



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H										DATE 05-11-2014			
API # 4210336341 00		24 HRS PROG 100.0 (ft)		TMD 100.0 (ft)		TD TVD 100.0 (ft)		REPT NO 1					
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 0.02 (days)		DOL 0.64 (days)			
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 ADAM GARZA		ENGINEER JEFF CHRISTOPHER		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO			
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 53,810 DCC: CWC: Others: TOTAL: 53,810		DHC: 53,810 DCC: CWC: Others: TOTAL: 53,810							
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/12/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE			
LAST SURVEY MD 486.0 (ft) INC 0.60° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 20.000 in @ 51.0 ft		NEXT CASING 13.375 in @ 975.0 ft					
CURRENT OPERATIONS: DRLG SURFACE HOLE@646'													
24 HR SUMMARY: PREP-RIG FOR TRUCKS, MOVE OFF KING 59 #1 & ONTO UNIVERSITY LANDS 36 #5H, R/U RIG, PRE-SPUD RIG INSPECTION, SPUD WELL													
24 HR FORECAST: DRLG SURFACE, TOH, RUN CASING, CMT CASING, WELD ON WELL HEAD, N/U BOP, TEST BOP, P/U BHA #2													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	7:00	7.00	R-MOB-DEMOB	WOD	PP		WAIT ON DAYLIGHT						
7:00	7:30	0.50	R-MOB-DEMOB	SFTY	PP		SAFETY MEETING W/CANTRELL TRUCKING						
7:30	13:30	6.00	R-MOB-DEMOB	MOB	PP		MOVE OFF KING 59 #1 & ONTO UNIVERSITY LANDS 36 #5H						
13:30	22:30	9.00	R-MOB-DEMOB	MOB	PP		SET IN RIG & R/U RIG, WELD 20" CONDUCTOR, MODIFY HAND RAILS AROUND TOP DOGHOUSE						
22:30	23:30	1.00	R-MOB-DEMOB	PRESAFE	PP		PRE-SPUD SAFETY INSPECTION						
23:30	0:00	0.50	S-DRL	DRLG	PP		DRLG F/51' TO 100', WOB ALL, ROT 85, GPM 490						
23:30	23:30	0.00	S-DRL	M_SPUD	PP		NOTIFIED RRC JOB#7172, SPUD WELL						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 0000-0600 DRLG F/100 TO 646', MD=546', 91'/HR, WOB 40, ROT 120-130, GPM 614, LAST SURVEY@486', INC .60°, NO ISSUES													
BIT DATA													
BIT / RUN	BIT SIZE (in)	MANUFACTURER		TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN		I-O-D-L-B-G-O-R				
	17.500	Varel		HR04JMR	1412367	4x16	51.00 / 05-11-2014		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
	/20.0	/80	491.28	515	301	0.50	49.0	98.0	0.50	49.0	98.0		
MOTOR OUTPUT													
RPV:			ROTARY CURRENT: 80			TOTAL RPM: 80							
LCM:			MUD PROPERTIES			MUD TYPE: Fresh Water							
VIS (s/qt)	PV/YP (cp) / (lb/100ft²)	GELS (lb/100ft²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
28.00							10.00						
Density (ppg)	8.34			PP		DAILY COST	0	CUM COST	0	%OIL		% H2O	

Printed: 5/12/2014 5:32:08AM



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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H								DATE 05-11-2014			
API # 4210336341 00		24 HRS PROG 100.0 (ft)		TMD 100.0 (ft)		TD TVD 100.0 (ft)		REPT NO 1			
BHA	1	JAR S/N		BHA / HOLE CONDITIONS			JAR HRS		BIT	1	
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		25.0 (kip)		25.0 (kip)		25.0 (kip)		(ft-lbf)		687.30 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar		6.25" DC'S				19	553.69	6.125	2.500	4.500	4-1/2 XH
Crossover Sub		X-OVER				1	2.07	7.750	2.500	4.500	4-1/2 XH
Drill Collar		8" DC				1	26.05	8.000	2.500		6-5/8" Reg
		IBS				1	8.02	7.750	2.500	6.625	6-5/8" Reg
Drill Collar		8" DC				1	27.05	8.000	2.750	6.625	6-5/8" Reg
Integral Blade Stabilizer		IBS				1	7.11	7.750	2.500	6.625	6-5/8" Reg
Drill Collar		8" DC				1	31.00	8.000	2.750	6.625	6-5/8" Reg
Survey Tools		TELEDRIFT				1	14.36	8.125	2.750	6.625	6-5/8" Reg
Shock Sub		SHOCK SUB				1	12.85	7.375	2.800	6.625	6-5/8" Reg
Bit Sub		BIT SUB				1	3.60	8.875	2.800	6.625	6-5/8" Reg
Tri-Cone Bit		17.5" VAREL HR04JMR				1	1.50	17.500	3.000	6.625	7-5/8" Reg
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
NORMAL	486.0	0.60	0.00	486.0	2.62	0.00	2.62	0.12			
NORMAL	228.0	0.30	0.00	228.0	0.60	0.00	0.60	0.13			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT		GRADE		SETTING DEPTH		
00	CONDUCTOR			20.000	52.75		J-55		51.0		
MUD PUMPS/HYDRAULICS					SPP: 515 (psi)		SPR				
	STROKE	SPM	LINER	FLOW RATE	AV(DP):				SPM		PPSR
# 1	10.00	120.00	6.500	491.3	AV(DC):						
					HP: 0.358 (hp/in²)						
PERSONNEL DATA											
COMPANY			QTY	HRS	COMPANY			QTY	HRS		
JW MULLOYCONSULTING			1	24.00	CAPSTAR PUSHER			1	24.00		
ESTRELLA WELDING			1	5.00	CAPSTAR CREW			3	72.00		
DELS INSPECTION SERVICE			4	2.00	CANTRELL TRUCKING			10	70.00		
TOTAL PERSONNEL ON BOARD: 20											
TOTAL HOURS ON BOARD: 197											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	bbl	442	8040	WATER, MUNICIPAL	bbl		3510				
BRINE	bbl		4560								



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WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-11-2014
API # 4210336341 00	24 HRS PROG 100.0 (ft)	TMD 100.0 (ft)	TD TVD 100.0 (ft)	REPT NO 1

SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL

INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION
		No incidents reported in last 24 hours.



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## Daily Drilling Report

<b>WELLBORE NAME</b> UNIVERSITY LANDS 36 5H							<b>DATE</b> 05-12-2014				
<b>API #</b> 4210336341 00		<b>24 HRS PROG</b> 611.0 (ft)		<b>TMD</b> 711.0 (ft)		<b>TD TVD</b> 711.0 (ft)		<b>REPT NO</b> 2			
<b>RIG</b> CAPSTAR 127		<b>FIELD NAME</b> MCELROY		<b>AUTH TMD</b> 6,261.00 (ft)		<b>PLANNED DOW</b> 17.00 (days)		<b>DFS</b> 1.02 (days)		<b>DOL</b> 1.64 (days)	
<b>WB KO DATE</b> 05-11-2014 23:30		<b>WELL SPUD DATE</b> 05-11-2014 23:30		<b>RIG RELEASE</b>		<b>SUPERVISOR 1</b> ADAM GARZA		<b>ENGINEER</b> JEFF CHRISTOPHER		<b>PBTMD</b>	
<b>REGION</b> PERMIAN		<b>DISTRICT</b> NOTREES - TX CZ		<b>STATE / PROV</b> TEXAS		<b>COUNTY / PARISH</b> CRANE		<b>RIG PHONE NO</b> 281-532-5386		<b>RIG FAX NO</b>	
<b>AFE # 11-14-0345-DH</b>		<b>AFE COSTS</b>		<b>DAILY COSTS</b>		<b>CUMULATIVE COSTS</b>					
<b>DESCRIPTION:</b> D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 86,131 DCC: CWC: Others: TOTAL: 86,131		DHC: 139,941 DCC: CWC: Others: TOTAL: 139,941					
<b>DEFAULT DATUM / ELEVATION</b> RKB/RT / 2,540.0 (ft)		<b>LAST SAFETY MEETING</b> 5/12/2014		<b>BLOCK</b>		<b>OCSG#</b>		<b>TARGET FORMATION</b> GRAYBURG		<b>BHA HRS OF SERVICE</b>	
<b>LAST SURVEY</b>				<b>LAST CSG SHOE TEST (EMW)</b>		<b>LAST CASING</b>		<b>NEXT CASING</b>			
MD 486.0 (ft) INC 0.60° AZM 0.00°						20.000 in @ 51.0 ft		13.375 in @ 975.0 ft			
<b>CURRENT OPERATIONS:</b> DRLG AHEAD@940', NO ISSUES											
<b>24 HR SUMMARY:</b> DRLG F/100' TO 711', HYDRAULIC SWIVEL MTR FAILURE, ( RIG REPAIRS)											
<b>24 HR FORECAST:</b> CONTINUE RIG REPAIRS, DRLG TO 975', PUMP SWEEP, TOH, RUN CASING, CMT CASING, WELD ON WELL HEAD, N/U BOP, TEST BOP, P/U BHA #2, TIH, TEST PIPE RAMS & ANNULAR											
<b>OPERATION SUMMARY</b>											
<b>From</b>	<b>To</b>	<b>HRS</b>	<b>Op Phase</b>	<b>Op Code</b>	<b>PT/NPT</b>	<b>NPT CODES</b>	<b>ACTIVITY SUMMARY</b>				
0:00	6:30	6.50	S-DRL	DRLG	PP		DRLG F/100' TO 711', MD=611', 94'/HR, WOB 40, ROT 120-130, GPM 614, LAST SURVEY@662', INC .50°, NO ISSUES				
6:30	7:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE, WORK ON SWIVEL HYDRAULIC DUMP VALVE				
7:00	0:00	17.00	P-DRL	RIGSER	PN	SWV	WORK ON SWIVEL HYDRAULIC DUMP VALVE, REPLACED VALVE, AFTER REPLACEMENT NO SUCCESS, CHECKED CHARGE PUMP FILTERS, FOUND METAL SHAVINGS, (CAPSTAR SUP DANNY LUKER ON LOCATION) TROUBLE SHOOT SYSTEM, HE DETERMINED SWIVEL MTR FAILURE, CHARGE PUMP WILL BE C/O FOR PRECAUTIONARY MEASURES AS WELL, DRAIN HYDRAULIC SYSTEM & WAIT ON MECHANIC & PARTS UNTIL 1430 HRS, CONTINUE RECIP & CIRC DRLG STRING@ 4.5 BBLS/MIN, NO HOLE PROBLEMS AT THIS TIME				
24.00 = Total Hours Today											
<b>06:00 UPDATE</b>											
0000-0600 0000-0300 CONTINUE RIG REPAIRS 0300-0600 DRLG F/711' TO 940', MD=229', 76'/HR, WOB 40, ROT 120-130, GPM 614, LAST SURVEY@750', INC .60°, NO ISSUES											
<b>BIT DATA</b>											
<b>BIT / RUN</b>	<b>BIT SIZE (in)</b>	<b>MANUFACTURER</b>		<b>TYPE</b>	<b>SERIAL NO</b>	<b>JETS OR TFA</b>	<b>DEPTH IN / DATE IN</b>		<b>I-O-D-L-B-G-O-R</b>		
	17.500	Varel		HR04JMR	1412367	4x16	51.00 / 05-11-2014		-----		
<b>BIT OPERATIONS</b>											
<b>BIT / RUN</b>	<b>WOB</b>	<b>RPM</b>	<b>FLOW RATE</b>	<b>PRESS</b>	<b>P BIT</b>	<b>HRS</b>	<b>24 Hr PROG</b>	<b>24 HR ROP</b>	<b>CUM HRS</b>	<b>CUM PROG</b>	<b>CUM ROP</b>
	/42.0	/120	614.10	1500	470	6.50	611.0	94.0	7.00	660.0	94.3
<b>MOTOR OUTPUT</b>											
RPV:				ROTARY CURRENT: 120				TOTAL RPM: 120			



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## Daily Drilling Report

WELLBORE NAME				DATE
UNIVERSITY LANDS 36 5H				05-12-2014
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336341 00	611.0 (ft)	711.0 (ft)	711.0 (ft)	2

LCM:	MUD PROPERTIES										MUD TYPE: Fresh Water
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VIS (s/qt)	PV/YP (cp) / (lbf/100ft <sup>2</sup> )	GELS (lbf/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
28.00							10.00						

