
				End Depth (TVD) (ftKB)	10,647.7
Cum Time Log Days From Spud (days)	17.58	Avg ROP (ft/hr)		Cum Problem Time Hours (hr)	37.00
				Cum Percent Problem Time (%)	6.50

Mud Checks

Fluids Vendor	Depth (MD) (ft/kB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft²)
Baroid Fluid Services	10,730.0		9.50	9.0	35	7	8
Chlorides (mg/L)	Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Gel 30 min (lbf/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
97,000	2.0	3.0	3.0	3.9	1		2.3

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	0.50	INTCSG2, EVAL	BOPTST	PJSMTG ON R/D TESTERS FULL TRIP NIPPLE AND INSTALL LUBRICATER R/D, PULL AND INSTALL SAME	
00:30	0.50	INTCSG2, EVAL	HESMTG	HELD PJSMTG WITH RIG CREW, DSM, LOGGING CREW ON R/U WIRE LINE AND LOGNG	
01:00	2.50	INTCSG2, EVAL	LOGR/U	R/U WIRE LINE LOGGERS	
03:30	9.50	INTCSG2, EVAL	LOGSROOH	RUN WIRE LINE LOGS (QUAD COMBO , ECS , SPECTRAL GAMMA) NOTE:LOGS TAG BOTTOM @ 0545	
13:00	2.50	INTCSG2, EVAL	LOGR/D	PJSMTG ON R/D LOGGING TOOLS AND WIRE LINE TRUCK R/D SAME	
15:30	0.50	INTCSG2, CSGCMT	HESMTG	PJSMTG WITH FRANKS CSG CREW AND RIG CREW , DSM, ON R/D BAILS AND ELEVATORS , R/U POWER TONGS, BAILS, SIDE DOOR ELEVATORS, SLIPS, COLLAR CLAMP. CALIPER CSG COLLAR, TUBE OD, ELEVATOR ID AND DOCUMENT ON IADC & ELEVATOR BOOK Collar OD: 7 11/16" Casing OD: 7.0" Elevator ID: 7 1/8"	
16:00	2.00	INTCSG2, CSGCMT	CSGR/U	R/D H&P BAILS AND ELEVATORS , R/U FRANKS POWER TONGS, BAILS, SIDE DOOR ELEVATORS, SLIPS, COLLAR CLAMP. NOTE: CHECK ESD KILL SWITH ON POWER TONGS HYD.UNIT AND POWER TONG DOOR (GOOD)	
18:00	2.00	INTCSG2, CSGCMT	CSGRUN	RUN 7" 26# C-110 CDC CSG FROM/ 0' TO/ 494' NOTE : CHECK FLOATS (GOOD) TAKING DISPLACEMENT TO TRIP TANK HOLE GIVING PROPER DISPLACEMENT	
20:00	0.50	INTCSG2, CSGCMT	UNITMAIN	RIG SERVICE	
20:30	3.50	INTCSG2, CSGCMT	CSGRUN	RUN 7" 26# C-110 CDC CSG FROM/ 494' TO/ 3,739' NOTE : TAKING DISPLACEMENT TO TRIP TANK HOLE GIVING PROPER DISPLACEMENT	

Drill String/BHA

BHA #5, Hold Assy.

Bit Run 5	Drill Bit 8 3/4in, T607X, 7144630	Make Baker Hughes	IADC Bit Dull 2-1-CT-N-X-2/16-NO-TD	TFA (incl Noz) (in²) 1.04
Nozzles (1/32") 13/13/13/13/13/13/13/13		String Length (ft) 955.94	Weight of String in Air (1000lbf) 53	BHA ROP (ft/hr) 29.9

Survey Data

[illegible]

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 2	7	26.00	C-110	CDC	10,722

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprio	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

