



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5	DATE 12-09-2012
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API # 4210336004 00	24 HRS PROG (ft)	TMD 17.0 (ft)	TD TVD 17.0 (ft)	REPT NO 2
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RIG NAME NO. UNION 215	FIELD NAME BLK 31	AUTH TMD 10,000.00 (ft)	PLANNED DOW 26.00 (days)	DFS 0.00 (days)	DOL 0.00 (days)
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SPUD DATE	RIG RELEASE	SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109	ENGINEER ROBERT CLARY	PBTMD
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REGION PERMIAN	DISTRICT NOTREES - TX CZ	STATE / PROV TEXAS	COUNTY / PARISH CRANE	RIG PHONE NO 281-366-0223	RIG FAX NO
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APE # PA-12-0340-D	APE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION: D&C A VERTICAL DEVONIAN 10,000' WELL	DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550	DHC: 2459 DCC: CWC: Others: TOTAL: 2459	DHC: 196,959 DCC: CWC: Others: TOTAL: 196,959

DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)	LAST SAFETY MEETING	BLOCK	OCSG#	TARGET FORMATION DEVONIAN	BHA HRS OF SERVICE
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LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 0.0 (ft) INC 0.00° AZM 0.00°			

CURRENT OPERATIONS: WAITING ON TRUCKS

24 HR SUMMARY: WAITING ON DAYLIGHT: RIG REPAIR & MAINTENANCE: WAITING ON TRUCKS TO MIRU UDI 215

24 HR FORECAST: MIRU UDI 215

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	6:00	6.00	R-MOB-DEMOB	WOD	PP		WAITING ON DAYLIGHT
6:00	18:00	12.00	R-MOB-DEMOB	RIGSER	PP		RIG REPAIR & MAINTENANCE
18:00	0:00	6.00	R-MOB-DEMOB	WOTRAN	PP		WAITING ON TRUCKS TO MIRU UDI 215

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 WAITING ON TRUCKS TO MIRU UDI 215

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	TOTAL ENERGY SERVICES	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	225	1763				



APACHE CORPORATION

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 12-10-2012					
API # 4210336004 00		24 HRS PROG (ft)		TMD 17.0 (ft)		TD TVD 17.0 (ft)		REPT NO 3			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 10,000.00 (ft)		PLANNED DOW 26.00 (days)		DFS 0.00 (days)		DOL 0.00 (days)	
SPUD DATE		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-366-0223		RIG FAX NO	
APE # PA-12-0340-D		APE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 10,000' WELL		DHC: 1,730,550		DHC: 11,184				DHC: 220,867			
		DCC:		DCC:				DCC:			
		CWC:		CWC:				CWC:			
		Others:		Others:				Others:			
		TOTAL: 1,730,550		TOTAL: 11,184				TOTAL: 220,867			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 0.0 (ft) INC 0.00° AZM 0.00°											
CURRENT OPERATIONS: WAITING ON TRUCKS											
24 HR SUMMARY: WAITING ON DAYLIGHT: MIRU UDI 215:											
24 HR FORECAST: MIRU UDI 215: SPUD NEW WELL: NOTIFIED TXRRC ON 12/10/2012 @ 08:30: TXRRC JOB # 15609											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	6:00	6.00	R-MOB-DEMOB	WOD	PP		WAITING ON DAYLIGHT				
6:00	0:00	18.00	R-MOB-DEMOB	MOB	PP		MIRU UDI 215				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 RU BACK YARD, MUD PUMPS, PITS, PRE-MIX:											
PERSONNEL DATA											
COMPANY				QTY	HRS	COMPANY				QTY	HRS
TOTAL ENERGY SERVICES				1	24.00	UNION DRILLING INC.				1	24.00
UNION DRILLING INC.				12	144.00						
TOTAL PERSONNEL ON BOARD: 14											
TOTAL HOURS ON BOARD: 192											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	0	1763	BRINE	bbl		1500				
WATER, SURF-FRESH	bbl		2000								



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5	DATE 12-11-2012
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API # 4210336004 00	24 HRS PROG 87.0 (ft)	TMD 104.0 (ft)	TD TVD 104.0 (ft)	REPT NO 4
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RIG NAME NO. UNION 215	FIELD NAME BLK 31	AUTH TMD 9,950.00 (ft)	PLANNED DOW 26.00 (days)	DFS 0.00 (days)	DOL 1.50 (days)
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SPUD DATE	RIG RELEASE	SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109	ENGINEER ROBERT CLARY	PBTMD
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REGION PERMIAN	DISTRICT NOTREES - TX CZ	STATE / PROV TEXAS	COUNTY / PARISH CRANE	RIG PHONE NO 281-336-0223	RIG FAX NO
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APE # PA-12-0340-D	APE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL	DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550	DHC: 30,247 DCC: CWC: Others: TOTAL: 30,247	DHC: 251,114 DCC: CWC: Others: TOTAL: 251,114

DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)	LAST SAFETY MEETING	BLOCK	OCSG#	TARGET FORMATION DEVONIAN	BHA HRS OF SERVICE
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LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 0.0 (ft) INC 0.00° AZM 0.00°			

CURRENT OPERATIONS: DRLG @ 104':

24 HR SUMMARY: RIG UP UDI 215: MAINTENANCE & REPAIRS: MIX SWEEP IN PRE-MIX: PRE-SPUD INSPECTION: NO ISSUES

24 HR FORECAST: DRLG 17.5" SURFACE SECTION:

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	20:00	20.00	R-MOB-DEMOB	RU_RD	PP		MAINTENANCE: REPAIRS: RU UDI 215:
20:00	0:00	4.00	S-DRL	CIRC	PP		MIX SWEEP IN PRE-MIX: PRE-SPUD INSPECTION:

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 SLM BHA: NOTIFIED TXRRC ON 12/10/2012 @ 08:30: TXRRC JOB # 15609 SPUD NEW WELL@ 01:30: DRLG F/ 17' TO 104': 87' @ 19.3'/HR: 0-15K
WOB: 55-85 RPM: 120 SPM @ 491 GPM W/ 180 SPP: NO ISSUES

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	TOTAL ENERGY SERVICES	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	509	4260	BRINE	bbl		2000
WATER, SURF-FRESH	bbl		2100				



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 12-12-2012						
API # 4210336004 00		24 HRS PROG 346.0 (ft)		TMD 450.0 (ft)		TD TVD 450.0 (ft)		REPT NO 5			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 0.94 (days)		DOL 2.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0223		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 32,778 DCC: CWC: Others: TOTAL: 32,778				DHC: 283,892 DCC: CWC: Others: TOTAL: 283,892			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 0.0 (ft) INC 0.00° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING 13.625 in @ 980.0 ft			
CURRENT OPERATIONS: DRLG @ 551': 35 WOB: 75 RPM: 100 SPM @ 410 GPM W/ 640 SPP: SURVEY @ 500': 0.5° DEG: NO ISSUES											
24 HR SUMMARY: DRLG F/ 17' TO 344': 327' @ 22.5'/HR: RIG SERVICE: CIRC OUT SWEEP: DRLG F/ 344' TO 450': 106' @ 15.1'/HR: 35 WOB: 75 RPM: 100 SPM @ 410 GPM W/ 640 SPP: SURVEY @ 400': 0.5° DEG: NO ISSUES											
24 HR FORECAST: DRLG 17.5" SURF. SECTION											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	1:30	1.50	S-DRL	PRESAFE	PP		PRE-SPUD SAFETY MEETING: SLM BHA:
1:30	16:00	14.50	S-DRL	DRLG	PP		NOTIFIED TXRRC ON 12/10/2012 @ 08:30: TXRRC JOB # 15609 SPUD NEW WELL @ 01:30: DRLG F/ 17' TO 344': 327' @ 22.5'/HR: 25 WOB: 70 RPM: 100 SPM @ 410 GPM W/ 400 SPP: SURVEY @ 300': 0.1° DEG: NO ISSUES
16:00	16:30	0.50	S-DRL	RIGSER	PP		RIG SERVICE
16:30	17:00	0.50	S-DRL	CIRC	PP		CIRC OUT SWEEP
17:00	0:00	7.00	S-DRL	DRLG	PP		DRLG F/ 344' TO 450': 106' @ 15.1'/HR: 35 WOB: 75 RPM: 100 SPM @ 410 GPM W/ 640 SPP: SURVEY @ 400': 0.5° DEG: NO ISSUES

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 DRLG F/ 450' TO 551': 101' @ 16.8'/HR: 35 WOB: 75 RPM: 100 SPM @ 410 GPM W/ 640 SPP: SURVEY @ 500': 0.5° DEG: 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
1 / 1		Baker Hughes Inteq	GTX20	5209764	3x20	0.00 / 12-12-2012	-----

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
1/1	/45	/90	409.40	740	153	21.50	450.0	20.9	21.50	450.0	20.9

MOTOR OUTPUT

RPV:				ROTARY CURRENT: 70				TOTAL RPM: 70					
LCM:				MUD PROPERTIES				MUD TYPE: Fresh Water					
VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
28.00							9.00						
Density (ppg)	8.40			PP		DAILY COST	0.00	CUM COST	0	%OIL		% H2O	

Printed: 12/13/2012 7:46:53AM



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5	DATE 12-12-2012
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API # 4210336004 00	24 HRS PROG 346.0 (ft)	TMD 450.0 (ft)	TD TVD 450.0 (ft)	REPT NO 5
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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)	62.0 (kip)	58.0 (kip)	60.0 (kip)	(ft-lbf)	449.98 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	6.5 DC	11	320.30	6.000	2.375	6.250	4-1/2" XH
	XO SUB	1	2.82	6.500	2.500	7.625	4-1/2" XH
	8" DC	1	29.10	8.000	3.000	7.875	6-5/8" Reg
	IBS	1	7.65	8.000	3.000	8.000	6-5/8" Reg
	8" DC	1	30.29	8.000	3.000	7.875	6-5/8" Reg
	IBS	1	6.31	8.000	3.000	8.000	6-5/8" Reg
	8" DC	1	30.73	8.000	3.000	7.875	6-5/8" Reg
	8" TELEDRIFT	1	8.01	8.000	1.750		
	SHOCK SUB	1	9.30	8.000	3.000	8.000	6-5/8" Reg
	BS	1	3.97	8.000	3.000	7.875	6-5/8" Reg
	17.5" GTX20	1	1.50	17.500			7-5/8" Reg

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	400.0	0.50		400.0	1.83	0.03	1.83	0.10
	200.0	0.30		200.0	0.44	0.01	0.44	0.20
	100.0	0.10		100.0	0.09	0.00	0.09	0.10
Tie On	0.0	0.00	0.00	0.0	0.00	0.00	0.00	0.00

MUD PUMPS/HYDRAULICS				SPP: 740 (psi)	SPR		
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM	PPSR
# 1	10.00	100.00	6.500	409.4	AV(DC):		
					HP: 0.000 (hp/in ²)		

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	994	3266	BRINE	bbl	0	2000
WATER, SURF-FRESH	bbl	200	1900				



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-13-2012			
API # 4210336004 00		24 HRS PROG 440.0 (ft)		TMD 890.0 (ft)		TD TVD 890.0 (ft)		REPT NO 6					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 1.94 (days)		DOL 3.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0223		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 29,442 DCC: CWC: Others: TOTAL: 29,442		DHC: 313,333 DCC: CWC: Others: TOTAL: 313,333							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 800.0 (ft) INC 0.30° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING 13.625 in @ 980.0 ft					
CURRENT OPERATIONS: TOH F/ 13-3/8" SURF. CSG.													
24 HR SUMMARY: DRLG F/ 450' TO 856': 305' @ 14.8'/HR: RIG SERVICE: DRLG F/ 856' TO 890': 34' @ 11.3'/HR: 48 WOB: 70 RPM: 105 SPM @ 430 GPM W/ 940 SPP: SURVEY @ 900': 0.3° DEG: NO ISSUES													
24 HR FORECAST: DRLG SURF. TO 975': CIRC: TOH F/ SURF. CSG:													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	20:30	20.50	S-DRL	DRLG	PP		DRLG F/ 450' TO 856': 305' @ 14.8'/HR: 45 WOB: 85 RPM: 100 SPM @ 410 GPM W/ 830 SPP: SURVEY @ 800': 0.3° DEG: NO ISSUES						
20:30	21:00	0.50	S-DRL	RIGSER	PP		RIG SERVICE						
21:00	0:00	3.00	S-DRL	DRLG	PP		DRLG F/ 856' TO 890': 34' @ 11.3'/HR: 48 WOB: 70 RPM: 105 SPM @ 430 GPM W/ 940 SPP: SURVEY @ 900': 0.3° DEG: NO ISSUES						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 DRLG F/ 890' TO 975': 85' @ 17'/HR: 48 WOB: 70 RPM: 105 SPM @ 430 GPM W/ 940 SPP: SURVEY @ 900': 0.5° DEG: NO ISSUES: CIRC & PUMP SWEEP:													
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				
1 / 1		Baker Hughes Inteq		GTX20	5209764	3x20	17.00 / 12-12-2012		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
1/1	/48	/85	410.00	940	154	23.00	440.0	19.1	44.50	890.0	20.0		
MOTOR OUTPUT													
RPV:				ROTARY CURRENT: 65				TOTAL RPM: 65					
LCM: 0.0				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 (%)	KCL (ppm)	LGS (%)
28.00	0.00/0	0/0	0.0/0.0	0.0/0.00	0.00/0.00	0.00/0.0	9.50/0.00	0.00/0.00	0	0	0.0000	0	0.00
Density (ppg)	8.30	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	98.00



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Daily Drilling Report

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WELLBORE NAME										DATE	
UNIVERSITY DEVONIAN A 37 5										12-13-2012	
API #		24 HRS PROG		TMD		TD TVD		REPT NO			
4210336004 00		440.0 (ft)		890.0 (ft)		890.0 (ft)		6			
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)		72.0 (kip)		68.0 (kip)		70.0 (kip)		(ft-lbf)		889.98 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE	
		6.5 DC			25	760.30	6.000	2.375	6.250	4-1/2" XH	
		XO SUB			1	2.82	6.500	2.500	7.625	4-1/2" XH	
		8" DC			1	29.10	8.000	3.000	7.875	6-5/8" Reg	
		IBS			1	7.65	8.000	3.000	8.000	6-5/8" Reg	
		8" DC			1	30.29	8.000	3.000	7.875	6-5/8" Reg	
		IBS			1	6.31	8.000	3.000	8.000	6-5/8" Reg	
		8" DC			1	30.73	8.000	3.000	7.875	6-5/8" Reg	
		8" TELEDRIFT			1	8.01	8.000	1.750			
		SHOCK SUB			1	9.30	8.000	3.000	8.000	6-5/8" Reg	
		BS			1	3.97	8.000	3.000	7.875	6-5/8" Reg	
		17.5" GTX20			1	1.50	17.500			7-5/8" Reg	
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
	800.0	0.30		800.0	4.10	0.04	4.10	0.00			
	700.0	0.30		700.0	3.58	0.03	3.58	0.00			
	600.0	0.30		600.0	3.05	0.02	3.05	0.00			
	500.0	0.30		500.0	2.53	0.01	2.53	0.20			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT		GRADE		SETTING DEPTH		
00	SURFACE			13.375	48.00		H-40		975.0		
MUD PUMPS/HYDRAULICS				SPP: 940 (psi)		SPR					
STROKE		SPM	LINER	FLOW RATE	AV(DP):		SPM		PPSR		
					AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY			QTY	HRS	COMPANY			QTY	HRS		
UNION DRILLING INC.			1	24.00	TOTAL ENERGY SERVICES			1	24.00		
LEWIS CASING CREWS			4	0.00	RISING STAR			5	0.00		
UNION DRILLING INC.			12	144.00							
TOTAL PERSONNEL ON BOARD: 23											
TOTAL HOURS ON BOARD: 192											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	852	2414	BRINE	bbl	0	2000				
WATER, SURF-FRESH	bbl	0	1900								



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 12-14-2012						
API # 4210336004 00		24 HRS PROG 85.0 (ft)		TMD 975.0 (ft)		TD TVD 975.0 (ft)		REPT NO 7			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 2.94 (days)		DOL 4.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0223		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 123,216 DCC: CWC: Others: TOTAL: 123,216				DHC: 436,549 DCC: CWC: Others: TOTAL: 436,549			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 800.0 (ft) INC 0.30° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING 13.625 in @ 980.0 ft			
CURRENT OPERATIONS: NU BOP'S											
24 HR SUMMARY: DRLG F/ 890' TO 975': 85' @ 17.0'/HR: 48 WOB: 70 RPM: 103 SPM @ 4210 GPM W/ 965 SPP: SURVEY @ 975': 0.5° DEG: CIRC: TOH: RUN CSG: CMT W/ 605 SKS LEAD: 225 SKS TAIL: NO CMT TO SURF: WOC RUN TEMP SURVEY: CMT @ 80': TOPOUT W/ 174 SKS: WOC:											
24 HR FORECAST: INSTALL 13.375" x 3M SOW HEAD & TEST: NU BOP & CHOKE MANIFOLD: TEST BOP'S 250# LOW: 1000# HIGH: ANNULAR 750#:											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	5:00	5.00	S-DRL	DRLG	PP		DRLG F/ 890' TO 975': 85' @ 17.0'/HR: 48 WOB: 70 RPM: 103 SPM @ 4210 GPM W/ 965 SPP: SURVEY @ 975': 0.5° DEG: NO ISSUES
5:00	6:00	1.00	S-DRL	CIRC	PP		CIRC SWEEP @ 975'
6:00	9:00	3.00	S-DRL	TRIP	PP		TOH F/ SURFACE CSG: LD BHA
9:00	12:00	3.00	S-CSG	R_PCSG	PP		HSM: RU LEWIS CSG CREW: RUN 23 JTS 13.375": 48#: H40 CSG TO 975': CSL LANDED @ 11:30 ON 12/14/2012: RD LEWIS CSG CREW: NO ISSUES
12:00	14:00	2.00	S-CMT	CMTPRI	PP		HSM: RU RISING STAR: CEMENT AS FOLLOWS: SPACER 20 BBLS: FRESHWATER: LEAD: 605 SKS: CLASS 'C' @ 13.5 PPG: 1.75 FT³/SK: 1058.7 FT³: 9.15 GAL/SK MIX WATER: TTL MIX WATER 131.8 BBLS: 188 BBLS SLURRY: TAIL: 225 SKS: CLASS 'C' @ 14.8 PPG: 1.35 FT³/SK: 303.75 FT³: 6.33 GAL/SK MIX WATER: TTL MIX WATER 33.9 BBLS: 54 BBLS SLURRY: DISP W/ 147 BBLS FRESHWATER: BUMP PLUG @ 14:00 HRS ON 12/14/2012 W/ 993 PSI: PRIOR PRESSURE 460 PSI: FLOAT HELD: ½ BBL BACK: FULL CIRC THROUGHOUT JOB: NO CEMENT RETURNS RD RISING STAR
14:00	18:00	4.00	S-CMT	WOC	PP		WOC PRIOR TO TEMP SURVEY:
18:00	19:00	1.00	S-CMT	RU_RD	PP		RU DOUBLE 'D': RUN TEMP SURVEY: CMT TOP @ 80': 3 BBLS (12 SKS) TO SURF
19:00	21:30	2.50	S-CMT	WOC	PP		WAIT ON TOPOUT CEMENT:
21:30	22:00	0.50	S-CMT	RU_RD	PP		PU 80' OF 1" F/ TOPOUT:
22:00	23:00	1.00	S-CMT	CMTSEC	PP		RU RISING STAR & TOPOUT AS FOLLOWS: 174 SKS: CLASS 'C' @ 14.8 PPG: 1.35 FT³/SK: 234.9 FT³: 6.33 GAL/SK MIX WATER: TTL MIX WATER 26.2 BBLS: 42 BBLS SLURRY:



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5				DATE 12-14-2012
API # 4210336004 00	24 HRS PROG 85.0 (ft)	TMD 975.0 (ft)	TD TVD 975.0 (ft)	REPT NO 7

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
23:00	0:00	1.00	S-CMT	WOC	PP		RD RISING STAR WOC:
24.00 = Total Hours Today							

06:00 UPDATE

0000-0600 WOC: CUT OFF 13.375" CASING: WELD ON 13.375" x 3M SOW WELL HEAD: TEST TO 500 PSI:

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
1 / 1		Baker Hughes Inteq	GTX20	5209764	3x20	17.00 / 12-12-2012	-----

LCM: 0.0 MUD PROPERTIES MUD TYPE: Fresh Water

VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
28.00	0.00/0	0/0	0.0/0.0	0.0/0.00	0.00/0.00	0.00/0.0	9.50/0.00	0.00/0.00	32,000	0	0.0000	0	0.00
Density (ppg)	8.30	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	98.00

BHA	1	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)		90.0 (kip)	92.0 (kip)	(ft-lbf)		889.98 (ft)		

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	DRILL PIPE	2	85.02	4.500	3.826		4-1/2" XH
	6.5 DC	26	760.30	6.000	2.375	6.250	4-1/2" XH
	XO SUB	1	2.82	6.500	2.500	7.625	4-1/2" XH
	8" DC	1	29.10	8.000	3.000	7.875	6-5/8" Reg
	IBS	1	7.65	8.000	3.000	8.000	6-5/8" Reg
	8" DC	1	30.29	8.000	3.000	7.875	6-5/8" Reg
	IBS	1	6.31	8.000	3.000	8.000	6-5/8" Reg
	8" DC	1	30.73	8.000	3.000	7.875	6-5/8" Reg
	8" TELEDRIFT	1	8.01	8.000	1.750		
	SHOCK SUB	1	9.30	8.000	3.000	8.000	6-5/8" Reg
	BS	1	3.97	8.000	3.000	7.875	6-5/8" Reg
	17.5" GTX20	1	1.50	17.500			7-5/8" Reg

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0

MUD PUMPS/HYDRAULICS					SPR		
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM	PPSR
# 1	10.00	103.00	6.500	421.7	AV(DC):		
					HP:		



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 12-15-2012					
API # 4210336004 00		24 HRS PROG (ft)		TMD 975.0 (ft)		TD TVD 975.0 (ft)		REPT NO 8			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 3.94 (days)		DOL 5.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0223		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 20,798 DCC: CWC: Others: TOTAL: 20,798				DHC: 457,347 DCC: CWC: Others: TOTAL: 457,347			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 800.0 (ft) INC 0.30° AZM 0.00°								13.625 in @ 980.0 ft			
CURRENT OPERATIONS: RIG REPAIRS:ROTARY TABLE: REMOVE AND SEND IN TO MACHINE SHOP:											
24 HR SUMMARY: WOC: CUT CASING: WELD ON 13.375 x 3M SOW HEAD (18" BELOW GL): TEST TO 500#: NU & TEST BOP & CHOKE MANIFOLD: 250 LOW: 1000 HIGH: 750 ANNULAR: RIG REPAIRS:ROTARY TABLE: REMOVE AND SEND IN TO MACHINE SHOP:											
24 HR FORECAST: REPAIR & INSTALL ROTARY: PU BHA #2: TIH: DRLG INTRM:											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	3:00	3.00	S-CMT	WOC	PP		WOC:				
3:00	6:00	3.00	S-NUP	WLHEAD	PP		CUT CASING: WELD ON 13.375 x 3M SOW HEAD (18" BELOW GL): TEST TO 500#:				
6:00	18:30	12.50	S-NUP	BOPS	PP		NU & TEST BOP & CHOKE MANIFOLD: 250 LOW: 1000 HIGH: 750 ANNULAR:				
18:30	0:00	5.50	S-DRL	RIGSER	PP		RIG REPAIRS:ROTARY TABLE: REMOVE AND SEND IN TO MACHINE SHOP:				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 RIG REPAIRS:ROTARY TABLE: REMOVE AND SEND IN TO MACHINE SHOP:											
CASING											
S/T	DESCRIPTION			SIZE		WEIGHT		GRADE		SETTING DEPTH	
00	SURFACE			13.375		48.00		H-40		975.0	
PERSONNEL DATA											
COMPANY			QTY	HRS	COMPANY			QTY	HRS		
TOTAL ENERGY SERVICES			1	24.00	UNION DRILLING INC.			1	24.00		
UNION DRILLING INC.			12	144.00							
TOTAL PERSONNEL ON BOARD: 14											
TOTAL HOURS ON BOARD: 192											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND		ITEM	UNITS	USAGE	ON HAND			
DIESEL, RIG FUEL	gal	302	4260		BRINE	bbl	0	2400			
WATER, SURF-FRESH	bbl	0	1800								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)		CASING		LAST BOP PRESS TEST		NEXT BOP PRESS TEST		FIRE DRILL	H2S DRILL	ABND. DRILL
1000	12-15-2012 / 750		12-15-2012 / 1000		12-15-2012		12-29-2012				



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 12-16-2012					
API # 4210336004 00		24 HRS PROG 436.0 (ft)		TMD 1,411.0 (ft)		TD TVD 1,411.0 (ft)		REPT NO 9			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 4.94 (days)		DOL 6.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0223		RIG FAX NO	
APE # PA-12-0340-D		APE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 18,657 DCC: CWC: Others: TOTAL: 18,657				DHC: 476,004 DCC: CWC: Others: TOTAL: 476,004			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 1,225.0 (ft) INC 0.50° AZM 0.00°						13.375 in @ 975.0 ft		8.625 in @ 3,700.0 ft			
CURRENT OPERATIONS: DRLG @: 1601': 18 WOB: 80 RPM: 99 SPM @ 405 GPM W/ 1000 SPP: SURVEY @ 1475': 0.8° DEG: NO ISSUES											
24 HR SUMMARY: :ROTARY TABLE REPAIR: SLM BHA: PU BHA #2: TAG CMT @ 922': DRLG CMT & FLOAT EQUIP F/ 922' TO 975': DRLG F/ 975' TO 1411': 436' @ 58.1'/HR: 15 WOB: 80 RPM: 99 SPM @ 405 GPM W/ 1000 SPP: SURVEY @ 1225': 0.5° DEG: NO ISSUES											
24 HR FORECAST: DRLG 11" INTERMEDIATE SECTION											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	8:00	8.00	S-DRL	RIGSER	PN	RO	RIG REPAIRS:ROTARY TABLE: REMOVE AND SEND IN TO MACHINE SHOP:DRILL & TAP BEARING RETAINER RING BOLTS.				
8:00	11:00	3.00	S-DRL	RIGSER	PN	RO	INSTALL ROTARY TABLE: CHAIN & GAURDS:				
11:00	11:30	0.50	S-DRL	TRIPBHA	PP		SLM BHA:				
11:30	15:00	3.50	S-DRL	TRIP	PP		PU BHA #2: 11" BIT, BIT SUB, TELEDRIFT, (1) 8" DC. 11" IBS, (1) 8" DC, 11" IBS, (1) 8" DC, O-OVER, (24) 6" DC'S: TIH: TEST PIPE RAMS 250# LOW, 1000# HIGH:				
15:00	16:30	1.50	S-DRL	DOCMT	PP		TAG CMT @ 922': DRLG CMT & FLOAT EQUIP F/ 922' TO 975':				
16:30	0:00	7.50	INT-DRL	DRLG	PP		DRLG F/ 975' TO 1411': 436' @ 58.1'/HR: 15 WOB: 80 RPM: 99 SPM @ 405 GPM W/ 1000 SPP: SURVEY @ 1225': 0.5° DEG: NO ISSUES				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 DRLG F/ 1411' TO 1468': 57' @ 38.0'/HR: 14 WOB: 70X RPM: 99 SPM @ 405 GPM W/ 965 SPP: SURVEY @ 1225': 0.5° DEG: RIG REPAIR SWIVEL: DRLG F/ 1468' TO 1601': 133' @ 38.0'/HR: 18 WOB: 85 RPM: 99 SPM @ 405 GPM W/ 1000 SPP: SURVEY @ 1475': 0.8° DEG: 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	
2 / 1		Baker Hughes Inteq			DP606S	7061563	6x14	975.00 / 12-16-2012		-----	
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	/25	/95	405.31	900	184	7.50	436.0	58.1	7.50	436.0	58.1
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 80				TOTAL RPM: 80			



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				12-16-2012
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	436.0 (ft)	1,411.0 (ft)	1,411.0 (ft)	9