Density (ppg)	8.34			PP		DAILY COST	0	CUM COST	0	%OIL		% H2O	
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BHA	1	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	1
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BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		79.0 (kip)		76.0 (kip)		79.0 (kip)		(ft-lbf)		687.30 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar		6.25" DC'S			19	553.69	6.125	2.500	4.500	4-1/2 XH
Crossover Sub		X-OVER			1	2.07	7.750	2.500	4.500	4-1/2 XH
Drill Collar		8" DC			1	26.05	8.000	2.500		6-5/8" Reg
		IBS			1	8.02	7.750	2.500	6.625	6-5/8" Reg
Drill Collar		8" DC			1	27.05	8.000	2.750	6.625	6-5/8" Reg
Integral Blade Stabilizer		IBS			1	7.11	7.750	2.500	6.625	6-5/8" Reg
Drill Collar		8" DC			1	31.00	8.000	2.750	6.625	6-5/8" Reg
Survey Tools		TELEDRIFT			1	14.36	8.125	2.750	6.625	6-5/8" Reg
Shock Sub		SHOCK SUB			1	12.85	7.375	2.800	6.625	6-5/8" Reg
Bit Sub		BIT SUB			1	3.60	8.875	2.800	6.625	6-5/8" Reg
Tri-Cone Bit		17.5" VAREL HR04JMR			1	1.50	17.500	3.000	6.625	7-5/8" Reg

## CASING

S/T	DESCRIPTION			SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR			20.000	52.75	J-55	51.0

MUD PUMPS/HYDRAULICS					SPP: 1500 (psi)	SPR	
	STROKE	SPM	LINER	FLOW RATE	AV(DP):		SPM
# 1	10.00	75.00	6.500	307.1	AV(DC):		PPSR
# 2	10.00	75.00	6.500	307.1	HP: 0.699 (hp/in <sup>2</sup> )		

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
CAPSTAR PUSHER	1	24.00	JW MULLOYCONSULTING	1	24.00
CAPSTAR CREW	3	72.00			

TOTAL PERSONNEL ON BOARD: 5

TOTAL HOURS ON BOARD: 120

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	554	7486				

## SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL

## INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION No incidents reported in last 24 hours.
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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H						DATE 05-13-2014					
API # 4210336341 00		24 HRS PROG 264.0 (ft)		TMD 975.0 (ft)		TD TVD 975.0 (ft)		REPT NO 3			
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 2.02 (days)		DOL 2.64 (days)	
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 ADAM GARZA		ENGINEER JEFF CHRISTOPHER		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO	
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 127,337 DCC: CWC: Others: TOTAL: 127,337		DHC: 266,178 DCC: CWC: Others: TOTAL: 266,178					
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/13/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 950.0 (ft) INC 0.50° AZM 0.00°						20.000 in @ 51.0 ft		13.375 in @ 975.0 ft			

CURRENT OPERATIONS: DRLG AHEAD@1075', NO ISSUES

24 HR SUMMARY: CONTINUE RIG REPAIRS, DRLG TO 975', PUMP SWEEP, TOH, RUN CASING, CMT CASING, WELD ON WELL HEAD, N/U BOP

24 HR FORECAST: TEST BOP, P/U BHA #2, TIH, TEST PIPE RAMS &amp; ANNULAR, DRLG TO 2001', RUN GYRO WIRE LINE, SWEEP HOLE, TOH, P/U DIRECTIONAL BHA#3, TIH, BULID CURVE

## OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	3:00	3.00	S-DRL	DRLG	PN	SWV	CONTINUE RIG REPAIRS
3:00	6:30	3.50	S-DRL	DRLG	PP		DRLG F/711' TO 975', MD=264', 75.4'/HR, WOB 40, ROT 120-130, GPM 614, LAST SURVEY@950', INC .50°, NO ISSUES
6:30	7:00	0.50	S-DRL	CIRC	PP		PUMP 50 BBLS HI VISC SWEEP & CIRC OUT
7:00	8:30	1.50	S-DRL	TRIP	PP		TOH FOR CASING RUN, NO HOLE PROBLEMS
8:30	9:00	0.50	S-DRL	RU_RD	PP		RIG DWN ROUGHNECKS & SWAP BOOM FOR CSG RUN
9:00	9:30	0.50	S-CSG	SFTY	PP		HSM W/LEWIS CSG CREW & RU EQUIPMENT
9:30	11:30	2.00	S-CSG	R_PCSG	PP		RAN A TOTAL OF 24-JTS OF 13 3/8" 54.5# BTC CSG, FC@935', PIPE SET ON BOTTOM @975, NO ISSUES
11:30	12:30	1.00	S-CSG	CIRC	PP		WASH TO BOTTOM, NO FILL, TAG & VERIFY DEPTH
12:30	16:00	3.50	S-CMT	CMTPRI	PP		HSM W/CREST PUMPING TECHNOLOGIES,TEST LINES TO 2500 PSI OK,PUMP 20-BBLS FW SPACER, 485-SX,150.3-BBLS SLURRY MIX AT 13.5#,1.75 YL ON LEAD CMT, 315-SX, 74.6-BBL SLURRY MIX AT 14.8#,1.33 YL ON TAIL CMT, INITIAL LIFT PRES 150, FINAL LIFT PRESS 400, BUMP PRESS 900,BUMP PLUG AT 1544 HRS ON 5-13-14,CIRCULATED 70-BBLS, 225-SKS TO SURFACE, FLOAT HELD
16:00	16:30	0.50	S-CMT	RURDCU	PP		RIG DWN CREST CMT EQUIPMENT.
16:30	20:00	3.50	S-CMT	WOC	PP		WAIT ON CMT,JET & CLEAN PITS, TOP OF WITH BRINE WATER.
20:00	20:30	0.50	S-NUP	WLHEAD	PP		ROUGH CUT CONDUCTOR PIPE & CASING
20:30	22:30	2.00	S-NUP	WLHEAD	PP		DRESS CSG & WELD ON 13 3/8X3M WELL HEAD,TEST TO 1500 PSI OK.
22:30	0:00	1.50	S-NUP	BOPS	PP		NIPPLE UP SPACER SPOOL & BOP.

24.00 = Total Hours Today

## 06:00 UPDATE

0000-0600 0000-0030 CONTINUE N/U BOP  
0030-0100 TEST CHOKE, CSG & BLIND RAMS TO 500 PSI OK  
0100-0130 R/U CUSHION SUB, ROUGHNECKS & SWAP BOOM  
0130-0300 P/U BIT #2 BAKER HUGHES DP606S & TIH  
0300-0330 RIG SERVICE, REPLACE ROUGHNECK CYLINDER  
0330-0430 TEST ANNULAR & PIPE RAMS TO 500 PSI, OK  
0430-0500 TAG CMT@ 930', DRLG PLUG, FLOAT & CMT SHOE TRACK  
0400-0600 DRLG F/975' TO 1075', MD=100', 100'/HR, WOB 10-14, RPM 55, GPM 491



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WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-13-2014
API # 4210336341 00	24 HRS PROG 264.0 (ft)	TMD 975.0 (ft)	TD TVD 975.0 (ft)	REPT NO 3

## BIT DATA

BIT / RUN	BIT SIZE (in)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
	17.500	Varel	HR04JMR	1412367	4x16	51.00 / 05-11-2014	0-0-NO-A-1-I-NO-TD

## BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
	/40.0	/120	614.10	1800	470	3.50	264.0	75.4	10.50	924.0	88.0

## MOTOR OUTPUT

RPV:	ROTARY CURRENT: 110	TOTAL RPM: 110
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LCM:	MUD PROPERTIES	MUD TYPE: Fresh Water
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VIS (s/qt)	PV/YP (cp) / (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%)/(lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
28.00							10.00						

Density (ppg)	8.34			PP	DAILY COST	0	CUM COST	0	%OIL		% H2O	
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BHA	1	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	
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BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	79.0 (kip)	76.0 (kip)	79.0 (kip)	(ft-lbf)	687.30 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Pipe	4.5" DP	7	287.70	4.500	2.500		4-1/2 XH
Drill Collar	6.25" DC'S	19	553.69	6.125	2.500	4.500	4-1/2 XH
Crossover Sub	X-OVER	1	2.07	7.750	2.500	4.500	4-1/2 XH
Drill Collar	8" DC	1	26.05	8.000	2.500		6-5/8" Reg
	IBS	1	8.02	7.750	2.500	6.625	6-5/8" Reg
Drill Collar	8" DC	1	27.05	8.000	2.750	6.625	6-5/8" Reg
Integral Blade Stabilizer	IBS	1	7.11	7.750	2.500	6.625	6-5/8" Reg
Drill Collar	8" DC	1	31.00	8.000	2.750	6.625	6-5/8" Reg
Survey Tools	TELEDRIFT	1	14.36	8.125	2.750	6.625	6-5/8" Reg
Shock Sub	SHOCK SUB	1	12.85	7.375	2.800	6.625	6-5/8" Reg
Bit Sub	BIT SUB	1	3.60	8.875	2.800	6.625	6-5/8" Reg
Tri-Cone Bit	17.5" VAREL HR04JMR	1	1.50	17.500	3.000	6.625	7-5/8" Reg

## SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	950.0	0.50	0.00	950.0	7.28	0.00	7.28	0.04
NORMAL	720.0	0.60	0.00	720.0	5.07	0.00	5.07	0.00

## CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR	20.000	52.75	J-55	51.0
00	SURFACE	13.375	54.50	J-55	975.0



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-13-2014
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API # 4210336341 00	24 HRS PROG 264.0 (ft)	TMD 975.0 (ft)	TD TVD 975.0 (ft)	REPT NO 3
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MUD PUMPS/HYDRAULICS					SPR		
	STROKE	SPM	LINER	FLOW RATE	SPP: 1800 (psi) AV(DP): AV(DC): HP: 0.699 (hp/in <sup>2</sup> )	SPM	PPSR
# 1	10.00	75.00	6.500	307.1			
# 2	10.00	75.00	6.500	307.1			

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
CAPSTAR PUSHER	1	24.00	ESTRELLA WELDING	1	3.00
JW MULLOYCONSULTING	1	24.00	CAPSTAR CREW	3	72.00
LEWIS CASING CREWS	4	4.00	CREST PUMPING TECHNOLOGIES	5	30.00

TOTAL PERSONNEL ON BOARD: 15

TOTAL HOURS ON BOARD: 157

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	787	6699				

## SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL

## INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION No incidents reported in last 24 hours.
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## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H						DATE 05-14-2014					
API # 4210336341 00		24 HRS PROG 1,026.0 (ft)		TMD 2,001.0 (ft)		TD TVD 2,000.8 (ft)		REPT NO 5			
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 3.02 (days)		DOL 3.64 (days)	
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 SAM QUIROZ		ENGINEER JEFF CHRISTOPHER		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO	
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 55,338 DCC: CWC: Others: TOTAL: 55,338		DHC: 321,516 DCC: CWC: Others: TOTAL: 321,516					
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/14/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 1,941.0 (ft) INC 1.39° AZM 59.54°						13.375 in @ 975.0 ft		8.625 in @ 3,576.0 ft			

CURRENT OPERATIONS: WASH TO BOITOM 2001' HAD NO FILL

24 HR SUMMARY: TEST BOPS, TIH W/BHA #2 &amp; DRILL 11" HOLE TO 2001', LAST SURVEY AT 1941', INC. 1.35, TOH TO PU DIRECTIONAL TOOLS TO DRILL CURVE.

24 HR FORECAST: DRILL CURVE SECTION

## OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:30	0.50	S-NUP	BOPS	PP		FINISH NIPPLEING UP BOP
0:30	1:00	0.50	S-NUP	BOPS	PP		TEST CHOKE, CSG & BLIND RAMS TO 500 PSI OK
1:00	1:30	0.50	S-DRL	RU_RD	PP		R/U CUSHION SUB, ROUGHNECKS & SWAP BOOM
1:30	3:00	1.50	S-DRL	TRIP	PP		P/U BIT #2 BAKER HUGHES DP606S & TIH
3:00	3:30	0.50	S-DRL	RIGSER	PP		RIG SERVICE, REPLACE ROUGHNECK CYLINDER
3:30	4:30	1.00	S-NUP	BOPS	PP		TEST ANNULAR & PIPE RAMS TO 500 PSI, OK
4:30	5:00	0.50	S-DRL	DOCMT	PP		TAG CMT@ 930', DRLG PLUG, FLOAT & CMT SHOE TRACK
5:00	15:00	10.00	INT-DRL	DRLG	PP		DRLG F/975' TO 1898', WOB 20-25, RPM 110, GPM 610, ROP 92', LAST SURVEY AT 1855' INC. 1.20
15:00	16:00	1.00	INT-DRL	RIGSER	PN	SWV	CHANGE OUT SWIVEL PACKING
16:00	17:30	1.50	INT-DRL	DRLG	PP		DRLG F/1898' TO 2001', WOB 10-15, RPM 130, GPM 610, ROP 68', LAST SURVEY AT 1941' INC. 1.35
17:30	18:00	0.50	INT-DRL	CIRSUR	PP		CIRCULATE & CONDITION HOLE
18:00	19:00	1.00	INT-DRL	DEVSUR	PP		RU WIRE LINE TRUCK & RUN GYRO.
19:00	22:00	3.00	INT-DRL	TRIP	PP		TOH @2001' TO PU DIRECTIONAL TOOLS TO DRILL CURVE SECTION.
22:00	23:00	1.00	INT-DRL	RIGSER	PN	SWV	REPLACE SWIVEL PACKING
23:00	0:00	1.00	INT-DRL	TRIP	PP		PU, MS DD TOOLS, 1.83 MTR, SCRIBE MOTOR

24.00 = Total Hours Today

## 06:00 UPDATE

0000-0600 0000-0100 SCRIBE DRLG MOTOR, TEST MWD  
0100-0300 MAKE UP BIT #3 & TIH TO 1011'  
0300-0330 TEST MWD UNDERNEATH CSG, GOOD TEST  
0330-0500 FINISH TIH F/1011' TO 1954'  
0500-0530 SERVICE RIG, RETIGHTEN & GREASED LEAKING SWIVEL PACKING.  
0530-0600 BREAK CIRCULATION & WASH TO BOTTOM WITH NO FILL.