8/30/2013, Rpt #25

Plan Days: 36.00, DFS: 18.58

100.00% WI, Progress: 0 ft

Jobs							
Primary Wellbore Affected Original Hole		Job Category Drill		Primary Job Type Drill and Suspend		SBU Drilling Well Category Drilg Well Category 4	
Business Unit Mid-Continent		Area Permian South Ops		Well Type Oil Producer		Directional Type Vertical	
Daily Operations							
Status at Reporting Time PICKIG UP D.P.				Projected Operations FINISH P/U DP , CIR & COND MUD , PERFORM CHOKE DRILL , DRILL FLOAT EQUIP. AND 10 FOOT OF NEW FORMATION AND FIT TEST			
Operations Summary RIH with 7" Production #1 casing, tag bottom at 10730', L/O tag joint, P/U landing joint and land hanger in wellhead. C&C 1-1/2 x csg vol. R/U Halliburton cementing equipment. Pump cement schedule. B/O landing joint, install packoff and test. Prepare to P/U 6 1/8" Production #2 BHA.				Comments No Safety or Environmental Issues. TRRC Job # 10948			
Target Formation 3rd Bone Spring/Wolfcamp Shale		Target Depth (MD) (ftKB) 12,350		Time Log Total Hours (hr) 24.00		Drilling Hours (hr)	
Depth Start (MD) (ftKB) 10,650		Start Depth (TVD) (ftKB) 10,647.7		Depth End (MD) (ftKB) 10,650		End Depth (TVD) (ftKB) 10,647.7	
Cum Time Log Days From Spud (days) 18.58		Avg ROP (ft/hr)		Cum Problem Time Hours (hr) 41.00		Cum Percent Problem Time (%) 6.91	
Mud Checks							
Fluids Vendor Baroid Fluid Services		Depth (MD) (ftKB) 10,730.0		Mud/Brine Type		Fluid Density (lb/gal) 10.01	
Chlorides (mg/L) 160,000		Gel 10 sec (lb/100ft²)		Gel 10 min (lb/100ft²)		Gel 30 min (lb/100ft²)	
				API Filtrate (cc/30min)		API Filter Cake (1/32") 1	
				Funnel Viscosity (s/qt) 26		PV Calc (cP) 0.0	
				High Gravity Solids (%) 0.0		YP Calc (lb/100ft²) 2.2	
Time Log							
Start Time	Dur (hr)	Phase	Activity	Com			UE Time (hr)
00:00	2.50	INTCSG2, CSGCMT	CSGRUN	RUN 7" 26# C-110 CDC CSG FROM/ 3,739' TO/ 5,302'			
				NOTE : TAKING DISPLACEMENT TO TRIP TANK HOLE GIVING PROPER DISPLACEMENT			
02:30	0.50	INTCSG2, CSGCMT	CC	CIR. 1 BOTTOMS UP @ 5,302'			
				PICK UP WT @ 5,302' -178K SLACK OFF WT @ 5,302'- 143K			
				NOTE: NO GAS SEEN ON BOTTOMS UP			
03:00	6.50	INTCSG2, CSGCMT	CSGRUN	RUN 7" 26# C-110 CDC CSG FROM/ 5,302' TO/ 10,722'			
				NOTE : TAKING DISPLACEMENT TO TRIP TANK HOLE GIVING PROPER DISPLACEMENT			
09:30	1.50	INTCSG2, CSGCMT	CC	CIR & COND 1.5 CSG VOL.			
				L/D CSG TONGS AND SLIPS WHILE CIR			
11:00	4.50	INTCSG2, CSGCMT	CMTCSG	Hold PJSM w/ Halliburton & rig crew for upcoming cmt job., presssure tiest lines to 5k, pump 54 bbl, spacer, 158 bbls. lead cmt, 88 bbls. tail, drop plug, displace w/407 bbls mud, FCP=1070 psi, bump plug 500 psi over FC psi @ 14:00. bled back 2,0 bbls, float held, pressure up to 3000 psi, (csg tested good) R/D Halliburton cement equipment.			
15:30	0.50	INTCSG2, CSGCMT	CSGR/D	HELD PJSMTG ON R/D CSG BAILS, ELEV, AND CRT WITH RIG CREW CSG CREW & DSM			
				R/D SAME			
16:00	2.00	INTCSG2, CSGCMT	WHDBPV	L/D LANDING JOINT & SET PACK OFF AND ATTEMPT TO TEST TO 1000 PSI FOR 5 MIN (PACK OFF WOULD NOT TEST)			
18:00	4.00	INTCSG2, CSGCMT	WHDBPV	TEST PACK OFF TO 1000 PSI FOR 5 MIN. 1ST ATTEMPT FAILED DUE TO PACK OFF NOT SEATED CORRECTLY & DAMAGED RUBBER SEAL, PICKED UP JOINT OF HWDP & REINSTALL PACK OFF, 2ND TEST ATTEMPT PASS, PRESSURED UP TO 1000 PSI AND HELD FOR 5 MIN.			4.00
22:00	0.50	INTCSG2, CSGCMT	HESMTG	HELD PJSMTG ON CUTTING AND SLIPPING DRILLING LINE			
22:30	1.50	INTCSG2, CSGCMT	UNITMAIN	CUT AND SLIP 96 FOOT OF DRILLING LINE			
Unscheduled Events							
Event Reference No. 9		Event Description TEST PACK OFF TO 1000 PSI FOR 5 MIN. 1ST ATTEMPT FAILED DUE TO PACK OFF NOT SEATED CORRECTLY & DAMAGED RUBBER SEAL, PICKED UP JOINT OF HWDP & REINSTALL PACK OFF, 2ND TEST ATTEMPT PASS, PRESSURED UP TO 1000 PSI AND HELD FOR 5 MIN.					
Drill String/BHA							
BHA #5, Hold Assy.							
Bit Run 5	Drill Bit 8 3/4in, T607X, 7144630	Make Baker Hughes	IADC Bit Dull 2-1-CT-N-X-2/16-NO-TD	TFA (incl Noz) (in²) 1.04			
Nozzles (1/32") 13/13/13/13/13/13/13	String Length (ft) 955.94	Weight of String in Air (1000lbf) 53	BHA ROP (ft/hr) 29.9				
Survey Data							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)
Last Casing String							
Casing Description Intermediate Casing 2			OD (in) 7	Weight/Length (lb/ft) 26.00	String Grade C-110	Top Connection CDC	Set Depth (MD) (ftKB) 10,722
Cement							
Intermediate Casing 2, Planned?-Y, 10,722ftKB							
Description Intermediate Casing Cement		Type Casing	Vendor Halliburton	Cement Evaluation Results Calculated volume			
Well Name UNIVERSITY 16-18 'B' 001		Lease University '16'		Field Name Caprito		Business Unit Mid-Continent	
County/ Parish Ward		State/Province Texas		Original Spud Date 8/16/2013 09:30		Surface UWI 4247536428	
Rig/Unit Contractor Helmerich & Payne		Rig/Unit # / Name 227		Rig/Unit Start Date 8/6/2013 06:30		Rig/Unit Release Date	

UNIVERSITY 16-18 'B' 001

Stage # 1

Comment

Top Depth (ftKB)	Bottom Depth (ftKB)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)	Full Return?	Vol Cement Ret (bbl)	Evaluation Method	Technical Result
4,784.0	10,722.0	1,000.0	1,576.0	Y			Success
Fluid Type	Class	Quantity (sacks)	Volume Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)	Excess (%)

Fluid Description

UNIVERSITY 16-18 'B' 001

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time DRILLING 6 1/8 HOLE SECTION FROM/ 10,760'		Projected Operations PERFORM CHOKE DRILL , DRILL FLOAT EQUIP. AND 10 FOOT OF NEW FORMATION AND FIT TEST TO 15.5 EMW WITH A 12.0 = 19.55' PSI DRILL 6 1/8 HOLE SECTION TO A PLANNED TD OF 12,350 +/-	
Operations Summary C/O OUT SAVER SUB, UNINSTALL NC 50 KIT AND INSTALL XT39 KIT (STABBING GUIDES / DIE BLOCKS) HANG BAILS AND ELEVATORS , P/U 4" HANDLING TOOLS TO RIG FLOOR FINISH MOVING 4" DP AND SLM, P/U BHA, P/U D.P. T/ 10,586', CIR & COND MUD TO 12.1		Comments No Safety or Environmental Issues. TRRC Job # 10948	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,350	Time Log Total Hours (hr) 24.00	Drilling Hours (hr)
Depth Start (MD) (ftKB) 10,650	Start Depth (TVD) (ftKB) 10,647.7	Depth End (MD) (ftKB) 10,650	End Depth (TVD) (ftKB) 10,647.7
Cum Time Log Days From Spud (days) 19.58	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 41.00	Cum Percent Problem Time (%) 6.64

Mud Checks

Fluids Vendor	Depth (MD) (ft/KB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ²)
Baroid Fluid Services	10,730.0		12.01	9.4	46	24	25
Chlorides (mg/L)	Gel 10 sec (lb/100ft ²)	Gel 10 min (lb/100ft ²)	Gel 30 min (lb/100ft ²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
160,000	6.0	10.0	16.0	2.6	1	0.1	18.8

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	4.00	INTCSG2, CSGCMT	DPP/U	C/O OUT SAVER SUB, UNINSTALL NC 50 KIT AND INSTALL XT39 KIT (STABBING GUIDES / DIE BLOCKS) HANG BAILS AND ELEVATORS , P/U 4" HANDLING TOOLS TO RIG FLOOR NOTE: START MOVING 4" DP TO RACKS AND START STRAPPING	
04:00	1.50	INTCSG2, CSGCMT	DPP/U	FINISH MOVING 4" DP TO RACKS AND SLM	
05:30	3.00	INTCSG2, CSGCMT	BHAP/U	HELD PJSMTG ON P/U BHA WITH RIG CREW AND DMS P/U BHA FROM/ 0 TO/ 1,106.69'	
08:30	0.50	INTCSG2, CSGCMT	UNITMAIN	RIG SERVICE	
09:00	11.00	INTCSG2, CSGCMT	DPP/U	HELD PJSMTG ON PICKING UP DP (4" XT39) WITH RIG CREW AND DSM PICK D.P. FROM/ 1,106.69 TO/ 10,267'	
20:00	0.50	INTCSG2, CSGCMT	BOPMAINT	HELS PJSMTG ON PULLING TRIP NIPPLE AND INSTALLING ROT HEAD PULL AND INSTALL SAME @ 10,267'	
20:30	1.00	INTCSG2, CSGCMT	DPP/U	PICK UP 4" D.P FROM / 10,267' TO/ 10,586' NOTE: TAG CEMENT @ 10,586'	
21:30	2.50	INTCSG2, CSGCMT	CC	CIR. & COND. MUD TO 12.0 IN AND OUT	