LCM:		MUD PROPERTIES							MUD TYPE: Brine				
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 (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	/100.0				9.00	0.20/0.30	162,000	200	0.0000		
Density (ppg)	9.90	ECD (ppg)	9.90	PP	DAILY COST		0.00	CUM COST	0	%OIL	0.00	% H2O	92.00
BHA	2	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	2	
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS			BHA LENGTH		
(kip)		95.0 (kip)		92.0 (kip)		93.0 (kip)		(ft-lbf)			832.98 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
		DRILL PIPE			17	578.02	4.500	3.826		4-1/2" XH
		6.5 DC			24	712.60	6.000	2.375	6.250	4-1/2" XH
		XO SUB			1	2.82	6.500	2.500	7.625	4-1/2" XH
		8" DC			1	29.10	8.000	3.000	7.875	6-5/8" Reg
		IBS			1	7.65	8.000	3.000	8.000	6-5/8" Reg
		8" DC			1	30.29	8.000	3.000	7.875	6-5/8" Reg
		IBS			1	6.31	8.000	3.000	8.000	6-5/8" Reg
		8" DC			1	30.73	8.000	3.000	7.875	6-5/8" Reg
		8" TELEDRIFT			1	8.01	8.000	1.750		
		BS			1	3.97	8.000	3.000	7.875	6-5/8" Reg
		11" DP606S			1	1.50	17.500			7-5/8" Reg

SURVEY								
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	1,225.0	0.50		1,225.0	7.07	0.06	7.07	0.05

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0

MUD PUMPS/HYDRAULICS					SPP: 900 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	99.00	6.500	405.3				

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	TOTAL ENERGY SERVICES	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION							
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	568	3692	BRINE	bbl	0	2400
WATER, SURF-FRESH	bbl	0	1800				



APACHE CORPORATION

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 12-17-2012					
API # 4210336004 00		24 HRS PROG 1,046.0 (ft)		TMD 2,457.0 (ft)		TD TVD 2,456.7 (ft)		REPT NO 10			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 5.94 (days)		DOL 7.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0223		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 37,049 DCC: CWC: Others: TOTAL: 37,049				DHC: 513,053 DCC: CWC: Others: TOTAL: 513,053			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 2,380.0 (ft) INC 1.10° AZM 0.00°						13.375 in @ 975.0 ft		8.625 in @ 3,700.0 ft			
CURRENT OPERATIONS: DRLG @ 2738': 15-20 WOB: 95 RPM: 100 SPM @ 410 GPM W/ 1200 SPP: SURVEY @ 2630': 0.6° DEG: NO ISSUES											
24 HR SUMMARY: DRLG F/ 1411' TO 1468': REPAIR SWIVEL: DRLG F/ 1468' TO 2075': RIG SERVICE: DRLG F/ 2075' TO 2457': 382' @ 44.9'/HR: 15-20 WOB: 95 RPM: 102 SPM @ 417 GPM W/ 1150 SPP: SURVEY @ 2380': 1.1° DEG: NO ISSUES											
24 HR FORECAST: DRLG 11" INTERMEDIATE SECTION:											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	1:30	1.50	INT-DRL	DRLG	PP		DRLG F/ 1411' TO 1468': 57' @ 38.0'/HR: 14 WOB: 70X RPM: 99 SPM @ 405 GPM W/ 965 SPP: SURVEY @ 1225': 0.5° DEG				
1:30	2:30	1.00	INT-DRL	RIGSER	PN		REPAIR SWIVEL: (KELLY SPINNER LOCKED UP WRAPPING KELLY HOSE AND AIR LINES IN KELLY)				
2:30	15:00	12.50	INT-DRL	DRLG	PP		DRLG F/ 1468' TO 2075': 607' @ 48.5'/HR: 15-20 WOB: 95 RPM: 102 SPM @ 417 GPM W/ 1150 SPP: SURVEY @ 1966': 1.7° DEG: NO ISSUES				
15:00	15:30	0.50	INT-DRL	RIGSER	PP		RIG SERVICE				
15:30	0:00	8.50	INT-DRL	DRLG	PP		DRLG F/ 2075' TO 2457': 382' @ 44.9'/HR: 15-20 WOB: 95 RPM: 102 SPM @ 417 GPM W/ 1150 SPP: SURVEY @ 2380': 1.1° DEG: NO ISSUES				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 DRLG F/ 2457' TO 2738': 281' @ 46.8'/HR: 28 WOB: 90 RPM: 100 SPM @ 410 GPM W/ 1200 SPP: SURVEY @ 2630': 0.6° DEG: 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	
2 / 1		Baker Hughes Inteq			DP606S	7061563	6x14	975.00 / 12-16-2012		-----	
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	/28	/95	417.59	1200	195	22.50	1,046.0	46.5	30.00	1,482.0	49.4
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 90				TOTAL RPM: 90			



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				12-17-2012
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	1,046.0 (ft)	2,457.0 (ft)	2,456.7 (ft)	10

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	9.00/0.00	0.20/0.30	162,000	200	0.0000	0	0.00

Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	92.00
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BHA	2	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	2
-----	---	---------	--	-----------------------	--	--	--	--	---------	--	-----	---

BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		102.0 (kip)		90.0 (kip)		100.0 (kip)		(ft-lbf)		832.98 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE		CONN TYPE	
		DRILL PIPE			51	1,624.02	4.500	3.826			4-1/2" XH	
		6.5 DC			24	712.60	6.000	2.375	6.250		4-1/2" XH	
		XO SUB			1	2.82	6.500	2.500	7.625		4-1/2" XH	
		8" DC			1	29.10	8.000	3.000	7.875		6-5/8" Reg	
		IBS			1	7.65	8.000	3.000	8.000		6-5/8" Reg	
		8" DC			1	30.29	8.000	3.000	7.875		6-5/8" Reg	
		IBS			1	6.31	8.000	3.000	8.000		6-5/8" Reg	
		8" DC			1	30.73	8.000	3.000	7.875		6-5/8" Reg	
		8" TELEDRIFT			1	8.01	8.000	1.750				
		BS			1	3.97	8.000	3.000	7.875		6-5/8" Reg	
		11" DP606S			1	1.50	17.500				7-5/8" Reg	

SURVEY								
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	2,380.0	1.10		2,379.7	30.68	0.44	30.68	0.08
	2,125.0	0.90		2,124.7	26.23	0.36	26.23	0.53
	1,975.0	1.70		1,974.8	22.83	0.29	22.83	0.00
	1,718.0	1.70		1,717.9	15.20	0.15	15.20	0.37
	1,475.0	0.80		1,475.0	9.90	0.05	9.90	0.12

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0

MUD PUMPS/HYDRAULICS					SPP: 1200 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	102.00	6.500	417.6				

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	TOTAL ENERGY SERVICES	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION							



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-18-2012			
API # 4210336004 00		24 HRS PROG 976.0 (ft)		TMD 3,433.0 (ft)		TD TVD 3,432.6 (ft)		REPT NO 11					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 6.94 (days)		DOL 8.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0223		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 46,496 DCC: CWC: Others: TOTAL: 46,496		DHC: 559,549 DCC: CWC: Others: TOTAL: 559,549							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 3,140.0 (ft) INC 0.60° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 13.375 in @ 975.0 ft		NEXT CASING 8.625 in @ 3,700.0 ft					
CURRENT OPERATIONS: DRLG @ 3658': 25-28 WOB: 85-90 RPM: 104 SPM @ 425 GPM W/ 1320 SPP: SURVEY @ 3648': 0.2° DEG: NO ISSUES													
24 HR SUMMARY: DRLG F/ 2457' TO 3087': 630': RIG SERVICE: DRLG F/ 3087' TO 3433': 346' @ 49.4'/HR: 25-28 WOB: 85-90 RPM: 104 SPM @ 425 GPM W/ 1300 SPP: SURVEY @ 3392': 0.2° DEG: NO ISSUES													
24 HR FORECAST: DRLG INTRM TO 3715': CIRC FLUID CALIPER: TOH FOR CASING:													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	16:30	16.50	INT-DRL	DRLG	PP		DRLG F/ 2457' TO 3087': 630' @ 38.1'/HR: 25-28 WOB: 85-90 RPM: 102 SPM @ 417 GPM W/ 1300 SPP: SURVEY @ 2886': 0.5° DEG: NO ISSUES						
16:30	17:00	0.50	INT-DRL	RIGSER	PP		RIG SERVICE						
17:00	0:00	7.00	INT-DRL	DRLG	PP		DRLG F/ 3087' TO 3433': 346' @ 49.4'/HR: 25-28 WOB: 85-90 RPM: 104 SPM @ 425 GPM W/ 1300 SPP: SURVEY @ 3392': 0.2° DEG: NO ISSUES						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 DRLG F/ 3433' TO 3658': 225' @ 37.5'/HR: 25-28 WOB: 85-90 RPM: 104 SPM @ 425 GPM W/ 1320 SPP: SURVEY @ 3648': 0.2° DEG: 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			
2 / 1		Baker Hughes Inteq		DP606S	7061563	6x14		975.00 / 12-16-2012		-----			
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	/28	/90	425.78	1300	203	23.50			53.50	1,482.0	27.7		
MOTOR OUTPUT													
RPV:			ROTARY CURRENT: 85				TOTAL RPM: 85						
LCM: 0.0			MUD PROPERTIES				MUD TYPE: Brine						
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 (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.30	166,000	200	0.0000	0	0.00
Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	92.00



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5	DATE 12-18-2012
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API # 4210336004 00	24 HRS PROG 976.0 (ft)	TMD 3,433.0 (ft)	TD TVD 3,432.6 (ft)	REPT NO 11
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BHA	2	JAR S/N		BHA / HOLE CONDITIONS	JAR HRS		BIT	2
-----	---	---------	--	-----------------------	---------	--	-----	---

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	120.0 (kip)	115.0 (kip)	118.0 (kip)	(ft-lbf)	832.98 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	DRILL PIPE	81	2,600.02	4.500	3.826		4-1/2" XH
	6.5 DC	24	712.60	6.000	2.375	6.250	4-1/2" XH
	XO SUB	1	2.82	6.500	2.500	7.625	4-1/2" XH
	8" DC	1	29.10	8.000	3.000	7.875	6-5/8" Reg
	IBS	1	7.65	8.000	3.000	8.000	6-5/8" Reg
	8" DC	1	30.29	8.000	3.000	7.875	6-5/8" Reg
	IBS	1	6.31	8.000	3.000	8.000	6-5/8" Reg
	8" DC	1	30.73	8.000	3.000	7.875	6-5/8" Reg
	8" TELEDRIFT	1	8.01	8.000	1.750		
	BS	1	3.97	8.000	3.000	7.875	6-5/8" Reg
	11" DP606S	1	1.50	17.500			7-5/8" Reg

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	3,140.0	0.60		3,139.7	39.29	0.16	39.29	0.04
	2,886.0	0.50		2,885.7	36.85	0.11	36.85	0.04
	2,630.0	0.60		2,629.7	34.39	0.07	34.39	0.20

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0

MUD PUMPS/HYDRAULICS					SPR		
	STROKE	SPM	LINER	FLOW RATE	SPP: 1300 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)		
# 1	10.00	104.00	6.500	425.8		SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	TOTAL ENERGY SERVICES	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	996	1702	BRINE	bbl	0	2400
WATER, SURF-FRESH	bbl	0	1800				



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 12-19-2012						
API # 4210336004 00		24 HRS PROG 282.0 (ft)		TMD 3,715.0 (ft)		TD TVD 3,714.6 (ft)		REPT NO 12			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 7.94 (days)		DOL 9.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0223		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 147,634 DCC: CWC: Others: TOTAL: 147,634		DHC: 707,183 DCC: CWC: Others: TOTAL: 707,183					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 3,648.0 (ft) INC 0.20° AZM 0.00°						13.375 in @ 975.0 ft		8.625 in @ 3,700.0 ft			

CURRENT OPERATIONS: P/U BHA #3 START 7 7/8 PRODUCTION HOLE

24 HR SUMMARY: TD INTERMEDIATE, RUN FLUID CALIPER, POOH FOR 8 5/8 CSG, RUN INT CSG, CEMENT WELL, SET SLIPS, NIPPLE UP AND TEST BOP.

24 HR FORECAST: CONTINUE DRLG TO TD.

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	6:30	6.50	INT-DRL	DRLG	PP		DRLG F/ 3433' TO 3715': 282' @ 43.3'/HR: 25-28 WOB: 85-90 RPM: 104 SPM @ 425 GPM W/ 1300 SPP: SURVEY @ 3468': 0.2° DEG: NO ISSUES
3:30	4:00	0.50	INT-NUP	BOPS	PP		TEST BOP
4:00	6:00	2.00	DL-DRL	TRIPBHA	PP		STRAP TOOLS, WAIT ON TELEDRIFT.
6:30	8:00	1.50	INT-DRL	CIRC	PP		CIRC FLUID CALIPER & 150 BBL HIGH VISC SWEEP:
8:00	10:30	2.50	INT-DRL	TRIP	PP		TOH F/ INTRM CSG: LD 8" COLLARS
10:30	16:00	5.50	INT-CSG	R_PCSG	PP		HSM: RU LEWIS LD TRUCK & CSG CREW: RUN 90 JTS 8.625": J55: 32#: LT&C CSG TO 3715': NO ISSUES:
16:00	17:00	1.00	INT-CSG	CIRC	PP		CIRC BOTTOMS UP:
17:00	18:00	1.00	INT-CMT	RURDCU	PP		HSM: RU RISING STAR CEMENTERS
18:00	20:00	2.00	INT-CMT	CMTPRI	PP		CEMENT CASING FIRST STAGE LEAD; 870 SKS CLASS C50/50/10%BENTONITE,1.5#STARSEAL+.25%R-38+5%SALT 11.80PPG, YIELD 2.45, GAL/SK- 14.00, 380 BBL SLURRY TAIL 250 SKS CLASS C+1%CACL+.25%CELLOWFLAKE+.25%R-38, 14.8 PPG, YIELD 1.34, 6.32 GAL/SK, 59.56 BBL SLURRY, DISPLACED 223 BBLS @ 1100 PSI BEFORE LANDING PLUG , LANDED W/ 1600 PSI AT 19:30, CIRC 94 BBL, 215 SKS CEMENT TO RESERVE. CLEAN OUT LINES WITH RIG PUMP. R/D CEMENTERS
20:00	3:30		INT-NUP	WLHEAD	PP		N/D BOP & SET CSG SLIPS, NIPPLE UP B-SECTION, TEST WELLHEAD.

22.50 = Total Hours Today

06:00 UPDATE

0000-0600 N/D BOP AND SET CSG SLIPS. N/U BOP, TEST BOP @ 1000 PSI. BOP TEST GOOD. STRAP TOOLS FOR BHA #3 AND SERVICE, LUBE AND CLEAN RIG WHILE WAITING ON ARRIVAL OF 6" TELEDRIFT TOOL.

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		Baker Hughes Inteq	DP606S	7061563	6x14	975.00 / 12-16-2012	-----



APACHE CORPORATION
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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				12-19-2012
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	282.0 (ft)	3,715.0 (ft)	3,714.6 (ft)	12

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	/28	/902	425.00	1320	202	6.50	282.0	43.4	60.00	1,764.0	29.4

MOTOR OUTPUT

RPV:			ROTARY CURRENT: 85			TOTAL RPM: 85		
LCM: 0.0			MUD PROPERTIES			MUD TYPE: Brine		

VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.30	166,000	200	0.0000	0	0.00
Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	92.00

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)		124.0 (kip)		120.0 (kip)		122.0 (kip)		(ft-lbf)		832.98 (ft)	

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	DRILL PIPE	90	2,882.02	4.500	3.826		4-1/2" XH
	6.5 DC	24	712.60	6.000	2.375	6.250	4-1/2" XH
	XO SUB	1	2.82	6.500	2.500	7.625	4-1/2" XH
	8" DC	1	29.10	8.000	3.000	7.875	6-5/8" Reg
	IBS	1	7.65	8.000	3.000	8.000	6-5/8" Reg
	8" DC	1	30.29	8.000	3.000	7.875	6-5/8" Reg
	IBS	1	6.31	8.000	3.000	8.000	6-5/8" Reg
	8" DC	1	30.73	8.000	3.000	7.875	6-5/8" Reg
	8" TELEDRIFT	1	8.01	8.000	1.750		
	BS	1	3.97	8.000	3.000	7.875	6-5/8" Reg
	11" DP606S	1	1.50	11.000			7-5/8" Reg

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	3,648.0	0.20		3,647.6	41.94	0.00	41.94	0.00
	3,392.0	0.20		3,391.6	41.05	0.00	41.05	0.16

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPR		
	STROKE	SPM	LINER	FLOW RATE	AV(DP): AV(DC): HP: 0.000 (hp/in ²)	SPM	PPSR



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 12-20-2012						
API # 4210336004 00		24 HRS PROG 574.0 (ft)		TMD 4,289.0 (ft)		TD TVD 4,288.6 (ft)		REPT NO 13			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 8.94 (days)		DOL 10.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JOE WESLEY (432) 557 - 2227				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 30,954 DCC: CWC: Others: TOTAL: 30,954				DHC: 738,137 DCC: CWC: Others: TOTAL: 738,137			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 3,875.0 (ft) INC 0.30° AZM 0.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRLG @4289 '(298')@49'/hr : 25-28 WOB: 65-70 RPM: 102 SPM @ 415 GPM W/ 1220 SPP: SURVEY @ 4245': 0.1° DEG: NO ISSUES											
24 HR SUMMARY: NIPPLE UP AND TEST BOP, TIH W/ BHA #3,DRLG F/ 3715' TO 4289': 574'@ 40'/HR: 25-28 WOB: 85-90 RPM: 102 SPM @ 415 GPM W/ 1200 SPP: SURVEY @ 4245': 0.1° DEG: NO ISSUES											
24 HR FORECAST: CONTINUE DRLG TO TD.											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	4:30	4.50	INT2-CSG	BOPS	PP		N/U & TEST BOP
4:30	6:00	1.50	DL-DRL	TRIPBHA	PP		P/U AND STRAP BHA
6:00	9:00	3.00	DL-DRL	WOO	PP		WAIT ON 6" TELEDRIFT
9:00	13:30	4.50	DL-DRL	TRIP	PP		TIH w/ BHA#3 TAG @ 3665
13:30	14:00	0.50	DL-DRL	CIRC	PP		TEST CSG @ 1000 PSI
14:00	15:30	1.50	DL-DRL	DOCMT	PP		DRILL FLOAT & CEMENT
15:30	0:00	8.50	DL-DRL	DRLG	PP		DRLG F/ 3715' TO 3991': 276' @ 33'/HR: 25-28 WOB: 65-70 RPM: 102 SPM @ 415 GPM W/ 1200 SPP: SURVEY @ 3970': 0.1° DEG: NO ISSUES

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 DRLG F/ 3991' TO 4289': 289' @ 49'/HR: 25-28 WOB: 65-70 RPM: 102 SPM @ 415 GPM W/ 1220 SPP: SURVEY @ 4245': 0.1° DEG: 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
3 / 3		Security Dbs	FX65D	7061563	4x18	3,715.00 / 12-20-2012	-----

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
3/3	/25	/65	415.00	1200	159	8.50	276.0	32.5	68.50	2,040.0	29.8

MOTOR OUTPUT

RPV: ROTARY CURRENT: 65 TOTAL RPM: 65



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				12-20-2012
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	574.0 (ft)	4,289.0 (ft)	4,288.6 (ft)	13

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.30	166,000	200	0.0000	0	0.00

Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	92.00
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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)		135.0 (kip)		131.0 (kip)		133.0 (kip)		(ft-lbf)		763.84 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE		CONN TYPE	
		DRILL PIPE			90	3,525.16	4.500	3.826			4-1/2" XH	
		6.5 DC			23	682.01	6.000	2.375	6.250		4-1/2" XH	
		IBS			1	4.40	6.500	3.000	8.000		4-1/2" XH	
		6" DC			1	30.59	6.500	3.000	7.875		4-1/2" XH	
		IBS			1	4.51	6.500	3.000	8.000		4-1/2" XH	
		6" TELEDRIFT			1	9.59	6.500	1.750			4-1/2" XH	
		TRICOLLAR			1	31.24	6.500	3.000	7.875		4-1/2" XH	
		FX45D			1	1.50	7.862				4 1/2" REG	

SURVEY								
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	4,245.0	0.10		4,244.6	44.38	0.83	44.38	0.24
	4,160.0	0.30		4,159.6	44.08	0.82	44.08	0.00
	4,065.0	0.30		4,064.6	43.59	0.81	43.59	0.21
	3,970.0	0.10		3,969.6	43.25	0.81	43.25	0.21
	3,875.0	0.30		3,874.6	42.92	0.80	42.92	0.04

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPR		
	STROKE	SPM	LINER	FLOW RATE			
# 1	10.00	103.00	6.000	359.3			

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION							
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	726	2824	WATER, SURF-FRESH	bbl		2500



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-21-2012			
API # 4210336004 00		24 HRS PROG 889.0 (ft)		TMD 4,880.0 (ft)		TD TVD 4,879.6 (ft)		REPT NO 14					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.0 (ft)		PLANNED DOW 26.00 (days)		DFS 9.94 (days)		DOL 11.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 25,091 DCC: CWC: Others: TOTAL: 25,091		DHC: 763,228 DCC: CWC: Others: TOTAL: 763,228							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 4,820.0 (ft) INC 0.40° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: TIH W/ BIT #4													
24 HR SUMMARY: DRLG F/ 3991' TO 4571': 580' RIG SERVICE: DRLG F/ 4571' TO 4880': 309' @ 38.6' /HR: 25 WOB: 65 RPM: 108 SPM @ 442 GPM W/ 1540 SPP: SURVEY @ 4820': 0.4° DEG: CIRC & PUMP HIGH VISC SWEEP:													
24 HR FORECAST: DRLG PRODUCTION SECTION TO 10,000 FT.													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	14:00	14.00	P-DRL	DRLG	PP		DRLG F/ 3991' TO 4571': 580' @ 41.4' /HR: 25 WOB: 65 RPM: 108 SPM @ 442 GPM W/ 1540 SPP: SURVEY @ 4531': 0.4° DEG: NO ISSUES						
14:00	14:30	0.50	P-DRL	RIGSER	PP		RIG SERVICE						
14:30	22:30	8.00	P-DRL	DRLG	PP		DRLG F/ 4571' TO 4880': 309' @ 38.6' /HR: 25 WOB: 65 RPM: 108 SPM @ 442 GPM W/ 1540 SPP: SURVEY @ 4820': 0.4° DEG: @ 4836': 15% CHERT: 4875': 5% CHERT. ROP @ 16.7' /HR.						
22:30	0:00	1.50	P-DRL	CIRC	PP		CIRC & PUMP HIGH VISC SWEEP:						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 TOH @ 4880' DUE TO ROP: 5-15% CHERT: ROP DROPPED F/ 38-40' /HR TO 16' /HR: NO ISSUES: MU BIT #4 SMITH F47HY: TIH:													
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		Security Dbs		FX45D	7061563	4x18	3,715.00 / 12-20-2012		-----				
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	/65	442.00	1430	178	22.00	889.0	40.4	90.50	2,929.0	32.4		
MOTOR OUTPUT													
RPV:			ROTARY CURRENT: 65			TOTAL RPM: 65							
LCM: 0.0			MUD PROPERTIES						MUD TYPE: Brine				
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 (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.30	166,000	200	0.0000	0	0.00
Density (ppg)	9.80	ECD (ppg)	9.90	2P (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	92.00



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME										DATE	
UNIVERSITY DEVONIAN A 37 5										12-21-2012	
API #		24 HRS PROG		TMD		TD TVD		REPT NO			
4210336004 00		889.0 (ft)		4,880.0 (ft)		4,879.6 (ft)		14			
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)		125.0 (kip)		122.0 (kip)		124.0 (kip)		(ft-lbf)		763.84 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE	
		DRILL PIPE			129	4,116.16	4.500	3.826		4-1/2" XH	
		6.5 DC			23	682.01	6.000	2.375	6.250	4-1/2" XH	
		IBS			1	4.40	6.500	3.000	8.000	4-1/2" XH	
		6" DC			1	30.59	6.500	3.000	7.875	4-1/2" XH	
		IBS			1	4.51	6.500	3.000	8.000	4-1/2" XH	
		6" TELEDRIFT			1	9.59	6.500	1.750		4-1/2" XH	
		TRICOLLAR			1	31.24	6.500	3.000	7.875	4-1/2" XH	
		FX45D			1	1.50	7.862			4 1/2" REG	
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
	4,820.0	0.40		4,819.6	47.11	0.05	47.11	0.11			
	4,635.0	0.20		4,634.6	46.15	0.03	46.15	0.31			
	4,571.0	0.40		4,570.6	45.81	0.03	45.81	0.09			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 1430 (psi)		SPR					
				AV(DP):				SPM		PPSR	
				AV(DC):							
				HP: 0.000 (hp/in²)							
PERSONNEL DATA											
COMPANY			QTY	HRS	COMPANY			QTY	HRS		
UNION DRILLING INC.			1	24.00	TOTAL ENERGY SERVICES			1	24.00		
UNION DRILLING INC.			12	144.00							
TOTAL PERSONNEL ON BOARD: 14											
TOTAL HOURS ON BOARD: 192											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	552	2272	WATER, SURF-FRESH	bbl		2860				
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012							



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 12-22-2012						
API # 4210336004 00		24 HRS PROG 278.0 (ft)		TMD 5,158.0 (ft)		TD TVD 5,157.6 (ft)		REPT NO 15			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 10.94 (days)		DOL 12.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 31,378 DCC: CWC: Others: TOTAL: 31,378				DHC: 794,606 DCC: CWC: Others: TOTAL: 794,606			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 5,140.0 (ft) INC 0.40° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRLG @ 5266': 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1550 SPP: SURVEY @ 5235': 0.2° DEG: LITHOLOGY @ 5230': 100% LIME: NO ISSUES											
24 HR SUMMARY: TOH: TIH W/ BIT #4: W/R F/ 4843' TO 4880': DRLG F/ 4880' TO 5045': 165' @ 23.5'./HR: RIG SERV: DRLG F/ 5045' TO 5158': 113' @ 15.0'./HR: 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1550 SPP: SURVEY @ 5140': 0.4° DEG: LITHOLOGY @ 5170': 100% LIME: NO ISSUES											
24 HR FORECAST: DRLG PRODUCTION SECTION											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	3:30	3.50	P-DRL	TRIP	PP		TOH W/ BIT #3 DUE TO ROP: 5-15% CHERT:
3:30	8:30	5.00	P-DRL	TRIP	PP		MU BIT #4 & TIH TO 4843':
8:30	9:00	0.50	P-DRL	RMWASH	PP		WASH TO BOTTOM F/ 4843' TO 4880': NO ISSUES
9:00	16:00	7.00	P-DRL	DRLG	PP		DRLG F/ 4880' TO 5045': 165' @ 23.5'./HR: 15-20 WOB: 65 RPM: 100 SPM @ 410 GPM W/ 1280 SPP: SURVEY @ 5044': 0.1° DEG: LITHOLOGY @ 5045': 100% DOLOMITE: NO ISSUES
16:00	16:30	0.50	P-DRL	RIGSER	PP		RIG SERVICE
16:30	0:00	7.50	P-DRL	DRLG	PP		DRLG F/ 5045' TO 5158': 113' @ 15.0'./HR: 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1550 SPP: SURVEY @ 5140': 0.4° DEG: LITHOLOGY @ 5170': 100% LIME: NO ISSUES

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 DRLG F/ 5158' TO 5266': 108' @ 18.0'./HR: 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1550 SPP: SURVEY @ 5235': 0.2° DEG: LITHOLOGY @ 5230': 100% LIME: 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
3 / 1		Security Dbs	FX45D	7061563	4x18	3,715.00 / 12-20-2012	5-5-BT-A-X-I-BT-FM
4 / 1		Smith	F47HY	PX6031	3x18	4,880.00 / 12-22-2012	-----

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	/40	/65	417.59	1400	286	14.50	278.0	19.2	14.50	278.0	19.2

MOTOR OUTPUT

RPV: ROTARY CURRENT: 55 TOTAL RPM: 55



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				12-22-2012
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	278.0 (ft)	5,158.0 (ft)	5,157.6 (ft)	15

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.40	166,000	200	0.0000	0	0.00

Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	90.00
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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)		128.0 (kip)		124.0 (kip)		126.0 (kip)		(ft-lbf)		763.84 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE		CONN TYPE	
		DRILL PIPE			138	4,394.16	4.500	3.826			4-1/2" XH	
		6.5 DC			23	682.01	6.000	2.375	6.250		4-1/2" XH	
		IBS			1	4.40	6.500	3.000	8.000		4-1/2" XH	
		6" DC			1	30.59	6.500	3.000	7.875		4-1/2" XH	
		IBS			1	4.51	6.500	3.000	8.000		4-1/2" XH	
		6" TELEDRIFT			1	9.59	6.500	1.750			4-1/2" XH	
		TRICOLLAR			1	31.24	6.500	3.000	7.875		4-1/2" XH	
		F47HY			1	1.50	7.862				4 1/2" REG	