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-14-2014
API # 4210336341 00	24 HRS PROG 1,026.0 (ft)	TMD 2,001.0 (ft)	TD TVD 2,000.8 (ft)	REPT NO 5

## BIT DATA

BIT / RUN	BIT SIZE (in)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
2 / 1	11.000	Baker Hughes Inteq	DP606S	7041416	3x16, 3x18	975.00 / 05-14-2014	0-0-NO-A-X-I-NO-TD

## BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
2/1	/20.0	/130	614.10	1650	195	11.50	1,026.0	89.2	11.50	1,026.0	89.2

## MOTOR OUTPUT

RPV:	ROTARY CURRENT: 130	TOTAL RPM: 130
LCM:	MUD PROPERTIES MUD TYPE: Brine	

VIS (s/qt)	PV/YP (cp) / (lbf/100ft <sup>2</sup> )	GELS (lbf/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
28.00							10.00						
Density (ppg)	10.00			PP	DAILY COST	0	CUM COST	0	%OIL		% H2O		
BHA	2	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS			BIT		
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH			
(kip)		97.0 (kip)		83.0 (kip)		90.0 (kip)		(ft-lbf)		685.54 (ft)			

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar	6.25" DC'S	19	553.69	6.125	2.500	4.500	4-1/2 XH
Crossover Sub	X-OVER	1	2.07	7.750	2.500	4.500	4-1/2 XH
Drill Collar	8"DC	1	26.05	7.750	2.750		6-5/8" Reg
Integral Blade Stabilizer	IBS	1	8.02	8.000	2.750		6-5/8" Reg
Drill Collar	8" DC	1	27.05	7.750	2.500	6.625	6-5/8" Reg
Integral Blade Stabilizer	IBS	1	7.11	8.000	2.750	6.625	6-5/8" Reg
Drill Collar	8" DC	1	31.00	7.750	2.500	6.625	6-5/8" Reg
Survey Tools	TELEDRIFT	1	13.31	8.125	2.750	6.625	6-5/8" Reg
Shock Sub	SHOCK SUB	1	12.85	7.375	2.800	6.625	6-5/8" Reg
Bit Sub	BIT SUB	1	2.89	8.875	2.800	6.625	6-5/8" Reg
PDC Bit	11"BAKER HUGHES DP606S	1	1.50	11.000	3.000	6.625	7-5/8" Reg



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-14-2014
API # 4210336341 00	24 HRS PROG 1,026.0 (ft)	TMD 2,001.0 (ft)	TD TVD 2,000.8 (ft)	REPT NO 5

## SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
Tie On	1,941.0	1.39	59.54	1,940.8	1.95	3.21	1.95	0.00
NORMAL	1,941.0	1.39	59.54	1,940.8	1.95	3.21	1.95	0.64
NORMAL	1,900.0	1.44	69.96	1,899.9	1.53	2.30	1.53	0.38
NORMAL	1,800.0	1.40	54.46	1,799.9	0.39	0.12	0.39	0.90
NORMAL	1,700.0	1.60	20.37	1,699.9	-1.63	-1.36	-1.63	0.39
NORMAL	1,600.0	1.22	23.89	1,599.9	-3.92	-2.28	-3.92	0.58
NORMAL	1,500.0	0.74	4.51	1,500.0	-5.53	-2.76	-5.53	0.58
NORMAL	1,400.0	0.41	312.52	1,400.0	-6.42	-2.54	-6.42	0.50
NORMAL	1,300.0	0.52	248.28	1,300.0	-6.49	-1.86	-6.49	0.11
NORMAL	1,200.0	0.59	239.10	1,200.0	-6.06	-1.00	-6.06	0.10
NORMAL	1,100.0	0.54	229.76	1,100.0	-5.49	-0.19	-5.49	0.33
NORMAL	1,000.0	0.25	205.64	1,000.0	-4.99	0.26	-4.99	0.33
NORMAL	900.0	0.57	214.84	900.0	-4.39	0.64	-4.39	0.24
NORMAL	800.0	0.51	190.15	800.0	-3.54	1.00	-3.54	0.32
NORMAL	700.0	0.26	222.92	700.0	-2.93	1.23	-2.93	0.25
NORMAL	600.0	0.42	188.80	600.0	-2.41	1.44	-2.41	0.31
NORMAL	500.0	0.40	144.93	500.0	-1.76	1.30	-1.76	0.17
NORMAL	400.0	0.29	167.34	400.0	-1.23	1.04	-1.23	0.15
NORMAL	300.0	0.24	135.79	300.0	-0.83	0.84	-0.83	0.11
NORMAL	200.0	0.34	144.18	200.0	-0.44	0.52	-0.44	0.16
NORMAL	100.0	0.23	119.46	100.0	-0.10	0.17	-0.10	0.23
Tie On	0.0	0.00	0.00	0.0	0.00	0.00	0.00	0.00

## CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR	20.000	52.75	J-55	51.0
00	SURFACE	13.375	54.50	J-55	975.0

## MUD PUMPS/HYDRAULICS

					SPP: 1650 (psi)	SPR	
	STROKE	SPM	LINER	FLOW RATE	AV(DP):		SPM
# 1	10.00	75.00	6.500	307.1	AV(DC):		PPSR
# 2	10.00	75.00	6.500	307.1	HP: 0.735 (hp/in <sup>2</sup> )		

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
QUALITY MUD LOGGING	1	24.00	JW MULLOYCONSULTING	1	24.00
CAPSTAR PUSHER	1	24.00	CAPSTAR CREW	3	72.00
MS ENERGY SERVICES	4	96.00			

TOTAL PERSONNEL ON BOARD: 10

TOTAL HOURS ON BOARD: 240

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	703	5996	WATER, MUNICIPAL	bbl	0	3510
BRINE	bbl	1000	3560				



APACHE CORPORATION  
Daily Drilling Report

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WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-14-2014
API # 4210336341 00	24 HRS PROG 1,026.0 (ft)	TMD 2,001.0 (ft)	TD TVD 2,000.8 (ft)	REPT NO 5

SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1000	05-14-2014 / 1000	05-14-2014 / 1000	05-14-2014	05-14-2014	05-28-2014			

INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION No incidents reported in last 24 hours.BACK SAFETY,HAND PLACEMENT,GOOD MENTORING FOR NEW HANDS
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## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H						DATE 05-15-2014					
API # 4210336341 00		24 HRS PROG 306.0 (ft)		TMD 2,307.0 (ft)		TD TVD 2,305.1 (ft)		REPT NO 6			
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 4.02 (days)		DOL 4.64 (days)	
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 SAM QUIROZ		ENGINEER JEFF CHRISTOPHER		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO	
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 55,452 DCC: CWC: Others: TOTAL: 55,452		DHC: 376,967 DCC: CWC: Others: TOTAL: 376,967					

DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/15/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 2,420.0 (ft)		INC 20.20°		AZM 354.60°		13.375 in @ 975.0 ft		8.625 in @ 3,576.0 ft			

CURRENT OPERATIONS: DRLG AHEAD AT 2511',LAST SURVEY AT 2420',INC. 20.20,AZ:354.60

24 HR SUMMARY: PICKED UP MS DIRECTIONAL TOOLS,TEST &amp; TIH,KOP@2080' DRILL/SLIDE TO 2307',LAST SURVET AT 2249',INC. 8.80, AZ:351.40,HAD A TOTAL OF 9.5-Hrs WITH RIG REPAIRS

24 HR FORECAST: DRILL CURVE

## OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	1:00	1.00	INT-DRL	TRIP	PP		SCRIBE DRLG MOTOR,TEST MWD
1:00	3:00	2.00	INT-DRL	TRIP	PP		MAKE UP BIT #3 & TIH TO 1011'
3:00	3:30	0.50	INT-DRL	TRIP	PP		TEST MWD UNDERNEATH CSG,GOOD TEST
3:30	5:00	1.50	INT-DRL	TRIP	PP		FINISH TIH F/1011' TO 1954'
5:00	5:30	0.50	INT-DRL	RIGSER	PP		SERVICE RIG,RETIGHTEN & GREASED LEAKING SWIVEL PACKING.
5:30	6:00	0.50	INT-DRL	RMWASH	PP		BREAK CIRCULATION & WASH TO BOTTOM WITH NO FILL.
6:00	7:00	1.00	INT-DRL	DRLG	PP		DRLG F/2001' TO 2080' KOP,WOB 15-20,RPM 55,GPM 610,MTR RPMS 80,ROP 79'Hr.
7:00	8:00	1.00	INT-DRL	DRLG	PP		DRLG CURVE F/2080 TO 2137',WOB 15/25,GPM 610,DIFF PRESS 200,RPM @ MTR 90,TTL RPMS 90,ROP 65,TORQUE 1280.
							LAST SURVEY AT 1987',INC.4.40,AZ:6.90,DL 4.12
							SLIDE INTERVALS:2080'- 2137'(57')
7:00	7:00	0.00	INT-DRL	M_SHzC	PP		STARTED DRLG 11"CURVE
8:00	17:30	9.50	INT-DRL	RIGSER	PN	SWV	RIG REPAIRS,SWIVEL BRAKE NOT HOLDING TOOL FACE TO SLIDE.HAD TO TOH INTO CSG & WAITED ON BRAKE,REPLACE BRAKE & TRIP BACK IN THE HOLE.
17:30	18:00	0.50	INT-DRL	RIGSER	PN	DD	MWD GAMMA NOT READING,SURFACE COMPUTER EQUIPMENT PROBLEMS
18:00	0:00	6.00	INT-DRL	DSLIDE	PP		DRLG CURVE F/2137 TO 2307',WOB 15/25,GPM 610,DIFF PRESS 275,RPM @ MTR 90,TTL RPMS 90,ROP 28,TORQUE 1280
							LAST SURVEY AT 2249',INC. 8.80, AZ:351.40
							SLIDE INTERVALS:2137' TO 2307'(170')

24.00 = Total Hours Today

## 06:00 UPDATE

0000-0600 0000-0600 DRLG CURVE SLIDE F/2307 TO 2511',WOB 15/25,GPM 610,DIFF PRESS 200,RPM @ MTR 90,TTL RPMS 90,ROP 34,TORQUE 1350  
LAST SURVEY AT 2420',INC. 20.2 DEG, AZ:354.60



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-15-2014
API # 4210336341 00	24 HRS PROG 306.0 (ft)	TMD 2,307.0 (ft)	TD TVD 2,305.1 (ft)	REPT NO 6

## BIT DATA

BIT / RUN	BIT SIZE (in)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
3 / 1	11.000	Security Dbs	MM65DM	765238	6x18	2,001.00 / 05-15-2014	-----

## BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
3/1	/25.0	/0	614.10	1800	156	8.00	306.0	38.2	8.00	306.0	38.2

## MOTOR OUTPUT

RPV: 0.15rev/gal	ROTARY CURRENT: 0	TOTAL RPM: 92
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LCM:	MUD PROPERTIES	MUD TYPE: Brine
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VIS (s/qt)	PV/YP (cp) / (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
29.00							10.00						

Density (ppg)	10.00			PP	DAILY COST	0	CUM COST	0	%OIL		% H2O	
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BHA	3	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	3
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BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	75.0 (kip)	65.0 (kip)	70.0 (kip)	(ft-lbf)	1,011.83 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
HWDP	4.5" HWDP	30	915.16	4.500	2.875		4-1/2 XH
Crossover Sub	X/O	1	2.08	8.000	3.000	8.000	6-5/8" Reg
Non-Mag Drill Collar	NMDC	1	29.44	7.875	3.000	8.000	6-5/8" Reg
Non-Mag Drill Collar	NMDC	1	29.20	7.875	3.000	8.000	6-5/8" Reg
UBHO Sub	UBHO SUB	1	3.41	8.000	2.812	8.000	6-5/8" Reg
Float Sub	FLOAT SUB	1	3.02	8.000	2.812		6-5/8" Reg
Bent Housing	1.83° BENT HOUSING MOTOR	1	28.02	7.750		8.000	6-5/8" Reg
PDC Bit	11" MM65DM	1	1.50	11.000			6-5/8" Reg

## SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	2,420.0	20.20	354.60	2,413.5	59.63	-1.59	59.63	6.78
NORMAL	2,377.0	17.30	353.70	2,372.8	45.88	-0.19	45.88	6.76
NORMAL	2,335.0	14.50	352.00	2,332.4	34.46	1.23	34.46	7.21
NORMAL	2,292.0	11.40	351.50	2,290.5	24.93	2.61	24.93	6.05
NORMAL	2,249.0	8.80	351.40	2,248.1	17.47	3.73	17.47	5.17
NORMAL	2,206.0	6.60	353.70	2,205.5	11.76	4.49	11.76	6.20
NORMAL	2,164.0	4.00	352.30	2,163.7	7.91	4.95	7.91	3.72
NORMAL	2,121.0	2.40	352.60	2,120.8	5.53	5.27	5.53	3.03
NORMAL	2,078.0	1.50	21.40	2,077.8	4.11	5.18	4.11	1.22
NORMAL	2,035.0	1.10	36.60	2,034.8	3.26	4.73	3.26	0.61

## CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR	20.000	52.75	J-55	51.0
00	SURFACE	13.375	54.50	J-55	975.0



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-15-2014
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API # 4210336341 00	24 HRS PROG 306.0 (ft)	TMD 2,307.0 (ft)	TD TVD 2,305.1 (ft)	REPT NO 6
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MUD PUMPS/HYDRAULICS					SPR		
	STROKE	SPM	LINER	FLOW RATE	SPP: 1800 (psi) AV(DP): AV(DC): HP: 0.589 (hp/in <sup>2</sup> )	SPM	PPSR
# 1	10.00	75.00	6.500	307.1			
# 2	10.00	75.00	6.500	307.1			

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	QUALITY MUD LOGGING	1	24.00
CAPSTAR PUSHER	1	24.00	CAPSTAR CREW	3	72.00
MS ENERGEY SERVICES	4	96.00			

TOTAL PERSONNEL ON BOARD: 10

TOTAL HOURS ON BOARD: 240

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	1515	4481	WATER, MUNICIPAL	bbl	0	3510
BRINE	bbl	500	3060				

## SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1000	05-14-2014 / 1000	05-14-2014 / 1000	05-14-2014	05-14-2014	05-28-2014			

## INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION No incidents reported in last 24 hours.HAND PLACEMENT & BEING 100% TIE OFF WHILE WORKING IN THE DERRICK.
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## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H										DATE 05-16-2014			
API # 4210336341 00		24 HRS PROG 590.0 (ft)		TMD 2,897.0 (ft)		TD TVD 2,798.7 (ft)		REPT NO 7					
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 5.02 (days)		DOL 5.64 (days)			
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 SAM QUIROZ		ENGINEER JEFF CHRISTOPHER		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO			
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 34,620 DCC: CWC: Others: TOTAL: 34,620		DHC: 411,587 DCC: CWC: Others: TOTAL: 411,587							
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/16/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE			
LAST SURVEY MD 2,935.0 (ft) INC 55.30° AZM 345.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 13.375 in @ 975.0 ft		NEXT CASING 8.625 in @ 3,576.0 ft					
CURRENT OPERATIONS: DRLG AHEAD@2990'MD,2847 TVD,AVG ROP 15'-25'Hr, LAST SURVEY AT 2892 ',INC.51.60, AZ:345.8													
24 HR SUMMARY: DRILL TO 2897',LAST SURVEY AT 2849',INC.48.7, AZ:347.5													
24 HR FORECAST: DRILL & TD CURVE													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	0:00	24.00	INT-DRL	DSLIDE	PP		DRLG F/2307' TO 2897',WOB 15/25,GPM 610,RPMS 90,ROP 24'Hr,OFF BTM PRESS@1750,DIFF PRESS@300, LAST SURVEY AT 2849',INC.48.7, AZ:347.5						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 0000-0600 DRLG F/2897' TO 2990',WOB 20/32,GPM 610,RPMS 90,ROP 15'Hr,OFF BTM PRESS@1775,DIFF PRESS@275, LAST SURVEY AT 2892 ',INC.51.60, AZ:345.8													
BIT DATA													
BIT / RUN	BIT SIZE (in)	MANUFACTURER		TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN		I-O-D-L-B-G-O-R				
3 / 1	11.000	Security Dbs		MM65DM	765238	6x18	2,001.00 / 05-15-2014		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
3/1	/25.0	/0	614.10	2000	156	24.00	590.0	24.6	32.00	896.0	28.0		
MOTOR OUTPUT													
RPV: 0.15rev/gal				ROTARY CURRENT: 0				TOTAL RPM: 92					
LCM:				MUD PROPERTIES				MUD TYPE: Brine					
VIS (s/qt)	PV/YP (cp) / (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
29.00							10.20						
Density (ppg)	10.00			PP		DAILY COST	0	CUM COST	0	%OIL		% H2O	
BHA	3	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	3		
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH			
(kip)		80.0 (kip)		70.0 (kip)		75.0 (kip)		(ft-lbf)		1,011.83 (ft)			





## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H							DATE 05-16-2014
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API # 4210336341 00	24 HRS PROG 590.0 (ft)	TMD 2,897.0 (ft)	TD TVD 2,798.7 (ft)	REPT NO 7
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COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
HWDP	4.5" HWDP	30	915.16	4.500	2.875		4-1/2 XH
Crossover Sub	X/O	1	2.08	8.000	3.000	8.000	6-5/8" Reg
Non-Mag Drill Collar	NMDC	1	29.44	7.875	3.000	8.000	6-5/8" Reg
Non-Mag Drill Collar	NMDC	1	29.20	7.875	3.000	8.000	6-5/8" Reg
UBHO Sub	UBHO SUB	1	3.41	8.000	2.812	8.000	6-5/8" Reg
Float Sub	FLOAT SUB	1	3.02	8.000	2.812		6-5/8" Reg
Bent Housing	1.83° BENT HOUSING MOTOR	1	28.02	7.750		8.000	6-5/8" Reg
PDC Bit	11" MM65DM	1	1.50	11.000			6-5/8" Reg

## SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	2,935.0	55.30	345.00	2,821.3	355.66	-55.00	355.66	8.73
NORMAL	2,892.0	51.60	345.80	2,795.7	322.24	-46.28	322.24	7.40
NORMAL	2,849.0	48.70	347.50	2,768.1	290.12	-38.65	290.12	8.58
NORMAL	2,806.0	45.10	348.60	2,738.7	259.42	-32.14	259.42	7.06
NORMAL	2,763.0	42.20	349.90	2,707.6	230.26	-26.60	230.26	7.11
NORMAL	2,721.0	39.30	351.00	2,675.8	203.23	-22.05	203.23	9.37
NORMAL	2,678.0	35.30	351.80	2,641.6	177.47	-18.14	177.47	6.82
NORMAL	2,635.0	32.40	351.00	2,605.9	153.79	-14.57	153.79	6.29
NORMAL	2,592.0	29.70	350.70	2,569.1	131.90	-11.04	131.90	5.81
NORMAL	2,549.0	27.20	350.70	2,531.3	111.68	-7.73	111.68	4.87
NORMAL	2,506.0	25.30	352.70	2,492.7	92.87	-4.98	92.87	5.71
NORMAL	2,463.0	23.00	354.80	2,453.5	75.39	-3.05	75.39	6.51

## CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR	20.000	52.75	J-55	51.0
00	SURFACE	13.375	54.50	J-55	975.0

## MUD PUMPS/HYDRAULICS

					SPP: 2000 (psi)	SPR	
	STROKE	SPM	LINER	FLOW RATE	AV(DP):		SPM
# 1	10.00	75.00	6.500	307.1	AV(DC):		PPSR
# 2	10.00	75.00	6.500	307.1	HP: 0.589 (hp/in²)		

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
CAPSTAR PUSHER	1	24.00	TOTAL ENERGY SERVICES	1	24.00
QUALITY MUD LOGGING	1	24.00	CAPSTAR CREW	3	72.00
MS ENERGY SERVICES	4	96.00			

TOTAL PERSONNEL ON BOARD: 10

TOTAL HOURS ON BOARD: 240

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	1740	2741	WATER, MUNICIPAL	bbl	0	3510
BRINE	bbl	500	2560				



APACHE CORPORATION  
Daily Drilling Report

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WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-16-2014
API # 4210336341 00	24 HRS PROG 590.0 (ft)	TMD 2,897.0 (ft)	TD TVD 2,798.7 (ft)	REPT NO 7

SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1000	05-14-2014 / 1000	05-14-2014 / 1000	05-14-2014	05-14-2014	05-28-2014			

INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION No incidents reported in last 24 hours.SAFETY TOPIC,KEEPING TRIP HAZARDS PICKED UP,KEEP TOOLS & TRASH PICKED.
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## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H						DATE 05-17-2014					
API # 4210336341 00		24 HRS PROG 348.0 (ft)		TMD 3,245.0 (ft)		TD TVD 2,957.0 (ft)		REPT NO 8			
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 6.02 (days)		DOL 6.64 (days)	
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 SAM QUIROZ		ENGINEER JEFF CHRISTOPHER		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO	
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 105,196 DCC: CWC: Others: TOTAL: 105,196		DHC: 516,784 DCC: CWC: Others: TOTAL: 516,784					
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/17/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 3,191.0 (ft) INC 68.90° AZM 346.90°						13.375 in @ 975.0 ft		8.625 in @ 3,576.0 ft			

CURRENT OPERATIONS: 5 BBLs INTO DISPLACEMENT ON INTERMEDIATE CMT JOB

24 HR SUMMARY: DRILL & TD CURVE @3245',TVD 2954'LAST SURVEY AT 3191',INC.68.90, AZ:346.90,TOH,RAN 8 5/8"CSG W/LEWIS,FC@3199,CIRCULATE  
BOTTOMS UP,WAIT ON CMT TRUCKS.

24 HR FORECAST: CMT CSG,NIPPLE DWN SPACER SPOOL,NIPPLE UP B-SEC,TEST BOP,TIH W/LATERAL BHA &amp; START DRLG LATERAL SECTION.

## OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	14:00	14.00	INT-DRL	DRLG	PP		DRLG F/2897' TO 3245',WOB 25/30,GPM 610,RPMS 90,ROP 25'Hr,OFF BTM PRESS@1750,DIFF PRESS@300,  LAST SURVEY AT 3191',INC.68.90, AZ:346.90  SLIDE INTERVALS=2904-2940 (36') 2947-3005(58') 3025-3043(18') 3068-3080(12') 3110-3122(12') 3153-3167(14') 3196-3202(6')
14:00	15:00	1.00	INT-DRL	CIRCT	PP		CIRCULATE & CONDITION HOLE, PUMP FLUID CALIPER ,1456 CUFT., 76% WASH OUT.
15:00	18:30	3.50	INT-DRL	TRIP	PP		TOH @3245' TO RUN 8 5/8" CSG
18:30	19:00	0.50	INT-DRL	RU_RD	PP		RIG DWN ROUGHNECKS & RU BOOM FOR CSG RUN
19:00	22:00	3.00	INT-CSG	R_PCSG	PP		HSM W/LEWIS CSG CREW & RAN 76-JOINTS OF 8 5/8" CSG,23-BOW SPRING CENTRALIZERS,FC @3199',TOTAL PIPE 3247',CSG SET AT 3245'.
22:00	22:30	0.50	INT-CSG	CIRC	PP		WASH LAST JT TO BTM,NO ISSUES & CIRCULATE BOTTOMS UP.
22:30	0:00	1.50	INT-CMT	CMTPRI	PN	WOE	WAITING ON CMT TRUCKS

24.00 = Total Hours Today

## 06:00 UPDATE

0000-0600 0000-0300 WAIT ON CMT TRUCKS  
0300-0430 SPOT IN CMT TRUCKS & LOAD PLUG IN CMT HEAD.  
0430-0600 HSM W/CREST PUMPING TECHNOLOGIE,TEST LINES TO#4K,PUMP 20-BBL FW SPACER,655-SKS OF CLASS"C"+ADDITIVES,281-BBL  
SLURRY MIX AT 11.9#,2.41 YL ON LEAD CMT,200-SKS OF CLASS"C"+ADDITIVES,48 BBL SLURRY MIX AT 14.8#,1.35 YL ON TAIL  
CMT.