Drill String/BHA

BHA #5, Hold Assy.	
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Bit Run 5	Drill Bit 8 3/4in, T607X, 7144630	Make Baker Hughes	IADC Bit Dull 2-1-CT-N-X-2/16-NO-TD	TFA (incl Noz) (in³) 1.04
Nozzles (1/32") 13/13/13/13/13/13/13	String Length (ft) 955.94	Weight of String in Air (1000lbf) 53	BHA ROP (ft/hr) 29.9	

Survey Data

[illegible]

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 2	7	26.00	C-110	CDC	10,722

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

9/1/2013, Rpt #27

Plan Days: 36.00, DFS: 20.58

100.00% WI, Progress: 490 ft

Jobs

Primary Wellbore Affected Original Hole	Job Category Drill	Primary Job Type Drill and Suspend	SBU Drilling Well Category Drilg Well Category 4
Business Unit Mid-Continent	Area Permian South Ops	Well Type Oil Producer	Directional Type Vertical

Daily Operations

Status at Reporting Time DRILLING AHEAD FROM/ 11,520		Projected Operations DRILL 6 1/8 HOLE SECTION TO A PLANNED TD OF 12,350 +/-	
Operations Summary PERFORM CHOKE DRILL , DRILL FLOAT EQUIP. AND 10 FOOT OF NEW FORMATION AND FIT TEST TO 15.5 EMW WITH A 12.0 = 1955 PSI DRILL 6 1/8 HOLE SECTION FROM/ 10,730' TO/ 11,220'		Comments No Safety or Environmental Issues. TRRC Job # 10948	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,350	Time Log Total Hours (hr) 24.00	Drilling Hours (hr) 22.00
Depth Start (MD) (ftKB) 10,730	Start Depth (TVD) (ftKB) 10,727.7	Depth End (MD) (ftKB) 11,220	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days) 20.58	Avg ROP (ft/hr) 22.3	Cum Problem Time Hours (hr) 41.00	Cum Percent Problem Time (%) 6.39

Mud Checks

Fluids Vendor Baroid Fluid Services	Depth (MD) (ftKB) 10,809.0	Mud/Brine Type	Fluid Density (lb/gal) 12.10	pH 9.3	Funnel Viscosity (s/qt) 46	PV Calc (cP) 24	YP Calc (lb/100ft²) 24
Chlorides (mg/L) 159,000	Gel 10 sec (lb/100ft²) 5.0	Gel 10 min (lb/100ft²) 8.0	Gel 30 min (lb/100ft²) 12.0	API Filtrate (cc/30min) 2.9	API Filter Cake (1/32") 1	High Gravity Solids (%) 7.5	Low Gravity Solids (%) 4.0
Fluids Vendor Baroid Fluid Services	Depth (MD) (ftKB) 11,033.0	Mud/Brine Type	Fluid Density (lb/gal) 12.60	pH 9.0	Funnel Viscosity (s/qt) 40	PV Calc (cP) 19	YP Calc (lb/100ft²) 22
Chlorides (mg/L) 161,000	Gel 10 sec (lb/100ft²) 6.0	Gel 10 min (lb/100ft²) 8.0	Gel 30 min (lb/100ft²) 12.0	API Filtrate (cc/30min) 3.0	API Filter Cake (1/32") 1	High Gravity Solids (%) 9.0	Low Gravity Solids (%) 4.7

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	0.50	INTCSG2, CSGCMT	CC	CIR. & COND. MUD TO 12.0 IN AND OUT	
00:30	0.50	INTCSG2, CSGCMT	CC	DISPLACE LIGHT MUD IN GAS BUSTER WITH 12.0 PREFORM CHOKE DRILL	
01:00	3.00	INTCSG2, CSGCMT	DRLFTEQ	DRILL CEMENT, FLOAT EQUIP., AND 10 FOOT OF NEW HOLE MWI/MWO 12.0 FROM/ 10586 ' 10,740'. WOB= 10-15 klbs TD= 40 RPM GPM= 268 SPP= 1945 psi TORQUE = 3800 ft*lbs NOTE : FLOAT COLLAR @ 10,630 , SHOE @ 10,713 WORK THROUGH FLOAT AND SHOE NO DRAG WAS SEEN	
04:00	0.50	INTCSG2, CSGCMT	CC	CIR. 1 BOTTOMS UP MWI/12.0 MWO/12.0	
04:30	0.50	INTCSG2, CSGCMT	FIT	FIT TEST TO 15.5 EMW WITH A 12.0 = 1955 PSI NOTE: FIT TEST GOOD	
05:00	1.00	INTCSG2, CSGCMT	DRLROT	ROT DRLG F/ 10,740'- 10,764' TOTAL DRILLED- 20' FPH-20 WOB=10- 25, TDRPM 40-50 TD TRQ=5600 GPM= 268, @ 2550 psi	
06:00	12.00	INTCSG2, CSGCMT	DRLROT	ROT DRLG F/ 10,764'- 11,035' TOTAL DRILLED- 271' FPH-22.58 WOB=15- 20, TDRPM 90-100 TD TRQ=5000 - 6000 GPM= 270, @ 2004 psi	
18:00	6.00	INTCSG2, CSGCMT	DRLROT	ROT DRLG FROM/ 11,035' TO/ 11,220' TOTAL DRILLED- 185' FPH-30.83 WOB=15- 20, TDRPM 90-120 TD TRQ=4050 - 6000 GPM= 280, @ 2,234 psi	

Drill String/BHA

BHA #6, Rotary Pendulum

Bit Run 6	Drill Bit 6 1/8in, U613M, 20563	Make Ultera	IADC Bit Dull -----	TFA (incl Noz) (in²) 0.78
Nozzles (1/32") 13/13/13/13/13	String Length (ft) 1,134.65	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	31.5

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
10,730	0.63	319.08	10,727.67	85.38	17.67	85.38	0.00	87.19	0.00	0.03
10,730	0.47	180.09	10,727.67	85.38	17.67	85.38	0.00	87.19	0.00	0.00

Last Casing String

Casing Description Intermediate Casing 2	OD (in) 7	Weight/Length (lb/ft) 26.00	String Grade C-110	Top Connection CDC	Set Depth (MD) (ftKB) 10,722
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Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time DRILLING AHEAD FROM/ 12,144'		Projected Operations DRILL 6 1/8 HOLE SECTION TO A PLANNED TD OF 12,350 +/-	
Operations Summary DRILLING 6 1/8 HOLE SECTION FROM/ 11,220' TO/ 12,018'		Comments No Safety or Environmental Issues. TRRC Job # 10948	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,350	Time Log Total Hours (hr) 24.00	Drilling Hours (hr) 23.50
Depth Start (MD) (ftKB) 11,220	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 12,018	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days) 21.58	Avg ROP (ft/hr) 34.0	Cum Problem Time Hours (hr) 41.00	Cum Percent Problem Time (%) 6.16