SURVEY								
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	5,140.0	0.40		5,139.6	48.51	0.03	48.51	0.31
	5,044.0	0.10		5,043.6	48.09	0.02	48.09	0.13

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 1400 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	102.00	6.500	417.6				

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION							
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	866	3962				



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 12-23-2012						
API # 4210336004 00		24 HRS PROG 480.0 (ft)		TMD 5,638.0 (ft)		TD TVD 5,637.6 (ft)		REPT NO 16			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 11.94 (days)		DOL 13.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 32,775 DCC: CWC: Others: TOTAL: 32,775		DHC: 827,380 DCC: CWC: Others: TOTAL: 827,380					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 5,543.0 (ft) INC 0.00° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRLG @ 5743': 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1725 SPP: SURVEY @ 5711': 0.7° DEG: NO ISSUES											
24 HR SUMMARY: DRLG F/ 5158' TO 5482': 324' @ 18.5°/HR: 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1700 SPP: SURVEY @ 5543': 0.0° DEG: NO ISSUES											
24 HR FORECAST: DRLG PRODUCTION SECTION:											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	17:30	17.50	P-DRL	DRLG	PP		DRLG F/ 5158' TO 5482': 324' @ 18.5°/HR: 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1625 SPP: SURVEY @ 5298': 0.3° DEG: NO ISSUES
17:30	18:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE
18:00	0:00	6.00	P-DRL	DRLG	PP		DRLG F/ 5482' TO 5638': 156' @ 26.0°/HR: 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1700 SPP: SURVEY @ 5543': 0.0° DEG: NO ISSUES

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 DRLG F/ 5638' TO 5743': 105' @ 17.5°/HR: 35-40 WOB: 55-65 RPM: 105 SPM @ 430 GPM W/ 1725 SPP: SURVEY @ 5711': 0.7° DEG: 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
4 / 1		Smith	F47HY	PX6031	3x18	4,880.00 / 12-22-2012	-----

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	/42	/65	429.87	1725	303	23.50	480.0	20.4	38.00	758.0	19.9

MOTOR OUTPUT

RPV:			ROTARY CURRENT: 60			TOTAL RPM: 60							
LCM: 0.0			MUD PROPERTIES			MUD TYPE: Brine							
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 (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.40	166,000	200	0.0000	0	0.00
Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	90.00



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-23-2012	
API # 4210336004 00		24 HRS PROG 480.0 (ft)		TMD 5,638.0 (ft)		TD TVD 5,637.6 (ft)		REPT NO 16			
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)		139.0 (kip)		132.0 (kip)		135.0 (kip)		(ft-lbf)		763.84 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
		DRILL PIPE				153	4,874.16	4.500	3.826		4-1/2" XH
		6.5 DC				23	682.01	6.000	2.375	6.250	4-1/2" XH
		IBS				1	4.40	6.500	3.000	8.000	4-1/2" XH
		6" DC				1	30.59	6.500	3.000	7.875	4-1/2" XH
		IBS				1	4.51	6.500	3.000	8.000	4-1/2" XH
		6" TELEDRIFT				1	9.59	6.500	1.750		4-1/2" XH
		TRICOLLAR				1	31.24	6.500	3.000	7.875	4-1/2" XH
		F47HY				1	1.50	7.862			4 1/2" REG
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
	5,543.0	0.00		5,542.6	50.12	0.03	50.12	0.12			
	5,298.0	0.30		5,297.6	49.48	0.02	49.48	0.06			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT		GRADE		SETTING DEPTH		
00	SURFACE			13.375	48.00		H-40		975.0		
00	INTERMEDIATE 1			8.625	32.00		J55		3,715.0		
MUD PUMPS/HYDRAULICS				SPP: 1725 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):		SPM		PPSR		
# 1	10.00	105.00	6.500	429.9	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY		QTY	HRS	COMPANY				QTY	HRS		
UNION DRILLING INC.		1	24.00	TOTAL ENERGY SERVICES				1	24.00		
UNION DRILLING INC.		12	144.00								
TOTAL PERSONNEL ON BOARD: 14											
TOTAL HOURS ON BOARD: 192											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	1264	2698								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012							
INCIDENT REPORT											
INCIDENTS TYPE		LOST TIME? NO		INCIDENTS DESCRIPTION NO INCIDENTS REPORTED IN LAST 24 HRS.							



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-24-2012			
API # 4210336004 00		24 HRS PROG 483.0 (ft)		TMD 6,121.0 (ft)		TD TVD 6,120.6 (ft)		REPT NO 17					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 12.94 (days)		DOL 14.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 31,436 DCC: CWC: Others: TOTAL: 31,436		DHC: 858,816 DCC: CWC: Others: TOTAL: 858,816							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 5,963.0 (ft) INC 0.90° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: DRLG @ 6216': 30 WOB: 70 RPM: 105 SPM @ 430 GPM W/ 1970 SPP: WIRELINE SURVEY @ 6100': 1.7° DEG: TELEDRIFT FAILURE													
24 HR SUMMARY: DRLG F/ 5638' TO 5995': 357' RIG SERVICE: DRLG F/ 5995' TO 6121': 126' @ 21.0°/HR: 36 WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1775 SPP: SURVEY @ 6000': 0.9° DEG: NO ISSUES													
24 HR FORECAST: DRLG PRODUCTION SECTION													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	17:30	17.50	P-DRL	DRLG	PP		DRLG F/ 5638' TO 5995': 357' @ 21.0°/HR: 35 WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1775 SPP: SURVEY @ 5963': 0.9° DEG: NO ISSUES						
17:30	18:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE						
18:00	0:00	6.00	P-DRL	DRLG	PP		DRLG F/ 5995' TO 6121': 126' @ 21.0°/HR: 36 WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1825 SPP: SURVEY @ 6000': 0.9° DEG: NO ISSUES						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 DRLG F/ 6121' TO 6185': 64' @ 18°/HR: 36 WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1925 SPP: TELEDRIFT FAILURE: WLS @ 6100': 1.77°: DRLG F/ 6185' TO 6216': 31.0' @ 20.6°/HR: 30 WOB: 70 RPM: 105 SPM @ 430 GPM W/ 1975 SPP: TELEDRIFT 107.5 HRS ON BATTERIES: NO PULSES													
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		Smith		F47HY	PX6031	3x18	4,880.00 / 12-22-2012		-----				
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	/45	/65	429.87	1850	303	23.50	483.0	20.6	61.50	1,241.0	20.2		
MOTOR OUTPUT													
RPV:			ROTARY CURRENT: 60			TOTAL RPM: 60							
LCM: 0.0			MUD PROPERTIES						MUD TYPE: Brine				
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 (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.40	168,000	200	0.0000	0	0.00
Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	90.00



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Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5	DATE 12-24-2012
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API # 4210336004 00	24 HRS PROG 483.0 (ft)	TMD 6,121.0 (ft)	TD TVD 6,120.6 (ft)	REPT NO 17
------------------------	---------------------------	---------------------	------------------------	---------------

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)	139.0 (kip)	132.0 (kip)	135.0 (kip)	(ft-lbf)	763.84 (ft)			

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	DRILL PIPE	165	5,357.16	4.500	3.826		4-1/2" XH
	6.5 DC	23	682.01	6.000	2.375	6.250	4-1/2" XH
	IBS	1	4.40	6.500	3.000	8.000	4-1/2" XH
	6" DC	1	30.59	6.500	3.000	7.875	4-1/2" XH
	IBS	1	4.51	6.500	3.000	8.000	4-1/2" XH
	6" TELEDRIFT	1	9.59	6.500	1.750		4-1/2" XH
	TRICOLLAR	1	31.24	6.500	3.000	7.875	4-1/2" XH
	F47HY	1	1.50	7.862			4 1/2" REG

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	5,963.0	0.90		5,962.6	54.28	0.11	54.28	0.06
	5,806.0	0.80		5,805.6	51.95	0.06	51.95	0.30

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS

					SPP: 1850 (psi)	SPR		
					AV(DP):			
					AV(DC):			
# 1	STROKE	SPM	LINER	FLOW RATE	HP: 0.000 (hp/in²)			
	10.00	105.00	6.500	429.9				

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	TOTAL ENERGY SERVICES	1	24.00
UNION DRILLING INC.	12	144.00			

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 192

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	1231	3692				

SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012			



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 12-25-2012					
API # 4210336004 00		24 HRS PROG 189.0 (ft)		TMD 6,310.0 (ft)		TD TVD 6,309.4 (ft)		REPT NO 18			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 13.94 (days)		DOL 15.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 37,060 DCC: CWC: Others: TOTAL: 37,060				DHC: 895,876 DCC: CWC: Others: TOTAL: 895,876			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 6,300.0 (ft) INC 2.20° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRLG @ 6355': 15 WOB: 70 RPM: 105 SPM @ 430 GPM W/ 1530 SPP: SURVEY @ 6342': 2.2° DEG: NO ISSUES											
24 HR SUMMARY: DRLG F/ 6121' TO 6185': WLS @ 6100': 1.77° DEG: DRLG F/ 6185' TO 6280': 95': CIRC: TOH W/ BIT #4: RIG SERVICE: TIH W/ BIT #5: DRLG F/ 6280' TO 6310': 30' @ 8.5°/HR: 15 WOB: 65 RPM: 105 SPM @ 430 GPM W/ 1950 SPP: SURVEY @ 6342': 2.2° DEG: NO ISSUES											
24 HR FORECAST: DRLG PRODUCTION SECTION											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	4:00	4.00	P-DRL	DRLG	PP		DRLG F/ 6121' TO 6185': 64' @ 16.0°/HR: 40 WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1950 SPP: TELEDRIFT BATTERY FAILURE:				
4:00	4:30	0.50	P-DRL	DEVSUR	PP		WLS @ 6100': 1.77° DEG:				
4:30	10:00	5.50	P-DRL	DRLG	PP		DRLG F/ 6185' TO 6280': 95' @ 17.2°/HR: 30 WOB: 70 RPM: 105 SPM @ 430 GPM W/ 1950 SPP:				
10:00	10:30	0.50	P-DRL	CIRC	PP		CIRC & COND.				
10:30	16:00	5.50	P-DRL	TRIP	PP		TOH W/ BIT #4: GAUGE IBS & TRI-COLLAR				
16:00	16:30	0.50	P-DRL	RIGSER	PP		RIG SERVICE				
16:30	20:30	4.00	P-DRL	TRIP	PP		TIH W/ BIT #5:				
20:30	0:00	3.50	P-DRL	DRLG	PP		DRLG F/ 6280' TO 6310': 30' @ 8.5°/HR: 15 WOB: 65 RPM: 105 SPM @ 430 GPM W/ 1530 SPP: SURVEY @ 6342': 2.2° DEG: NO ISSUES				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 DRLG F/ 6310' TO 6355': 45' @ 7.5°/HR: 15 WOB: 70 RPM: 105 SPM @ 430 GPM W/ 1530 SPP: SURVEY @ 6300': 2.2° DEG: 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	
5 / 1		Smith		F59HY	PX4897	3x18		6,280.00 / 12-25-2012		-----	
4 / 1		Smith		F47HY	PX6031	3x18		4,880.00 / 12-22-2012		1-1-NO-A-1-I-NO-HR	
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
5/1	/20	/70	429.87	1530	303	3.00	30.0	10.0	3.00	30.0	10.0
4/1	/35	/75	429.87	1950	303	9.50	159.0	16.7	71.00	1,400.0	19.7
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 60				TOTAL RPM: 60			



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				12-25-2012
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	189.0 (ft)	6,310.0 (ft)	6,309.4 (ft)	18

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
------	-----	----------------	--	--	--	--	-----------------	--	--	--	--

VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.40	168,000	200	0.0000	0	0.00

Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	90.00
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BHA	5	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	5
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BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		152.0 (kip)		148.0 (kip)		150.0 (kip)		(ft-lbf)		763.84 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE		CONN TYPE	
		DRILL PIPE				176	5,546.16	4.500	3.826			4-1/2" XH	
		6.5 DC				23	682.01	6.000	2.375	6.250		4-1/2" XH	
		IBS				1	4.40	6.500	3.000	8.000		4-1/2" XH	
		6" DC				1	30.59	6.500	3.000	7.875		4-1/2" XH	
		IBS				1	4.51	6.500	3.000	8.000		4-1/2" XH	
		6" TELEDRIFT				1	9.59	6.500	1.750			4-1/2" XH	
		TRICOLLAR				1	31.24	6.500	3.000	7.875		4-1/2" XH	
		F59HY				1	1.50	7.862				4 1/2" REG	

SURVEY								
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	6,300.0	2.20		6,299.4	64.19	0.29	64.19	0.25
	6,100.0	1.70		6,099.6	57.39	0.17	57.39	0.58

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 1530 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	105.00	6.500	429.9				

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	TOTAL ENERGY SERVICES	1	24.00
UNION DRILLING INC.	11	132.00			

TOTAL PERSONNEL ON BOARD: 13

TOTAL HOURS ON BOARD: 180

MATERIALS/CONSUMPTION							
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	426	3266				

SAFETY DRILLS							
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H ₂ S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012			



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-26-2012			
API # 4210336004 00		24 HRS PROG 260.0 (ft)		TMD 6,570.0 (ft)		TD TVD 6,569.3 (ft)		REPT NO 19					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 14.94 (days)		DOL 16.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 35,521 DCC: CWC: Others: TOTAL: 35,521		DHC: 931,397 DCC: CWC: Others: TOTAL: 931,397							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING					
MD 6,564.0 (ft) INC 2.00° AZM 0.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: DRLG @ 6658': W/ 28 WOB: 75 RPM: 105 SPM @ 430 GPM W/ 1675 SPP: SURVEY @ 6620': 1.9° DEG: NO ISSUES													
24 HR SUMMARY: DRLG F/ 6310' TO 6468': 158' @ 10.8'./HR: RIG SERV: DRLG F/ 6468' TO 6570': 102' @ 11.3'./HR: 28 WOB: 75 RPM: 105 SPM @ 430 GPM W/ 1675 SPP: SURVEY @ 6564': 2.0° DEG: NO ISSUES													
24 HR FORECAST: DRLG PRODUCTION SECTION													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	14:30	14.50	P-DRL	DRLG	PP		DRLG F/ 6310' TO 6468': 158' @ 10.8'./HR: 18 WOB: 65 RPM: 105 SPM @ 430 GPM W/ 1575 SPP: SURVEY @ 6406': 1.9° DEG: NO ISSUES						
14:30	15:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE						
15:00	0:00	9.00	P-DRL	DRLG	PP		DRLG F/ 6468' TO 6570': 102' @ 11.3'./HR: 28 WOB: 75 RPM: 105 SPM @ 430 GPM W/ 1675 SPP: SURVEY @ 6564': 2.0° DEG: NO ISSUES						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 DRLG F/ 6570' TO 6658': 88' @ 14.6'./HR: 28 WOB: 75 RPM: 105 SPM @ 430 GPM W/ 1675 SPP: SURVEY @ 6620': 1.9° DEG: 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				
5 / 1		Smith		F59HY	PX4897	3x18	6,280.00 / 12-25-2012		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
5/1	/28	/75	429.87	1600	303	23.50	260.0	11.1	26.50	290.0	10.9		
MOTOR OUTPUT													
RPV:			ROTARY CURRENT: 75			TOTAL RPM: 75							
LCM: 0.0			MUD PROPERTIES						MUD TYPE: Brine				
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 (%)	KCL (ppm)	LGS (%)
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.40	168,000	200	0.0000	0	0.00
Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	90.00



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5	DATE 12-26-2012
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API # 4210336004 00	24 HRS PROG 260.0 (ft)	TMD 6,570.0 (ft)	TD TVD 6,569.3 (ft)	REPT NO 19
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BHA	5	JAR S/N		BHA / HOLE CONDITIONS	JAR HRS		BIT	5
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BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	150.0 (kip)	146.0 (kip)	148.0 (kip)	(ft-lbf)	763.84 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	DRILL PIPE	183	5,806.16	4.500	3.826		4-1/2" XH
	6.5 DC	23	682.01	6.000	2.375	6.250	4-1/2" XH
	IBS	1	4.40	6.500	3.000	8.000	4-1/2" XH
	6" DC	1	30.59	6.500	3.000	7.875	4-1/2" XH
	IBS	1	4.51	6.500	3.000	8.000	4-1/2" XH
	6" TELEDRIFT	1	9.59	6.500	1.750		4-1/2" XH
	TRICOLLAR	1	31.24	6.500	3.000	7.875	4-1/2" XH
	F59HY	1	1.50	7.862			4 1/2" REG

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	6,620.0	1.90		6,619.3	74.89	0.49	74.89	0.08
	6,564.0	2.00		6,563.3	72.99	0.46	73.14	0.00
	6,500.0	1.80		6,499.3	71.02	0.42	71.02	0.11
	6,406.0	1.90		6,405.4	67.98	0.36	67.98	0.28

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS

STROKE	SPM	LINER	FLOW RATE	SPP: 1600 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR
# 1	10.00	105.00	6.500	429.9	SPM PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
UNION DRILLING INC.	11	132.00			

TOTAL PERSONNEL ON BOARD: 13

TOTAL HOURS ON BOARD: 180

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	994	2272				

SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012			



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Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 12-27-2012					
API # 4210336004 00		24 HRS PROG 330.0 (ft)		TMD 6,900.0 (ft)		TD TVD 6,955.1 (ft)		REPT NO 20			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.0 (ft)		PLANNED DOW 26.00 (days)		DFS 15.94 (days)		DOL 17.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 36,116 DCC: CWC: Others: TOTAL: 36,116				DHC: 967,513 DCC: CWC: Others: TOTAL: 967,513			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 6,860.0 (ft) INC 1.40° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRLG @ 7006': 40 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1540 SPP: SURVEY @ 6970': 1.9° DEG: NO ISSUES											
24 HR SUMMARY: DRLG F/ 6570' TO 6785': 215' RIG SERVICE: DRLG F/ 6785' TO 6900': 115' @ 14.3°/HR: 40 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1600 SPP: SURVEY @ 6860': 1.4° DEG: NO ISSUES											
24 HR FORECAST: DRLG. PRODUCTION SECTION											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	15:30	15.50	P-DRL	DRLG	PP		DRLG F/ 6570' TO 6785': 215' @ 13.8°/HR: 35 WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1530 SPP: SURVEY @ 6700': 2.1° DEG: NO ISSUES
15:30	16:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE
16:00	0:00	8.00	P-DRL	DRLG	PP		DRLG F/ 6785' TO 6900': 115' @ 14.3°/HR: 40 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1600 SPP: SURVEY @ 6860': 1.4° DEG: NO ISSUES

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 DRLG F/ 6900' TO 7006': 106' @ 17.6°/HR: 40 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1540 SPP: SURVEY @ 6970': 1.9° DEG: 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
5 / 1		Smith	F59HY	PX4897	3x18	6,280.00 / 12-25-2012	-----

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
5/1	/40	/65	429.87	1600	303	23.50	330.0	14.0	50.00	620.0	12.4

MOTOR OUTPUT

RPV:			ROTARY CURRENT: 55			TOTAL RPM: 55								
LCM: 0.0			MUD PROPERTIES						MUD TYPE: Brine					
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 (%)	KCL (ppm)	LGS (%)	
28.00	1.00/2	1/2	0.0/100.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.00	0.20/0.40	168,000	200	0.0000	0	0.00	
Density (ppg)	9.90	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	90.00	



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Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-27-2012	
API # 4210336004 00		24 HRS PROG 330.0 (ft)		TMD 6,900.0 (ft)		TD TVD 6,955.1 (ft)		REPT NO 20			
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)		154.0 (kip)		150.0 (kip)		152.0 (kip)		(ft-lbf)		763.84 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
		DRILL PIPE				192	6,136.16	4.500	3.826		4-1/2" XH
		6.5 DC				23	682.01	6.000	2.375	6.250	4-1/2" XH
		IBS				1	4.40	6.500	3.000	8.000	4-1/2" XH
		6" DC				1	30.59	6.500	3.000	7.875	4-1/2" XH
		IBS				1	4.51	6.500	3.000	8.000	4-1/2" XH
		6" TELEDRIFT				1	9.59	6.500	1.750		4-1/2" XH
		TRICOLLAR				1	31.24	6.500	3.000	7.875	4-1/2" XH
		F59HY				1	1.50	7.862			4 1/2" REG
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
	6,860.0	1.40		6,915.1	84.00	0.17	84.00	0.10			
	6,760.0	1.50		6,815.2	81.47	0.12	81.47	1.00			
	6,700.0	2.10		6,755.2	79.59	0.09	79.59	0.28			
	6,629.0	1.90		6,684.2	77.11	0.04	75.19	0.15			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 1600 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM		PPSR			
# 1	10.00	105.00	6.500	429.9	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY				QTY	HRS	COMPANY				QTY	HRS
TOTAL ENERGY SERVICES				1	24.00	UNION DRILLING INC.				1	24.00
UNION DRILLING INC.				11	132.00						
TOTAL PERSONNEL ON BOARD: 13											
TOTAL HOURS ON BOARD: 180											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	1278	994								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012							



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-28-2012			
API # 4210336004 00		24 HRS PROG 327.0 (ft)		TMD 7,227.0 (ft)		TD TVD 7,282.0 (ft)		REPT NO 21					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 16.94 (days)		DOL 18.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 19,538 DCC: CWC: Others: TOTAL: 19,538		DHC: 987,051 DCC: CWC: Others: TOTAL: 987,051							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 7,257.0 (ft) INC 1.60° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: DRLG @ 7300': 50 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1400 SPP: SURVEY @ 7257': 1.6° DEG: NO ISSUES													
24 HR SUMMARY: DRLG F/ 6900' TO 7100': 200' RIG SERVICE: DRLG F/ 7100' TO 7227': 127' @ 14.1°/HR: 45-50 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1400 SPP: SURVEY @ 7160': 1.6° DEG: NO ISSUES:													
24 HR FORECAST: DRLG PRODUCTION SECTION													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	14:30	14.50	P-DRL	DRLG	PP		DRLG F/ 6900' TO 7100': 200' @ 13.8°/HR: 40 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1530 SPP: SURVEY @ 7030': 1.3° DEG: NO ISSUES						
14:30	15:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE						
15:00	0:00	9.00	P-DRL	DRLG	PP		DRLG F/ 7100' TO 7227': 127' @ 14.1°/HR: 45-50 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1400 SPP: SURVEY @ 7160': 1.6° DEG: NO ISSUES						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 DRLG F/ 7227' TO 7300': 73' @ 12.1°/HR: 50 WOB: 55 RPM: 105 SPM @ 430 GPM W/ 1400 SPP: SURVEY @ 7252': 1.6° DEG: 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			
5 / 1		Smith		F59HY	PX4897	3x18		6,280.00 / 12-25-2012		-----			
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
5/1	/50	/65	429.87	1350	303	23.50	327.0	13.9	73.50	947.0	12.9		
MOTOR OUTPUT													
RPV:		ROTARY CURRENT: 60				TOTAL RPM: 60							
LCM: 0.0		MUD PROPERTIES				MUD TYPE: Brine							
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 (%)	KCL (ppm)	LGS (%)
36.00	14.00/1	4/6	0.0/9.0	0.0/0.00	0.00/0.00	0.00/0.0	10.50/0.13	0.10/0.30	110,000	1700	0.0000	0	0.00
Density (ppg)	9.50	ECD (ppg)	9.90	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	98.00



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Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-28-2012	
API # 4210336004 00		24 HRS PROG 327.0 (ft)		TMD 7,227.0 (ft)		TD TVD 7,282.0 (ft)		REPT NO 21			
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)		162.0 (kip)		158.0 (kip)		160.0 (kip)		(ft-lbf)		763.84 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE	
		DRILL PIPE			203	6,463.16	4.500	3.826		4-1/2" XH	
		6.5 DC			23	682.01	6.000	2.375	6.250	4-1/2" XH	
		IBS			1	4.40	6.500	3.000	8.000	4-1/2" XH	
		6" DC			1	30.59	6.500	3.000	7.875	4-1/2" XH	
		IBS			1	4.51	6.500	3.000	8.000	4-1/2" XH	
		6" TELEDRIFT			1	9.59	6.500	1.750		4-1/2" XH	
		TRICOLLAR			1	31.24	6.500	3.000	7.875	4-1/2" XH	
		F59HY			1	1.50	7.862			4 1/2" REG	
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
	7,257.0	1.60		7,312.0	95.36	0.38	95.36	0.00			
	7,160.0	1.60		7,215.0	92.65	0.33	92.65	0.13			
	7,002.0	1.80		7,057.1	87.96	0.24	87.96	0.28			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 1350 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):			SPM		PPSR	
# 1	10.00	105.00	6.500	429.9	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY				QTY	HRS	COMPANY				QTY	HRS
UNION DRILLING INC.				1	24.00	TOTAL ENERGY SERVICES				1	24.00
UNION DRILLING INC.				11	132.00						
TOTAL PERSONNEL ON BOARD: 13											
TOTAL HOURS ON BOARD: 180											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM		UNITS	USAGE	ON HAND			
DIESEL, RIG FUEL	gal	1125	4869								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)		CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL			
1000	12-15-2012 / 750		12-15-2012 / 1000	12-15-2012	12-29-2012						



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-29-2012			
API # 4210336004 00		24 HRS PROG 313.0 (ft)		TMD 7,540.0 (ft)		TD TVD 7,594.9 (ft)		REPT NO 22					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 17.94 (days)		DOL 19.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 65,238 DCC: CWC: Others: TOTAL: 65,238		DHC: 1,052,289 DCC: CWC: Others: TOTAL: 1,052,289							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 7,540.0 (ft) INC 1.60° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: DRLG @ 7615': 50 WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1400 SPP: SURVEY @ 7600': 1.5° DEG: NO ISSUES													
24 HR SUMMARY: DRLG F/ 7227' TO 7417': 190' @ 13.1'/HR: 50 WOB: 55 RPM: 430 GPM W/ 1400 SPP: SURVEY @ 7310': 1.6° DEG: RIG SERVICE: DRLG F/ 7417' TO 7540': 123' @ 13.6'/HR: 45-50 WOB: 55-60 RPM: 430 GPM W/ 1425 SPP: SURVEY @ 7500': 1.3° DEG: NO ISSUES													
24 HR FORECAST: DRLG PRODUCTION SECTION													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	14:30	14.50	P-DRL	DRLG	PP		DRLG F/ 7227' TO 7417': 190' @ 13.1'/HR: 45-50 WOB: 55-60 RPM: 105 SPM @ 430 GPM W/ 1400 SPP: SURVEY @ 7310': 1.6° DEG: NO ISSUES						
14:30	15:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE						
15:00	0:00	9.00	P-DRL	DRLG	PP		DRLG F/ 7417' TO 7540': 123' @ 13.6'/HR: 45-50 WOB: 55-60 RPM: 105 SPM @ 430 GPM W/ 1425 SPP: SURVEY @ 7500': 1.3° DEG: NO ISSUES						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 DRLG F/ 7540' TO 7615': 75' @ 12.5'/HR: 45-50 WOB: 55-60 RPM: 105 SPM @ 430 GPM W/ 1350 SPP: SURVEY @ 7600': 1.5° DEG: 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			
5 / 1		Smith		F59HY	PX4897	3x18		6,280.00 / 12-25-2012		-----			
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
5/1	/50	/60	429.87	1400	291	23.50	313.0	13.3	97.00	1,260.0	13.0		
MOTOR OUTPUT													
RPV:		ROTARY CURRENT: 60				TOTAL RPM: 60							
LCM: 0.0		MUD PROPERTIES				MUD TYPE: Brine							
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 (%)	KCL (ppm)	LGS (%)
34.00	12.00/2	3/6	0.0/10.0	0.0/0.00	0.00/0.00	0.00/0.0	11.00/0.22	0.20/0.35	103,000	1700	0.0000	0	0.00
Density (ppg)	9.50			PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.70