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-17-2014
API # 4210336341 00	24 HRS PROG 348.0 (ft)	TMD 3,245.0 (ft)	TD TVD 2,957.0 (ft)	REPT NO 8

## BIT DATA

BIT / RUN	BIT SIZE (in)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
3 / 1	11.000	Security Dbs	MM65DM	765238	6x18	2,001.00 / 05-15-2014	1-1-BT-S-X-I-BT-TD

## BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
3/1	/35.0	/50	614.10	2050	158	14.00	348.0	24.9	46.00	1,244.0	27.0

## MOTOR OUTPUT

RPV: 0.15rev/gal	ROTARY CURRENT: 50	TOTAL RPM: 142
LCM:	MUD PROPERTIES	MUD TYPE: Brine

VIS (s/qt)	PV/YP (cp) / (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
29.00							10.10						
Density (ppg)	10.10			PP		DAILY COST	0	CUM COST	0	%OIL		% H2O	
BHA	3	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS				BIT	
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH			
(kip)		95.0 (kip)		85.0 (kip)		90.0 (kip)		(ft-lbf)		1,011.83 (ft)			

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
HWDP	4.5" HWDP	30	915.16	4.500	2.875		4-1/2 XH
Crossover Sub	X/O	1	2.08	8.000	3.000	8.000	6-5/8" Reg
Non-Mag Drill Collar	NMDC	1	29.44	7.875	3.000	8.000	6-5/8" Reg
Non-Mag Drill Collar	NMDC	1	29.20	7.875	3.000	8.000	6-5/8" Reg
UBHO Sub	UBHO SUB	1	3.41	8.000	2.812	8.000	6-5/8" Reg
Float Sub	FLOAT SUB	1	3.02	8.000	2.812		6-5/8" Reg
Bent Housing	1.83° BENT HOUSING MOTOR	1	28.02	7.750		8.000	6-5/8" Reg
PDC Bit	11" MM65DM	1	1.50	11.000			6-5/8" Reg

## SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	3,191.0	68.90	346.90	2,937.5	576.81	-108.10	576.81	4.19
NORMAL	3,148.0	67.10	346.90	2,921.4	537.98	-99.07	537.98	4.66
NORMAL	3,105.0	65.10	346.80	2,904.0	499.70	-90.13	499.70	3.98
NORMAL	3,062.0	63.40	346.60	2,885.3	462.01	-81.22	462.01	5.24
NORMAL	3,020.0	61.20	346.70	2,865.8	425.83	-72.63	425.83	6.48
NORMAL	2,977.0	58.50	345.90	2,844.2	389.71	-63.83	389.71	7.83

## CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR	20.000	52.75	J-55	51.0
00	SURFACE	13.375	54.50	J-55	975.0
00	INTERMEDIATE 1	8.625	32.00	J-55	3,245.0

## MUD PUMPS/HYDRAULICS

MUD PUMPS/HYDRAULICS					SPP: 2050 (psi)  AV(DP):  AV(DC):  HP: 0.595 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	75.00	6.500	307.1				
# 2	10.00	75.00	6.500	307.1				



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-17-2014
API # 4210336341 00	24 HRS PROG 348.0 (ft)	TMD 3,245.0 (ft)	TD TVD 2,957.0 (ft)	REPT NO 8

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
QUALITY MUD LOGGING	1	24.00	TOTAL ENERGY SERVICES	1	24.00
CAPSTAR PUSHER	1	24.00	CAPSTAR CREW	3	72.00
LEWIS CASING CREWS	4	12.00	MS ENERGY SERVICES	4	96.00

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 252

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	1061	1680	WATER, MUNICIPAL	bbl	0	3510
BRINE	bbl	500	2060				

## SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1000	05-14-2014 / 1000	05-14-2014 / 1000	05-14-2014	05-14-2014	05-28-2014			

## INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION No incidents reported in last 24 hours.GOOD COMMUNICATION WITH CASING CREW
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## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H						DATE 05-18-2014					
API # 4210336341 00		24 HRS PROG 240.0 (ft)		TMD 3,485.0 (ft)		TD TVD 3,013.0 (ft)		REPT NO 9			
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 7.02 (days)		DOL 7.64 (days)	
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 SAM QUIROZ		ENGINEER JEFF CHRISTOPHER		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO	
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 73,857 DCC: CWC: Others: TOTAL: 73,857		DHC: 590,641 DCC: CWC: Others: TOTAL: 590,641					
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/18/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 3,688.0 (ft) INC 88.60° AZM 345.10°						8.625 in @ 3,245.0 ft		5.500 in @ 6,261.0 ft			
CURRENT OPERATIONS: DRLG AHEAD AT 3785 MD 3028 TVD, LAST SURVEY AT: 3688' MD 3028 TVD, INC. 88.6, AZ: 345.10 LANDED CURVE .85' ABOVE & 6.48' RIGHT											
24 HR SUMMARY: CMT INTERMEDIATE CSG, PLUG DWN @ 6:44 AM, ON 5-18-2014, CMT TO SURFACE 151 SKS, BBLs 65, NIPPLE DWN SPACER SPOOL & NIPPLE UP B-SECTION, TEST BOP, TIH WITH LATERAL BHA, STARTED DRLG, FINISHING UP CURVE & START ON LATERAL SECTION.											
24 HR FORECAST: DRILL LATERAL SECTION.											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	3:00	3.00	INT-CMT	WOO	PN	WOE	WAIT ON CMT TRUCKS				
3:00	4:30	1.50	INT-CMT	RU_RD	PP		SPOT IN CMT TRUCKS & LOAD PLUG IN CMT HEAD.				
4:30	7:00	2.50	INT-CMT	CMTPRI	PP		HSM W/CREST PUMPING TECHNOLOGIE, TEST LINES TO #4K, PUMP 20-BBL FW SPACER, 655-SKS OF CLASS "C" + ADDITIVES, 281-BBL SLURRY MIX AT 11.9#, 2.41 YL ON LEAD CMT, 200-SKS OF CLASS "C" + ADDITIVES, 48 BBL SLURRY MIX AT 14.8#, 1.35 YL ON TAIL CMT. INITIAL PRESS @ 80, LIFT PRESS @ 710, BUMP PLUG W/1250, PLUG DWN @ 6:44 AM, ON 5-18-2014, CMT TO SURFACE 151 SKS, BBLs 65, FLOATS HELD, HAD NO ISSUES.				
7:00	7:30	0.50	INT-CMT	RURDCU	PP		RIG DWN CREST CMT EQUIPMENT				
7:30	8:00	0.50	INT-NUP	BOPS	PP		NIPPLE DWN & HANG BOP				
8:00	9:00	1.00	INT-NUP	WLHEAD	PP		SET CSG SLIPS W/ROUGH CUT CSG & LAY DWN BOP.				
9:00	11:30	2.50	INT-NUP	WLHEAD	PP		NIPPLE UP B-SECTION & BOP				
11:30	12:30	1.00	INT-NUP	BOPS	PP		TEST BLIND RAMS, CHOKE & CSG TO 1500 PSI				
12:30	13:00	0.50	INT-DRL	RU_RD	PP		RIG UP FLOOR & BOOM				
13:00	14:00	1.00	INT-DRL	TRIP	PP		PICK UP & SCRIBE TOOLS, TEST MWD, TESTED GOOD				
14:00	17:00	3.00	INT-DRL	TRIP	PP		PICK UP & MAKE UP BIT #4 & TIH WITH LATERAL BHA				
17:00	18:00	1.00	INT-NUP	BOPS	PP		TEST PIPE RAMS TO 1500 PSI & ANNULAR TO 1000 PSI				
18:00	18:30	0.50	INT-DRL	DOCMT	PP		TAG & DRILL OUT SHOE TRACK				
18:30	0:00	5.50	P-DRL	DRLG	PP		DRLG F/3245' TO 3485', WOB 20-25, RPM 50, MTR RPM 166 TTL 216, DIFF PRESS @ 325, ROP 43 Hr,  LAST SURVEY AT 3431', INC. 79.4, AZ: 345.00, TVD @ 3004'  SLIDE INTERVALS = 3272'-3295(23') 3314-3332(18') 3357-3375(18') 3400-3412(12') 3443-3458(15')				
18:30	18:30	0.00	P-DRL	M_SHZL	PP		STARTED DRLG TO LAND CURVE & DRILL LATERAL SECTION				
24.00 = Total Hours Today											



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-18-2014
API # 4210336341 00	24 HRS PROG 240.0 (ft)	TMD 3,485.0 (ft)	TD TVD 3,013.0 (ft)	REPT NO 9

## 06:00 UPDATE

0000-0600 0000-0600 DRLG F/3485' TO 3785 MD, 3028 TVD,WOB 20,RPM 50,TTL 216,GPM 490,DIFF PRESS@350 PSI,ROP 50'Hr  
LAST SURVEY AT:3688'MD 3028 TVD,INC.88.6,AZ:345.10  
SLIDE INTERVAL:3485-3497(12')  
3528-3538(10)  
3571-3581(10')  
3613-3621(8')  
3656-3663(7')

## BIT DATA

BIT / RUN	BIT SIZE (in)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
4 / 1	7.875	Security Dbs	MM54DM	12087724	5x16	3,245.00 / 05-18-2014	-----

## BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
4/1	/25.0	/60	442.15	2025	0	5.50	240.0	43.6	5.50	240.0	43.6

## MOTOR OUTPUT

RPV: 0.34rev/gal ROTARY CURRENT: 50 TOTAL RPM: 200

LCM: MUD PROPERTIES MUD TYPE: Brine

VIS (s/qt)	PV/YP (cp) / (lbf/100ft²)	GELS (lbf/100ft²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
29.00							10.50						

Density (ppg) 10.10 PP DAILY COST 0 CUM COST 0 %OIL % H2O

BHA	4	JAR S/N	BHA / HOLE CONDITIONS				JAR HRS	BIT	4
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BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	83.0 (kip)	80.0 (kip)	77.0 (kip)	(ft-lbf)	4,452.61 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Spiral HWDP	4.5"	40	1,200.00	4.500	2.875		4-1/2 XH
Drill Pipe	4.5" DP 16.60#	90	3,150.46	4.500	2.875	6.000	4-1/2 XH
Non-Mag Drill Collar	NMDC	1	29.89	6.500	2.812	6.500	4-1/2 XH
Non-Mag Drill Collar	NMDC	1	29.95	6.500	2.812	6.500	4-1/2 XH
UBHO Sub	UBHO SUB	1	3.15	6.375	2.625	6.500	4-1/2 XH
Integral Blade Stabilizer	IBS	1	5.19	7.625	2.000		4-1/2 XH
Float Sub	FLOAT SUB	1	3.12	6.250	2.000		4-1/2 XH
Bent Housing	1.5° BENT HOUSING MOTOR	1	29.35	6.250	2.000	8.000	4 1/2" REG
PDC Bit	7 7/8" MM54DM PDC	1	1.50	7.875			4 1/2" REG



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-18-2014
API # 4210336341 00	24 HRS PROG 240.0 (ft)	TMD 3,485.0 (ft)	TD TVD 3,013.0 (ft)	REPT NO 9

## SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	3,688.0	88.60	345.10	3,028.7	1,047.23	-228.51	1,047.23	2.57
NORMAL	3,645.0	87.50	345.20	3,027.2	1,005.69	-217.50	1,005.69	2.57
NORMAL	3,602.0	86.40	345.10	3,024.9	964.19	-206.49	964.19	3.75
NORMAL	3,559.0	84.80	344.90	3,021.6	922.78	-195.40	922.78	4.05
NORMAL	3,517.0	83.10	344.80	3,017.2	882.47	-184.48	882.47	3.73
NORMAL	3,474.0	81.50	344.90	3,011.4	841.34	-173.34	841.34	4.89
NORMAL	3,431.0	79.40	345.00	3,004.3	800.39	-162.33	800.39	3.92
NORMAL	3,389.0	77.80	345.40	2,996.0	760.59	-151.82	760.59	5.12
NORMAL	3,346.0	75.60	345.40	2,986.1	720.09	-141.27	720.09	6.02
NORMAL	3,303.0	73.10	346.10	2,974.5	679.96	-131.08	679.96	7.06
NORMAL	3,260.0	70.90	348.30	2,961.2	640.09	-122.01	640.09	3.47

## CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR	20.000	52.75	J-55	51.0
00	SURFACE	13.375	54.50	J-55	975.0
00	INTERMEDIATE 1	8.625	32.00	J-55	3,245.0

## MUD PUMPS/HYDRAULICS

SPP: 2025 (psi)					SPR		
AV(DP):					SPM		PPSR
AV(DC):							
HP: 0.000 (hp/in <sup>2</sup> )							
# 2	STROKE 10.00	SPM 108.00	LINER 6.500	FLOW RATE 442.2			

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
CAPSTAR PUSHER	1	24.00	QUALITY MUD LOGGING	1	24.00
TOTAL ENERGY SERVICES	1	24.00	CAPSTAR CREW	3	72.00
MS ENERGY SERVICES	4	96.00			

TOTAL PERSONNEL ON BOARD: 10

TOTAL HOURS ON BOARD: 240

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	750	4430	WATER, MUNICIPAL	bbl	0	3510

## SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1500	05-18-2014 / 1000	05-18-2014 / 1000	05-18-2014	05-18-2014	06-01-2014			

## INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION No incidents reported in last 24 hours.SAFETY TOPIC,SLEDGE HAMMERS,DO NOT STAND IN LINE OF FIRE,USE ROPE ON HAMMER WRENCH WHILE NIPPLEING UP BOPS.
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## APACHE CORPORATION