Mud Checks

Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ²)
Baroid Fluid Services	11,498.0		12.70	9.5	40	19	23
Chlorides (mg/L)	Gel 10 sec (lb/100ft ²)	Gel 10 min (lb/100ft ²)	Gel 30 min (lb/100ft ²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
160,000	6.0	9.0	13.0	2.9	1	9.4	4.8
Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ²)
Baroid Fluid Services	11,862.0		12.70	9.9	40	17	22
Chlorides (mg/L)	Gel 10 sec (lb/100ft ²)	Gel 10 min (lb/100ft ²)	Gel 30 min (lb/100ft ²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
150,000	6.0	8.0	12.0	3.2	1	9.8	4.6

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	6.00	INTCSG2, CSGCMT	DRLROT	ROT DRLG FROM/ 11,220' TO/ 11,465' TOTAL DRILLED- 245' FPH-40.83 WOB=15- 20, TDRPM 90-120 TD TRQ=4050 - 6200 GPM= 300, @ 2,434 psi	
06:00	12.00	INTCSG2, CSGCMT	DRLROT	ROT DRLG FROM/ 11,465' TO/ 11,841' TOTAL DRILLED- 376' FPH-31.33 WOB=15- 20, TDRPM 90-120 TD TRQ=4550 - 6530 GPM= 300, @ 2,685 psi	
18:00	5.00	INTCSG2, CSGCMT	DRLROT	ROT DRLG FROM/ 11,841' TO/ 12,003' TOTAL DRILLED- 162' FPH-32.4 WOB=10- 20, TDRPM 90-120 TD TRQ=4380 - 6760 GPM= 300, @ 3,001 psi	
23:00	0.50	INTCSG2, CSGCMT	UNITMAIN	RIG SERVICE	
23:30	0.50	INTCSG2, CSGCMT	DRLROT	ROT DRLG FROM/ 12,003' TO/ 12,018' TOTAL DRILLED- 18' FPH-36.0 WOB=10- 18, TDRPM 90-125 TD TRQ=4380 - 6760 GPM= 300, @ 3,001 psi	

Drill String/BHA

BHA #6, Rotary Pendulum

Bit Run 6	Drill Bit 6 1/8in, U613M, 20563	Make Ultera	IADC Bit Dull -----	TFA (incl Noz) (in ³) 0.78
Nozzles (1/32") 13/13/13/13/13	String Length (ft) 1,134.65	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	31.5

Survey Data

[illegible]

Last Casing String

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 2	7	26.00	C-110	CDC	10,722

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

Jobs

Primary Wellbore Affected	Job Category	Primary Job Type	SBU Drilling Well Category
Original Hole	Drill	Drill and Suspend	Drig Well Category 4
Business Unit	Area	Well Type	Directional Type
Mid-Continent	Permian South Ops	Oil Producer	Vertical

Daily Operations

Status at Reporting Time Flow check well and circulate bottoms up.		Projected Operations Circulate and raise MW to 13.7 ppg. Flow check well. If static build weighted pill to spot in OH. TOH and L/D 6 1/8" production BHA. R/U Schlumberger logging crew. Run OH logs.	
Operations Summary Raised 6 1/8" Production hole section from 12018' to 12350' TD. C&C mud. Drilled MW from 12.9 to 13.5 ppg due to increase in BGG and bottoms up gas. Flow check well- flow at 12 bph. Raise MW from 13.5 to 13.6+ ppg.		Comments Incident Free Operations	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,350	Time Log Total Hours (hr) 24.00	Drilling Hours (hr) 14.50
Depth Start (MD) (ftKB) 12,018	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 12,350	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days) 22.58	Avg ROP (ft/hr) 22.9	Cum Problem Time Hours (hr) 41.00	Cum Percent Problem Time (%) 5.95

Mud Checks

Fluids Vendor	Depth (MD) (ft/KB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	12,238.0		12.90	9.6	42	19	23
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
160,000	6.0	10.0	13.0	3.2	1	10.2	4.8
Fluids Vendor	Depth (MD) (ft/KB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
Baroid Fluid Services	12,350.0		13.30	9.9	40	20	16
Chlorides (mg/L)	Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)
155,000	6.0	8.0	13.0	5.8	1	11.7	5.3

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	14.50	PRODCSG, DRILL	DRLROT	<p>Drill 6 1/8" Production hole section from 12018' to 12350'.</p> <p>AROP= 22 FPH WOB= 10-18 klbs TD= 125 RPM Mud Pumps= 310 GPM Torque= 4500 - 6800 Kft*lbs. SPP= 3000-3100 psi MWI/MWO=12.9 ppg</p> <p>Note: 12300': BGG increased f/400 to t/1800 units. MWI/MWO=12.9 ppg (max gas cut 12.6 ppg).</p>	
14:30	7.50	PRODCSG, DRILL	CC	<p>Circulate and raise MW at 12350' TD from 12.9 ppg to 13.3+ ppg (gas cut 13 ppg). Swap pumps due to failed gear oil pump (5 min). BU gas 2600 units. Continue raising MW from 13.3+ to 13.5 ppg. BGG dropped to 315 units.</p>	
22:00	0.25	PRODCSG, DRILL	FLOWCHK	Flow check well MWI/MWO=13.5 ppg. Well flowing @ 12 bph.	
22:15	1.75	PRODCSG, DRILL	CC	<p>Raise MW from 13.5 ppg to 13.6+ ppg. BU gas 2600 units. BGG 350 units. Continue circulating and raising MW to projected 13.7 ppg.</p>	

Drill String/BHA

BHA #6. Rotary Pendulum

Bit Run 6	Drill Bit 6 1/8in, U613M, 20563	Make Ultera	IADC Bit Dull -----	TFA (incl Noz) (in²) 0.78
Nozzles (1/32") 13/13/13/13/13	String Length (ft) 1,137.46	Weight of String in Air (1000lb)	BHA ROP (ft/hr)	27.0

Survey Data

[illegible]

	First Casing String	Last Casing String
Well Name		
Well ID		
Well Type		
Well Status		
Well Depth		
Well Completion Date		
Well Completion Method		
Well Completion Cost		
Well Completion Location		
Well Completion Operator		
Well Completion Notes		

Casing Description	OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)
Intermediate Casing 2	7	26.00	G-110	CDC	10.722

Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date

UNIVERSITY 16-18 'B' 001

Jobs		Job Category		Primary Job Type		SBU Drilling Well Category															
Original Hole		Drill		Drill and Suspend		Drig Well Category 4															
Business Unit		Area		Well Type		Directional Type															
Mid-Continent		Permian South Ops		Oil Producer		Vertical															
Daily Operations																					
Status at Reporting Time				Projected Operations																	
R/D logging tools				Schlumberger finish logging 6 1/8" OH section from 12350' to 10722'. R/D logging tools. R/U Frank's casing crew. Run 4 1/2" liner string on 4" HWDP & DP. C&C hole in preparation for cementing job.																	
Operations Summary				Comments																	
Raise MW from 13.6+ to 13.7 ppg. Flow check- static. CBU with 3450 units of gas. BGG leveled off at 400-500 units. Flow check- well static. CBU with 3100 units of gas. BGG leveled off at 500 units. Spot 15.2 ppg 50 bbl pill on bottom. TOH with 6 1/8" production BHA from 12350' to surface. R/U Schlumberger OH logging tools. Begin Quad Combo logging from 12350'.				Incident Free Operations																	
Target Formation		Target Depth (MD) (ftKB)		Time Log Total Hours (hr)		Drilling Hours (hr)															
3rd Bone Spring/Wolfcamp Shale		12,350		24.00																	
Depth Start (MD) (ftKB)		Start Depth (TVD) (ftKB)		Depth End (MD) (ftKB)		End Depth (TVD) (ftKB)															
12,350				12,350																	
Cum Time Log Days From Spud (days)		Avg ROP (ft/hr)		Cum Problem Time Hours (hr)		Cum Percent Problem Time (%)															
23.58				54.00		7.57															
Mud Checks																					
Fluids Vendor		Depth (MD) (ftKB)		Mud/Brine Type		Fluid Density (lb/gal)		pH		Funnel Viscosity (s/qt)		PV Calc (cP)		YP Calc (lb/100ft²)							
Baroid Fluid Services		12,350.0				13.70		9.7		41		19		22							
Chlorides (mg/L)		Gel 10 sec (lb/100ft²)		Gel 10 min (lb/100ft²)		Gel 30 min (lb/100ft²)		API Filtrate (cc/30min)		API Filter Cake (1/32")		High Gravity Solids (%)		Low Gravity Solids (%)							
159,000		7.0		9.0		13.0		5.6		1		13.1		5.4							
Fluids Vendor		Depth (MD) (ftKB)		Mud/Brine Type		Fluid Density (lb/gal)		pH		Funnel Viscosity (s/qt)		PV Calc (cP)		YP Calc (lb/100ft²)							
Baroid Fluid Services		12,350.0				13.70		9.7		40		20		20							
Chlorides (mg/L)		Gel 10 sec (lb/100ft²)		Gel 10 min (lb/100ft²)		Gel 30 min (lb/100ft²)		API Filtrate (cc/30min)		API Filter Cake (1/32")		High Gravity Solids (%)		Low Gravity Solids (%)							
159,000		6.0		10.0		14.0		5.6		1		13.1		5.4							
Time Log																					
Start Time		Dur (hr)		Phase		Activity		Com				UE Time (hr)									
00:00		1.50		PRODCSG, DRILL		CC		C&C mud. Increase MW from 13.6+ to 13.7 ppg. BGG 400-500 units.				1.50									
01:30		0.50		PRODCSG, DRILL		FLOWCHK		Flow check well. Gained 1 bbl in 25 min. Static for remaining 5 min.				0.50									
02:00		2.00		PRODCSG, DRILL		CC		Circulate bottoms up. Max gas 3450 units. BGG leveled off to 400-500 units. Build 15.2 ppg pill.				2.00									
04:00		0.50		PRODCSG, DRILL		FLOWCHK		Flow check well. Gained 0.5 bbl in 25 min. Static for remaining 5 min.				0.50									
04:30		1.00		PRODCSG, DRILL		CC		Circulate bottoms up. Max gas 3100 units. BGG leveled off to 500 units. Spot 25 bbl 15.2 ppg pill at 11400'. Pumped 25 bbl 15.5 ppg slug in drill pipe.				1.00									
05:30		11.00		PRODCSG, DRILL		TOH		TOH with 6 1/8" production BHA from 12350' to surface. Break bit and L/D stabilizers. Flow check well at 10385'. Well static. Remove rotating head and install trip nipple at 9915'. Monitor well on trip tank- well static. Hole taking proper fill. Hole pulling slick. 6 1/8" Ultrerra PDC bit (S/N: 20563): 0-1-CT-S-0-I-NO-TD Clean rig floor.													
16:30		0.50		PRODCSG, DRILL		UNITMAIN		Rig service.													
17:00		3.00		PRODCSG, EVAL		LOGR/U		PJSM with Schlumberger logging crew and H&P. R/U wireline and logging tools.													
20:00		4.00		PRODCSG, EVAL		LOGSROOH		Beging logging run: Schlumberger Quad Combo open hole logs from 12350'.													
Unscheduled Events																					
Event Reference No.		Event Description																			
10		Raise MW from 12.9 to 13.7 ppg due to increase in BGG and high bottoms up gas after flow checks.																			
Drill String/BHA																					
BHA #<stringno>, <des>																					
Bit Run		Drill Bit		Make		IADC Bit Dull		TFA (incl Noz) (in²)													
Nozzles (1/32")		String Length (ft)		Weight of String in Air (1000lbf)		BHA ROP (ft/hr)															
Survey Data																					
MD (ftKB)		Incl (°)		Azim (°)		TVD (ftKB)		NS (ft)		EW (ft)		VS (ft)		DLS (°/100ft)		Depart (ft)		Build (°/100ft)		Turn (°/100ft)	
Last Casing String																					
Casing Description				OD (in)		Weight/Length (lb/ft)		String Grade		Top Connection		Set Depth (MD) (ftKB)									
Intermediate Casing 2				7		26.00		C-110		CDC		10,722									
Well Name				Lease		Field Name		Business Unit													
UNIVERSITY 16-18 'B' 001				University '16'		Caprito		Mid-Continent													
County/ Parish				State/Province		Original Spud Date		Surface UWI													
Ward				Texas		8/16/2013 09:30		4247536428													
Rig/Unit Contractor				Rig/Unit # / Name		Rig/Unit Start Date		Rig/Unit Release Date													
Helmerich & Payne				227		8/6/2013 06:30															