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Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-29-2012	
API # 4210336004 00		24 HRS PROG 313.0 (ft)		TMD 7,540.0 (ft)		TD TVD 7,594.9 (ft)		REPT NO 22			
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)		164.0 (kip)		160.0 (kip)		162.0 (kip)		(ft-lbf)		763.84 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
		DRILL PIPE				213	6,776.16	4.500	3.826		4-1/2" XH
		6.5 DC				23	682.01	6.000	2.375	6.250	4-1/2" XH
		IBS				1	4.40	6.500	3.000	8.000	4-1/2" XH
		6" DC				1	30.59	6.500	3.000	7.875	4-1/2" XH
		IBS				1	4.51	6.500	3.000	8.000	4-1/2" XH
		6" TELEDRIFT				1	9.59	6.500	1.750		4-1/2" XH
		TRICOLLAR				1	31.24	6.500	3.000	7.875	4-1/2" XH
		F59HY				1	1.50	7.862			4 1/2" REG
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
	7,540.0	1.60		7,594.9	103.08	0.52	103.08	0.17			
	7,480.0	1.70		7,534.9	101.36	0.49	101.36	0.38			
	7,400.0	1.40		7,454.9	99.19	0.45	99.19	0.22			
	7,310.0	1.60		7,364.9	96.84	0.41	96.84	0.00			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 1400 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):			SPM		PPSR	
# 1	10.00	105.00	6.500	429.9	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY				QTY	HRS	COMPANY				QTY	HRS
ALLIANCE DRILLING FLUIDS				1	24.00	TOTAL ENERGY SERVICES				1	24.00
UNION DRILLING INC.				1	24.00	UNION DRILLING INC.				11	132.00
TOTAL PERSONNEL ON BOARD: 14											
TOTAL HOURS ON BOARD: 204											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	751	4118	BRINE	bbl	0	2900				
WATER, SURF-FRESH	bbl	0	2860								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012							



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 12-30-2012			
API # 4210336004 00		24 HRS PROG 129.0 (ft)		TMD 7,669.0 (ft)		TD TVD 7,723.8 (ft)		REPT NO 23					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 18.94 (days)		DOL 20.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 50,591 DCC: CWC: Others: TOTAL: 50,591		DHC: 1,102,880 DCC: CWC: Others: TOTAL: 1,102,880							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 7,624.0 (ft) INC 1.40° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: TIH W/ BIT #6													
24 HR SUMMARY: DRLG F/ 7540' TO 7669': 129' @ 13.5'/HR: 50 WOB: 60 RPM: 430 GPM W/ 1500 SPP: SURVEY @ 7624': 1.4° DEG: CIRC & PUMP 100 BBL HI VISC SWEEP: TOH F/ BIT: RIG SERVICE: PU & TRIP CHECK BHA: (4 CRACKED COLLARS)													
24 HR FORECAST: DRLG PRODUCTION SECTION:													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	9:30	9.50	P-DRL	DRLG	PP		DRLG F/ 7540' TO 7669': 129' @ 13.5'/HR: 50 WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1500 SPP: SURVEY @ 7624': 1.4° DEG: NO ISSUES						
9:30	10:30	1.00	P-DRL	CIRC	PP		CIRC & PUMP 100 BBL HI VISC SWEEP:						
10:30	15:00	4.50	P-DRL	TRIP	PP		TOH F/ BIT: LD IBS & TRI-COLLAR						
15:00	15:30	0.50	P-DRL	RIGSER	PP		RIG SERVICE						
15:30	0:00	8.50	P-DRL	TRIPBHA	PP		PU & TRIP CHECK BHA: (4 CRACKED COLLARS)						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 TRIP CHECK BHA:(4 CRACKED DC's): CUT & SLIP 100' DRLG LINE: PU NEW COLLARS: TIH W/ BIT #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				
5 / 1		Smith		F59HY	PX4897	3x18	6,280.00 / 12-25-2012		-----				
6 / 1		Smith		F47HY	PX9961	3x18	7,669.00 / 12-30-2012		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
5/1	/50	/60	429.87	1500	291	9.50	129.0	13.6	106.50	1,389.0	13.0		
MOTOR OUTPUT													
RPV:				ROTARY CURRENT: 60				TOTAL RPM: 60					
LCM: 0.0				MUD PROPERTIES				MUD TYPE: Brine					
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 (%)	KCL (ppm)	LGS (%)
35.00	10.00/3	3/6	0.0/10.0	0.0/0.00	0.00/0.00	0.00/0.0	10.50/0.40	0.26/0.39	108,000	1560	0.0000	0	0.00
Density (ppg)	9.50	ECD (ppg)	0.00	2P (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	98.20

Printed: 12/31/2012 4:52:23AM



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Daily Drilling Report

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WELLBORE NAME										DATE	
UNIVERSITY DEVONIAN A 37 5										12-30-2012	
API #		24 HRS PROG		TMD		TD TVD		REPT NO			
4210336004 00		129.0 (ft)		7,669.0 (ft)		7,723.8 (ft)		23			
BHA	6	JAR S/N		BHA / HOLE CONDITIONS			JAR HRS		BIT	6	
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		(kip)		(kip)		(kip)		(ft-lbf)		763.84 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE	
		DRILL PIPE			217	6,905.16	4.500	3.826		4-1/2" XH	
		6.5 DC			23	682.01	6.000	2.375	6.250	4-1/2" XH	
		IBS			1	4.40	6.500	3.000	8.000	4-1/2" XH	
		6" DC			1	30.59	6.500	3.000	7.875	4-1/2" XH	
		IBS			1	4.51	6.500	3.000	8.000	4-1/2" XH	
		6" TELEDRIFT			1	9.59	6.500	1.750		4-1/2" XH	
		TRICOLLAR			1	31.24	6.500	3.000	7.875	4-1/2" XH	
		F59HY			1	1.50	7.862			4 1/2" REG	
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
	7,624.0	1.40		7,678.8	105.28	0.57	105.28	0.24			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 1500 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM		PPSR			
# 1	10.00	105.00	6.500	429.9	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY				QTY	HRS	COMPANY		QTY	HRS		
ALLIANCE DRILLING FLUIDS				1	24.00	UNION DRILLING INC.		1	24.00		
TOTAL ENERGY SERVICES				1	24.00	UNION DRILLING INC.		11	132.00		
TOTAL PERSONNEL ON BOARD: 14											
TOTAL HOURS ON BOARD: 204											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	710	3408	WATER, SURF-FRESH	bbl	360	2980				
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012							



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 12-31-2012					
API # 4210336004 00		24 HRS PROG 204.0 (ft)		TMD 7,873.0 (ft)		TD TVD 7,927.7 (ft)		REPT NO 24			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 19.94 (days)		DOL 21.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 JAMES W. GARDNER (432)-413-5109				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550		DHC: 29,374				DHC: 1,132,254			
		DCC:		DCC:				DCC:			
		CWC:		CWC:				CWC:			
		Others:		Others:				Others:			
		TOTAL: 1,730,550		TOTAL: 29,374				TOTAL: 1,132,254			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 7,800.0 (ft) INC 1.80° AZM 0.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRLG @ 7956': 50 WOB: 55-60 RPM: 105 SPM @ 430 GPM W/ 1500 SPP: SURVEY @ 7800': 1.8° DEG: NO ISSUES											
24 HR SUMMARY: TIH: INSPECTING BHA: SLIP & CUT 100' DRLG LINE: TIH W/ BIT #6: WASH F/ 7639' TO 7669': DRLG F/ 7669' TO 7766': 97' @ 11.4'/HR: RIG SERV: DRLG F/ 7766' TO 7873': 107' @ 15.2'/HR: 50 WOB: 55-60 RPM: 430 GPM W/ 1500 SPP: SURVEY @ 7800': 1.8° DEG: NO ISSUES:											
24 HR FORECAST: DRLG PRODUCTION SECTION											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	1:30	1.50	P-DRL	TRIPBHA	PP		TIH: INSPECTING BHA:				
1:30	3:00	1.50	P-DRL	CUTDL	PP		SLIP & CUT 100' DRLG LINE				
3:00	4:00	1.00	P-DRL	TRIP	PP		PU NEW COLLARS:				
4:00	8:00	4.00	P-DRL	TRIP	PP		TIH W/ BIT #6: WASH F/ 7639' TO 7669': NO ISSUES				
8:00	16:30	8.50	P-DRL		PP		DRLG F/ 7669' TO 7766': 97' @ 11.4'/HR: 35-40 WOB: 50-55 RPM: 105 SPM @ 430 GPM W/ 1475 SPP: SURVEY @ 7700': 1.6° DEG: NO ISSUES				
16:30	17:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE				
17:00	0:00	7.00	P-DRL	DRLG	PP		DRLG F/ 7766' TO 7873': 107' @ 15.2'/HR: 50 WOB: 55-60 RPM: 105 SPM @ 430 GPM W/ 1500 SPP: SURVEY @ 7800': 1.8° DEG: NO ISSUES:				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 DRLG F/ 7873' TO 7956': 83' @ 13.8'/HR: 50 WOB: 55-60 RPM: 105 SPM @ 430 GPM W/ 1500 SPP: SURVEY @ 7928': 2.0° DEG: 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	
6 / 1		Smith			F47HY	PX9961	3x18	7,669.00 / 12-30-2012		-----	
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
6/1	/50	/50	429.87	1500	289	15.50	204.0	13.2	15.50	204.0	13.2
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 55				TOTAL RPM: 55			



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Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				12-31-2012
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	204.0 (ft)	7,873.0 (ft)	7,927.7 (ft)	24

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
36.00	10.00/2	3/5	0.0/10.0	0.0/0.00	0.00/0.00	0.00/0.0	10.50/0.50	0.26/0.40	105,000	1560	0.0000	0	0.00

Density (ppg)	9.45	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.90
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BHA	6	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	6
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BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		184.0 (kip)		179.0 (kip)		181.0 (kip)		(ft-lbf)		763.84 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE		CONN TYPE	
		DRILL PIPE			223	7,109.16	4.500	3.826			4-1/2" XH	
		6.5 DC			23	682.01	6.000	2.375	6.250		4-1/2" XH	
		IBS			1	4.40	6.500	3.000	8.000		4-1/2" XH	
		6" DC			1	30.59	6.500	3.000	7.875		4-1/2" XH	
		IBS			1	4.51	6.500	3.000	8.000		4-1/2" XH	
		6" TELEDRIFT			1	9.59	6.500	1.750			4-1/2" XH	
		TRICOLLAR			1	31.24	6.500	3.000	7.875		4-1/2" XH	
		F59HY			1	1.50	7.862				4 1/2" REG	

SURVEY								
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	7,800.0	1.80		7,854.8	110.24	0.09	110.24	0.20
	7,700.0	1.60		7,754.8	107.28	0.04	107.28	0.26

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 1500 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	105.00	6.500	429.9				

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	ALLIANCE DRILLING FLUIDS	1	24.00
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 14

TOTAL HOURS ON BOARD: 204

MATERIALS/CONSUMPTION							
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	994	2414				

SAFETY DRILLS							
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H ₂ S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	12-15-2012	12-29-2012			



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 01-01-2013					
API # 4210336004 00		24 HRS PROG 259.0 (ft)		TMD 8,132.0 (ft)		TD TVD 8,186.2 (ft)		REPT NO 25			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 20.94 (days)		DOL 22.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550		DHC: 29,509				DHC: 1,161,763			
		DCC:		DCC:				DCC:			
		CWC:		CWC:				CWC:			
		Others:		Others:				Others:			
		TOTAL: 1,730,550		TOTAL: 29,509				TOTAL: 1,161,763			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 8,099.0 (ft) INC 6.50° AZM 0.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: CIRCULATNG FOR TRIP, LAST SURVEY AT 8099 = 6.5°, 20% LIME, 30% SILT, 50% SAND											
24 HR SUMMARY: DRILL F/ 7873 - T/8080, DRILL W/CONTROLLED PARAMETERS F/8080 - T/8132, CIRCULATE, FOR TRIP OUT OF HOLE, BHA CHANGE, DIRECTIONAL TOOLS TO BE PICKED UP											
24 HR FORECAST: CIRCULATE, TRIP OUT OF HOLE, PICK UP DIRECT. ASSEM, TRIP IN HOLE, DRILL TO CORRECT DEVIATION											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	15:00	15.00	P-DRL	DRLG	PP		DRLG F/ 7873' TO 8080': 207' @ 13.8: 50-45K WOB: 60 RPM: 105 SPM @ 430 GPM W/ 1570 SPP: SURVEY @ 8054': 3.3° DEG: WELLBORE INCREASING IN DEVIATION				
15:00	22:00	7.00	P-DRL	DRLCPA	PP		DRLG F/ 8080' TO 8132': 52' @ 7.4FPH: 15-25K WOB: 85-90 RPM: 105 SPM @ 430 GPM W/ 1570 SPP: SURVEY @ 8099': 6.5° DEG: DEVIATION ISSUES				
22:00	0:00	2.00	P-DRL	CIRCT	PP		CIRCULATE, 105 SPM @ 430 GPM W/ 1570 PSI, PUMP 100BBL 50 VIS SWEEP FOR TRIP OUT OF HOLE, BHA CHANGE, DIRECTIONAL TOOLS TO BE PICKED UP				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 00:00 - 06:00: CIRCULATE WHILE WORKING DRILLSTRING, PUMP 100BBL 65 VIS SWEEP WITH DIME SIZE SHALE RETURNS. PUMP 2ND SWEEP OF 60 BBL 120 VIS WITH DIME SIZE RETURNS & 1.5 INCH SLIVERS OF SHALE. WHILE LETTING WELLBORE CLEAN UP WAS UNABLE TO GET KELLY BACK IN ROTARY @ 40 OFF BTM. SET BACK 1 JNT AND REAMED BACK TO 14' OFF BTM. SPOT 30 BBL 120 VIS AT BIT AND ABLE TO MAKE CONN, REAM BACK TO BTM. SEND 30BBL SWEEP AWAY											
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	
6 / 1		Smith			F47HY	PX9961	3x18	7,669.00 / 12-30-2012		-----	
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
6/1	/50	/90	429.87	1570	291	22.00	259.0	11.8	37.50	463.0	12.3
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 90				TOTAL RPM: 90			



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5												DATE 01-01-2013	
API # 4210336004 00		24 HRS PROG 259.0 (ft)		TMD 8,132.0 (ft)		TD TVD 8,186.2 (ft)		REPT NO 25					
LCM: 0.0		MUD PROPERTIES						MUD TYPE: Brine					
VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
37.00	12.00/4	4/8	0.0/10.0	0.0/0.00	0.00/0.00	0.00/0.0	10.50/0.40	28.00/0.40	102,000	1160	0.0000	0	0.00
Density (ppg)	9.50	ECD (ppg)	0.00	ΔP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.90
BHA	6	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	6		
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH			
(kip)		186.0 (kip)		184.0 (kip)		184.0 (kip)		(ft-lbf)		763.84 (ft)			
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE		
		DRILL PIPE				223	7,368.16	4.500	3.826		4-1/2" XH		
		6.5 DC				23	682.01	6.000	2.375	6.250	4-1/2" XH		
		IBS				1	4.40	6.500	3.000	8.000	4-1/2" XH		
		6" DC				1	30.59	6.500	3.000	7.875	4-1/2" XH		
		IBS				1	4.51	6.500	3.000	8.000	4-1/2" XH		
		6" TELEDRIFT				1	9.59	6.500	1.750		4-1/2" XH		
		TRI-COLLAR				1	31.24	6.500	3.000	7.875	4-1/2" XH		
		F59HY				1	1.50	7.862			4 1/2" REG		
SURVEY													
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)					
	8,099.0	6.50		8,153.4	123.01	0.24	123.01	6.25					
	8,091.0	6.00		8,145.5	122.14	0.22	122.14	17.50					
	8,083.0	4.60		8,137.5	121.40	0.21	121.40	4.48					
	8,054.0	3.30		8,108.6	119.40	0.17	119.40	4.78					
	8,031.0	2.20		8,085.6	118.30	0.15	118.30	0.83					
	8,019.0	2.30		8,073.6	117.83	0.14	117.83	0.63					
	7,987.0	2.10		8,041.7	116.60	0.12	116.60	0.17					
	7,928.0	2.00		7,982.7	114.49	0.08	114.49	0.16					
CASING													
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE	SETTING DEPTH						
00	SURFACE			13.375	48.00	H-40	975.0						
00	INTERMEDIATE 1			8.625	32.00	J55	3,715.0						
MUD PUMPS/HYDRAULICS				SPP: 1570 (psi)		SPR							
	STROKE	SPM	LINER	FLOW RATE	AV(DP):			SPM		PPSR			
					AV(DC):								
					HP: 0.000 (hp/in ²)								
PERSONNEL DATA													
COMPANY	QTY	HRS	COMPANY			QTY	HRS						
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.			1	24.00						
ALLIANCE DRILLING FLUIDS	1	24.00	SUTTLES MUD LOGGERS			2	24.00						
UNION DRILLING INC.	11	132.00											
TOTAL PERSONNEL ON BOARD: 16													
TOTAL HOURS ON BOARD: 228													
MATERIALS/CONSUMPTION													
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND						
DIESEL, RIG FUEL	gal	1420	994										



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 01-02-2013						
API # 4210336004 00		24 HRS PROG (ft)		TMD 8,132.0 (ft)		TD TVD 8,186.2 (ft)		REPT NO 26			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 21.94 (days)		DOL 23.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PB TMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 118,344 DCC: CWC: Others: TOTAL: 118,344				DHC: 1,280,107 DCC: CWC: Others: TOTAL: 1,280,107			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	

LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING	
MD	8,099.0 (ft)	INC	6.50°	AZM	0.00°	7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft	

CURRENT OPERATIONS: WASH AND REAM AT 8120, 105 SPM, 1500 PSI = 435 GPM, 30 ROTARY + 61 DHM = 91 TOTAL RPM, 3-5K BW, SLIGHT TORQ. PRESSURE SPIKES 200-250 PSI, FORMATION: MORROW SHALE, MAX GAS 13 UNITS, 49 VIS, 5.75 WL, 9.5 WT

24 HR SUMMARY: CIRCULATE, SHORT TRIP, TRIP OUT OF HOLE, FUNCTION TEST BOP, TRIP IN HOLE, FUNCTION TEST ANNULAR, TRIP IN HOLE, LAY DOWN 16 JNTS DP, TRIP IN HOLE, CIRCULATE, TRIP IN HOLE, CIRCULATE

24 HR FORECAST: WASH 500' TO BTM, CIRCULATE, DRILL AHEAD WITH DIRECTIONAL TOOLS

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	6:00	6.00	P-DRL	CIRCT	PP		CIRCULATE WHILE WORKING DRILLSTRING, PUMP 100BBL 65 VIS SWEEP WITH DIME SIZE SHALE RETURNS. PUMP 2ND SWEEP OF 60 BBL 120 VIS WITH DIME SIZE RETURNS & 1.5 INCH SLIVERS OF SHALE. WHILE LETTING WELLBORE CLEAN UP WAS UNABLE TO GET KELLY BACK IN ROTARY @ 40 OFF BTM. SET BACK 1 JNT AND REAMED BACK TO 14' OFF BTM. SPOT 30 BBL 120 VIS AT BIT AND ABLE TO MAKE CONN, REAM BACK TO BTM. SEND 30BBL SWEEP AWAY CIRCULATE FROM WELLBORE. SPOT 100BBL 120 VIS ON BTM
6:00	7:00	1.00	P-DRL	TRIP	PP		10 STAND SHORT TRIP
7:00	13:00	6.00	P-DRL	TRIPBHA	PP		TRIP OUT OF HOLE, LAY DOWN 2-STAB, TELEDRIFT & TRI COLLAR
13:00	13:30	0.50	P-DRL	RIGSER	PP		FUNCTION TEST BOP, ACTIVATE BLIND & PIPE RAMS, CHECK BACK UP ACCUMULATOR POWER, HOLD BOP DRILL 1 MIN. REDDY FOR PSI
13:30	17:30	4.00	P-DRL	TRIPBHA	PP		TRIP IN HOLE, PICK UP DIRECTIONAL TOOLS, SCRIBE AND TEST
17:30	18:00	0.50	P-DRL	RIGSER	PP		FUNCTION TEST BOP, CLOSE ANNULAR = 1MIN 53 SEC CLOSE & 2MIN OPEN
18:00	19:00	1.00	P-DRL	TRIPBHA	PP		TRIP IN HOLE
19:00	20:30	1.50	P-DRL	TRIPBHA	PP		LAY DOWN 16 JNTS DRILL PIPE
20:30	22:30	2.00	P-DRL	TRIPBHA	PP		TRIP IN HOLE TO 6600
22:30	23:00	0.50	P-DRL	CIRC	PP		CIRCULATE BTM'S UP, 105 SPM, 1500 PSI = 435 GPM
23:00	23:30	0.50	P-DRL	TRIPBHA	PP		TRIP IN HOLE TO 7100
23:30	0:00	0.50	P-DRL	CIRC	PP		CIRCULATE BTM'S UP, 105 SPM, 1500 PSI = 435 GPM

24.00 = Total Hours Today

06:00 UPDATE

0000-0600

00:00 - 00:30 : CIRCULATE
00:30 - 01:00 : TRIP IN HOLE
01:00 - 03:30 : WASH AND REAM F/ 7610 - T/ 8092, 105 SPM, 1500 PSI = 435 GPM, 30 RPM, 3-5K BW
03:30 - 04:00 : CIRCULATE
04:00 - 06:00 : WASH AND REAM F/ 8092 - T/ 8120, 105 SPM, 1500 PSI = 435 GPM, 30 RPM, 3-5K BW, SLIGHT TORQ. PRESSURE SPIKES 200-250 PSI



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5				DATE 01-02-2013
API # 4210336004 00	24 HRS PROG (ft)	TMD 8,132.0 (ft)	TD TVD 8,186.2 (ft)	REPT NO 26

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
6 / 1		Smith	F47HY	PX9961	3x18	7,669.00 / 12-30-2012	1-1-FC-A-1-I-NO-BHA
7 / 1		Smith	F59HY	PX4896	3x18	8,132.00 / 01-02-2013	-----

MOTOR OUTPUT

RPV: 0.16rev/gal	ROTARY CURRENT:	TOTAL RPM:
LCM: 0.0	MUD TYPE: Brine	

VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
45.00	20.00/9	4/8	0.0/10.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.60	0.29/0.45	106,000	1240	0.0000	0	0.00
Density (ppg)	9.50	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.90

BHA	7	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	7
-----	---	---------	--	-----------------------	--	--	--	---------	--	-----	---

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	(kip)	(kip)	(kip)	(ft-lbf)	749.02 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	6.25 DRILL COLLARS	23	682.01	6.250	2.375	4.500	4-1/2" XH
	NON-MAG DC	1	31.08	6.375	2.750	4.500	4-1/2" XH
	UBHO SUB	1	3.07	6.388	2.750	4.500	4-1/2" XH
	FLOAT SUB	1	3.05	6.188	2.750	4.500	4-1/2" XH
	CALMENA MOTOR, .16RPG, 1.93°	1	28.81	6.750	2.750	4.500	4-1/2" XH
	SMITH F59HY	1	1.00				4-1/2 IF

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS				SPR		
STROKE	SPM	LINER	FLOW RATE	SPP: AV(DP): AV(DC): HP:	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	TOTAL ENERGY SERVICES	1	24.00
ALLIANCE DRILLING FLUIDS	1	24.00	CALMENA	2	48.00
SUTTLES MUD LOGGERS	2	24.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 18

TOTAL HOURS ON BOARD: 276

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	1376	4118				



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 01-03-2013					
API # 4210336004 00		24 HRS PROG 90.0 (ft)		TMD 8,222.0 (ft)		TD TVD 8,275.4 (ft)		REPT NO 27			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 22.94 (days)		DOL 24.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: -20,957 DCC: CWC: Others: TOTAL: -20,957				DHC: 1,259,150 DCC: CWC: Others: TOTAL: 1,259,150			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 8,141.0 (ft) INC 7.50° AZM 0.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: WASH AND REAM BACK TO BTM, MAKE CONN. PUMP UP SURVEY, LAST SURVEY AT 8172 = 6.90° - 210AZ, 10% LIME - 30% SHALE - 60% SILT											
24 HR SUMMARY: CIRCULATE, TRIP IN HOLE, WASH & REAM, CIRCULATE, DRILL ACTUAL 7.875 SECTION F/ 8132 - T/ 8160, WASH 7 REAM, CIRCULATE & CONDITION, DRILL ACTUAL 7.875 SECTION F/ 8160 - T/ 8222											
24 HR FORECAST: SLIDE AND ROTATE DRILL											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	0:30	0.50	P-DRL	CIRC	PP		CIRCULATE BTM'S UP, 105 SPM, 1500 PSI = 435 GPM				
0:30	1:00	0.50	P-DRL	TRIPBHA	PP		TRIP IN HOLE TO 7600				
1:00	3:30	2.50	P-DRL	RMWASH	PP		WASH AND REAM F/ 7610 - T/ 8092, 105 SPM, 1500 PSI = 435 GPM, 30 RPM, 3-5K BW				
3:30	4:00	0.50	P-DRL	CIRC	PP		CIRCULATE & CONDITION WELLBORE, 105 SPM, 1500 PSI = 435 GPM, BRING VIS. UP TO 50 AND WL DOWN TO 6				
4:00	9:00	5.00	P-DRL	RMWASH	PP		WASH AND REAM F/ 8092 - T/ 8132, 105 SPM, 1500 PSI = 435 GPM, 30 RPM, 3-5K BW, SLIGHT TORQ. PRESSURE SPIKES 200-250 PSI				
9:00	11:30	2.50	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8132 - T/ 8160, #1 PUMP -100 SPM =1950 PSI, 100-150 PSI DIFF. PSI, RPM 30 + DHM 65, 25-30k BW, 11.2 FPH, SLIDE: F/8137 - F/8141=4FT - GTF.LS W/ 40K BW				
11:30	14:00	2.50	P-DRL	RMWASH	PP		WASH & REAM, ATTEMPT TO MAKE CONN. AT 8160, REAM 20FT TO BTM				
14:00	15:30	1.50	P-DRL	CIRC	PP		CIRCULATE & CONDITION, BRING VIS UP TO 60 AND PUMP AWAY 30BBL 120 VIS W/HEAVING SHALE RETURNS ADD ASPHALT (SOLTEX) TO 3 LBS/BBL				
15:30	0:00	8.50	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8160 - T/ 8222, #1 PUMP -100 SPM =1950 PSI, 100-150 PSI DIFF. PSI, RPM 30 + DHM 65, 25-30k BW, 7.2 FPH, SLIDES: F/8160 - 8164 = 4FT -GTF.LS, 8192 - 8196 =4FT -GTF.LS, W/40K BW				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 00:00 - 03:30 : DRILL ACTUAL 7.875 SECTION F/ 8222 - T/ 8255, #1 PUMP -100 SPM =1950 PSI, 100-150 PSI DIFF. PSI, RPM 30 + DHM 65, 25-30k BW, 9.5 FPH. 03:30 - 04:30 : RIG REPAIR, REPLACE "O" RING ON STAND PIPE HAMMER UNION IN SUB 04:30 - 06:00 : WASH AND REAM BACK TO BTM, SET JNT. BACK UNABLE TO GET KELLY BUSHINGS IN AFTER DOWN TIME											
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		
7 / 1		Smith		F59HY	PX4896	3x18	8,132.00 / 01-02-2013		-----		



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-03-2013
API # 4210336004 00	24 HRS PROG 90.0 (ft)	TMD 8,222.0 (ft)	TD TVD 8,275.4 (ft)	REPT NO 27						

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
7/1	/40	/32	409.40	1950	268	11.00	90.0	8.2	11.00	90.0	8.2

MOTOR OUTPUT

RPV: 0.16rev/gal	ROTARY CURRENT: 30	TOTAL RPM: 96
LCM: 0.0	MUD TYPE: Brine	

VIS (s/qt)	PV/YP (cp) / (lbf/100ft ²)	GELS (lbf/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
56.00	22.00/11	9/18	0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.50	3.10/0.45	102,000	1280	0.0000	0	2.20
Density (ppg)	9.65	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.90

BHA	7	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	7
BHA WT BELOW JARS	STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)	186.0 (kip)		180.0 (kip)		184.0 (kip)		(ft-lbf)		749.02 (ft)		

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	6.25 DRILL COLLARS	23	682.01	6.250	2.375	4.500	4-1/2" XH
	NON-MAG DC	1	31.08	6.375	2.750	4.500	4-1/2" XH
	UBHO SUB	1	3.07	6.388	2.750	4.500	4-1/2" XH
	FLOAT SUB	1	3.05	6.188	2.750	4.500	4-1/2" XH
	CALMENA MOTOR, .16RPG, 1.93°	1	28.81	6.750	2.750	4.500	4-1/2" XH
	SMITH F59HY	1	1.00				4-1/2 IF