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## Daily Drilling Report

<b>WELLBORE NAME</b> UNIVERSITY LANDS 36 5H						<b>DATE</b> 05-19-2014					
<b>API #</b> 4210336341 00		<b>24 HRS PROG</b> 868.0 (ft)		<b>TMD</b> 4,353.0 (ft)		<b>TD TVD</b> 3,028.2 (ft)		<b>REPT NO</b> 10			
<b>RIG</b> CAPSTAR 127		<b>FIELD NAME</b> MCELROY		<b>AUTH TMD</b> 6,261.00 (ft)		<b>PLANNED DOW</b> 17.00 (days)		<b>DFS</b> 8.02 (days)		<b>DOL</b> 8.64 (days)	
<b>WB KO DATE</b> 05-11-2014 23:30		<b>WELL SPUD DATE</b> 05-11-2014 23:30		<b>RIG RELEASE</b>		<b>SUPERVISOR 1</b> SAM QUIROZ		<b>ENGINEER</b> JEFF CHRISTOPHER		<b>PBTMD</b>	
<b>REGION</b> PERMIAN		<b>DISTRICT</b> NOTREES - TX CZ		<b>STATE / PROV</b> TEXAS		<b>COUNTY / PARISH</b> CRANE		<b>RIG PHONE NO</b> 281-532-5386		<b>RIG FAX NO</b>	
<b>AFE # 11-14-0345-DH</b>		<b>AFE COSTS</b>		<b>DAILY COSTS</b>		<b>CUMULATIVE COSTS</b>					
<b>DESCRIPTION:</b> D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000		DHC: 46,692		DHC: 637,333					
		DCC: 2500		DCC:		DCC:					
		CWC:		CWC:		CWC:					
		Others:		Others:		Others:					
		TOTAL: 1,197,500		TOTAL: 46,692		TOTAL: 637,333					
<b>DEFAULT DATUM / ELEVATION</b> RKB/RT / 2,540.0 (ft)		<b>LAST SAFETY MEETING</b> 5/19/2014		<b>BLOCK</b>		<b>OCSG#</b>		<b>TARGET FORMATION</b> GRAYBURG		<b>BHA HRS OF SERVICE</b>	
<b>LAST SURVEY</b>				<b>LAST CSG SHOE TEST (EMW)</b>		<b>LAST CASING</b>		<b>NEXT CASING</b>			
MD 4,546.0 (ft) INC 90.80° AZM 348.60°						8.625 in @ 3,245.0 ft		5.500 in @ 6,261.0 ft			
<b>CURRENT OPERATIONS:</b> DRLG AHEAD AT 4719'MD,3028 TVD, LAST SURVEY AT 4573',INC.90.9,AZ:348.40,TVD@3028' <b>24 HR SUMMARY:</b> DRILL LATERAL TO 4353' MD,3038 TVD,ROP 57'Hr, LAST SURVEY AT 4238',INC.90.0,AZ:346.60,TVD@3028' <b>24 HR FORECAST:</b> DRILL & TD LATERAL SEC.											
<b>OPERATION SUMMARY</b>											
<b>From</b>	<b>To</b>	<b>HRS</b>	<b>Op Phase</b>	<b>Op Code</b>	<b>PT/NPT</b>	<b>NPT CODES</b>	<b>ACTIVITY SUMMARY</b>				
0:00	15:00	15.00	INT-DRL	DRLG	PP		DRLG F/3485' TO 4353',WOB 20-25,RPM 50,MTR RPM 166 TTL 216,DIFF PRESS@325,ROP 57'Hr,  LAST SURVEY AT 4238',INC.90.0,AZ:346.60,TVD@3028'  SLIDE INTERVALS=3485-3497(12) 3528-3538(10) 3571-3581(10) 3613-3621(8) 3656-3663(7) 3957-3967(10) 4048-4058(10) 4110-4125(15) 4230-4245(15) 4292-4307(15)				
15:00	15:30	0.50	INT-DRL	RIGSER	PP		LUBRICATE SWIVEL PACKING,TRYING TO STOP THE LEAK,DIDN'T HELP				
15:30	0:00	8.50	INT-DRL	RIGSER	PN	SWV	TOH TO CSG SHOE AT 3245',WORK ON SWIVEL PACKING,HAD TO GET A WELDER TO FILL IN WORE OUT AREA WHERE WASH PIPE O-RING SITS,NO SEALING PROPERLY. TRIP BACK TO BOTTOM.				
24.00 = Total Hours Today											
<b>06:00 UPDATE</b>											
0000-0600 0000-0600 DRLG F/4353' TO 4719',WOB 20-25,RPM 50,MTR RPM 166 TTL 216,DIFF PRESS@350,ROP 61'Hr, LAST SURVEY AT 4573',INC.90.9,AZ:34840,TVD@3028' SLISE INTERVALS: 4416-4426(10') 4635-4645(10)											
<b>BIT DATA</b>											
<b>BIT / RUN</b>	<b>BIT SIZE (in)</b>	<b>MANUFACTURER</b>		<b>TYPE</b>	<b>SERIAL NO</b>	<b>JETS OR TFA</b>	<b>DEPTH IN / DATE IN</b>		<b>I-O-D-L-B-G-O-R</b>		
4 / 1	7.875	Security Dbs		MM54DM	12087724	5x16	3,245.00 / 05-18-2014		-----		



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME				DATE
UNIVERSITY LANDS 36 5H				05-19-2014
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336341 00	868.0 (ft)	4,353.0 (ft)	3,028.2 (ft)	10

## BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
4/1	/25.0	/55	491.28	2050	231	15.00	868.0	57.9	20.50	1,108.0	54.0

## MOTOR OUTPUT

RPV: 0.34rev/gal				ROTARY CURRENT: 50				TOTAL RPM: 217			
LCM:				MUD PROPERTIES				MUD TYPE: Brine			

VIS (s/qt)	PV/YP (cp) / (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) /(lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
29.00							10.50						

Density (ppg)	10.00			PP		DAILY COST	0	CUM COST	0	%OIL		% H2O	
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BHA	4	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	4
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BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	75.0 (kip)	75.0 (kip)	75.0 (kip)	(ft-lbf)	4,452.61 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Spiral HWDP	4.5"	40	1,200.00	4.500	2.875		4-1/2 XH
Drill Pipe	4.5" DP 16.60#	90	3,150.46	4.500	2.875	6.000	4-1/2 XH
Non-Mag Drill Collar	NMDC	1	29.89	6.500	2.812	6.500	4-1/2 XH
Non-Mag Drill Collar	NMDC	1	29.95	6.500	2.812	6.500	4-1/2 XH
UBHO Sub	UBHO SUB	1	3.15	6.375	2.625	6.500	4-1/2 XH
Integral Blade Stabilizer	IBS	1	5.19	7.625	2.000		4-1/2 XH
Float Sub	FLOAT SUB	1	3.12	6.250	2.000		4-1/2 XH
Bent Housing	1.5° BENT HOUSING MOTOR	1	29.35	6.250	2.000	8.000	4 1/2" REG
PDC Bit	7 7/8" MM54DM PDC	1	1.50	7.875			4 1/2" REG

## SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	4,546.0	90.80	348.60	3,027.0	1,879.46	-435.73	1,879.46	0.52
NORMAL	4,425.0	90.20	348.40	3,028.1	1,760.89	-411.61	1,760.89	1.16
NORMAL	4,362.0	90.00	347.70	3,028.2	1,699.26	-398.56	1,699.26	0.00
NORMAL	4,299.0	90.00	347.70	3,028.2	1,637.71	-385.14	1,637.71	1.80
NORMAL	4,238.0	90.00	346.60	3,028.2	1,578.24	-371.58	1,578.24	0.97
NORMAL	4,176.0	90.00	346.00	3,028.2	1,518.00	-356.89	1,518.00	0.16
NORMAL	4,115.0	90.00	345.90	3,028.2	1,458.82	-342.08	1,458.82	2.23
NORMAL	4,056.0	90.20	344.60	3,028.3	1,401.77	-327.06	1,401.77	0.65
NORMAL	3,994.0	90.20	344.20	3,028.5	1,342.05	-310.39	1,342.05	0.97
NORMAL	3,934.0	90.70	343.90	3,029.0	1,284.37	-293.90	1,284.37	0.79
NORMAL	3,860.0	90.20	344.20	3,029.6	1,213.22	-273.57	1,213.22	0.90
NORMAL	3,731.0	89.60	345.20	3,029.4	1,088.79	-239.53	1,088.79	2.34

## CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR	20.000	52.75	J-55	51.0
00	SURFACE	13.375	54.50	J-55	975.0
00	INTERMEDIATE 1	8.625	32.00	J-55	3,245.0



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-19-2014
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API # 4210336341 00	24 HRS PROG 868.0 (ft)	TMD 4,353.0 (ft)	TD TVD 3,028.2 (ft)	REPT NO 10
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MUD PUMPS/HYDRAULICS					SPR		
	STROKE	SPM	LINER	FLOW RATE	SPP: 2050 (psi) AV(DP): AV(DC): HP: 1.357 (hp/in <sup>2</sup> )	SPM	PPSR
# 1	10.00	120.00	6.500	491.3			

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
QUALITY MUD LOGGING	1	24.00	TOTAL ENERGY SERVICES	1	24.00
CAPSTAR PUSHER	1	24.00	CAPSTAR CREW	3	72.00
MS ENERGY SERVICES	4	96.00			

TOTAL PERSONNEL ON BOARD: 10

TOTAL HOURS ON BOARD: 240

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	500	3930	WATER, MUNICIPAL	bbl	0	3510
BRINE	bbl	500	1560				

## SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1500	05-18-2014 / 1000	05-18-2014 / 1000	05-18-2014	05-18-2014	06-01-2014			

## INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION No incidents reported in last 24 hours.HAND PLACEMENT WHILE ROLLING DRILL PIPE ON RACKS
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## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H							DATE 05-20-2014				
API # 4210336341 00		24 HRS PROG 1,622.0 (ft)		TMD 5,975.0 (ft)		TD TVD 3,025.7 (ft)		REPT NO 11			
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 9.02 (days)		DOL 9.64 (days)	
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 SAM QUIROZ		ENGINEER JEFF CHRISTOPHER		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO	
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 35,425 DCC: CWC: Others: TOTAL: 35,425		DHC: 672,758 DCC: CWC: Others: TOTAL: 672,758					
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/20/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE	
LAST SURVEY MD 6,297.0 (ft) INC 90.40° AZM 346.80°				LAST CSG SHOE TEST (EMW)		LAST CASING 8.625 in @ 3,245.0 ft		NEXT CASING 5.500 in @ 6,261.0 ft			
CURRENT OPERATIONS: TD AT 6351MD,3023 TVD@5:30 AM 5-21-14,CIRCULATING BOTTOMS UP											
24 HR SUMMARY: DRILL TO 5975' MD, 3023 TVD, LAST SURVEY :AT 5852 MD,3027 TVD,90.5 DEG,347.80 AZ.											
24 HR FORECAST: TOH LAY DWN TOOL,PU REAMER TIH TO CLEAN HOLE,TOH RUN LOGS											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	0:00	24.00	P-DRL	DRLG	PP		DRLG F/4719' TO 5975',WOB 20-25,GPM 450,RPM 50,MTR RPM 153 TTL 208,DIFF PRESS@325,ROP 67.5'Hr, LAST SURVEY : AT 5852 MD,3027 TVD,90.5 DEG,347.80 AZ. SLISE INTERVALS: 4416-4426(10) 4635-4645(10) 4659-4671(12) 4780-4788(8) 5118-5125(7) 5220-5230(10) 5392-5402(10) 5649-5661(12) 5735-5745(10)				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 0000-0530 DRLG F/5975' TO 6351',WOB 25,GPM 410,RPM 55,MTR RPM 140 TTL 195,DIFF PRESS@275,ROP 68',LAST SURVEY :6297 MD,3023 TVD,INC.90.40,AZ:346.80 SLIDE INTERVALS:6077-6087(10) 0530-0600 CIRCULATING BOTTOMS UP											
BIT DATA											
BIT / RUN	BIT SIZE (in)	MANUFACTURER		TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN		I-O-D-L-B-G-O-R		
4 / 1	7.875	Security Dbs		MM54DM	12087724	5x16	3,245.00 / 05-18-2014		-----		
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
4/1	/25.0	/55	450.34	2200	194	24.00	1,622.0	67.6	44.50	2,730.0	61.3
MOTOR OUTPUT											
RPV: 0.34rev/gal				ROTARY CURRENT: 55				TOTAL RPM: 208			

Printed: 5/21/2014 7:28:18AM



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME				DATE
UNIVERSITY LANDS 36 5H				05-20-2014
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336341 00	1,622.0 (ft)	5,975.0 (ft)	3,025.7 (ft)	11

LCM:	MUD PROPERTIES										MUD TYPE: Brine
------	----------------	--	--	--	--	--	--	--	--	--	-----------------

VIS (s/qt)	PV/YP (cp) / (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
29.00							10.50						

Density (ppg)	10.00			PP		DAILY COST	0	CUM COST	0	%OIL		% H2O	
---------------	-------	--	--	----	--	------------	---	----------	---	------	--	-------	--

BHA	4	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	4
-----	---	---------	--	-----------------------	--	--	--	---------	--	-----	---