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

9/5/2013, Rpt #31
Plan Days: 36.00, DFS: 24.58
100.00% WI, Progress: 0 ft

Jobs							
Primary Wellbore Affected Original Hole		Job Category Drill		Primary Job Type Drill and Suspend		SBU Drilling Well Category Drig Well Category 4	
Business Unit Mid-Continent		Area Permian South Ops		Well Type Oil Producer		Directional Type Vertical	
Daily Operations							
Status at Reporting Time Circulating bottoms up at 10,690'				Projected Operations Circulate gas out of wellbore and raise MW to 13.8 ppg. Continue TIH with 4 1/2" 11.6# P-110 liner to 12,349'. C&C hole staging pumps up to 3 bpm. R/U Halliburton cementing equipment. Pump cement schedule. Set VersaFlex Liner Hanger. Circulate excess cement to surface. Displace hole with FW.			
Operations Summary Finish Schlumberger OH logging from 12350' to 10722'. POOH with wireline logging tools. RDMOL Schlumberger. R/U Frank's casing handling tools. TIH with 4 1/2" 11.6# P-110 liner string on 4" HWDP & DP to 7,744'. CBU through choke due to high gas readings 1200-1400 units. Max bottoms up gas 3400 units (3-5' flare). Max gas cut 12.9 ppg. Gain 4 bbls while CBU. Raise MW to 13.7+ ppg while circulating.				Comments Incident Free Operations			
Target Formation 3rd Bone Spring/Wolfcamp Shale		Target Depth (MD) (ftKB) 12,350		Time Log Total Hours (hr) 24.00		Drilling Hours (hr)	
Depth Start (MD) (ftKB) 12,350		Start Depth (TVD) (ftKB)		Depth End (MD) (ftKB) 12,350		End Depth (TVD) (ftKB)	
Cum Time Log Days From Spud (days) 24.58		Avg ROP (ft/hr)		Cum Problem Time Hours (hr) 55.50		Cum Percent Problem Time (%) 7.53	
Mud Checks							
Fluids Vendor Baroid Fluid Services		Depth (MD) (ftKB) 12,350.0		Mud/Brine Type		Fluid Density (lb/gal) 13.75	
Chlorides (mg/L) 159,000		Gel 10 sec (lb/100ft²) 7.0		Gel 10 min (lb/100ft²) 11.0		pH 9.5	
Fluids Vendor Baroid Fluid Services		Depth (MD) (ftKB) 12,350.0		Mud/Brine Type		Fluid Density (lb/gal) 13.85	
Chlorides (mg/L) 160,000		Gel 10 sec (lb/100ft²) 7.0		Gel 10 min (lb/100ft²) 10.0		pH 9.4	
						API Filtrate (cc/30min) 5.4	
						API Filter Cake (1/32") 1	
						Funnel Viscosity (s/qt) 40	
						PV Calc (cP) 20	
						YP Calc (lb/100ft²) 22	
						High Gravity Solids (%) 13.3	
						Low Gravity Solids (%) 5.3	
						Funnel Viscosity (s/qt) 39	
						PV Calc (cP) 20	
						YP Calc (lb/100ft²) 21	
						High Gravity Solids (%) 13.6	
						Low Gravity Solids (%) 5.5	
Time Log							
Start Time	Dur (hr)	Phase	Activity	Com			UE Time (hr)
00:00	4.00	PRODCSG, EVAL	LOGSROOH	Complete logging run: Schlumberger Quad Combo open hole logs from 12350' to 10722'.			
04:00	3.00	PRODCSG, EVAL	LOGR/D	RDMOL Schlumberger logging crew.			
07:00	3.00	PRODCSG, CSGCMT	CSGR/U	PJSM with Frank's casing crew and H&P on R/U third party casing equipment. Stage casing handling tools & power tongs to rig floor. Intall trip nipple. MW in suction pit dropped to 13.4 ppg. Roll active system tanks and raise MW to 13.7+ ppg.			
10:00	12.50	PRODCSG, CSGCMT	CSGRUN	TIH with 4 1/2" 11.6# P-110 production liner on 4" HWDP & DP to 7744' as follows: 1 Float Shoe 1 Joint 4 1/2" 11.6# P-110 1 Float Collar 1 Joint 4 1/2" 11.6# P-110 1 Landing Collar 46 joints of 4 1/2" 11.6# P-110 VersaFlex Liner Hanger 3 Joints 4" DP (94.52') 35 Joints 4" HWDP (1073') 147 Joints 4" DP (4670') Notes: Circulate through shoe track to test float equipment R/U VersaFlex liner at 14:00 hrs. M/U 1 stand of DP above liner hanger and circulate. (R/D Frank's) TIH at 2 min/stand per Halliburton procedure Fill pipe every 10 stands Install rotating head at 3039'			
22:30	1.50	PRODCSG, CSGCMT	CC	Readings of 1200-1400 units of gas at shakers. CBU max gas 3400 units. Max gas cut 12.9 ppg. Circulate through choke manifold with 3-5' flares. Gained 4 barrels while CBU. Gas leveled off to 1400 units. Raise MW to 13.7+ ppg while circulating through gas buster. MWI=13.7+ ppg MWO=13.4+ ppg			1.50
Unscheduled Events							
Event Reference No. 11		Event Description Circulate to remove gas from wellbore. Raise MW to 13.7+ ppg.					
Drill String/BHA							
BHA #<stringno>, <des>							
Bit Run	Drill Bit	Make		IADC Bit Dull		TFA (incl Noz) (in²)	
Nozzles (1/32")		String Length (ft)		Weight of String in Air (1000lbf)		BHA ROP (ft/hr)	
Survey Data							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)
Last Casing String							
Casing Description Production Casing			OD (in) 4 1/2	Weight/Length (lb/ft) 11.60	String Grade P-110	Top Connection CDC	Set Depth (MD) (ftKB) 12,349
Well Name UNIVERSITY 16-18 'B' 001		Lease University '16'		Field Name Caprito		Business Unit Mid-Continent	
County/ Parish Ward		State/Province Texas		Original Spud Date 8/16/2013 09:30		Surface UWI 4247536428	
Rig/Unit Contractor Helmerich & Payne		Rig/Unit # / Name 227		Rig/Unit Start Date 8/6/2013 06:30		Rig/Unit Release Date	