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	8,141.0	7.50		8,195.1	128.17	0.10	128.17	1.88
	8,109.0	6.90		8,163.4	124.16	0.02	124.18	4.81
	8,082.0	5.60		8,136.5	121.22	-0.03	121.57	0.00

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 1950 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	100.00	6.500	409.4				

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	ALLIANCE DRILLING FLUIDS	1	24.00
TOTAL ENERGY SERVICES	1	24.00	CALMENA	2	48.00
SUTTLES MUD LOGGERS	2	24.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 18

TOTAL HOURS ON BOARD: 276

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	852	3266				



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 01-04-2013						
API # 4210336004 00		24 HRS PROG 187.0 (ft)		TMD 8,409.0 (ft)		TD TVD 8,439.7 (ft)		REPT NO 28			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 23.94 (days)		DOL 25.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 72,682 DCC: CWC: Others: TOTAL: 72,682		DHC: 1,331,832 DCC: CWC: Others: TOTAL: 1,331,832					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 8,298.0 (ft) INC 5.30° AZM 210.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRILLING AT 8450, LAST SURVEY AT 8360 = 4.1° - 204.8 AZ, 85% SILTSTONE, 15% SHALE, FORMATION: BTM. MORROW SHALE. LAST SURVEY AT 8392=4.0°-206 AZ											
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 8222 - T/ 8255, RIG REPAIR, WASH AND REAM, DRILL ACTUAL 7.875 SECTION F/ 8255 - T/ 8334, RIG SERVICE & BOP DRILL, DRILL ACTUAL 7.875 SECTION F/ 8334 - T/ 8409											
24 HR FORECAST: SLIDE AND ROTATE DRILL, CIRCULATE											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	3:30	3.50	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8222 - T/ 8255, #1 PUMP -100 SPM =1950 PSI, 100-150 PSI DIFF. PSI, RPM 30 + DHM 65, 25-30k BW, 9.5 FPH.
3:30	4:30	1.00	P-DRL	RIGSER	PN	RO	RIG REPAIR, REPLACE "O" RING ON STAND PIPE HAMMER UNION IN SUB
4:30	6:00	1.50	P-DRL	RMWASH	PN		WASH AND REAM BACK TO BTM, SET JNT. BACK UNABLE TO GET KELLY BUSHINGS IN AFTER DOWN TIME
6:00	17:30	11.50	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8255 - T/ 8334, #1 PUMP -105 SPM =1950 PSI & 426 GPM, 100-150 PSI DIFF. PSI, RPM 33 + DHM 68, 25-30k BW, 6.8 FPH. SLIDES: 8254 - 8262 = 8' GTF.LS, 8286 - 8295 = 9' GTF.LS, 8316 - 8327 =9' GTF.LS,
17:30	18:00	0.50	P-DRL	RIGSER	PP		SEVVICE RIG & BOP DRILL, 1.50 MIN REDDY FOR PSI, ACTIVATE PIPE RAMS
18:00	0:00	6.00	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8334 - T/ 8409, #1 PUMP -105 SPM =1950 PSI & 426 GPM, 100-150 PSI DIFF. PSI, RPM 33 + DHM 68, 30-40k BW, 12.5 FPH. SLIDES: 8349 - 8361 = 12' GTF.LS

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 06:00 : DRILL ACTUAL 7.875 SECTION F/ 8409 - T/ 8450, #1 PUMP -105 SPM =1950 PSI & 426 GPM, 100-150 PSI DIFF. PSI, RPM 33 + DHM 68, 30-40k BW, 6.8 FPH. SLIDES: 8411 - 8422 = 11' GTF.LS

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
7 / 1		Smith	F59HY	PX4896	3x18	8,132.00 / 01-02-2013	-----

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
7/1	/40	/32	429.87	1950	288	21.00	187.0	8.9	32.00	277.0	8.7

MOTOR OUTPUT

RPV: 0.16rev/gal	ROTARY CURRENT: 30	TOTAL RPM: 99
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Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				01-04-2013
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	187.0 (ft)	8,409.0 (ft)	8,439.7 (ft)	28

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
65.00	23.00/11	9/18	0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.50/0.50	3.10/0.47	107,000	1520	0.0000	0	1.50

Density (ppg)	9.40	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.90
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BHA	7	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	7
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BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		188.0 (kip)		184.0 (kip)		186.0 (kip)		(ft-lbf)		749.02 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
		6.25 DRILL COLLARS			23	682.01	6.250	2.375	4.500	4-1/2" XH
		NON-MAG DC			1	31.08	6.375	2.750	4.500	4-1/2" XH
		UBHO SUB			1	3.07	6.388	2.750	4.500	4-1/2" XH
		FLOAT SUB			1	3.05	6.188	2.750	4.500	4-1/2" XH
		CALMENA MOTOR, .16RPG, 1.93°			1	28.81	6.750	2.750	4.500	4-1/2" XH
		SMITH F59HY			1	1.00				4-1/2 IF

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	8,298.0	5.30	210.00	8,329.1	118.98	-8.27	118.98	1.77
	8,267.0	5.80	212.30	8,298.3	121.54	-6.71	121.54	1.63
	8,235.0	6.20	215.50	8,266.4	124.32	-4.85	124.32	1.71
	8,202.0	6.70	213.20	8,233.7	127.38	-2.76	127.38	1.43
	8,172.0	6.90	210.00	8,203.9	130.40	-0.90	130.40	44.97

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 1950 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	105.00	6.500	429.9				

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
ALLIANCE DRILLING FLUIDS	1	24.00	SUTTLES MUD LOGGERS	2	24.00
CALMENA	2	48.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 18

TOTAL HOURS ON BOARD: 276

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	1278	1988				



APACHE CORPORATION

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 01-05-2013						
API # 4210336004 00		24 HRS PROG 42.0 (ft)		TMD 8,451.0 (ft)		TD TVD 8,430.1 (ft)		REPT NO 29			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 24.94 (days)		DOL 26.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 40,029 DCC: CWC: Others: TOTAL: 40,029				DHC: 1,371,861 DCC: CWC: Others: TOTAL: 1,371,861			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 8,392.0 (ft) INC 4.00° AZM 201.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRILLING 8455, LAST SURVEY AT 8392 = 4.0° -201AZ, 10% LIME, 20% SHALE, 70% SILT, TRIP GAS 55 UNITS											
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 8409 - T/ 8452, CIRCULATE, TRIP OUT OF HOLE, LAY DOWN TOOLS, TRIP IN HOLE											
24 HR FORECAST: DRILL SLIDE & ROTATE, CIRCULATE											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	7:00	7.00	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8409 - T/ 8451, #1 PUMP -105 SPM =1950 PSI & 426 GPM, 100-150 PSI DIFF. PSI, RPM 33 + DHM 68, 30-40k BW, 6 FPH. SLIDES: 8411 - 8422 = 11' GTF.LS, 8443 - 8451 = 8' - GTF.LS, UNABLE TO DRILL AFTER SLIDE WITH 45-55K BIT WT
7:00	8:30	1.50	P-DRL	CIRCT	PP		CIRCULATE, PUMP 2-20 120 VIS SWEEPS AND CLEAR WELLBORE, SPOT 100BBL 120 VIS PILL ON BTM
8:30	15:30	7.00	P-DRL	TRIPBHA	PP		TRIP OUT OF HOLE, LAY DOWN 6 JNTS WITH KELLY AND NO PUMP 5-10K OVER PULL, SET KELLY BACK AND COME OUT OF HOLE
15:30	17:00	1.50	P-DRL	TRIPBHA	PP		LAY DOWN DHM & MWD AFTER NUMEROUS EFFORTS WHERE MADE TO REMOVE MWD FROM NMDC, WHEN IT FINALLY CAME OUT THERE WAS A WIRE BRUSH WEDGED BETWEEN NMDC & MWD
17:00	22:30	5.50	P-DRL	TRIPBHA	PP		TRIP IN HOLE, PICK UP NEW BIT, DHM & MWD BREAK CIRC AT 3700 CASING SHOE, TRIP IN HOLE TO 7452
22:30	23:00	0.50	P-DRL	CIRC	PP		CIRCULATE, CLEAR WELLBORE OF PILL SPOTED ON TRIP, #1 PUMP -105 SPM =1950 PSI & 426 GPM
23:00	23:30	0.50	P-DRL	TRIPBHA	PP		TRIP IN HOLE, TO 7952
23:30	0:00	0.50	P-DRL	CIRC	PP		CIRCULATE, CLEAR WELLBORE OF PILL SPOTED ON TRIP, #1 PUMP -105 SPM =1950 PSI & 426 GPM

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 01:30 : TRIP IN HOLE TO 8096, HOLE TIGHT UNABLE TO PASS
01:30 - 04:30 : WASH AND REAM F/ 8083 - 8451, 1 PUMP -105 SPM =2000 PSI & 426 GPM, 2-5K BW, 30-32 RPM + 65 DHM RPM, LARGE AMOUNT OF NICKEL & DIME SIZE SHALE COMING OVER SHAKER
04:30 - 05:30 : CIRCULATE, PUMP 30 BBL 120 VIS SWEEP
05:30 - 06:00 : DRILL ACTUAL 7.875 SECTION F/ 8451 - T/ 8455, #1 PUMP -105 SPM =2000 PSI & 426 GPM, 100-150 PSI DIFF. PSI, RPM 33 + DHM 68, 30-40k BW



APACHE CORPORATION
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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5				DATE 01-05-2013
API # 4210336004 00	24 HRS PROG 42.0 (ft)	TMD 8,451.0 (ft)	TD TVD 8,430.1 (ft)	REPT NO 29

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
7 / 1		Smith Smith	F47HY F59HY	PX5193 PX4896	3x18 3x18	8,452.00 / 01-05-2013 8,132.00 / 01-02-2013	----- 2-2-FC-A-1-I-NO-PR

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
7/1	/50	/32	429.87	1950	279	7.00	42.0	6.0	39.00	319.0	8.2

MOTOR OUTPUT

RPV: 0.16rev/gal	ROTARY CURRENT: 32	TOTAL RPM: 101
LCM: 0.0	MUD PROPERTIES	MUD TYPE: Brine

VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
50.00	15.00/6	4/7	0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.40	0.30/0.45	80,000	1000	0.0000	0	1.50
Density (ppg)	9.10	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.90

BHA	8	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	8
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BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	(kip)	(kip)	(kip)	(ft-lbf)	749.02 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
	6.25 DRILL COLLARS	23	682.01	6.250	2.375	4.500	4-1/2" XH
	NON-MAG DC	1	31.08	6.375	2.750	4.500	4-1/2" XH
	UBHO SUB	1	3.07	6.388	2.750	4.500	4-1/2" XH
	FLOAT SUB	1	3.05	6.188	2.750	4.500	4-1/2" XH
	CALMENA MOTOR, .16RPG, 1.93°	1	28.81	6.750	2.750	4.500	4-1/2" XH
	SMITH F47HY	1	1.00				4-1/2 IF

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	8,392.0	4.00	201.00	8,371.2	-443.80	-256.47	-443.80	0.73
	8,360.0	4.10	204.00	8,339.3	-441.72	-255.61	-441.72	3.47
	8,329.0	5.10	209.00	8,308.4	-439.50	-254.49	-439.50	0.71

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPR		
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM	PPSR
					AV(DC):		
					HP: 0.000 (hp/in ²)		



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 01-06-2013						
API # 4210336004 00		24 HRS PROG 87.0 (ft)		TMD 8,538.0 (ft)		TD TVD 2,582.9 (ft)		REPT NO 30			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 25.94 (days)		DOL 27.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 40,745 DCC: CWC: Others: TOTAL: 40,745				DHC: 1,412,606 DCC: CWC: Others: TOTAL: 1,412,606			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 8,456.0 (ft) INC 3.80° AZM 171.70°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			

CURRENT OPERATIONS: DRILLING AT 8560, LAST SURVEY AT 8488 = 3.9 - 167AZ, TOP OF WOODFORD SHALE AT 8518'

24 HR SUMMARY: TRIP IN HOLE TO 8098, WASH AND REAM F/ 8083 - 8420, CIRCULATE, WASH AND REAM F/ 8420 - 8451, DRILL ACTUAL 7.875 SECTION F/ 8451 - T/ 8497, RIG SERVICE, DRILL ACTUAL 7.875 SECTION F/ 8497 - T/ 8538

24 HR FORECAST: DRILL SLIDE & ROTATE

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	1:30	1.50	P-DRL	TRIPBHA	PP		TRIP IN HOLE TO 8098, HOLE TIGHT UNABLE TO PASS
1:30	4:30	3.00	P-DRL	RMWASH	PP		WASH AND REAM F/ 8083 - 8420, 1 PUMP -105 SPM =2000 PSI & 426 GPM, 2-5K BW, 30-32 RPM + 65 DHM RPM, LARGE AMOUNT OF NICKEL & DIME SIZE SHALE COMING OVER SHAKER
4:30	6:00	1.50	P-DRL		PP		CIRCULATE, PUMP 30 BBL 120 VIS SWEEP BRINGING BACK LARGE QUARTER SIZE SLIVERS OF SHALE
6:00	8:00	2.00	P-DRL	RMWASH	PP		WASH AND REAM F/ 8420 - 8451, 1 PUMP -105 SPM =2000 PSI & 426 GPM, 2-5K BW, 30-32 RPM + 65 DHM RPM
8:00	17:00	9.00	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8451 - T/ 8497, #1 PUMP -105 SPM = 2100 PSI & 426 GPM, 100-150 PSI DIFF. PSI, RPM 33 + DHM 68, 30-40k BW, 5 FPH. SLIDES:8474 - 8483 =9FT
17:00	17:30	0.50	P-DRL	RIGSER	PP		RIG SERVICE
17:30	0:00	6.50	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8497 - T/ 8538, #1 PUMP -105 SPM =2100 PSI & 426 GPM, 100-150 PSI DIFF. PSI, RPM 33 + DHM 68, 30-40k BW, 6.3 FPH. SLIDES: 8520 - 8526 =6

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 06:00 : DRILL ACTUAL 7.875 SECTION F/ 8538 - T/ 8560, #1 PUMP -100 SPM =2500 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 30K BW, 3.6 FPH. SLIDE: 8538 - 8552 = 14FT

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
		Smith	F47HY	PX5193	3x18	8,452.00 / 01-05-2013	-----



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-06-2013
API # 4210336004 00	24 HRS PROG 87.0 (ft)	TMD 8,538.0 (ft)	TD TVD 2,582.9 (ft)	REPT NO 30						

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
	/50	/32	429.87	2100	285	15.50	7.0	0.5	15.50	7.0	0.5

MOTOR OUTPUT

RPV: 0.16rev/gal				ROTARY CURRENT: 30				TOTAL RPM: 99					
LCM: 0.0		MUD PROPERTIES						MUD TYPE: Brine					
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 (%)	KCL (ppm)	LGS (%)
65.00	24.00/13	9/18	0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.50	0.34/0.50	81,000	760	0.0000	0	1.50
Density (ppg)	9.30	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.90

BHA	8	JAR S/N	BHA / HOLE CONDITIONS				JAR HRS	BIT	8
BHA WT BELOW JARS		STRING WT UP	STRING WT DN	STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		188.0 (kip)	182.0 (kip)	186.0 (kip)		(ft-lbf)		749.02 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION		NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
		6.25 DRILL COLLARS		23	682.01	6.250	2.375	4.500	4-1/2" XH
		NON-MAG DC		1	31.08	6.375	2.750	4.500	4-1/2" XH
		UBHO SUB		1	3.07	6.388	2.750	4.500	4-1/2" XH
		FLOAT SUB		1	3.05	6.188	2.750	4.500	4-1/2" XH
		CALMENA MOTOR, .16RPG, 1.93°		1	28.81	6.750	2.750	4.500	4-1/2" XH
		SMITH F47HY		1	1.00				4-1/2 IF

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
	8,488.0	3.90	167.50	8,482.3	-267.83	-21.22	-0.03	0.93
	8,456.0	3.80	171.70	2,501.1	2.08	-0.24	-265.72	2.69
	8,424.0	3.60	184.70	2,469.1	4.13	-0.31	-445.85	0.00

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 2100 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	105.00	6.500	429.9				

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
ALLIANCE DRILLING FLUIDS	1	24.00	SUTTLES MUD LOGGERS	2	24.00
CALMENA	2	48.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 18

TOTAL HOURS ON BOARD: 276

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	1562	3316				



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-07-2013			
API # 4210336004 00		24 HRS PROG 104.0 (ft)		TMD 8,642.0 (ft)		TD TVD 8,635.1 (ft)		REPT NO 31					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 26.94 (days)		DOL 28.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 49,623 DCC: CWC: Others: TOTAL: 49,623		DHC: 1,462,229 DCC: CWC: Others: TOTAL: 1,462,229							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 8,582.0 (ft) INC 3.70° AZM 175.90°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: DRILLING AT 8668, LAST SURVEY: 8488= INC: 3.6°- AZM: 177.2 DLS .97, 100% SILT, GAS BKG=10, MAX 14													
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 8538 - T/ 8615, TIG SERVICE & BOP DRILL, DRILL ACTUAL 7.875 SECTION F/ 8615 - T/ 8642													
24 HR FORECAST: DRILL SLIDE & ROTATE													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	17:30	17.50	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8538 - T/ 8615, #1 PUMP -100 SPM =2300 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 30-45K BW, 4.4 FPH. SLIDE: 8538 - 8552 = 14FT-MTF 350, 8569 - 8576 = 7FT MTF.350, 8601- 8615 = 14FT MTF.355						
17:30	18:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE & BOP DRILL 1.5 MIN REDDY FOR PSI						
18:00	0:00	6.00	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8615 - T/ 8642, #1 PUMP -100 SPM =2300 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 40 45K BW, 4.5 FPH. SLIDE: 8632 - 8642 = 10FT MTF.355						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 00:00 - 06:00 : DRILL ACTUAL 7.875 SECTION F/ 8642 - T/ 8668, #1 PUMP -100 SPM =2300 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 40 45K BW, 4.3 FPH. LAST SURVEY: 8488= INC: 3.6°- AZM: 177.2, 100% SILT													
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				
8 / 1		Smith		F47HY	PX5193	3x18	8,452.00 / 01-05-2013		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
8/1	/45	/42	409.40	2400	258	22.50	104.0	4.6	38.00	111.0	2.9		
MOTOR OUTPUT													
RPV: 0.16rev/gal		ROTARY CURRENT: 40				TOTAL RPM: 106							
LCM: 0.0		MUD PROPERTIES				MUD TYPE: Brine							
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 (%)	KCL (ppm)	LGS (%)
70.00	26.00/14	11/21	0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.50	0.32/0.43	80,000	880	0.0000	0	2.50
Density (ppg)	9.30	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.50



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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-07-2013	
API # 4210336004 00		24 HRS PROG 104.0 (ft)		TMD 8,642.0 (ft)		TD TVD 8,635.1 (ft)		REPT NO 31			
BHA	8	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	8
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		190.0 (kip)		176.0 (kip)		186.0 (kip)		(ft-lbf)		749.02 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
		6.25 DRILL COLLARS				23	682.01	6.250	2.375	4.500	4-1/2" XH
		NON-MAG DC				1	31.08	6.375	2.750	4.500	4-1/2" XH
		UBHO SUB				1	3.07	6.388	2.750	4.500	4-1/2" XH
		FLOAT SUB				1	3.05	6.188	2.750	4.500	4-1/2" XH
		CALMENA MOTOR, .16RPG, 1.93°				1	28.81	6.750	2.750	4.500	4-1/2" XH
		SMITH F47HY				1	1.00				4-1/2 IF
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
	8,582.0	3.70	175.90	8,575.2	-288.38	63.19	-288.38	0.97			
	8,551.0	4.00	175.70	8,544.3	-286.31	63.04	-286.31	0.46			
	8,519.0	4.10	174.20	8,512.4	-284.06	62.84	-284.06	1.64			
	8,488.0	3.90	167.50	8,481.4	-281.92	62.50	-307.28	0.05			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS					SPP: 2400 (psi)		SPR				
	STROKE	SPM	LINER	FLOW RATE	AV(DP):		SPM		PPSR		
# 1	10.00	100.00	6.500	409.4	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY				QTY	HRS	COMPANY				QTY	HRS
TOTAL ENERGY SERVICES				1	24.00	UNION DRILLING INC.				1	24.00
ALLIANCE DRILLING FLUIDS				1	24.00	SUTTLES MUD LOGGERS				2	24.00
CALMENA				2	48.00	UNION DRILLING INC.				11	132.00
TOTAL PERSONNEL ON BOARD: 18											
TOTAL HOURS ON BOARD: 276											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM		UNITS	USAGE	ON HAND			
DIESEL, RIG FUEL	gal	1219	4702								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)		CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL			
1000	12-15-2012 / 750		12-15-2012 / 1000	01-05-2013	12-29-2012						
INCIDENT REPORT											
INCIDENTS TYPE		LOST TIME? NO		INCIDENTS DESCRIPTION NO ACCIDENTS OR ENVIRONMENTAL ISSUES							



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-08-2013			
API # 4210336004 00		24 HRS PROG 231.0 (ft)		TMD 8,873.0 (ft)		TD TVD 8,870.6 (ft)		REPT NO 32					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 27.94 (days)		DOL 29.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 47,283 DCC: CWC: Others: TOTAL: 47,283		DHC: 1,509,512 DCC: CWC: Others: TOTAL: 1,509,512							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 8,802.0 (ft) INC 1.30° AZM 338.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: TRIPPING OUT OF HOLE, LAST SURVEY AT 8833=1.3°-351.2AZ, MAX GAS 135UT AT 8770, 30 % CHERT - 70% LIME STONE AT 8852													
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 8642 - T/ 8790, RIG SERVICE, DRILL ACTUAL 7.875 SECTION F/ 8790 - T/ 8873													
24 HR FORECAST: DRILL, CIRCULATE, TRIP OUT OF HOLE, L/D DIRECT. TOOLS, TRIP IN HOLE, WASH AND REAM F/8000 - T/8800, DRILL													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	16:30	16.50	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8642 - T/ 8789, #1 PUMP -100 SPM =2300 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 40 45K BW, 8.9 FPH. SLIDES: 8636 - 8675 = 12FT-MTF.350, 8695 - 8705=10FT-MTF.0, 8726 - 8738= 12FT-MTF.O, 8758 - 8768=10FT MTF 5,						
16:30	17:00	0.50	P-DRL		PP		RIG SERVICE						
17:00	0:00	7.00	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8789 - T/ 8873, #1 PUMP -100 SPM =2300 PSI & 409 GPM, 150-200 PSI DIFF. PSI, RPM 33 + DHM 65, 40 45K BW, 11.8 FPH.						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 00:00 - 04:30 : DRILL ACTUAL 7.875 SECTION F/ 8873 - T/ 8908, #1 PUMP -100 SPM =2300 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 40 45K BW, FPH. 04:30 - 06:00 : CIRCULATE, FOR BIT TRIP													
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				
8 / 1		Smith		F47HY	PX5193	3x18	8,452.00 / 01-05-2013		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
8/1	/45	/32	409.40	2300	257	23.50	231.0	9.8	61.50	342.0	5.6		
MOTOR OUTPUT													
RPV: 0.16rev/gal				ROTARY CURRENT: 30				TOTAL RPM: 96					
LCM: 0.0		MUD PROPERTIES						MUD TYPE: Brine					
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 (%)	KCL (ppm)	LGS (%)
71.00	24.00/12	11/23	0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.50/0.70	0.30/0.42	76,000	840	0.0000	0	2.50
Density (ppg)	9.25	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.50



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Daily Drilling Report

WELLBORE NAME										DATE	
UNIVERSITY DEVONIAN A 37 5										01-08-2013	
API #		24 HRS PROG		TMD		TD TVD		REPT NO			
4210336004 00		231.0 (ft)		8,873.0 (ft)		8,870.6 (ft)		32			
BHA	8	JAR S/N		BHA / HOLE CONDITIONS			JAR HRS		BIT	8	
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		190.0 (kip)		186.0 (kip)		188.0 (kip)		(ft-lbf)		749.02 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE	
Drill Collar		6.25 DRILL COLLARS			23	682.01	6.250	2.375	4.500	4-1/2" XH	
Non-Mag Drill Collar		NON-MAG DC			1	31.08	6.375	2.750	4.500	4-1/2" XH	
Pulser Sub		UBHO SUB			1	3.07	6.388	2.750	4.500	4-1/2" XH	
Float Sub		FLOAT SUB			1	3.05	6.188	2.750	4.500	4-1/2" XH	
Bent Housing		CALMENA MOTOR, .16RPG, 1.93°			1	28.81	6.750	2.750	4.500	4-1/2" XH	
Tri-Cone Bit		SMITH F47HY			1	1.00				4-1/2 IF	
SURVEY											
TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)			
NORMAL	8,802.0	1.30	338.00	8,799.7	307.56	155.95	307.56	2.45			
NORMAL	8,771.0	0.70	309.70	8,768.7	307.11	156.23	307.11	3.91			
NORMAL	8,708.0	2.30	186.50	8,705.7	308.04	156.68	308.04	1.74			
NORMAL	8,676.0	2.80	181.00	8,673.7	309.46	156.77	309.46	0.98			
NORMAL	8,645.0	3.10	180.00	8,642.7	311.06	156.78	311.06	1.64			
NORMAL	8,613.0	3.60	177.20	8,610.8	312.93	156.73	312.93	0.42			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 2300 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM		PPSR			
# 1	10.00	100.00	6.500	409.4	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY		QTY	HRS	COMPANY		QTY	HRS				
ALLIANCE DRILLING FLUIDS		1	24.00	UNION DRILLING INC.		1	24.00				
TOTAL ENERGY SERVICES		1	24.00	CALMENA		2	48.00				
SUTTLES MUD LOGGERS		2	24.00	UNION DRILLING INC.		11	132.00				
TOTAL PERSONNEL ON BOARD: 18											
TOTAL HOURS ON BOARD: 276											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	1578	3124								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	01-05-2013	12-29-2012							
INCIDENT REPORT											
INCIDENTS TYPE		LOST TIME? NO		INCIDENTS DESCRIPTION NO ACCIDENTS OR ENVIRONMENTAL ISSUES							



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 01-09-2013					
API # 4210336004 00		24 HRS PROG 35.0 (ft)		TMD 8,908.0 (ft)		TD TVD 8,905.6 (ft)		REPT NO 33			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 28.94 (days)		DOL 30.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 62,243 DCC: CWC: Others: TOTAL: 62,243		DHC: 1,571,755 DCC: CWC: Others: TOTAL: 1,571,755					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 8,802.0 (ft) INC 1.30° AZM 338.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: CIRCULATING AT 8237, HEAVING SHALE AND SILTSTONE, TRIP GAS 55 UNITS											
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 8873 - T/ 8908, CIRCULATE, TRIP OUT OF HOLE, TRIP IN HOLE, WASH AND REAM F/ 8036 - 8227											
24 HR FORECAST: CIRCULATE, WASH & REAM, DRILL ACTUAL											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	4:30	4.50	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 8873 - T/ 8908, #1 PUMP -100 SPM =2300 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 40 45K BW, 7.7 FPH				
4:30	6:00	1.50	P-DRL	CIRCT	PP		CIRCULATE, PUMP 2-20 120 VIS SWEEPS AND CLEAR WELLBORE, SPOT 100BBL 120 VIS PILL ON BTM, #1 PUMP -100 SPM =2200 PSI & 409 GPM				
6:00	14:00	8.00	P-DRL	TRIPBHA	PP		TRIP OUT OF HOLE, LAY DOWN 4 JNTS WITH KELLY AND NO PUMP 5-10K OVER PULL, SET KELLY BACK AND TRIP OUT OF HOLE, 20-25K OVER PULL AT 8253 & 8159, LAY DOWN 21 MORE JNTS F/ REAM BACK TO BTM. LAY DOWN DIRECTIONAL TOOLS				
14:00	22:00	8.00	P-DRL	TRIPBHA	PP		TRIP IN HOLE, PICK UP SMITH F47HY, BIT SUB & TELEDRIFT + DC'S				
22:00	0:00	2.00	P-DRL	RMWASH	PP		WASH AND REAM F/ 8036 - 8227, 1 PUMP -105 SPM =1470 PSI & 426 GPM, 2-5K BW, 50-70 RPM, LARGE AMOUNT OF NICKEL & DIME SIZE SHALE COMING OVER SHAKER				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 00:00 - 03:00 : CIRCULATE, #1 PUMP -105 SPM =1470 PSI & 426 GPM, PUMP 30 BBL 120 VIS SWEEP BRINGING BACK LARGE QUARTER SIZE SLIVERS OF SHALE 03:00 - 06:00 : WASH AND REAM F/ 8227 - 8237, 1 PUMP -105 SPM = 2000 PSI & 426 GPM, 2-5K BW, 50-70 RPM, HEAVING LARGE AMOUNTS OF SHALE, SPOT 30 BBL 120 VIS PILL AND ATTEMPT TO MAKE CONN. AT 8237 UNABLE TO GET KELLY BUSHINGS IN. SET JNT. BACK AND REAM BACK TO 8227 ROTARY TORQED UP, WORK STRING FREE WITH 40K OVER PULL. WORK BACK TO 8237. PUMP 40 BBL 120 VIS SWEEP AND CLEAR WELL BORE.											
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		
9 / 1		Smith		F47HY	PX9961	3x20	8,908.00 / 01-09-2013		-----		
8 / 1		Smith		F47HY	PX5193	3x18	8,452.00 / 01-05-2013		-----		