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	103.0 (kip)	65.0 (kip)	77.0 (kip)	(ft-lbf)	4,452.61 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Spiral HWDP	4.5"	40	1,200.00	4.500	2.875		4-1/2 XH
Drill Pipe	4.5" DP 16.60#	90	3,150.46	4.500	2.875	6.000	4-1/2 XH
Non-Mag Drill Collar	NMDC	1	29.89	6.500	2.812	6.500	4-1/2 XH
Non-Mag Drill Collar	NMDC	1	29.95	6.500	2.812	6.500	4-1/2 XH
UBHO Sub	UBHO SUB	1	3.15	6.375	2.625	6.500	4-1/2 XH
Integral Blade Stabilizer	IBS	1	5.19	7.625	2.000		4-1/2 XH
Float Sub	FLOAT SUB	1	3.12	6.250	2.000		4-1/2 XH
Bent Housing	1.5° BENT HOUSING MOTOR	1	29.35	6.250	2.000	8.000	4 1/2" REG
PDC Bit	7 7/8" MM54DM PDC	1	1.50	7.875			4 1/2" REG

## SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	6,297.0	90.40	346.80	3,023.8	3,589.25	-812.70	3,589.25	1.32
NORMAL	6,280.0	90.20	346.90	3,023.9	3,572.70	-808.84	3,572.70	0.48
NORMAL	6,194.0	90.10	347.30	3,024.1	3,488.87	-789.64	3,488.87	0.23
NORMAL	6,108.0	89.90	347.30	3,024.1	3,404.97	-770.73	3,404.97	1.42
NORMAL	6,023.0	91.10	347.40	3,024.8	3,322.04	-752.12	3,322.04	0.52
NORMAL	5,937.0	90.70	347.60	3,026.2	3,238.09	-733.50	3,238.09	0.33
NORMAL	5,852.0	90.50	347.80	3,027.1	3,155.05	-715.40	3,155.05	0.49
NORMAL	5,767.0	90.10	347.90	3,027.5	3,071.95	-697.51	3,071.95	1.26
NORMAL	5,681.0	89.50	347.00	3,027.2	2,988.01	-678.82	2,988.01	0.52
NORMAL	5,595.0	89.70	346.60	3,026.6	2,904.28	-659.18	2,904.28	0.52
NORMAL	5,509.0	89.50	347.00	3,026.0	2,820.56	-639.55	2,820.56	0.37
NORMAL	5,424.0	89.40	347.30	3,025.2	2,737.69	-620.64	2,737.69	1.33
NORMAL	5,338.0	90.50	347.60	3,025.1	2,653.75	-601.96	2,653.75	0.52
NORMAL	5,252.0	90.10	347.80	3,025.6	2,569.72	-583.64	2,569.72	0.94
NORMAL	5,166.0	90.90	347.90	3,026.3	2,485.65	-565.54	2,485.65	0.56
NORMAL	5,092.0	91.00	347.50	3,027.6	2,413.36	-549.77	2,413.36	0.85
NORMAL	5,032.0	90.50	347.40	3,028.3	2,354.80	-536.74	2,354.80	0.59
NORMAL	4,971.0	90.30	347.70	3,028.8	2,295.23	-523.59	2,295.23	0.32
NORMAL	4,909.0	90.10	347.70	3,029.0	2,234.66	-510.38	2,234.66	0.70
NORMAL	4,786.0	89.40	348.20	3,028.4	2,114.37	-484.70	2,114.37	1.37
NORMAL	4,726.0	88.60	348.00	3,027.4	2,055.67	-472.33	2,055.67	0.73
NORMAL	4,665.0	88.80	348.40	3,026.0	1,995.97	-459.86	1,995.97	4.03
NORMAL	4,605.0	91.20	348.10	3,026.0	1,937.24	-447.64	1,937.24	1.09



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H				DATE 05-20-2014
API # 4210336341 00	24 HRS PROG 1,622.0 (ft)	TMD 5,975.0 (ft)	TD TVD 3,025.7 (ft)	REPT NO 11

## CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	CONDUCTOR	20.000	52.75	J-55	51.0
00	SURFACE	13.375	54.50	J-55	975.0
00	INTERMEDIATE 1	8.625	32.00	J-55	3,245.0

## MUD PUMPS/HYDRAULICS

				SPP: 2200 (psi)	SPR	
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	
					AV(DC):	
# 2	10.00	110.00	6.500	450.3	HP: 1.045 (hp/in <sup>2</sup> )	

## PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	QUALITY MUD LOGGING	1	24.00
CAPSTAR PUSHER	1	24.00	CAPSTAR CREW	3	72.00
MS ENERGY SERVICES	4	96.00			

TOTAL PERSONNEL ON BOARD: 10

TOTAL HOURS ON BOARD: 240

## MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	bbl	930	3000	WATER, MUNICIPAL	bbl	0	3510
BRINE	bbl	250	1310				

## SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1500	05-18-2014 / 1000	05-18-2014 / 1000	05-18-2014	05-18-2014	06-01-2014			

## INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION
No incidents reported in last 24 hours.HOUSE KEEPING,WORKING ON PUMPS,LOCK OUT / TAG OUT		



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H							DATE 05-21-2014				
API # 4210336341 00		24 HRS PROG 376.0 (ft)		TMD 6,351.0 (ft)		TD TVD 3,023.4 (ft)		REPT NO 12			
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 10.02 (days)		DOL 10.64 (days)	
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 SAM QUIROZ		ENGINEER JEFF CHRISTOPHER		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO	
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 29,699 DCC: CWC: Others: TOTAL: 29,699		DHC: 702,457 DCC: CWC: Others: TOTAL: 702,457					
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/21/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 6,297.0 (ft) INC 90.40° AZM 346.80°						8.625 in @ 3,245.0 ft		5.500 in @ 6,261.0 ft			
CURRENT OPERATIONS: MAKING LOGGING TOOLS											
24 HR SUMMARY: TD WELL AT 6351'MD,3023'TVD ON 5-21-2014 @5:30 AM,TOH W/DIR TOOLS,TIH WIPER TRIP W/RMR NO FILL,CIRC & TOH FOR SHUTTLE LOGS.											
24 HR FORECAST: TIH WITH SHUTTLE LOGS,TOH LOGGING WELL,RAN 5.5"CSG											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	5:30	5.50	P-DRL	DRLG	PP		DRLG F/5975' TO 6351',WOB 25,GPM 410,RPM 55,MTR RPM 140 TTL 195,DIFF PRESS@275,ROP 68',LAST SURVEY :6297 MD,3023 TVD,INC.90.40,AZ:346.80 SLIDE INTERVALS:6077-6087(10)				
5:30	5:30	0.00	P-DRL	M_TDFin	PP		TD WELL AT 6351 MD,3023'TVD ON 5-21-14				
5:30	7:00	1.50	P-DRL	CIRCT	PP		PUMP HIGH VIS SWEEPS,CIRCULATE & CONDITION HOLE				
7:00	12:30	5.50	P-DRL	TRIP	PP		TOH,LAY DWN & LOAD OUT DIRECTIONAL TOOLS				
12:30	13:00	0.50	P-DRL	RU_RD	PP		LOAD OUT DIRECTIONAL TOOLS				
13:00	19:30	6.50	P-DRL	TRIP	PP		PU & MAKE UP BIT,BITSUB & REAMER & TIH FOR A WIPER TRIP.				
19:30	20:30	1.00	P-DRL	CIRCT	PP		CIRCULATE & CONDITION HOLE,SPOT 250-BBLS OF 10-WATER LOSS PILL ON BOTTOM FOR LOGS				
20:30	0:00	3.50	P-DRL	TRIP	PP		TOH WITH REAMER TO RUN SHUTTLE LOGS.				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 0000-0130 FINISH TOH W/REAMER 0130-0600 HSM W/WEATHERFORD CREW,MU WASH PIPE,RU LOGGING TOOLS,PU 5-JTS OF 3 1/2"DP											
BIT DATA											
BIT / RUN	BIT SIZE (in)	MANUFACTURER		TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN		I-O-D-L-B-G-O-R		
5 / 1 4 / 1	7.875 7.875	Varel Security Dbs		HE38MRSV MM54DM	7364100 12087724	3x18 5x16	6,351.00 / 05-21-2014 3,245.00 / 05-18-2014		----- 1-1-BT-H-X-I-BT-TD		
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
4/1	/25.0	/55	409.40	1900	160	5.50	376.0	68.4	50.00	3,106.0	62.1
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 55				TOTAL RPM: 194			



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H												DATE 05-21-2014	
API # 4210336341 00		24 HRS PROG 376.0 (ft)		TMD 6,351.0 (ft)		TD TVD 3,023.4 (ft)		REPT NO 12					
LCM: MUD PROPERTIES MUD TYPE: Brine													
VIS (s/qt)	PV/YP (cp) / (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	WL/HHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
29.00							10.00						
Density (ppg)	10.00			PP		DAILY COST	0	CUM COST	0	%OIL		% H2O	
BHA	5	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	5		
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH			
(kip)		(kip)		(kip)		(kip)		(ft-lbf)		52.78 (ft)			
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE		CONN TYPE	
Underreamer		7 3/4" STRING MILL				1	5.67	6.250	2.875			4-1/2 XH	
Drill Pipe		4.5" DP 16.60#				1	42.93	4.500	2.875			4-1/2 XH	
Bit Sub		BIT SUB W/ FLOAT				1	2.68	6.250	2.000			4-1/2 XH	
Tri-Cone Bit		7 7/8" VAREL BIT				1	1.50	7.875				4 1/2" REG	
CASING													
S/T	DESCRIPTION			SIZE		WEIGHT		GRADE		SETTING DEPTH			
00	CONDUCTOR			20.000		52.75		J-55		51.0			
00	SURFACE			13.375		54.50		J-55		975.0			
00	INTERMEDIATE 1			8.625		32.00		J-55		3,245.0			
MUD PUMPS/HYDRAULICS					SPP: 1900 (psi)		SPR						
	STROKE	SPM	LINER	FLOW RATE	AV(DP):				SPM		PPSR		
# 1	10.00	100.00	6.500	409.4	AV(DC):								
					HP: 0.785 (hp/in <sup>2</sup> )								
PERSONNEL DATA													
COMPANY		QTY	HRS		COMPANY		QTY	HRS					
QUALITY MUD LOGGING		1	24.00		CAPSTAR PUSHER		1	24.00					
TOTAL ENERGY SERVICES		1	24.00		CAPSTAR CREW		3	72.00					
MS ENERGEY SERVICES		4	48.00										
TOTAL PERSONNEL ON BOARD: 10													
TOTAL HOURS ON BOARD: 192													
MATERIALS/CONSUMPTION													
ITEM	UNITS	USAGE		ON HAND		ITEM	UNITS	USAGE		ON HAND			
DIESEL, RIG FUEL	bbl	359		2641		WATER, MUNICIPAL	bbl	0		3510			
BRINE	bbl	250		1060									
SAFETY DRILLS													
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL					
1500	05-18-2014 / 1000	05-18-2014 / 1000	05-18-2014	05-18-2014	06-01-2014								
INCIDENT REPORT													
INCIDENTS TYPE		LOST TIME? NO		INCIDENTS DESCRIPTION									
No incidents reported in last 24 hours.HAND & BACK SAFET WHILE TRIPPING IN OR OUT OF THE HOLE.													





## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H							DATE 05-22-2014				
API # 4210336341 00		24 HRS PROG (ft)		TMD 6,351.0 (ft)		TD TVD 3,023.4 (ft)		REPT NO 13			
RIG CAPSTAR 127		FIELD NAME MCELROY		AUTH TMD 6,261.00 (ft)		PLANNED DOW 17.00 (days)		DFS 11.02 (days)		DOL 11.64 (days)	
WB KO DATE 05-11-2014 23:30		WELL SPUD DATE 05-11-2014 23:30		RIG RELEASE		SUPERVISOR 1 SAM QUIROZ		ENGINEER JEFF CHRISTOPHER		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-532-5386		RIG FAX NO	
AFE # 11-14-0345-DH		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A 6261' HZ GRAYBURG WELL		DHC: 1,195,000 DCC: 2500 CWC: Others: TOTAL: 1,197,500		DHC: 25,290 DCC: CWC: Others: TOTAL: 25,290		DHC: 727,747 DCC: CWC: Others: TOTAL: 727,747					
DEFAULT DATUM / ELEVATION RKB/RT / 2,540.0 (ft)		LAST SAFETY MEETING 5/23/2014		BLOCK		OCSG#		TARGET FORMATION GRAYBURG		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 6,297.0 (ft) INC 90.40° AZM 346.80°						8.625 in @ 3,245.0 ft		5.500 in @ 6,261.0 ft			
CURRENT OPERATIONS: RUNNING 5.5"CSG CURRENT DEPTH @2017'											
24 HR SUMMARY: FINISH TOH W/RMR,RU & RAN SHUTTLE LOGS W/ WEATHERFORD.											
24 HR FORECAST: FINISH RUNNING 5.5"CSG,CMT CSG, SET SLIPS,NIPPLE UP TUBING HEAD & RIG RELEASED											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	1:30	1.50	P-DRL	TRIP	PP		FINISH TOH W/REAMER				
1:30	6:00	4.50	P-DRL	TRIP	PP		HSM W/WEATHERFORD CREW,MU WASH PIPE,RU LOGGING TOOLS,PU 5-JTS OF 3 1/2				
6:00	13:00	7.00	P-EVAL	LOG	PP		TIH WITH SHUTTLE LOGS,PRESSURE TEST @ SURFACE 20 SPM=230 PSI 40 SPM=780 PSI PRESS TEST @2410' 20-SPM=214 PSI 40 SPM=712 PSI PRESS TEST @4401' 20 SPM=227 PSI 40 SPM=740 PSI				
13:00	14:00	1.00	P-EVAL	LOG	PP		TAG & VERIFIED BOTTOM,LAY DWN 4-JTS OF DRILL PIPE TO CREATE ROOM TO DEPLOY LOGGING TOOL				
14:00	15:00	1.00	P-EVAL	LOG	PP		DEPLOYED LOGGING TOOL WITH A TOTAL OF 760 STROKES DP CAP.@40-SPM				
15:00	23:00	8.00	P-EVAL	LOG	PP		LOGGING TOH @15'PER MIN TO CSG SHOE,THEN SPEED UP TO 60'PER MIN. LOGGING TOOLS:GAMMA RAY,RESISTIVITY,SONIC,IMAGING & DLL.				
23:00	23:30	0.50	P-EVAL	LOG	PP		LAY DWN LOGGING TOOLS & RIG DWN WASH PIPE & 3 1/2" TUBING.				
23:30	0:00	0.50	P-EVAL	LOG	PP		WAITING ON DATA TO B DOWNLOADED FROM LOGGING TOOLS.				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 0000-0100 WAITING ON DOWN LOADING DATA FROM LOGGING TOOLS 0100-0200 WAITING ON LEWIS CSG CREW 0200-0600 HSM W/LEWIS CSG CREW,RU EQUIPMENT,START RUNNING 12-STAGE FRCK PORT SYSTEM & 5.5"CSG.TO 2017'											
BIT DATA											
BIT / RUN	BIT SIZE (in)	MANUFACTURER		TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN		I-O-D-L-B-G-O-R		
5 / 1	7.875	Varel		HE38MRSV	7364100	3x18	6,351.00 / 05-21-2014		-----		
MOTOR OUTPUT											
RPV:				ROTARY CURRENT:				TOTAL RPM:			



## APACHE CORPORATION

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## Daily Drilling Report

WELLBORE NAME UNIVERSITY LANDS 36 5H												DATE 05-22-2014	
API # 4210336341 00		24 HRS PROG (ft)		TMD 6,351.0 (ft)		TD TVD 3,023.4 (ft)		REPT NO 13					
LCM: MUD PROPERTIES MUD TYPE:													
VIS (s/qt)	PV/YP (cp) / (lbf/100ft <sup>2</sup> )	GELS (lbf/100ft <sup>2</sup> )	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (ppm)	KCL (ppm)	LGS (%)
				PP	DAILY COST		0	CUM COST		0	%OIL		% H2O
BHA	6	JAR S/N	BHA / HOLE CONDITIONS					JAR HRS			BIT		
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH			
(kip)		(kip)		(kip)		(kip)		(ft-lbf)		5,375.28 (ft)			
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE		
Drill Pipe		4.5 XH				30	975.72	4.500	3.826	6.000	4-1/2 XH		
HWDP		HWDP				40	1,220.55	4.500	2.750	6.000	4-1/2 XH		
Drill Pipe		4.5 XH				90	3,900.39	4.500	3.826	6.000	4-1/2 XH		
Crossover Sub		IF - XH CROSSOVER				1	2.15	6.250	2.688	6.000	4-1/2 XH		
Float Sub		FLOAT SUB				1	2.30	4.750	2.560	5.500	3-1/2 IF		
Drill Pipe		3.5 DP				1	31.34	3.500	2.764	5.500	3-1/2 IF		
Survey Tools		UPPER LATCH SUB				1	4.50	4.750	2.560	5.500	3-1/2 IF		
Survey Tools		LOWER LATCH SUB				1	5.50	4.750	2.850	5.000	3-1/2 IF		
Drill Pipe		3.5 DP				5	158.35	3.500	2.764	5.000	3-1/2 IF		
Survey Tools		LANDING / CIRCULATING SUB				1	8.20	4.750	3.500	5.000	3-1/2 IF		
Washover Drill Collar		WASHPIPE W/ MULESHOE				1	42.00	5.000	4.408	5.500	3-1/2 IF		
CASING													
S/T	DESCRIPTION			SIZE	WEIGHT		GRADE		SETTING DEPTH				
00	CONDUCTOR			20.000	52.75		J-55		51.0				
00	SURFACE			13.375	54.50		J-55		975.0				
00	INTERMEDIATE 1			8.625	32.00		J-55		3,245.0				
PERSONNEL DATA													
COMPANY		QTY	HRS	COMPANY		QTY	HRS						
CAPSTAR PUSHER		1	24.00	TOTAL ENERGY SERVICES		1	24.00						
TRICAN		2	24.00	CAPSTAR CREW		3	72.00						
WEATHERFORD		5	120.00										
TOTAL PERSONNEL ON BOARD: 12													
TOTAL HOURS ON BOARD: 264													
MATERIALS/CONSUMPTION													
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND						
DIESEL, RIG FUEL	bbl	1200	1441	WATER, MUNICIPAL	bbl	0	3510						
BRINE	bbl	0	1060										
SAFETY DRILLS													
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP FUNCTION	LAST BOP PRESSURE TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL					
1500	05-18-2014 / 1000	05-18-2014 / 1000	05-18-2014	05-18-2014	06-01-2014								
INCIDENT REPORT													
INCIDENTS TYPE		LOST TIME? NO		INCIDENTS DESCRIPTION No incidents reported in last 24 hours.HOIST OPERATIONS,GOOD HAND SIGNALS,PAY ATTENTION TO LOAD CAP.									



## APACHE CORPORATION

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## Daily Land - Orig Comp Report

WELL NAME UNIVERSITY LANDS 36 5H							DATE 05-23-2014			
Operator APACHE CORPORATION		API 4210336341	GL 2,529.00	TMD 6,351.00	PBTD	RKB/RT 2,540.00	Working Int % 100.00	Report No 1		
Region PERMIAN		District NOTREES - TX CZ	License		Well Supervisor SAM QUIROZ		Engineer / Geologist JEFF CHRISTOPHER			
Field MCELROY		State		County		Event Code LCM		Event Type LAND-ORIG COMP	Objective	
RIG Name CAPSTAR 127 /				RIG PHONE NO 281-532-5386		RIG Fax No		Tool Pusher LARRY VAN GILDER		
AFE #: 11-14-0345-CP		AFE Description:								
AFE Costs 1,800,540		Previous Day Cum 0		Daily Costs 274,415		Cumulative Cost 274,415		AFE Remaining 1,526,125		AFE % 15.24
Status		WAITING ON DAYLIGHT TO MOVE OVER T1								
Comment Summary		RAN 144-JTS OF 5.5"17#L-80,BTC,2-MRKR JTS. FC@6301',CSG SET ON BOTTOM @6351',RU CREST & CMT CSG,PLUG DWN AT 1330 ON 5-23-2014,CIRCULATED 50-BBLS / 116 SKS TO SURF. NIPPLE DWN SET SLIPS,NIPPLE UP TUBING HEAD ,CLEAN PITS. RR@2200 ON 5-23=2014								
24 HR Forecast		MOVE & RIG UP RIG								
24 HR Operational Comments										
From	To	Duration	Operation Description							
02:00AM	11:00AM	9.00	HSM W/LEWIS CSG CREW,RU EQUIPMENT & STARTED RUNNING 12-STG FRCK PORT SYSTEM & 144-JTS OF 5.5"17#L-80,BTC,2-MRKR JTS. FC@6301',CSG SET ON BOTTOM @6351'.							
11:00AM	12:00PM	1.00	WASH LAST JT TO BOTTOM,HAD TO 10' OF FILL,WASH DWN WITH NO ISSUES. CIRCULATE BOTTOMS UP.							
12:00PM	02:00PM	2.00	HSM W/ CREST PUMPING TECHNOLOGIES,RU CMT HEAD,TEST LINES TO 5K,PUMP 20-BBL F/W SPACER,FOLLOW BY 150-SKS CLASS"H" +ADDITIVES,64-BBL SLURRY MIXED AT 11.9#2.40 YL ON LEAD,410-SKS CLASS "H"+ADDITIVES,186-BBL SLURRY MIX AT 15#,11.1 YL ON TAIL,INITIAL PRESS@150,LIFT PRESS@1270,BUMP PRESS@2090.BUMP PLUG @1330,ON 5-23-14 CIRCULATED 50-BBLS / 116 SKS TO SURFACE.							
02:00PM	02:30PM	0.50	RIG DWN CREST PUMPING TECHNOLOGIES							
02:30PM	05:00PM	2.50	NIPPLE DWN & HANG BOP,SET SLIPS W/70K,ROUGH CUT CSG & LAY DWN BOP							
05:00PM	07:00PM	2.00	DRESS CSG & NIPPLE UP TUBING HEAD.							
07:00PM	10:00PM	3.00	JET & CLEAN STEEL PITS.							
10:00PM	10:00PM	0.00	RIG RELEASED @2200 ON 5-23-2014							
10:00PM	12:00AM	2.00	PREP RIG FOR MOVE							
Remarks										
0000-0600 RIG DWN WAIT ON DAY LIGHT TO MOVE RIG.										
Directional Information										
Initial Deviation 2,249		Max Dev 91.2deg at 4,605			Max Dogleg 9.4 deg at 2,721					
Casing / Tubing Information										
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method		
CONDUCTOR	20.00	52.75	J-55	51.00			-2,489.00			
SURFACE	13.38	54.50	J-55, K-55	975.04	800	11.00	-1,564.99	Returns at Surface		
INTERMEDIATE 1	8.63	32	J-55	3,245.04			416.28			
PRODUCTION 1	5.50	17	L-80	6,350.99	560	11.00	483.40	Returns at Surface		
Personnel										
Company Name	No of People	Hours Today	Cum / Event							
LEWIS CASING CREWS	4	36.0	36.0							
CREST PUMPING TECHNOL	5	15.0	15.0							
CAPSTAR PUSHER	1	18.0	18.0							
TOTAL ENERGY SERVICES	1	18.0	18.0							
CAPSTAR CREW	6	54.0	54.0							
Total:	17	141.0	141.0							
Safety Drills										
Rams 1,500.00 (psi)	Annulars 100.00 (psi)	Casing 5/22/2014 / 1,500.00 (psi)			Last BOP Test 5/22/2014		Next BOP Test 6/5/2014			



## APACHE CORPORATION

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## Daily Land - Orig Comp Report

## Daily Cost Detail

Account Code	Description	AFE Amount	Previous	Daily Cost	Cumulative	Available	Description
70004	CASING CREW	12,000	0	5,966	5,966	6,034	LEWIS, RAN 6351' OF 5.5" CSG
70006	CEMENT AND CEMENTING SERVICES			26,371			150-SX ON LEAD & 410-SX ON TAIL
70006	CEMENT AND CEMENTING SERVICES			9,048			FLOAT EQUIPMENT, SPIRAL GLIDERS
70006	CEMENT AND CEMENTING SERVICES	70,000	0	35,419	35,419	34,581	
70011	COMPANY SUPERVISION	15,000	0	0	0	15,000	
70017	CONTRACT LABOR	25,000	0	1,485	1,485	23,515	SERVICE HAND TO INSTALL CSG SLIP
70019	CONTRACT DRILLING-DAY/TURNKEY	70,000	0	11,000	11,000	59,000	CAPSTAR RIG #127
70021	CONTRACT SUPERVISION	6,000	0	1,375	1,375	4,625	SAM QUIROZ
70026	ELECTRICAL CONTRACT	25,000	0	0	0	25,000	
70031	EQUIPMENT RENTAL	180,000	0	0	0	180,000	
70034	FORMATION STIMULATION	672,000	0	0	0	672,000	
70049	LOGGING	150,000	0	0	0	150,000	
70069	SNUBBING/COIL TUBING UNIT	125,000	0	0	0	125,000	
70074	TRUCKING AND HAULING	150,000	0	0	0	150,000	
70076	TUBULAR INSPECTION/TESTING	3,500	0	0	0	3,500	
70121	AUTOMATION	5,000	0	0	0	5,000	
Total Intangible Cost		1,508,500	0	55,245	55,245	1,453,255	
71032	OTHER SUBSURFACE EQUIPMENT	150,000	0	118,155	118,155	31,845	TRICAN FRAC SLEEVES
71040	PRODUCTION CASING	97,500	0	92,852	92,852	4,648	6351' OF 5.5"17#L-80 BTC
71053	TUBING	24,540	0	0	0	24,540	
71056	WELLHEAD ASSEMBLY	20,000	0	8,164	8,164	11,836	TUBING HEAD
Total Tangible Cost		292,040	0	219,171	219,171	72,869	
Total:		1,800,540	0	274,415	274,415	1,526,125	