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

9/6/2013, Rpt #32

Plan Days: 36.00, DFS: 25.58

100.00% WI, Progress: 0 ft

Jobs							
Primary Wellbore Affected Original Hole		Job Category Drill		Primary Job Type Drill and Suspend		SBU Drilling Well Category Drilg Well Category 4	
Business Unit Mid-Continent		Area Permian South Ops		Well Type Oil Producer		Directional Type Vertical	
Daily Operations							
Status at Reporting Time TOH with 4" DP & HWDP at 6000'				Projected Operations TOH and finish L/D 4" DP & HWDP. Install BPV. N/D BOPE. Install tubing head. Clean pits. Prepare for R/D.			
Operations Summary Circulate and condition MW to 13.8 ppg. TIH with 4 1/2" 11.6# P-110 liner string to 10,689'. Circulate two bottoms up. Condition mud to 13.8+/13.7+ ppg. TIH with 4 1/2" liner and tag bottom at 12,350'. C&C hole. R/U Halliburton cement and pump cement schedule. Did not bump plug. Floats held. Expand VersaFlex liner hanger. Release liner setting tool and circulate excess cement on top of liner to surface (10 bbls/2 sx to surface). Displace 13.7 ppg WBM with 8.34 ppg fresh water above liner top.				Comments Incident Free Operations			
Target Formation 3rd Bone Spring/Wolfcamp Shale		Target Depth (MD) (ftKB) 12,350		Time Log Total Hours (hr) 24.00		Drilling Hours (hr)	
Depth Start (MD) (ftKB) 12,350		Start Depth (TVD) (ftKB)		Depth End (MD) (ftKB) 12,350		End Depth (TVD) (ftKB)	
Cum Time Log Days From Spud (days) 25.58		Avg ROP (ft/hr)		Cum Problem Time Hours (hr) 58.50		Cum Percent Problem Time (%) 7.68	
Mud Checks							
Fluids Vendor Baroid Fluid Services	Depth (MD) (ftKB) 12,350.0	Mud/Brine Type NAF	Fluid Density (lb/gal) 13.80	pH 9.5	Funnel Viscosity (s/qt) 40	PV Calc (cP) 21	YP Calc (lb/100ft²) 18
Chlorides (mg/L) 160,000	Gel 10 sec (lb/100ft²) 7.0	Gel 10 min (lb/100ft²) 10.0	Gel 30 min (lb/100ft²) 13.0	API Filtrate (cc/30min) 5.6	API Filter Cake (1/32") 1	High Gravity Solids (%) 13.5	Low Gravity Solids (%) 5.4
Fluids Vendor Baroid Fluid Services	Depth (MD) (ftKB) 12,350.0	Mud/Brine Type NAF	Fluid Density (lb/gal) 13.85	pH 9.4	Funnel Viscosity (s/qt) 39	PV Calc (cP) 20	YP Calc (lb/100ft²) 21
Chlorides (mg/L) 160,000	Gel 10 sec (lb/100ft²) 7.0	Gel 10 min (lb/100ft²) 10.0	Gel 30 min (lb/100ft²) 14.0	API Filtrate (cc/30min) 5.4	API Filter Cake (1/32") 1	High Gravity Solids (%) 13.6	Low Gravity Solids (%) 5.5
Time Log							
Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)		
00:00	0.50	PRODCSG, CSGCMT	CC	Circulate and condition mud from 13.7+ to 13.8 ppg through gas buster due to 1200-1400 units of gas readings at shakers. Flow check well-static. Shut down to C/O rotating head.	0.50		
00:30	0.50	PRODCSG, CSGCMT	MONITOR	Monitor well on trip tank while C/O rotating head. Well is static.	0.50		
01:00	3.00	PRODCSG, CSGCMT	LNRRUN	TIH with 4 1/2" 11.6# P-110 production liner on 4" HWDP & DP from 7744' to 10,689'. Note: Fill pipe every 10 stands TIH at 2 min/stand			
04:00	3.00	PRODCSG, CSGCMT	CC	Circulate first bottoms up at 10,689'. Max gas 1850 units, gained 5 bbls at surface, 5' flare, MWI= 13.8 ppg, MWO= 13.3+ ppg. Circulate second bottoms up- max gas 550 units, 3-5' flare, MWI 13.8+ ppg, MWO= 13.7+ ppg Flow check well. Well static.			
07:00	2.25	PRODCSG, CSGCMT	LNRRUN	TIH with 4 1/2" 11.6# P-110 liner from 10,689' to 12,349'. Float Shoe- 12,349' Float Collar- 12,306' Landing Collar- 12,266' Top of Liner- 10,455' Notes: Wash down last stand of drill pipe Tag bottom at 12,350' Fill pipe every 5 joints (in OH section) TIH at 2-3 min/stand (in OH section) Displaced correct amount of fluid			
09:15	2.50	PRODCSG, CSGCMT	CC	Circulate first bottoms up. Max gas 1100 units, leveled off at 300-400 units. MWI=13.8+. MWO=13.5 ppg. 5-7" flare. Circulate second bottoms up. Max gas 300 units. Leveled off at 250-275 units. MWI=13.8+ ppg. MWO=13.8 ppg. Hold PJSM with Halliburton cementing, liner hanger crew, and H&P for R/U and pumping cement schedule. Stage circulating iron and cementing head to rig floor. Gas lowered to 120 units.			
11:45	1.25	PRODCSG, CSGCMT	CMTR/U	Shut down pumps. R/U Halliburton cementing head and circulating iron. Monitor well on trip tank- static. P/U weight: 227 klbs S/O weight: 187 klbs Neu. weight: 188 klbs			
13:00	1.50	PRODCSG, CSGCMT	CMTMP	Pump cement per Halliburton cement schedule. Pressure test lines to 10,000 psi. Pump 20 bbls 14.6 ppg Tuned Spacer III. Mix and pump 220 sxs (47 bbls) of Halcem-H slurry (15.6 ppg, 1.2 ft³/sk), Drop wiper plug. Displace with 10 bbl 14.6 ppg Tuned Spacer III, 22 bbl 8.4 ppg fresh water, 107.5 bbl 13.7 ppg WBM. Did not bump plug. Pump 0.5 bbl (1/2 shoe track) and 1 bbl for surface lines, unsuccessful. Check floats, bled back 0.5 bbl.			
Well Name UNIVERSITY 16-18 'B' 001							
Lease University '16'		Field Name Caprito		Business Unit Mid-Continent			
County/ Parish Ward		State/Province Texas		Original Spud Date 8/16/2013 09:30		Surface UWI 4247536428	
Rig/Unit Contractor Helmerich & Payne		Rig/Unit # / Name 227		Rig/Unit Start Date 8/6/2013 06:30		Rig/Unit Release Date 9/8/2013 06:00	



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

9/6/2013, Rpt #32

Plan Days: 36.00, DFS: 25.58

100.00% WI, Progress: 0 ft

Time Log										
Start Time	Dur (hr)	Phase	Activity	Com				UE Time (hr)		
14:30	3.50	PRODCSG, CSGCMT	LNRSTTST	Drop first ball and let free fall for 82 min. Attempt to seat ball and expand VersaFlex liner hanger twice. Pressure reached 600 psi both times and pumped 0.5 bbl before shutting down. Bled back 0.5 bbl. R/D cementing head, drop second ball down drill string, let free fall for 82 min (L/D cementing head and verified that the first ball did not release from the cementing head). M/U cementing head to string. Stage surface pressure up to 8204 psi to expand VersaFlex Liner Hanger, pressure bled off to 2000 psi indicating expansion of hanger. String weight in tension- 200 klbs. P/U to 300 klbs. S/O to 90 klbs. Release setting tool from liner with 50 klbs overpull.				2.00		
18:00	1.00	PRODCSG, CSGCMT	CC	Circulate bottoms up from TOL @ 6 bpm. Return 10 bbls of cement to surface (2 sacks).						
19:00	1.50	PRODCSG, CSGCMT	CMTR/D	R/D Halliburton cementing equipment. Flush through surface lines and BOP stack.						
20:30	1.00	PRODCSG, CSGCMT	CC	Circulate second bottoms up until MWI/MWO= 13.7 ppg.						
21:30	0.50	PRODCSG, CSGCMT	FLOWCHK	Flow check prior to displacing 13.7 ppg WBM. Well static.						
22:00	2.00	PRODCSG, CSGCMT	DISPLACE	Displace 13.7 ppg WBM with 8.34 ppg fresh water.						
Unscheduled Events										
Event Reference No.		Event Description								
11		Circulate to remove gas from wellbore. Raise MW to 13.7+ ppg.								
Event Reference No.		Event Description								
12		First attempt at seating the ball used to expand the VersaFlex liner hanger failed. The ball was thought to have been released from the cementing head. Attempt to apply surface pressure to expand hanger but unsuccessful. Later verified that the original ball was never released. R/D cementing head and drop second ball to land in the liner profile. Allow for second ball to free fall for 80 min before expanding VersaFlex hanger.								
Drill String/BHA										
BHA #<stringno>, <des>										
Bit Run	Drill Bit	Make		IADC Bit Dull		TFA (incl Noz) (in ²)				
Nozzles (1/32")		String Length (ft)		Weight of String in Air (1000lbf)		BHA ROP (ft/hr)				
Survey Data										
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)
Last Casing String										
Casing Description			OD (in)	Weight/Length (lb/ft)	String Grade	Top Connection	Set Depth (MD) (ftKB)			
Production Casing			4 1/2	11.60	P-110	CDC	12,349			
Cement										
Production Casing, Planned?-N, 12,349ftKB										
Description		Type	Vendor		Cement Evaluation Results					
Liner Cement		Casing	Halliburton		Returned 10 bbls of cement to surface					
Stage # 1										
Comment										
Pump cement per Halliburton cement schedule. Pressure test lines to 10,000 psi. Pump 20 bbls 14.6 ppg Tuned Spacer III. Mix and pump 220 sxs (47 bbls) of Halcem-H slurry (15.6 ppg, 1.2 ft3/sk), Drop wiper plug. Displace with 10 bbl 14.6 ppg Tuned Spacer III, 22 bbl 8.4 ppg fresh water, 106 bbl 13.7 ppg WBM. Did not bump plug. Pump 0.5 bbl (1/2 shoe track) and 1 bbl for surface lines, unsuccessful. Check floats, bled back 0.5 bbl.										
Top Depth (ftKB)	Bottom Depth (ftKB)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)	Full Return?	Vol Cement Ret (bbl)	Evaluation Method	Technical Result			
10,455.0	12,350.0	1,400.0		N	10.0	Returns to Surface	Success			
Fluid Type	Class	Quantity (sacks)	Volume Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)	Excess (%)			
Spacer			20.0	14.60						
Fluid Description										
14.6 ppg Tuned Spacer III										
Fluid Type	Class	Quantity (sacks)	Volume Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)	Excess (%)			
Lead	H	220	47.0	15.60	1.20	5.39				
Fluid Description										
0.5% Halad (R)-344 0.25 lbm D-Air 5000 0.35% HR-601										
Fluid Type	Class	Quantity (sacks)	Volume Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)	Excess (%)			
Displacement			22.0	8.34						
Fluid Description										
22 bbls of fresh water										
Fluid Type	Class	Quantity (sacks)	Volume Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)	Excess (%)			
Displacement			10.0	14.60						
Fluid Description										
14.6 ppg Tuned Spacer III										
Fluid Type	Class	Quantity (sacks)	Volume Pumped (bbl)	Density (lb/gal)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)	Excess (%)			
Displacement			107.5	13.70						
Fluid Description										
13.7 ppg water based mud										