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5								DATE 01-09-2013			
API # 4210336004 00		24 HRS PROG 35.0 (ft)		TMD 8,908.0 (ft)		TD TVD 8,905.6 (ft)		REPT NO 33			

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
8/1	/45	/32	409.40	2300	259	4.50	35.0	7.8	66.00	377.0	5.7

MOTOR OUTPUT

RPV:				ROTARY CURRENT: 30				TOTAL RPM: 96			
LCM: 0.0				MUD PROPERTIES				MUD TYPE: Brine			

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 (%)	KCL (ppm)	LGS (%)				
70.00	25.00/12	9/20		0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.50	0.30/0.45	77,000	840	0.0000	0	2.50				
Density (ppg)		9.30	ECD (ppg)		0.00	³P (ppg)	0.00	DAILY COST		0.00	CUM COST		0	%OIL	0.00	% H2O		97.50

BHA	9	JAR S/N	BHA / HOLE CONDITIONS					JAR HRS	BIT		9
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		(kip)		(kip)		(kip)		(ft-lbf)		753.38 (ft)	

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar	6.25 DRILL COLLARS	24	711.05	6.250	2.375	4.500	4-1/2" XH
Survey Tools	6" TELEDRIFT	1	9.59	6.500	1.750		4-1/2" XH
Bit Sub	BIT SUB	1	31.24	6.500	3.000	7.875	4-1/2" XH
Tri-Cone Bit	SMITH F47HY	1	1.50	7.862			4 1/2" REG

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS

STROKE		SPM	LINER	FLOW RATE	SPP: 2300 (psi)	SPR	
					AV(DP):	SPM	PPSR
					AV(DC):		
					HP: 0.000 (hp/in ²)		

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
ALLIANCE DRILLING FLUIDS	1	24.00	UNION DRILLING INC.	1	24.00
TOTAL ENERGY SERVICES	1	24.00	SUTTLES MUD LOGGERS	2	24.00
CALMENA	2	48.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 18

TOTAL HOURS ON BOARD: 276

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	710	2414				

SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	01-05-2013	12-29-2012			

INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION NO ACCIDENTS OR ENVIRONMENTAL ISSUES, ACTIVATE PIPE & BLIND RAMS ON TRIP
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APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 01-10-2013					
API # 4210336004 00		24 HRS PROG 71.0 (ft)		TMD 8,979.0 (ft)		TD TVD 8,976.6 (ft)		REPT NO 34			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 29.94 (days)		DOL 31.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 26,697 DCC: CWC: Others: TOTAL: 26,697				DHC: 1,598,452 DCC: CWC: Others: TOTAL: 1,598,452			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 8,915.0 (ft) INC 0.40° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRILLING AT 9012, LAST SURVEY AT 8970' = 1.2°, 5%CHERT - 15% SHALE - 80% LIMESTONE											
24 HR SUMMARY: CIRCULATE, WASH AND REAM F/ 8227 - 8908, DRILL ACTUAL 7.875 SECTION F/ 8908 - T/ 8930, RIG SERVICE & BOP DRILL, DRILL ACTUAL 7.875 SECTION F/ 8930 - T/ 8979											
24 HR FORECAST: DRILL, RIG SERVICE, DRILL											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	3:00	3.00	P-DRL	CIRC	PP		CIRCULATE,#1 PUMP -105 SPM =1470 PSI & 426 GPM, PUMP 30 BBL 120 VIS SWEEP BRINGING BACK LARGE QUARTER SIZE SLIVERS OF SHALE				
3:00	12:00	9.00	P-DRL	RMWASH	PP		WASH AND REAM F/ 8227 - 8908, 1 PUMP -105 SPM = 2000 PSI & 426 GPM, 2-5K BW, 50-70 RPM, HEAVING LARGE AMOUNTS OF SHALE, SPOT 30 BBL 120 VIS PILL AND ATTEMPT TO MAKE CONN. AT 8237 UNABLE TO GET KELLY BUSHINGS IN. SET JNT. BACK AND REAM BACK TO 8227 ROTARY TORQED UP, WORK STRING FREE WITH 40K OVER PULL. WORK BACK TO 8237. PUMP 40 BBL 120 VIS SWEEP AND CLEAR WELL BORE.				
12:00	15:30	3.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 8908 - T/ 8930, #1 PUMP -115 SPM =2300 PSI & 465 GPM,RPM 50, 40- 45K BW, 6.2 FPH				
15:30	16:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE, BOP DRILL 1 MIN REDDY FOR PSI, SPR 51SPM=570 PSI AT 8930				
16:00	0:00	8.00	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 8930 - T/ 8979, #1 PUMP -115 SPM =2300 PSI & 465 GPM,RPM 50, 40- 45K BW, 6.1 FPH				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 00:00 - 06:00 : DRILL ACTUAL 7.875 SECTION F/ 8979 - T/ 9012, #1 PUMP -115 SPM =2300 PSI & 465 GPM,RPM 50, 40- 45K BW, 6.1 FPH, LAST SURVEY AT 8970' = 1.2°, 5%CHERT - 15% SHALE - 80% LIMESTONE											
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	
9 / 1		Smith		F47HY	PY0910	3x20		8,908.00 / 01-09-2013		-----	
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
9/1	/45	/60	470.81	2300	234	11.50	70.0	6.1	11.50	70.0	6.1
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 50				TOTAL RPM: 50			



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				01-10-2013
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	71.0 (ft)	8,979.0 (ft)	8,976.6 (ft)	34

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
79.00	30.00/18	14/29	0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.70	0.29/0.36	67,000	640	0.0000	0	2.50

Density (ppg)	9.70	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.50
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BHA	9	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	9
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BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		192.0 (kip)		188.0 (kip)		190.0 (kip)		(ft-lbf)		753.38 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar		6.25 DRILL COLLARS			24	711.05	6.250	2.375	4.500	4-1/2" XH
Survey Tools		6" TELEDRIFT			1	9.59	6.500	1.750		4-1/2" XH
Bit Sub		BIT SUB			1	31.24	6.500	3.000	7.875	4-1/2" XH
Tri-Cone Bit		SMITH F47HY			1	1.50	7.862			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	8,915.0	0.40		8,912.6	309.14	155.48	309.14	0.84

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 2300 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	115.00	6.500	470.8				

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	ALLIANCE DRILLING FLUIDS	1	24.00
UNION DRILLING INC.	1	24.00	SUTTLES MUD LOGGERS	2	24.00
UNION DRILLING INC.	11	132.00			

TOTAL PERSONNEL ON BOARD: 16

TOTAL HOURS ON BOARD: 228

MATERIALS/CONSUMPTION							
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	1136	1278				

SAFETY DRILLS							
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H ₂ S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	01-09-2013	12-29-2012			

INCIDENT REPORT		
INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION NO ACCIDENTS OR ENVIRONMENTAL ISSUES, BOP DRILL 1 MIN REDDY FOR PSI, SPR 51SPM=570 PSI AT 8930



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-11-2013			
API # 4210336004 00		24 HRS PROG 140.0 (ft)		TMD 9,119.0 (ft)		TD TVD 9,116.6 (ft)		REPT NO 35					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 30.94 (days)		DOL 32.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 50,975 DCC: CWC: Others: TOTAL: 50,975		DHC: 1,649,427 DCC: CWC: Others: TOTAL: 1,649,427							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 9,063.0 (ft) INC 1.20° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: DRILLING AT 9156, LAST SURVEY AT 9118 = 1.3°, 10% CHERT - 90% LIME													
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 8979 - T/ 9056, RIG SERVICE, DRILL ACTUAL 7.875 SECTION F/ 9056 - T/ 9119													
24 HR FORECAST: DRILL, RIG SERVICE, DRILL													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	13:00	13.00	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 8979 - T/ 9056, #1 PUMP -115 SPM =2300 PSI & 401GPM,RPM 50, 40- 45K BW, 5.9 FPH						
13:00	13:30	0.50	P-DRL	RIGSER	PP		RIG SERVICE						
13:30	0:00	10.50	P-DRL		PP		DRILL ACTUAL 7.875 SECTION F/ 9056 - T/ 9119, #2 PUMP -115 SPM =2300 PSI & 401GPM,RPM 50, 40- 45K BW, 6.0 FPH						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 00:00 - 06:00 : DRILL ACTUAL 7.875 SECTION F/ 9119 - T/ 9156, #2 PUMP -115 SPM =2300 PSI & 401GPM,RPM 50, 40- 45K BW, 6.1 FPH													
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				
9 / 1		Smith		F47HY	PY0910	3x20	8,908.00 / 01-09-2013		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
9/1	/45	/50	401.17	2300	170	23.50	140.0	6.0	35.00	210.0	6.0		
MOTOR OUTPUT													
RPV:			ROTARY CURRENT: 50				TOTAL RPM: 50						
LCM: 0.0			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 (%)	KCL (ppm)	LGS (%)
76.00	25.00/12	10/21	0.0/6.0	0.0/0.00	0.00/0.00	0.00/0.0	10.00/0.70	0.30/0.45	93,000	1080	0.0000	0	2.50
Density (ppg)	9.70	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.50



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME										DATE	
UNIVERSITY DEVONIAN A 37 5										01-11-2013	
API #		24 HRS PROG		TMD		TD TVD		REPT NO			
4210336004 00		140.0 (ft)		9,119.0 (ft)		9,116.6 (ft)		35			
BHA	9	JAR S/N		BHA / HOLE CONDITIONS			JAR HRS		BIT	9	
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		220.0 (kip)		198.0 (kip)		200.0 (kip)		(ft-lbf)		753.38 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE	
Drill Collar		6.25 DRILL COLLARS			24	711.05	6.250	2.375	4.500	4-1/2" XH	
Survey Tools		6" TELEDRIFT			1	9.59	6.500	1.750		4-1/2" XH	
Bit Sub		BIT SUB			1	31.24	6.500	3.000	7.875	4-1/2" XH	
Tri-Cone Bit		SMITH F47HY			1	1.50	7.862			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	9,063.0	1.20		9,060.6	311.97	155.53	311.97	0.74			
NORMAL	9,036.0	1.00		9,033.6	311.46	155.52	311.46	1.58			
NORMAL	8,998.0	1.60		8,995.6	310.59	155.51	310.59	1.43			
NORMAL	8,970.0	1.20		8,967.6	309.91	155.49	309.91	1.45			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 2300 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM		PPSR			
# 2	10.00	115.00	6.000	401.2	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY			QTY	HRS	COMPANY			QTY	HRS		
UNION DRILLING INC.			1	24.00	TOTAL ENERGY SERVICES			1	24.00		
ALLIANCE DRILLING FLUIDS			1	24.00	SUTTLES MUD LOGGERS			2	24.00		
UNION DRILLING INC.			11	132.00							
TOTAL PERSONNEL ON BOARD: 16											
TOTAL HOURS ON BOARD: 228											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	1737	4544								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	01-11-2013	12-29-2012							
INCIDENT REPORT											
INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION									
NO ACCIDENTS OR ENVIRONMENTAL ISSUES, BOP DRILL 1.5 MIN REDDY FOR PSI, SPR #1 PUMP - 63SPM= 920 PSI AT 9056, #2 PUMP - 50 SPM= 625 PSI											



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-12-2013			
API # 4210336004 00		24 HRS PROG 147.0 (ft)		TMD 9,266.0 (ft)		TD TVD 9,263.6 (ft)		REPT NO 36					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 31.94 (days)		DOL 33.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 36,112 DCC: CWC: Others: TOTAL: 36,112		DHC: 1,685,539 DCC: CWC: Others: TOTAL: 1,685,539							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 9,245.0 (ft) INC 1.10° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: DRILLING AT 9299, LAST SURVEY: 9245'=1.1°, 10% CHERT - 85% LIME - 5% SHALE AT 9286													
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 9119 - T/ 9214, RIG SERVICE, DRILL ACTUAL 7.875 SECTION F/ 9214 - T/ 9266													
24 HR FORECAST: DRILL, RIG SERVICE, DRILL													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	15:00	15.00	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9119 - T/ 9214, #2 PUMP -115 SPM =2300 PSI & 401GPM,RPM 50, 45K BW, 6.3 FPH						
15:00	15:30	0.50	P-DRL	RIGSER	PP		RIG SERVICE, SPR #1 PUMP 63SPM=900#, #2 PUMP 51SPM=720#						
15:30	0:00	8.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9214 - T/ 9266, #1 PUMP -100 SPM =2000 PSI & 409GPM, RPM 50, 45K BW, 6.1 FPH						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 00:00 - 06:00 : DRILL ACTUAL 7.875 SECTION F/ 9266 - T/ 9299, #2 PUMP -115 SPM =2300 PSI & 401GPM,RPM 50, 40- 45K BW, 5.5 FPH, LAST SURVEY: 9245'=1.1°, 10% CHERT - 85% LIME - 5% SHALE AT 9286													
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				
9 / 1		Smith		F47HY	PY0910	3x20	8,908.00 / 01-09-2013		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
9/1	/45	/50	409.40	2000	179	23.50	147.0	6.3	58.50	357.0	6.1		
MOTOR OUTPUT													
RPV:			ROTARY CURRENT: 50			TOTAL RPM: 50							
LCM: 0.0			MUD PROPERTIES						MUD TYPE: Brine				
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 (%)	KCL (ppm)	LGS (%)
70.00	22.00/12	8/18	0.0/6.0	1.0/0.00	0.00/0.00	0.00/0.0	10.00/0.60	0.32/0.47	10,300	1480	0.0000	0	2.40
Density (ppg)	9.80	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.50



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WELLBORE NAME										DATE	
UNIVERSITY DEVONIAN A 37 5										01-12-2013	
API #		24 HRS PROG		TMD		TD TVD		REPT NO			
4210336004 00		147.0 (ft)		9,266.0 (ft)		9,263.6 (ft)		36			
BHA	9	JAR S/N		BHA / HOLE CONDITIONS			JAR HRS		BIT	9	
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		210.0 (kip)		190.0 (kip)		190.0 (kip)		(ft-lbf)		753.38 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar		6.25 DRILL COLLARS				24	711.05	6.250	2.375	4.500	4-1/2" XH
Survey Tools		6" TELEDRIFT				1	9.59	6.500	1.750		4-1/2" XH
Bit Sub		BIT SUB				1	31.24	6.500	3.000	7.875	4-1/2" XH
Tri-Cone Bit		SMITH F47HY				1	1.50	7.862			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	9,245.0	1.10		9,242.6	315.54	155.60	315.54	1.03			
NORMAL	9,216.0	1.40		9,213.6	314.91	155.59	314.91	1.03			
NORMAL	9,187.0	1.10		9,184.6	314.28	155.58	314.28	0.65			
NORMAL	9,156.0	0.90		9,153.6	313.74	155.57	313.74	1.05			
NORMAL	9,118.0	1.30		9,115.6	313.01	155.55	313.01	1.25			
NORMAL	9,086.0	0.90		9,083.6	312.40	155.54	312.40	1.30			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 2000 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM		PPSR			
# 1	10.00	100.00	6.500	409.4	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY		QTY	HRS	COMPANY		QTY	HRS				
ALLIANCE DRILLING FLUIDS		1	24.00	UNION DRILLING INC.		1	24.00				
TOTAL ENERGY SERVICES		1	24.00	SUTTLES MUD LOGGERS		2	24.00				
UNION DRILLING INC.		11	132.00								
TOTAL PERSONNEL ON BOARD: 16											
TOTAL HOURS ON BOARD: 228											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	994	3550								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	01-11-2013	12-29-2012							
INCIDENT REPORT											
INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION									
NO ACCIDENTS OR ENVIRONMENTAL ISSUES, SPR #1 PUMP 63SPM=900#, #2 PUMP 51SPM=720# AT 9214											



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-13-2013			
API # 4210336004 00		24 HRS PROG 149.0 (ft)		TMD 9,415.0 (ft)		TD TVD 9,412.5 (ft)		REPT NO 37					
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 32.94 (days)		DOL 34.50 (days)			
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PB TMD			
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO			
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS							
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 27,430 DCC: CWC: Others: TOTAL: 27,430		DHC: 1,712,969 DCC: CWC: Others: TOTAL: 1,712,969							
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE			
LAST SURVEY MD 9,371.0 (ft) INC 1.30° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft					
CURRENT OPERATIONS: CIRCULATING AT 9436', FOR TRIP OUT OF HOLE TO XO BITS. 40% CHERT - 60% LIME, LAST SURVEY AT 9404 = 1.5°													
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 9266 - T/ 9373, RIG SERVICE, DRILL ACTUAL 7.875 SECTION F/ 9373 - T/ 9415													
24 HR FORECAST: DRILL, CIRCULATE, TRIP OUT OF HOLE, TRIP IN HOLE, WASH AND REAM F/ 9310 - T/ 9441, DRILL													
OPERATION SUMMARY													
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY						
0:00	17:30	17.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9266 - T/ 9373, #1 PUMP -100 SPM =2200 PSI & 409GPM, RPM 50, 45K BW, 6.1 FPH						
17:30	18:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE						
18:00	0:00	6.00	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9373 - T/ 9415, #1 PUMP -100 SPM =2300 PSI & 409GPM, RPM 50, 45K BW, 7 FPH						
24.00 = Total Hours Today													
06:00 UPDATE													
0000-0600 00:00 - 04:30 : DRILL ACTUAL 7.875 SECTION F/ 9415 - T/ 9441, #1 PUMP -100 SPM =2000 PSI & 409GPM, RPM 50, 45K BW, 5.7FPH 04:30 - 06:00 : CIRCULATE, AT 9436' PUMP 2-20 120 VIS SWEEPS AND CLEAR WELLBORE, SPOT 100BBL 120 VIS PILL ON BTM, #1 PUMP -100 SPM =2200 PSI & 409 GPM, 40% CHERT - 60% LIME, LAST SURVEY AT 9404 = 1.5°													
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				
9 / 1		Smith		F47HY	PY0910	3x20	8,908.00 / 01-09-2013		-----				
BIT OPERATIONS													
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP		
9/1	/45	/60	409.40	2300	177	23.50	149.0	6.3	82.00	506.0	6.2		
MOTOR OUTPUT													
RPV:				ROTARY CURRENT: 50				TOTAL RPM: 50					
LCM: 0.0				MUD PROPERTIES				MUD TYPE: Brine					
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 (%)	KCL (ppm)	LGS (%)
79.00	27.00/15	8/18	0.0/6.0	1.0/0.00	0.00/0.00	0.00/0.0	10.00/0.70	0.33/0.50	110,500	2240	0.0000	0	2.40
Density (ppg)	9.70	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.50



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-13-2013	
API # 4210336004 00		24 HRS PROG 149.0 (ft)		TMD 9,415.0 (ft)		TD TVD 9,412.5 (ft)		REPT NO 37			
BHA	9	JAR S/N		BHA / HOLE CONDITIONS			JAR HRS		BIT	9	
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		220.0 (kip)		190.0 (kip)		196.0 (kip)		(ft-lbf)		753.38 (ft)	
COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar		6.25 DRILL COLLARS				24	711.05	6.250	2.375	4.500	4-1/2" XH
Survey Tools		6" TELEDRIFT				1	9.59	6.500	1.750		4-1/2" XH
Bit Sub		BIT SUB				1	31.24	6.500	3.000	7.875	4-1/2" XH
Tri-Cone Bit		SMITH F47HY				1	1.50	7.862			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	9,371.0	1.30		9,368.5	319.07	155.66	319.07	0.38			
NORMAL	9,345.0	1.40		9,342.5	318.46	155.65	318.46	2.00			
NORMAL	9,315.0	2.00		9,312.5	317.57	155.64	317.57	0.63			
NORMAL	9,283.0	1.80		9,280.6	316.51	155.62	316.51	1.84			
NORMAL	9,245.0	1.10		9,242.6	315.54	155.60	315.54	1.03			
CASING											
S/T	DESCRIPTION			SIZE	WEIGHT	GRADE		SETTING DEPTH			
00	SURFACE			13.375	48.00	H-40		975.0			
00	INTERMEDIATE 1			8.625	32.00	J55		3,715.0			
MUD PUMPS/HYDRAULICS				SPP: 2300 (psi)		SPR					
	STROKE	SPM	LINER	FLOW RATE	AV(DP):		SPM		PPSR		
# 1	10.00	100.00	6.500	409.4	AV(DC):						
					HP: 0.000 (hp/in²)						
PERSONNEL DATA											
COMPANY		QTY	HRS	COMPANY		QTY	HRS				
TOTAL ENERGY SERVICES		1	24.00	UNION DRILLING INC.		1	24.00				
ALLIANCE DRILLING FLUIDS		1	24.00	SUTTLES MUD LOGGERS		2	24.00				
UNION DRILLING INC.		11	132.00								
TOTAL PERSONNEL ON BOARD: 16											
TOTAL HOURS ON BOARD: 228											
MATERIALS/CONSUMPTION											
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND				
DIESEL, RIG FUEL	gal	1136	2414								
SAFETY DRILLS											
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL				
1000	12-15-2012 / 750	12-15-2012 / 1000	01-11-2013	12-29-2012							
INCIDENT REPORT											
INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION NO ACCIDENTS OR ENVIRONMENTAL ISSUES									



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 01-14-2013						
API # 4210336004 00		24 HRS PROG 26.0 (ft)		TMD 9,441.0 (ft)		TD TVD 9,438.5 (ft)		REPT NO 38			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 33.94 (days)		DOL 35.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 34,249 DCC: CWC: Others: TOTAL: 34,249		DHC: 1,747,218 DCC: CWC: Others: TOTAL: 1,747,218					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 9,404.0 (ft) INC 1.50° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRILLING AT 9467', 153 UNITS TRIP GAS, LAST SURVEY AT 9404 = 1.5°, 30% CHERT - 10% SILT - 60% LIMESTONE AT 9450'											
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 9415 - T/ 9441, CIRCULATE, TRIP OUT OF HOLE, CUT DRLG. LINE, TRIP IN HOLE											
24 HR FORECAST: DRILL, RIG SERVICE, DRILL											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	4:30	4.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9415 - T/ 9441, #1 PUMP -100 SPM =2300 PSI & 409GPM, RPM 50, 45K BW, 7 FPH
4:30	6:00	1.50	P-DRL	CIRC	PP		CIRCULATE, AT 9436' PUMP 2-20 120 VIS SWEEPS AND CLEAR WELLBORE, SPOT 100BBL 120 VIS PILL ON BTM, #1 PUMP -100 SPM =2200 PSI & 409 GPM
6:00	15:30	9.50	P-DRL	TRIPBHA	PP		TRIP OUT OF HOLE, LAY DOWN 3 JNTS WITH KELLY AND NO PUMP 5-10K OVER PULL, SET KELLY BACK AND TRIP OUT OF HOLE, 60-70K OVER PULL AT 9142,PICK UP KELLY AND ATTEMPT TO BREAK CIRCULATION, WORK STRING BACK DOWN F/ 9152 - 9156, WORK STRING BACK UP TO 9122, @ 20% RETURNS AT 60 SPM & 950 PSI. LAY DOWN 6 JNTS DP F/ 9142 - 8992 WITH KELLY & NO PUMP, BRING PUMP ON HOLE AT 100 SPM W/ 80% RETURNS, SET KELLY BACK, TRIP OUT OF HOLE, ACTIVATE PIPE & BLIND RAMS
15:30	16:30	1.00	P-DRL	RIGSER	PP		SILP & CUT DRILLING LINE
16:30	0:00	7.50	P-DRL	TRIPBHA	PP		TRIP IN HOLE, PICK UP NEW BIT, TELEDRIFT & DRILLING JARS

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 00:30 : TRIP IN HOLE T/ 9151 WITH NO ISSUES
00:30 - 03:30 : WASH AND REAM F/ 9151 - T/ 9405, REAM UNDER GAUGE HOLE F/ 9405 - T/ 9441 #1 PUMP -100 SPM =1900 PSI & 409GPM, RPM 65 - 70, 25K BW,
03:30 - 06:00 : DRILL ACTUAL 7.875 SECTION F/ 9441 - T/ 9467, #1 PUMP -100 SPM = 1950 PSI & 409GPM, RPM 50, 30-45K BW, 10.4 FPH

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
9 / 1		Smith	F47HY	PY0910	3x20	8,908.00 / 01-09-2013	8-7-BT-A-4-5-CT-TQ
10 / 1		Smith	F59HY	PX4895	3x20	9,441.00 / 01-14-2013	-----



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-14-2013
API # 4210336004 00	24 HRS PROG 26.0 (ft)	TMD 9,441.0 (ft)	TD TVD 9,438.5 (ft)	REPT NO 38						

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
9/1	/45	/50	409.40	2300	177	4.50	26.0	5.8	86.50	532.0	6.2

MOTOR OUTPUT

RPV:	ROTARY CURRENT: 50	TOTAL RPM: 50
LCM: 0.0	MUD PROPERTIES	MUD TYPE: Brine

VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
70.00	27.00/15	8/18	0.0/6.0	1.0/0.00	0.00/0.00	0.00/0.0	10.00/0.70	0.33/0.50	110,500	2240	0.0000	0	2.40

Density (ppg)	9.70	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.50
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BHA	10	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	10
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BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	(kip)	(kip)	(kip)	(ft-lbf)	785.68 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar	6.25 DRILL COLLARS	5	145.94	6.250	2.375	4.500	4-1/2" XH
Drilling Jar	SMITH "HE" DRILLING JAR	1	32.30				
Drill Collar	6.25 DRILL COLLARS	19	565.11	6.250	2.375	4.500	4-1/2" XH
Survey Tools	6" TELEDRIFT	1	9.59	6.500	1.750		4-1/2" XH
Bit Sub	BIT SUB	1	31.24	6.500	3.000	7.875	4-1/2" XH
Tri-Cone Bit	SMITH F59HY	1	1.50	7.862			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	9,404.0	1.50		9,401.5	319.88	155.49	319.88	0.61

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS

					SPP: 2300 (psi)	SPR	
					AV(DP):		
					AV(DC):		
# 1	STROKE 10.00	SPM 100.00	LINER 6.500	FLOW RATE 409.4	HP: 0.000 (hp/in ²)	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
ALLIANCE DRILLING FLUIDS	1	24.00	SUTTLES MUD LOGGERS	2	24.00
UNION DRILLING INC.	11	132.00			

TOTAL PERSONNEL ON BOARD: 16

TOTAL HOURS ON BOARD: 228

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	710	1704				



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 01-15-2013					
API # 4210336004 00		24 HRS PROG 98.0 (ft)		TMD 9,539.0 (ft)		TD TVD 9,536.3 (ft)		REPT NO 39			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 34.94 (days)		DOL 36.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 59,286 DCC: CWC: Others: TOTAL: 59,286		DHC: 1,806,504 DCC: CWC: Others: TOTAL: 1,806,504					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 9,511.0 (ft) INC 3.70° AZM 0.00°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: TRIPPING OUT OF HOLE, TRIP OUT OF HOLE UNEVENTFUL AT DRILL COLLARS, LAST SURVEY AT 9511 = 3.7°, 70% CHERT - 30% LIME											
24 HR SUMMARY: TRIP IN HOLE, WASH AND REAM F/ 9151 - T/ 9405, REAM UNDER GAUGE HOLE F/ 9405 - T/ 9441, DRILL ACTUAL 7.875 SECTION F/ 9441 - T/ 9475, RIG SERVICE, DRILL ACTUAL 7.875 SECTION F/ 9475- T/ 9539, CIRCULATE, TRIP OUT OF HOLE											
24 HR FORECAST: TRIP OUT OF HOLE, PICK UP DIRECTIONAL TOOLS, TRIP IN HOLE, WASH AND REAM, DRILL AHEAD WITH DIRECTIONAL TOOLS											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	0:30	0.50	P-DRL	TRIPBHA	PP		TRIP IN HOLE				
0:30	3:30	3.00	P-DRL	RMWASH	PP		WASH AND REAM F/ 9151 - T/ 9405, REAM UNDER GAUGE HOLE F/ 9405 - T/ 9441 #1 PUMP -100 SPM =1900 PSI & 409GPM, RPM 65 - 70, 25K BW				
3:30	8:00	4.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9441 - T/ 9475, #1 PUMP -100 SPM =2300 PSI & 409GPM, RPM 50, 30-40K BW, 7.5 FPH				
8:00	8:30	0.50	P-DRL	RIGSER	PP		RIG SERVICE				
8:30	21:30	13.00	P-DRL	DRLCPA	PP		DRILL ACTUAL 7.875 SECTION F/ 9475 - T/ 9539, #1 PUMP -100 SPM =2300 PSI & 409GPM, RPM 65-90, 30- 15K BW, 4.9 FPH, CONTROL DEVIATION				
21:30	23:30	2.00	P-DRL	CIRCT	PP		CIRCULATE, AT 9534' PUMP 2-20BBL, 120 VIS SWEEPS AND CLEAR WELLBORE, SPOT 100BBL 120 VIS PILL ON BTM, #1 PUMP -100 SPM =2200 PSI & 409 GPM				
23:30	0:00	0.50	P-DRL	TRIPBHA	PP		TRIP OUT OF HOLE, LAY DOWN 5 JNTS WITH KELLY AND NO PUMP 5-10K OVER PULL, SET KELLY BACK AND TRIP OUT OF HOLE				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 00:00 - 06:00 : TRIP OUT OF HOLE.											
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	
10 / 1		Smith		F59HY	PX4895	3x20		9,441.00 / 01-14-2013		2-1-BT-M-1-I-CT-BHA	
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
10/1	/0.0	/90	409.40	2300	177	17.50	98.0	5.6	17.50	98.0	5.6
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 90				TOTAL RPM: 90			



APACHE CORPORATION
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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				01-15-2013
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	98.0 (ft)	9,539.0 (ft)	9,536.3 (ft)	39

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
65.00	21.00/11	8/19	0.0/6.0	1.0/0.00	0.00/0.00	0.00/0.0	10.00/0.60	0.35/0.49	124,000	2480	0.0000	0	2.40

Density (ppg)	9.70	ECD (ppg)	0.00	ΔP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.50
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BHA	10	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	10
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BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		0.2 (kip)		0.2 (kip)		0.2 (kip)		(ft-lbf)		785.68 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE		CONN TYPE	
Drill Collar		6.25 DRILL COLLARS			5	145.94	6.250	2.375	4.500		4-1/2" XH	
Drilling Jar		SMITH "HE" DRILLING JAR			1	32.30						
Drill Collar		6.25 DRILL COLLARS			19	565.11	6.250	2.375	4.500		4-1/2" XH	
Survey Tools		6" TELEDRIFT			1	9.59	6.500	1.750			4-1/2" XH	
Bit Sub		BIT SUB			1	31.24	6.500	3.000	7.875		4-1/2" XH	
Tri-Cone Bit		SMITH F59HY			1	1.50	7.862				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	9,511.0	3.70		9,508.4	324.89	155.47	324.89	1.58
NORMAL	9,473.0	3.10		9,470.5	322.63	155.47	322.63	2.40
NORMAL	9,448.0	2.50		9,445.5	321.41	155.47	321.41	2.27

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 2300 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	100.00	6.500	409.4				

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
UNION DRILLING INC.	1	24.00	ALLIANCE DRILLING FLUIDS	1	24.00
TOTAL ENERGY SERVICES	1	24.00	SUTTLES MUD LOGGERS	2	24.00
UNION DRILLING INC.	11	132.00			

TOTAL PERSONNEL ON BOARD: 16

TOTAL HOURS ON BOARD: 228

MATERIALS/CONSUMPTION							
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	1018	4686				



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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 01-16-2013					
API # 4210336004 00		24 HRS PROG 10.0 (ft)		TMD 9,549.0 (ft)		TD TVD 9,546.3 (ft)		REPT NO 40			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 35.94 (days)		DOL 37.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812 / DAVID JORDAN (805) 890 - 4492				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 68,345 DCC: CWC: Others: TOTAL: 68,345				DHC: 1,874,849 DCC: CWC: Others: TOTAL: 1,874,849			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY MD 9,511.0 (ft) INC 3.70° AZM 0.00°				LAST CSG SHOE TEST (EMW)		LAST CASING 7.875 in @ 3,665.0 ft		NEXT CASING 5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRILLING @ 9597, LAST SURVEY AT 9530 3.43°- 14.59 AZ, 60% CHERT-5% SHALE_35%LIME											
24 HR SUMMARY: TRIP OUT OF HOLE, TRIP IN HOLE, RIG REPAIR, TRIP IN THE HOLE TO 9539', ORINTATE TOOLFACE AND SLIDE											
24 HR FORECAST: DRILL, RIG SERVICE, DRILL											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	8:00	8.00	P-DRL	TRIPBHA	PP		TRIP OUT OF HOLE, LAY DOWN TELEDRIFT,ACTIVATE PIPE & BLIND RAMS				
8:00	12:00	4.00	P-DRL	TRIPBHA	PP		TRIP IN HOLE,STRAP & PICK UP DIRECTIONAL TOOLS, ORIENT, SCRIBE AND TEST & BIT # 11				
12:00	13:30	1.50	P-DRL	RIGSER	PN	RO	RIG REPAIR, HOOK ON BLOCKS (PIN REPAIR)				
13:30	20:30	7.00	P-DRL	TRIP	PP		TRIP IN THE HOLE (HIT A TIGHT SPOT @8086' ATTEMPTS TO JORK THROUGH WERE UNSUCCESSFUL) PICK UP KELLY, BREAK CIRCULATION AND WASH WITHOUT ROTATING TO 8149' CONTINUE TRIPPING IN THE HOLE TO 9477'				
20:30	21:00	0.50	P-DRL	RMWASH	PP		WASH 62' TO BOTTOM FOR SAFETY NO FILL, #1 PUMP -100 SPM = 2000 PSI ON= 409GPM, 5-10K BW, DHM 65 RPM - 30 ROTARY				
21:00	0:00	3.00	P-DRL	DSLIDE	PP		SLIDE FROM 9539' TO 9549' #1 PUMP -100 SPM = 1950 PSI OFF & 2000 PSI ON= 409GPM, 25K BW, DHM 65 RPM, 3.3 FPH				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 00:00 TO 06:00 : DRILL ACTUAL 7.875 SECTION F/ 9549 - T/ 9597, #1 PUMP -100 SPM =2000 PSI & 409GPM, RPM 50, 30-40K BW, 8 FPH, LAST SURVEY AT 9530 3.43°- 14.59 AZ, 60% CHERT-5% SHALE_35%LIME											
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		
11 / 1		Hughes		HR-S55H	HR-S55H	3x22	9,539.00 / 01-16-2013		-----		
10 / 1		Smith		F59HY	PX4895	3x20	9,441.00 / 01-14-2013		2-1-BT-M-1-I-CT-BHA		
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
11/1	/0.0	/0	446.25	1950	143	3.00	10.0	3.3	3.00	10.0	3.3
MOTOR OUTPUT											
RPV: 0.16rev/gal				ROTARY CURRENT: 0				TOTAL RPM: 71			



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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				01-16-2013
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	10.0 (ft)	9,549.0 (ft)	9,546.3 (ft)	40

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%)/(lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
65.00	21.00/11	8/19	0.0/6.0	1.0/0.00	0.00/0.00	0.00/0.0	10.00/0.60	0.35/0.49	124,000	2480	0.0000	0	2.40

Density (ppg)	9.70	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.50
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BHA	11	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	11
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BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		0.2 (kip)		0.2 (kip)		0.2 (kip)		(ft-lbf)		810.36 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION			NO JTS	LENGTH	O.D	I.D	CONN SIZE		CONN TYPE	
Drill Collar		6.25 DRILL COLLARS			5	145.94	6.250	2.375	4.500		4-1/2" XH	
Drilling Jar		SMITH "HE" DRILLING JAR			1	32.30						
Drill Collar		6.25 DRILL COLLARS			19	565.11	6.250	2.375	4.500		4-1/2" XH	
Non-Mag Drill Collar		NON-MAG DC			1	31.08	6.375	2.750	4.500		4-1/2" XH	
Pulser Sub		UBHO SUB			1	3.07	6.388	2.750	4.500		4-1/2" XH	
Float Sub		FLOAT SUB			1	3.05	6.188	2.750	4.500		4-1/2" XH	
Bent Housing		CALMENA MOTOR, .16RPG, 1.5"BEND			1	28.81	6.750	2.750	4.500		4-1/2" XH	
Tri-Cone Bit		HUGHES HR-S55H			1	1.00					4-1/2 IF	

CASING					
S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 1950 (psi) AV(DP): AV(DC): HP: 0.000 (hp/in²)	SPR		
	STROKE	SPM	LINER	FLOW RATE			SPM	PPSR
# 1	10.00	109.00	6.500	446.2				

PERSONNEL DATA					
COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
ALLIANCE DRILLING FLUIDS	1	24.00	SUTTLES MUD LOGGERS	2	24.00
CALMENA	2	48.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 18

TOTAL HOURS ON BOARD: 276

MATERIALS/CONSUMPTION							
ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	568	4118				

SAFETY DRILLS							
RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H ₂ S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	01-16-2013	12-29-2012			

INCIDENT REPORT		
INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION
		NO ACCIDENTS OR INCIDENTS REPORTED NO ENVIRONMENTAL ISSUES, ACTIVATE PIPE & BLIND RAMS



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 01-17-2013						
API # 4210336004 00		24 HRS PROG 198.0 (ft)		TMD 9,747.0 (ft)		TD TVD 9,744.1 (ft)		REPT NO 41			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 36.94 (days)		DOL 38.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812 / DAVID JORDAN (805) 890 - 4492				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 80,254 DCC: CWC: Others: TOTAL: 80,254		DHC: 1,955,103 DCC: CWC: Others: TOTAL: 1,955,103					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 9,720.0 (ft) INC 1.93° AZM 340.49°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: DRILLING AT 9795, LAST SURVEY AT 9720 = 1.93°-340.49AZ, 60%CHERT-40% LIME AT 9780											
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION ROT. 7 SLIDE F/9549 - T/ 9705, RIG SERVICE, DRILL ACTUAL 7.875 SECTION ROT. 7 SLIDE F/ 9705 - T/ 9747											
24 HR FORECAST: DRILL, RIG SERVICE, DRILL, CIRCULATE											

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	7:00	7.00	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9549 - T/ 9611, #1 PUMP -100 SPM =2300 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 30-35K BW, 8.8 FPH.
7:00	8:00	1.00	P-DRL	DSLIDE	PP		SLIDE:DRILL ACTUAL 7.875 SECTION F/ 9611 - T/ 9623 #1 PUMP -100 SPM = 1950 PSI OFF & 2150 PSI ON= 409GPM, 40K BW, DHM 65 RPM, 12 FPH
8:00	10:00	2.00	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9623 - T/ 9643, #1 PUMP -100 SPM =2000 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 28-30K BW, 10 FPH.
10:00	11:00	1.00	P-DRL	DSLIDE	PP		SLIDE:DRILL ACTUAL 7.875 SECTION F/ 9643 - T/ 9655 #1 PUMP -100 SPM = 1950 PSI OFF & 2150 PSI ON= 409GPM, 40K BW, DHM 65 RPM, 12 FPH
11:00	13:30	2.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9655 - T/ 9675, #1 PUMP -100 SPM =2000 PSI & 409 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 28-30K BW, 8 FPH.
13:30	15:00	1.50	P-DRL	DSLIDE	PP		SLIDE:DRILL ACTUAL 7.875 SECTION F/ 9675 - T/ 9691 #1 PUMP -100 SPM = 1950 PSI OFF & 2150 PSI ON= 409GPM, 30K BW, DHM 65 RPM, 10.6FPH
15:00	17:30	2.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9691 - T/ 9705, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 28-30K BW, 13.6 FPH
17:30	18:00	0.50	P-DRL	RIGSER	PP		RIG SERVICE
18:00	19:30	1.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9705 - T/ 9714, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 28-30K BW, 6 FPH
19:30	21:30	2.00	P-DRL	DSLIDE	PP		SLIDE:DRILL ACTUAL 7.875 SECTION F/ 9714 - T/ 9730 #2 PUMP -115 SPM = 2000 PSI OFF & 2150 PSI ON= 410GPM, 30K BW, DHM 65 RPM, 8FPH
21:30	22:30	1.00	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9730 - T/ 9738, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 28-30K BW, 8 FPH
22:30	0:00	1.50	P-DRL	DSLIDE	PP		SLIDE:DRILL ACTUAL 7.875 SECTION F/ 9738 - T/ 9747 #1 PUMP -100 SPM = 2000 PSI OFF & 2150 PSI ON= 409GPM, 30K BW, DHM 65 RPM, 6 FPH

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 01:00: SLIDE DRILL F/9747 - T/9755
01:00 - 02:00: ROT. DRILL F/9755 - T/9770
02:00 - 05:00: SLIDE DRILL F/9770 - T/9787
05:00 - 06:00: ROT. DRILL F/9787 - T/9795



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5				DATE 01-17-2013
API # 4210336004 00	24 HRS PROG 198.0 (ft)	TMD 9,747.0 (ft)	TD TVD 9,744.1 (ft)	REPT NO 41

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
11 / 1		Hughes	HR-S55H	HR-S55H	3x22	9,539.00 / 01-16-2013	-----

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
11/1	/50.0	/30	401.17	2100	116	23.50	198.0	8.4	26.50	208.0	7.8

MOTOR OUTPUT

RPV: 0.16rev/gal	ROTARY CURRENT: 50	TOTAL RPM: 114
LCM: 0.0	MUD PROPERTIES	MUD TYPE: Brine

VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
60.00	18.00/8	8/19	0.0/6.0	1.0/0.00	0.00/0.00	0.00/0.0	10.50/0.60	0.32/0.50	111,000	0	0.0000	0	3.00
Density (ppg)	9.70	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.50

BHA	11	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	11
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		240.0 (kip)		200.0 (kip)		220.0 (kip)		(ft-lbf)		810.36 (ft)	

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar	6.25 DRILL COLLARS	5	145.94	6.250	2.375	4.500	4-1/2" XH
Drilling Jar	SMITH "HE" DRILLING JAR	1	32.30				
Drill Collar	6.25 DRILL COLLARS	19	565.11	6.250	2.375	4.500	4-1/2" XH
Non-Mag Drill Collar	NON-MAG DC	1	31.08	6.375	2.750	4.500	4-1/2" XH
Pulser Sub	UBHO SUB	1	3.07	6.388	2.750	4.500	4-1/2" XH
Float Sub	FLOAT SUB	1	3.05	6.188	2.750	4.500	4-1/2" XH
Bent Housing	CALMENA MOTOR, .16RPG, 1.5"BEND	1	28.81	6.750	2.750	4.500	4-1/2" XH
Tri-Cone Bit	HUGHES HR-S55H	1	1.00				4-1/2 IF

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	9,720.0	1.93	340.49	9,717.1	335.26	156.22	335.26	1.20
NORMAL	9,688.0	2.11	350.16	9,685.1	334.17	156.50	334.17	2.07
NORMAL	9,656.0	2.64	359.82	9,653.2	332.86	156.61	332.86	1.55
NORMAL	9,625.0	2.99	6.50	9,622.2	331.34	156.52	331.34	1.54
NORMAL	9,593.0	3.40	11.40	9,590.2	329.58	156.23	329.58	1.06
NORMAL	9,561.0	3.10	14.20	9,558.3	327.81	155.83	327.81	1.96

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS

				SPP: 2100 (psi)	SPR		
				AV(DP):	SPM		PPSR
				AV(DC):			
# 2	STROKE 10.00	SPM 115.00	LINER 6.000	FLOW RATE 401.2	HP: 0.000 (hp/in ²)		



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5						DATE 01-18-2013					
API # 4210336004 00		24 HRS PROG 132.0 (ft)		TMD 9,879.0 (ft)		TD TVD 9,876.1 (ft)		REPT NO 42			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 37.94 (days)		DOL 39.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 80,154 DCC: CWC: Others: TOTAL: 80,154		DHC: 2,035,257 DCC: CWC: Others: TOTAL: 2,035,257					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 9,782.0 (ft) INC 0.97° AZM 319.22°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: TRIPPING OUT OF HOLE FOR OPEN HOLE LOGS, LAST SURVEY AT 989-1.32°-316.23AZ, 10%SH-10% CHERT- 80% LS AT 9890											
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION ROT, 7 SLIDE F/9747 - T/ 9845, RIG SERVICE, DRILL ACTUAL 7.875 SECTION F/ 9845 - T/ 9848, RIG SERVICE, DRILL ACTUAL 7.875 SECTION F/ 9848 - T/ 9879											
24 HR FORECAST: TRIP OUT OF HOLE, LD DIRECT. TOOLS, MU WEATHERFORD SHOE, TRIP IN HOLE, CIRCULATE, RUN WIRE LINE.											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	1:00	1.00	P-DRL	DSLIDE	PP		SLIDE:DRILL ACTUAL 7.875 SECTION F/ 9747 - T/ 9755 #2 PUMP -115 SPM = 2000 PSI OFF & 2150 PSI ON= 410GPM, 30K BW, DHM 65 RPM, FPH				
1:00	2:00	1.00	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9755 - T/ 9770, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 33 + DHM 65, 28-30K BW, 15 FPH				
2:00	5:00	3.00	P-DRL	DSLIDE	PP		SLIDE:DRILL ACTUAL 7.875 SECTION F/ 9770 - T/ 9786 #2 PUMP -115 SPM = 2000 PSI OFF & 2150 PSI ON= 410GPM, 30K BW, DHM 65 RPM, 5.6FPH				
5:00	17:30	12.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9786 - T/ 9845, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 40-50 + DHM 65, 45-50K BW, 4.6 FPH				
17:30	18:00	0.50	P-DRL		PP		RIG SERVICE				
18:00	18:30	0.50	P-DRL	DRLG	PP		DRILL ACTUAL 7.875 SECTION F/ 9845 - T/ 9848, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 30 -50 + DHM 65, 45-50K BW, 6 FPH				
18:30	20:30	2.00	P-DRL	RIGSER	PN	MP	RIG REPAIR, #2 PUMP WITH WASHED SEATS, #1 PUMP WITH JUNK UNDER VALVES				
20:30	0:00	3.50	P-DRL	DRLG	PN		DRILL ACTUAL 7.875 SECTION F/ 9848 - T/ 9879, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 50 + DHM 65, 45-50K BW, 8.8 FPH				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 00:00 - 03:00 : DRILL ACTUAL 7.875 SECTION F/ 9879 - T/ 9898 TD, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 50 + DHM 65, 45-50K BW, FPH 03:00 - 05:00 : CIRCULATE, PUMP 2-20 120 VIS SWEEPS AND CLEAR WELLBORE, SPOT 120BBL 120 VIS PILL ON BTM, #2 PUMP -115 SPM =2000 PSI & 410 GPM FOR TRIP OUT OF HOLE TO RUN OPEN HOLE LOGS 05:00 - 06:00 : TRIP OUT OF HOLE, STRAP OUT, DROP WEATHERFORD'S 2.625 OD RABBIT. LAST SURVEY AT 989-1.32°-316.23AZ											
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		
11 / 1		Hughes		HR-S55H	HR-S55H	3x22	9,539.00 / 01-16-2013		-----		



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5										DATE 01-18-2013
API # 4210336004 00	24 HRS PROG 132.0 (ft)	TMD 9,879.0 (ft)	TD TVD 9,876.1 (ft)	REPT NO 42						

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
11/1	/50.0	/50	401.17	2000	115	21.50	132.0	6.1	48.00	340.0	7.1

MOTOR OUTPUT

RPV: 0.16rev/gal	ROTARY CURRENT: 50	TOTAL RPM: 114
LCM: 0.0	MUD TYPE: Brine	

MUD PROPERTIES

VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd) / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
65.00	19.00/9	8/15	0.0/6.0	1.0/0.00	0.00/0.00	0.00/0.0	10.50/0.60	0.33/0.52	110,000	1280	0.0000	0	3.00
Density (ppg)	9.60	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H2O	97.00

BHA	11	JAR S/N		BHA / HOLE CONDITIONS				JAR HRS		BIT	11
BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH	
(kip)		220.0 (kip)		190.0 (kip)		220.0 (kip)		(ft-lbf)		810.36 (ft)	

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drill Collar	6.25 DRILL COLLARS	5	145.94	6.250	2.375	4.500	4-1/2" XH
Drilling Jar	SMITH "HE" DRILLING JAR	1	32.30				
Drill Collar	6.25 DRILL COLLARS	19	565.11	6.250	2.375	4.500	4-1/2" XH
Non-Mag Drill Collar	NON-MAG DC	1	31.08	6.375	2.750	4.500	4-1/2" XH
Pulser Sub	UBHO SUB	1	3.07	6.388	2.750	4.500	4-1/2" XH
Float Sub	FLOAT SUB	1	3.05	6.188	2.750	4.500	4-1/2" XH
Bent Housing	CALMENA MOTOR, .16RPG, 1.5"BEND	1	28.81	6.750	2.750	4.500	4-1/2" XH
Tri-Cone Bit	HUGHES HR-S55H	1	1.00				4-1/2 IF

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	9,782.0	0.97	319.22	9,779.1	336.61	155.46	336.61	1.56
NORMAL	9,751.0	1.41	329.24	9,748.1	336.08	155.82	336.08	1.98

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS

					SPP: 2000 (psi)	SPR	
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM	PPSR
# 2	10.00	115.00	6.000	401.2	AV(DC):		
					HP: 0.000 (hp/in ²)		

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	ALLIANCE DRILLING FLUIDS	1	24.00
UNION DRILLING INC.	1	24.00	CALMENA	2	48.00
SUTTLES MUD LOGGERS	2	24.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 18

TOTAL HOURS ON BOARD: 276

MATERIALS/CONSUMPTION



APACHE CORPORATION

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Daily Drilling Report

WELLBORE NAME UNIVERSITY DEVONIAN A 37 5							DATE 01-19-2013				
API # 4210336004 00		24 HRS PROG 19.0 (ft)		TMD 9,898.0 (ft)		TD TVD 9,895.1 (ft)		REPT NO 43			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 38.94 (days)		DOL 40.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS		CUMULATIVE COSTS					
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 70,750 DCC: CWC: Others: TOTAL: 70,750		DHC: 2,106,007 DCC: CWC: Others: TOTAL: 2,106,007					
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 9,898.0 (ft) INC 1.32° AZM 316.23°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			
CURRENT OPERATIONS: CIRCULATING & RIGGING UP LOGGERS (WEATHERFORD)											
24 HR SUMMARY: DRILL ACTUAL 7.875 SECTION F/ 9879 - T/ 9898 TD, CIRCULATE, TRIP OUT OF HOLE, TRIP IN HOLE WITH WEATHERFORDS DROP OFF ASSEMBLY, WASH AND REAM											
24 HR FORECAST: RUN OPEN HOLE LOGS											
OPERATION SUMMARY											
From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY				
0:00	3:00	3.00	P-DRL	DRLG	PN		DRILL ACTUAL 7.875 SECTION F/ 9879 - T/ 9898 TD, #2 PUMP -115 SPM =2000 PSI & 410 GPM, 50-100 PSI DIFF. PSI, RPM 50 + DHM 65, 45-50K BW, 6.3 FPH				
3:00	5:00	2.00	P-DRL	CIRCT	PN		CIRCULATE, PUMP 2-20 120 VIS SWEEPS AND CLEAR WELLBORE, SPOT 120BBL 120 VIS PILL ON BTM, #2 PUMP -115 SPM =2000 PSI & 410 GPM FOR TRIP OUT OF HOLE TO RUN OPEN HOLE LOGS				
5:00	16:00	11.00	P-DRL	TRIP	PN		TRIP OUT OF HOLE, STRAP OUT, DROP WEATHERFORD'S 2.625 OD RABBIT, RABBIT NOT RECOVERD ON TRIP, LAY DOWN DRILLING JARS & DIRECTIONAL TOOLS				
16:00	23:00	7.00	P-DRL	TRIP	PN		TRIP IN HOLE, PICK UP WEATHERFORDS DROP-OFF ASSEMBLY, RABBIT DRILL PIPE GOING IN HOLE FOUND 1ST RABBIT IN STAND # 84, TAG UP AT 8021				
23:00	0:00	1.00	P-DRL	RMWASH	PN		WASH & REAM F/ 8010 - 8041, #2 PUMP -115 SPM =900 PSI & 410 GPM, 30-40 RPM, 5-10K BIT WT				
24.00 = Total Hours Today											
06:00 UPDATE											
0000-0600 00:00 - 01:00 : CIRCULATE 01:00 - 04:00 : TRIP IN HOLE 25 JNTS TO 9877' KELLY UP WASH TO BTM 9898' 04:00 - 06:00 : CIRCULATE, #2 PUMP -115 SPM = 1050 PSI & 410 GPM											
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	
11 / 1		Weatherford		66HGLR	3882	1x80		9,898.00 / 01-19-2013		-----	
11 / 1		Hughes		HR-S55H	HR-S55H	3x22		9,539.00 / 01-16-2013		-----	
BIT OPERATIONS											
BIT / RUN	WOB	RPM	FLOW RATE	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
11/1	/50.0	/50	401.17	2000	117	3.00	19.0	6.3	51.00	359.0	7.0
MOTOR OUTPUT											
RPV:				ROTARY CURRENT: 50				TOTAL RPM: 114			



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME				DATE
UNIVERSITY DEVONIAN A 37 5				01-19-2013
API #	24 HRS PROG	TMD	TD TVD	REPT NO
4210336004 00	19.0 (ft)	9,898.0 (ft)	9,895.1 (ft)	43

LCM:	0.0	MUD PROPERTIES					MUD TYPE: Brine				
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VIS (s/qt)	PV/YP (cp) / (lb/100ft ²)	GELS (lb/100ft ²)	WL/HTHP (cc/30min)	FC/T.SOL (32nd") / (%)	OIL/WAT (%)	% SAND/MBT (%) / (lbm/bbl)	pH/Pm	Pf/Mf (cc)	Cl (ppm)	Ca (ppm)	H ₂ S (%)	KCL (ppm)	LGS (%)
66.00	18.00/8	7/13	0.0/4.0	1.0/0.00	0.00/0.00	0.00/0.0	10.50/0.60	0.33/0.52	110,000	1280	0.0000	0	3.00

Density (ppg)	9.75	ECD (ppg)	0.00	PP (ppg)	0.00	DAILY COST	0.00	CUM COST	0	%OIL	0.00	% H ₂ O	97.00
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BHA	12	JAR S/N		BHA / HOLE CONDITIONS					JAR HRS		BIT	11
-----	----	---------	--	-----------------------	--	--	--	--	---------	--	-----	----

BHA WT BELOW JARS		STRING WT UP		STRING WT DN		STRING WT ROT		TORQUE/UNITS		BHA LENGTH		
(kip)		(kip)		(kip)		(kip)		(ft-lbf)		9.18 (ft)		

COMPONENT TYPE		ITEM DESCRIPTION				NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Crossover		OX SUB				1	1.53				
Dump Sub		DROP OFF SUB				1	6.43				
PDC Bit		WEATHERFORD DROP OUT BIT				1	1.22				4-1/2 IF

SURVEY

TYPE	MD (ft)	DEG (°)	AZI (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	V.SECT (ft)	D.L (°/100ft)
NORMAL	9,898.0	1.32	316.23	9,895.1	338.42	153.70	338.42	0.00
NORMAL	9,846.0	1.32	316.23	9,843.1	337.56	154.53	337.56	0.32
NORMAL	9,814.0	1.23	314.12	9,811.1	337.05	155.03	337.05	0.87

CASING

S/T	DESCRIPTION			SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE			13.375	48.00	H-40	975.0
00	INTERMEDIATE 1			8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS					SPP: 2000 (psi)	SPR		
	STROKE	SPM	LINER	FLOW RATE	AV(DP):		SPM	PPSR
# 2	10.00	115.00	6.000	401.2	AV(DC):			
					HP: 0.000 (hp/in ²)			

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	ALLIANCE DRILLING FLUIDS	1	24.00
UNION DRILLING INC.	1	24.00	SUTTLES MUD LOGGERS	2	24.00
UNION DRILLING INC.	11	132.00			