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

9/7/2013, Rpt #33

Plan Days: 36.00, DFS: 26.58

100.00% WI, Progress: 0 ft

Jobs

Primary Wellbore Affected Original Hole	Job Category Drill	Primary Job Type Drill and Suspend	SBU Drilling Well Category Drig Well Category 4
Business Unit Mid-Continent	Area Permian South Ops	Well Type Oil Producer	Directional Type Vertical

Daily Operations

Status at Reporting Time Rigging Down	Projected Operations Finish N/U and testing tubing head. Prepare for R/D. Release rig to University 16-18 A1.		
Operations Summary Flow check well. TOH with liner setting tool and L/D 4" DP & HWDP. Install BPV in 7" hanger. N/D BOPE. N/U wellhead adaptor and tubing head.		Comments Incident Free Operations	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,350	Time Log Total Hours (hr) 24.00	Drilling Hours (hr)
Depth Start (MD) (ftKB) 12,350	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 12,350	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days) 26.58	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 58.50	Cum Percent Problem Time (%) 7.45

Mud Checks

Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ²)
Chlorides (mg/L)	Gel 10 sec (lb/100ft ²)	Gel 10 min (lb/100ft ²)	Gel 30 min (lb/100ft ²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	0.50	PRODCSG, CSGCMT	FLOWCHK	Flow check well after displacing wellbore with 8.4 ppg FW.	
00:30	15.00	PRODCSG, CSGCMT	TOH	TOH with liner setting tool and L/D 4" HWDP & DP from 10,455'. Hole taking proper fill. TIH with 4" DP racked back in derrick to 1800'. L/D remaining 4" DP and liner setting tool.	
15:30	1.00	PRODCSG, CSGCMT	WHDBPV	MIRU GE and set BPV in 7" hanger.	
16:30	6.00	PRODCSG, CSGCMT	BOPN/D	R/D flowline, accumulator lines, turnbuckles, choke and kill lines. N/D BOP stack, DSA, and spacer spool with Greene's.	
22:30	1.50	PRODCSG, CSGCMT	WHDN/U	Install and begin to N/U wellhead adaptor and tubing head.	

Drill String/BHA

BHA #<stringno>, <des>

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Depart (ft)	Build (°/100ft)	Turn (°/100ft)

Last Casing String

Casing Description Production Casing	OD (in) 4 1/2	Weight/Length (lb/ft) 11.60	String Grade P-110	Top Connection CDC	Set Depth (MD) (ftKB) 12,349
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Well Name UNIVERSITY 16-18 'B' 001	Lease University '16'	Field Name Caprito	Business Unit Mid-Continent
County/ Parish Ward	State/Province Texas	Original Spud Date 8/16/2013 09:30	Surface UWI 4247536428
Rig/Unit Contractor Helmerich & Payne	Rig/Unit # / Name 227	Rig/Unit Start Date 8/6/2013 06:30	Rig/Unit Release Date 9/8/2013 06:00



MCBU 'Outside' Drilling Report

UNIVERSITY 16-18 'B' 001

9/8/2013, Rpt #34

Plan Days: 36.00, DFS: 26.83

100.00% WI, Progress: 0 ft

Jobs

Primary Wellbore Affected Original Hole	Job Category Drill	Primary Job Type Drill and Suspend	SBU Drilling Well Category Drig Well Category 4
Business Unit Mid-Continent	Area Permian South Ops	Well Type Oil Producer	Directional Type Vertical

Daily Operations

Status at Reporting Time Rigging down		Projected Operations R/D and move rig to University 16-18 A1.	
Operations Summary Install and test tubing head to 5000 psi. Clean pits. R/D backyard and prepare for rig move. Release rig at 06:00 hrs.		Comments **Rig released at 06:00 hrs to University 16-18 A1	
Target Formation 3rd Bone Spring/Wolfcamp Shale	Target Depth (MD) (ftKB) 12,350	Time Log Total Hours (hr) 6.00	Drilling Hours (hr)
Depth Start (MD) (ftKB) 12,350	Start Depth (TVD) (ftKB)	Depth End (MD) (ftKB) 12,350	End Depth (TVD) (ftKB)
Cum Time Log Days From Spud (days) 26.83	Avg ROP (ft/hr)	Cum Problem Time Hours (hr) 58.50	Cum Percent Problem Time (%) 7.39

Mud Checks

Fluids Vendor	Depth (MD) (ftKB)	Mud/Brine Type	Fluid Density (lb/gal)	pH	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft ²)
Chlorides (mg/L)	Gel 10 sec (lb/100ft ²)	Gel 10 min (lb/100ft ²)	Gel 30 min (lb/100ft ²)	API Filtrate (cc/30min)	API Filter Cake (1/32")	High Gravity Solids (%)	Low Gravity Solids (%)

Time Log

Start Time	Dur (hr)	Phase	Activity	Com	UE Time (hr)
00:00	1.00	PRODCSG, CSGCMT	WHDN/U	Complete N/U tubing head. Test to 5000 psi (good).	
01:00	5.00	PRODCSG, CSGCMT	R/D	Complete cleaning pits. R/D backyard rig equipment. Prepare for rig move. Release rig.	

Drill String/BHA

BHA #<stringno>, <des>

Bit Run	Drill Bit	Make	IADC Bit Dull	TFA (incl Noz) (in ²)
Nozzles (1/32")	String Length (ft)	Weight of String in Air (1000lbf)	BHA ROP (ft/hr)	

Survey Data

MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS ("/100ft)	Depart (ft)	Build ("/100ft)	Turn ("/100ft)

Last Casing String

Casing Description Production Casing	OD (in) 4 1/2	Weight/Length (lb/ft) 11.60	String Grade P-110	Top Connection CDC	Set Depth (MD) (ftKB) 12,349
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