TOTAL PERSONNEL ON BOARD: 16

TOTAL HOURS ON BOARD: 228

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	710	4260				

SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H ₂ S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	01-16-2013	12-29-2012			

INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION NO ACCIDENTS OR INCIDENTS REPORTED, NO ENVIRONMENTAL ISSUES
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APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5					DATE 01-20-2013						
API # 4210336004 00		24 HRS PROG (ft)		TMD 9,898.0 (ft)		TD TVD 9,895.1 (ft)		REPT NO 44			
RIG NAME NO. UNION 215		FIELD NAME BLK 31		AUTH TMD 9,950.00 (ft)		PLANNED DOW 26.00 (days)		DFS 39.94 (days)		DOL 41.50 (days)	
SPUD DATE 12-12-2012 01:30		RIG RELEASE		SUPERVISOR 1 MARK LYMAN (435) 979-5812				ENGINEER ROBERT CLARY		PBTMD	
REGION PERMIAN		DISTRICT NOTREES - TX CZ		STATE / PROV TEXAS		COUNTY / PARISH CRANE		RIG PHONE NO 281-336-0222		RIG FAX NO	
AFE # PA-12-0340-D		AFE COSTS		DAILY COSTS				CUMULATIVE COSTS			
DESCRIPTION: D&C A VERTICAL DEVONIAN 9950' WELL		DHC: 1,730,550 DCC: CWC: Others: TOTAL: 1,730,550		DHC: 11,969 DCC: CWC: Others: TOTAL: 11,969				DHC: 2,117,976 DCC: CWC: Others: TOTAL: 2,117,976			
DEFAULT DATUM / ELEVATION RKB/RT / 2,533.0 (ft)		LAST SAFETY MEETING		BLOCK		OCSG#		TARGET FORMATION DEVONIAN		BHA HRS OF SERVICE	
LAST SURVEY				LAST CSG SHOE TEST (EMW)		LAST CASING		NEXT CASING			
MD 9,898.0 (ft) INC 1.32° AZM 316.23°						7.875 in @ 3,665.0 ft		5.500 in @ 10,000.0 ft			

CURRENT OPERATIONS: TRIPPING IN HOLE

24 HR SUMMARY: CIRCULATE, TRIP IN HOLE, CIRCULATE, RUN OPEN HOLE LOGS, RIG DOWN LOGGERS

24 HR FORECAST: CIRCULATE, LAY DOWN DRILL STRING, RIG UP CASING CREW, RUN 5.5 CASING

OPERATION SUMMARY

From	To	HRS	Op Phase	Op Code	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	1:00	1.00	P-DRL	CIRC			CIRCULATE, #2 PUMP -115 SPM = 1050 PSI & 410 GPM
1:00	4:00	3.00	P-DRL	TRIP	PP		TRIP IN HOLE 25 JNTS TO 9877' KELLY UP WASH TO BTM 9898'
4:00	6:30	2.50	P-DRL	CIRC	PP		CIRCULATE, #2 PUMP -115 SPM = 1050 PSI & 410 GPM
6:30	23:00	16.50	P-EVAL	LOG	PP		LOG WELL, SAFETY MEETING WITH WEATHERFORD, PULL STRING BACK TO 9693 = 2 STDS, RIG UP LOGGERS & MAKE UP LOGGING TOOLS = GAMMA RAY, NEUTRON, CALIPUR, DUAL LATERLOG & SONIC, RUN IN HOLE, DROP OFF TOOLS IN DROP OFF ASSEMBLY, PULL WIRE LINE OUT OF DRILL STRING, LOGGING WELLBORE F/ 9876 - T/ 3712 AT 15FT PER MIN. TRIP SPEED
23:00	0:00	1.00	P-EVAL		PP		RIG LOGGERS DOWN

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 06:00 : TRIP IN HOLE, MU RR BIT #11 & 2 STDS OF COLLARS

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
11 / 1		Weatherford	66HGLR	3882	1x80	9,898.00 / 01-19-2013	-----

MOTOR OUTPUT

RPV:			ROTARY CURRENT:			TOTAL RPM:							
LCM:			MUD PROPERTIES						MUD TYPE:				
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 (%)	KCL (ppm)	LGS (%)
				PP	DAILY COST	0.00	CUM COST	0	%OIL		% H2O		



APACHE CORPORATION
Daily Drilling Report

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WELLBORE NAME UNIVERSITY DEVONIAN A 37 5	DATE 01-20-2013
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API # 4210336004 00	24 HRS PROG (ft)	TMD 9,898.0 (ft)	TD TVD 9,895.1 (ft)	REPT NO 44
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BHA	12	JAR S/N		BHA / HOLE CONDITIONS	JAR HRS		BIT	11
-----	----	---------	--	-----------------------	---------	--	-----	----

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(kip)	(kip)	(kip)	(kip)	(ft-lbf)	9.18 (ft)

COMPONENT TYPE	ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Crossover	OX SUB	1	1.53				
Dump Sub	DROP OFF SUB	1	6.43				
PDC Bit	WEATHERFORD DROP OUT BIT	1	1.22				4-1/2 IF

CASING

S/T	DESCRIPTION	SIZE	WEIGHT	GRADE	SETTING DEPTH
00	SURFACE	13.375	48.00	H-40	975.0
00	INTERMEDIATE 1	8.625	32.00	J55	3,715.0

MUD PUMPS/HYDRAULICS				SPP:	SPR		
	STROKE	SPM	LINER	FLOW RATE	AV(DP):	SPM	PPSR
					AV(DC):		
					HP:		

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL ENERGY SERVICES	1	24.00	UNION DRILLING INC.	1	24.00
ALLIANCE DRILLING FLUIDS	1	24.00	SUTTLES MUD LOGGERS	2	24.00
WEATHERFORD	3	72.00	UNION DRILLING INC.	11	132.00

TOTAL PERSONNEL ON BOARD: 19

TOTAL HOURS ON BOARD: 300

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL, RIG FUEL	gal	568	3692				

SAFETY DRILLS

RAMS (psi)	ANNULARS (psi)	CASING	LAST BOP PRESS TEST	NEXT BOP PRESS TEST	FIRE DRILL	H2S DRILL	ABND. DRILL
1000	12-15-2012 / 750	12-15-2012 / 1000	01-16-2013	12-29-2012			

INCIDENT REPORT

INCIDENTS TYPE	LOST TIME? NO	INCIDENTS DESCRIPTION NO ACCIDENTS OR INCIDENTS REPORTED, NO ENVIRONMENTAL ISSUES
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APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 01-21-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD 9,895.07	RKB/RT 2,533.00	Working Int % 100.00	Report No 1
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor MARK LYMAN (435) 979-5812		Engineer / Geologist ROBERT CLARY		
Field BLK 31	State	County	Event Code LCM	Event Type LAND-ORIG COMP		Objective		
RIG Name UNION 215 /			RIG PHONE NO 281-336-0222	RIG Fax No	Tool Pusher LARRY VAN GILDER			
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 0	Daily Costs 26,744	Cumulative Cost 26,744	AFE Remaining 1,239,026	AFE % 2.11		
Comment Summary 24 HR Forecast		TRIP IN HOLE, CIRCULATE, LAY DOWN DRILL STRING, RIG UP CASING CREW (LEWIS), RUN 5.5 CASING RUN 5.5 CASING, WASH TO BOTTOM, CIRCULATE, CEMENT						
24 HR Operational Comments								
From	To	Duration	Operation Description					
12:00AM	07:00AM	7.00	TRIP IN HOLE, MU RR BIT #11 & 2 STDS OF COLLARS, NO ISSUES					
07:00AM	09:00AM	2.00	CIRCULATE, PUMP 2-20 120 VIS SWEEPS AND CLEAR WELLBORE, SPOT 120BBL 120 VIS PILL ON BTM, #2 PUMP -115 SPM =2000 PSI & 410 GPM FOR TRIP OUT OF HOLE TO RUN 5.5 CASING					
09:00AM	10:00PM	13.00	LAY DOWN DRILL STRING					
10:00PM	11:00PM	1.00	RIG UP LEWIS CASING CREW AND TORQ TURN					
11:00PM	12:00AM	1.00	CASING RUN DETAILS: 5-1/2" 17# L-80 BTC, RUN 15 JNTS OF CASING					
Remarks								
00:00 - 06:00 ; RUN 5.5 CASING SHOE DEPTH 7300								
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					
Casing / Tubing Information								
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.03	Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
Personnel								
Company Name	No of People	Hours Today	Cum / Event					
UNION DRILLING INC.	0	24.0	24.0					
UNION DRILLING INC.	0	132.0	132.0					
TOTAL ENERGY SERVICES	0	24.0	24.0					
ALLIANCE DRILLING FLUIDS	0	24.0	24.0					
SUTTLES MUD LOGGERS	0	24.0	24.0					
Total:	0	228.0	228.0					
Safety Drills								
Rams 1,000.00 (psi)	Annulars 500.00 (psi)	Casing 12/15/2012 / 1,000.00 (psi)	Last BOP Test 12/15/2012	Next BOP Test 12/29/2012				
BULKS								
Product DIESEL, RIG FUEL			QTY 3,124.0					



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	0	0	12,000	
70006	CEMENT AND CEMENTING SERVICES	65,000	0	0	0	65,000	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	0	0	0	12,000	
70017	CONTRACT LABOR	20,000	0	0	0	20,000	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	0	15,500	15,500	45,500	UDI 215
70021	CONTRACT SUPERVISION	6,900	0	1,700	1,700	5,200	MARK LYMAN
70025	DRILLING FLUIDS			0			CORROSION
70025	DRILLING FLUIDS			850			MUD ENGINEER
70025	DRILLING FLUIDS			6,819			DAILY MUD COST
70025	DRILLING FLUIDS			7,669			
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL			140			FORKLIFT RENTAL
70031	EQUIPMENT RENTAL			150			OFFICE GENERATOR
70031	EQUIPMENT RENTAL			140			OFFICE TRAILER / SAT. TV
70031	EQUIPMENT RENTAL			40			TOTCO MONITOR
70031	EQUIPMENT RENTAL			350			13.625":3M x 5M SPOOL
70031	EQUIPMENT RENTAL			185			WATER / SEPTIC
70031	EQUIPMENT RENTAL			115			ERF COMMUNICATIONS
70031	EQUIPMENT RENTAL			130			FRAC TANKS
70031	EQUIPMENT RENTAL			0			TELEDRIFT
70031	EQUIPMENT RENTAL			600			13.625" SPACER SPOOL
70031	EQUIPMENT RENTAL			0			MUD ENGINEER TRAILER
70031	EQUIPMENT RENTAL			25			TRASH TRAILER
70031	EQUIPMENT RENTAL	30,000	0	1,875	1,875	28,125	
70034	FORMATION STIMULATION	375,000	0	0	0	375,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON			0			2 MAN LOGGING UNIT
70046	LAND AND SITE RECLAMATION	2,500	0	0	0	2,500	
70049	LOGGING AND WIRELINE	30,000	0	0	0	30,000	
70054	OTHER INTANGIBLE	35,370	0	0	0	35,370	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	0	0	0	20,000	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER			0			BRINE WATER / PER BBL
70077	WATER			0			FRESHWATER / PER BBL
70077	WATER			0			TRANSFER F/W: HRLY RATE
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	0	26,744	26,744	706,026	
71001	ARTIFICIAL LIFT	125,000	0	0	0	125,000	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	0	0	0	178,000	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	0	0	0	52,000	
71056	WELLHEAD ASSEMBLY	10,000	0	0	0	10,000	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 01-22-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD 9,895.07	RKB/RT 2,533.00	Working Int % 100.00	Report No 2
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor MARK LYMAN (435) 979-5812			Engineer / Geologist ROBERT CLARY	
Field BLK 31		State	County	Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name UNION 215 /			RIG PHONE NO 281-336-0222		RIG Fax No		Tool Pusher LARRY VAN GILDER	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 26,744	Daily Costs 214,621	Cumulative Cost 241,365	AFE Remaining 1,024,405		AFE % 19.07	
Comment Summary 24 HR Forecast		RUN CASING, RIG DOWN CASING CREWS, WAIT ON CEMENTERS (RISING STAR) , CEMENT, DROP STAGE OPENING TOOL NIPPLE DOWN BOP, SET SLIPS, INSTALL TUBG. HEAD, RIG DOWN						
24 HR Operational Comments								
From	To	Duration	Operation Description					
12:00AM	12:30PM	12.50	CASING RUN DETAILS: 5-1/2" 17# L-80 BTC, TOTAL 230 JTS (INCL CUT JT AND MARKER JT), SHOE SET AT 9898', FLOAT COLLAR AT 9853', TOP DV TOOL AT 6997', TOP MARKER JOINT AT 9014", 60 CENTRALIZERS FROM SHOE TO 2784'.					
12:30PM	01:30PM	1.00	RIG DOWN CASING CREW, LAY DOWN TRUCK, FILL-UP TOOL & TORQ -TURN					
01:30PM	08:00PM	6.50	WAIT ON CEMENTERS (RISING STAR) HELD SAFETY MEETING WITH RISING STAR					
08:00PM	09:00PM	1.00	RIG UP CEMENTERS (RISING STAR) HELD SAFETY MEETING WITH RISING STAR					
09:00PM	11:00PM	2.00	RISING STAR CEMENTED FIRST STAGE WITH:20 BBL H2O AHEAD, 650 SKS CLASS "C" 50/50 STARBOND +5%C12 + 5%C-16A +1.5# STARSEAL +25% C-45 +2% C20 +.25% R-38, MIXED AT 12.8 PPG, 1.71 FT3 YIELD, 197 BBL. DISPLACED WITH 80 BBLs H2O + 148 BBL MUD. GOOD RETURNS THROUGHOUT JOB. FINAL CIRC PRESSURE 1,050 PSI. BUMPED PLUG AT 1600, BLEED BACK1.5 BBL, FLOATS HELD OK. CIP AT 22:50					
11:00PM	12:00AM	1.00	DROP BOMB AT 22:55. WAIT ON DESCENT.PUMP ON DV TOOL, OPEN WITH RISING STAR AT 23:35 WITH 800 PSI.					
Remarks								
00:00 - 04:00 : CIRCULATE, WITH RIG PUMP AT 348 GPM = 350 PSI, FOR 4 HRS. GOOD RETURNS. CIRCULATE 18 BBL = 59 SKS OFF OF DV TOOL. SAFETY MEETING WITH RISING STAR 04:00 - 05:00 : CEMENT 2ND STAGE, LEAD 480 SKS CLASS "C" 50/50 = 10% BENT. +.4% C-16A =.25% R-38 = 5% SALT, 11.9 PPG, 2.37 YP. TAIL: 200 SKS CLASS "C" 50/50 +2% BENT. + .4% C-16A + .1% C20 + .25% R38 + 3% SALT AT 14.2 PPG & 1.28 YP, DISPLACE WITH 162 BBL H2O, 1500 FCP, LAND PLUG WITH 3000 PSI, HELD 5 MIN & BLEED BACK 2.0 BBL. CIP AT 04:50 05:00 - 06:00 RIG DOWN CEMENTERS								
Directional Information								
Initial Deviation 6,300		Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091				
Casing / Tubing Information								
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L80, L-80, L-80 KSI	9,898.87			7,362.94	
Personnel								
Company Name	No of People	Hours Today	Cum / Event					
ALLIANCE DRILLING FLUIDS	0	24.0	48.0					
TOTAL ENERGY SERVICES	0	24.0	48.0					
SUTTLES MUD LOGGERS	0	24.0	48.0					
UNION DRILLING INC.	0	132.0	264.0					
RISING STAR	6	24.0	24.0					
LEWIS CASING CREWS	6	36.0	36.0					
UNION DRILLING INC.	0	24.0	48.0					
Total:	12	288.0	516.0					
Safety Drills								
Rams 1,000.00 (psi)	Annulars 500.00 (psi)	Casing 12/15/2012 / 1,000.00 (psi)	Last BOP Test 12/15/2012	Next BOP Test 12/29/2012				
BULKS								
Product DIESEL, RIG FUEL			QTY 2,824.0					



APACHE CORPORATION

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Daily Cost Detail

Account Code	Description	AFE Amount	Previous	Daily Cost	Cumulative	Available	Description
70004	CASING CREW			9,558			5-1/2 CASING CREW AND EQUIPMENT
70004	CASING CREW			5,905			LAYDOWN MACHINE
70004	CASING CREW	12,000	0	15,463	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	0	0	0	65,000	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	0	0	0	12,000	
70017	CONTRACT LABOR	20,000	0	0	0	20,000	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	15,500	15,500	31,000	30,000	UDI 215
70021	CONTRACT SUPERVISION	6,900	1,700	1,700	3,400	3,500	MARK LYMAN
70025	DRILLING FLUIDS			6,819			DAILY MUD COST
70025	DRILLING FLUIDS			850			MUD ENGINEER
70025	DRILLING FLUIDS			0			CORROSION
70025	DRILLING FLUIDS		7,669	7,669	15,338		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL			140			FORKLIFT RENTAL
70031	EQUIPMENT RENTAL			150			OFFICE GENERATOR
70031	EQUIPMENT RENTAL			269			CLEANING SERVICE
70031	EQUIPMENT RENTAL			0			MUD ENGINEER TRAILER
70031	EQUIPMENT RENTAL			0			TELEDRIFT
70031	EQUIPMENT RENTAL			115			ERF COMMUNICATIONS
70031	EQUIPMENT RENTAL			25			TRASH TRAILER
70031	EQUIPMENT RENTAL			185			WATER / SEPTIC
70031	EQUIPMENT RENTAL			130			FRAC TANKS
70031	EQUIPMENT RENTAL			350			13.625":3M x 5M SPOOL
70031	EQUIPMENT RENTAL			140			OFFICE TRAILER / SAT. TV
70031	EQUIPMENT RENTAL			40			TOTCO MONITOR
70031	EQUIPMENT RENTAL			600			13.625" SPACER SPOOL
70031	EQUIPMENT RENTAL			6,875			FILL-UP TOOL
70031	EQUIPMENT RENTAL	30,000	1,875	9,019	10,894	19,106	
70034	FORMATION STIMULATION	375,000	0	0	0	375,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		2 MAN LOGGING UNIT
70046	LAND AND SITE RECLAMATION	2,500	0	0	0	2,500	
70049	LOGGING AND WIRELINE	30,000	0	0	0	30,000	
70054	OTHER INTANGIBLE	35,370	0	7,371	7,371	27,999	5-1/2 CASING CENTRALIZERS, FLOAT
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	0	0	0	20,000	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER			0			BRINE WATER / PER BBL
70077	WATER			0			TRANSFER F/W: HRLY RATE
70077	WATER			0			FRESHWATER / PER BBL
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	26,744	56,722	83,466	649,304	
71001	ARTIFICIAL LIFT	125,000	0	0	0	125,000	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	0	157,899	157,899	20,101	5-1/2 CASING - BARE - 9898' AT \$15.91
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	



APACHE CORPORATION

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WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 01-23-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD 9,895.07	RKB/RT 2,533.00	Working Int % 100.00	Report No 3
Region PERMIAN		District NOTREES - TX CZ	License		Well Supervisor MARK LYMAN (435) 979-5812		Engineer / Geologist ROBERT CLARY	
Field BLK 31		State		County	Event Code LCM	Event Type LAND-ORIG COMP		Objective
RIG Name UNION 215 /			RIG PHONE NO 281-336-0222		RIG Fax No		Tool Pusher LARRY VAN GILDER	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 241,365		Daily Costs 80,247	Cumulative Cost 321,612	AFE Remaining 944,158		AFE % 25.41
Comment Summary 24 HR Forecast		CIRCULATE, CEMENT, RIG DOWN CEMENTERS, NIPPLE DOWN BOP, SET SLIPS NU TUBING HEAD, CLEAN PITS, RIG DOWN WAIT ON DAYLIGHT, SAFETY MEETING WITH 5 J TRUCKING & CREWS, RIG DOWN, MOVE RIG TO UNIVERSITY DEVONIAN "O" 25 #8, RIG UP						
24 HR Operational Comments								
From	To	Duration	Operation Description					
12:00AM	03:30AM	3.50	CIRCULATE, WITH RIG PUMP AT 348 GPM = 350 PSI, FOR 4 HRS. GOOD RETURNS. CIRCULATE 18 BBL = 59 SKS OFF OF DV TOOL. SAFETY MEETING WITH RISING STAR					
03:30AM	05:00AM	1.50	CEMENT 2ND STAGE, LEAD 480 SKS CLASS "C" 50/50 = 10% BENT. +.4% C-16A =.25% R-38 = 5% SALT, 11.9 PPG, 2.37 YP. TAIL: 200 SKS CLASS "C" 50/50 +2% BENT. + .4% C-16A + .1% C20 + .25% R38 + 3% SALT AT 14.2 PPG & 1.28 YP, DISPLACE WITH 162 BBL H2O, 1500 FCP, LAND PLUG WITH 3000 PSI, HELD 5 MIN & BLEED BACK 2.0 BBL. CIP AT 04:50					
05:00AM	06:00AM	1.00	RIG DOWN CEMENTERS					
06:00AM	12:00PM	6.00	NIPPLE DOWN BOP, SET SLIPS WITH 135K STRING WEIGHT, LAY OUT BOP, TUBING HEAD. TEST TO 4000#,					
12:00PM	06:00PM	6.00	CLEAN PITS, RIG DOWN, RELEASE RIG TO UNIVERSITY DEVONIAN "O" 25 #8 AT 18:00 01/23/13					
06:00PM	06:00PM	0.00	RELEASE RIG TO UNIVERSITY DEVONIAN "O" 25 #8					
06:00PM	12:00AM	6.00	RIG DOWN & PREP RIG FOR MOVE					
Directional Information								
Initial Deviation 6,300		Max Dev 7.5deg at 8,141			Max Dogleg 17.5 deg at 8,091			
Casing / Tubing Information								
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94	
Personnel								
Company Name	No of People	Hours Today	Cum / Event					
SUTTLES MUD LOGGERS	0	24.0	72.0					
UNION DRILLING INC.	0	24.0	72.0					
UNION DRILLING INC.	0	132.0	396.0					
ALLIANCE DRILLING FLUIDS	0	24.0	72.0					
TOTAL ENERGY SERVICES	0	24.0	72.0					
Total:	0	228.0	684.0					
Safety Drills								
Rams 1,000.00 (psi)	Annulars 500.00 (psi)	Casing 12/15/2012 / 1,000.00 (psi)		Last BOP Test 12/15/2012	Next BOP Test 12/29/2012			
BULKS								
Product DIESEL, RIG FUEL			QTY 2,324.0					



APACHE CORPORATION

Daily Land - Orig Comp Report

Daily Cost Detail

Account Code	Description	AFE Amount	Previous	Daily Cost	Cumulative	Available	Description
70004	CASING CREW	12,000	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES			4,903			5-1/2 CASING CENTRALIZERS AND FL
70006	CEMENT AND CEMENTING SERVICES			3,240			WEATHERFORD DV TOOL TEC.
70006	CEMENT AND CEMENTING SERVICES			43,755			5.5 CASING CEMENT
70006	CEMENT AND CEMENTING SERVICES	65,000	0	51,898	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	0	0	0	12,000	
70017	CONTRACT LABOR	20,000	0	1,015	1,015	18,985	SET SLIPS, INSTALL TUBING HEAD
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	31,000	15,500	46,500	14,500	UDI 215
70021	CONTRACT SUPERVISION	6,900	3,400	1,700	5,100	1,800	MARK LYMAN
70025	DRILLING FLUIDS			0			CORROSION
70025	DRILLING FLUIDS			0			DAILY MUD COST
70025	DRILLING FLUIDS			850			MUD ENGINEER
70025	DRILLING FLUIDS		15,338	850	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL			115			ERF COMMUNICATIONS
70031	EQUIPMENT RENTAL			350			13.625":3M x 5M SPOOL
70031	EQUIPMENT RENTAL			25			TRASH TRAILER
70031	EQUIPMENT RENTAL			40			TOTCO MONITOR
70031	EQUIPMENT RENTAL			0			MUD ENGINEER TRAILER
70031	EQUIPMENT RENTAL			140			OFFICE TRAILER / SAT. TV
70031	EQUIPMENT RENTAL			140			FORKLIFT RENTAL
70031	EQUIPMENT RENTAL			150			OFFICE GENERATOR
70031	EQUIPMENT RENTAL			185			WATER / SEPTIC
70031	EQUIPMENT RENTAL			130			FRAC TANKS
70031	EQUIPMENT RENTAL			600			13.625" SPACER SPOOL
70031	EQUIPMENT RENTAL			0			TELEDRIFT
70031	EQUIPMENT RENTAL	30,000	10,894	1,875	12,769	17,231	
70034	FORMATION STIMULATION	375,000	0	0	0	375,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		2 MAN LOGGING UNIT
70046	LAND AND SITE RECLAMATION	2,500	0	0	0	2,500	
70049	LOGGING AND WIRELINE	30,000	0	0	0	30,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	0	0	0	20,000	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER			0			BRINE WATER / PER BBL
70077	WATER			0			FRESHWATER / PER BBL
70077	WATER			0			TRANSFER F/W: HRLY RATE
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	83,466	72,838	156,304	576,466	
71001	ARTIFICIAL LIFT	125,000	0	0	0	125,000	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	0	0	0	52,000	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 01-28-2013		
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 4	
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS		Engineer / Geologist SEAN MURRAY	
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP	Objective
RIG Name				RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:							
AFE Costs 1,265,770		Previous Day Cum 321,612		Daily Costs 127,000		Cumulative Cost 448,612		AFE Remaining 817,158	AFE % 35.44
Comment Summary 24 HR Forecast		LEVEL LOCATION, SET AMPSCOT 640-365-168 PUMPING UNIT, PLUMB IN B.H. MIRUWSU, BEGIN COMPLETION WORK							
Directional Information									
Initial Deviation 6,300		Max Dev 7.5deg at 8,141			Max Dogleg 17.5 deg at 8,091				
Casing / Tubing Information									
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method	
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface	
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface	
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94		
BULKS									
Product				QTY					
DIESEL, RIG FUEL				0.0 2,324.0					



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	0	0	0	12,000	
70017	CONTRACT LABOR	20,000	1,015	0	1,015	18,985	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	46,500	0	46,500	14,500	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	12,769	0	12,769	17,231	
70034	FORMATION STIMULATION	375,000	0	0	0	375,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	0	2,000	2,000	500	J&J
70049	LOGGING AND WIRELINE	30,000	0	0	0	30,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	0	0	0	20,000	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	156,304	2,000	158,304	574,466	
71001	ARTIFICIAL LIFT	125,000	0	125,000	125,000	0	WEATHERFORD
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	0	0	0	52,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	165,308	125,000	290,308	242,692	
Total:		1,265,770	321,612	127,000	448,612	817,158	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 01-29-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 5
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor CASEY WILLIS		Engineer / Geologist SEAN MURRAY		
Field BLK 31		State	County	Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 448,612	Daily Costs 69,650	Cumulative Cost 518,262	AFE Remaining 747,508		AFE % 40.94	
Comment Summary 24 HR Forecast		MIRUWSU, DELIVER, RACK & TALLY TBG. NUBOP, SHUT DN DUE TO HIGH WINDS TIH PICKING UP DC'S & TBG, DO DV TOOL. CIRC CLEAN, TOH LD DC'S & BIT.						
24 HR Operational Comments								
From 07:00AM	To 01:00PM	Duration 6.00	Operation Description MIRUWSU, DELIVER RACK & TALLY 000 JTS NEW 2-7/8" L-80 TBG. LAND REVERSE UNIT, PIT & SWIVEL. FILL PIT W/ FRESH WTR. SHUT DN DUE TO HIGH WINDS.					
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					
Casing / Tubing Information								
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94	
BULKS								
Product			QTY					
DIESEL, RIG FUEL			0.0 2,324.0					



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	0	500	500	11,500	
70017	CONTRACT LABOR	20,000	1,015	1,100	2,115	17,885	HINTON
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	46,500	1,800	48,300	12,700	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	12,769	3,500	16,269	13,731	ASAP/MARTINEZ
70034	FORMATION STIMULATION	375,000	0	0	0	375,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	0	0	0	30,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	0	750	750	19,250	JUST
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	158,304	7,650	165,954	566,816	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	0	62,000	62,000	-10,000	TUBOSCOPE
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	290,308	62,000	352,308	180,692	
Total:		1,265,770	448,612	69,650	518,262	747,508	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 01-30-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 6
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor CASEY WILLIS			Engineer / Geologist SEAN MURRAY	
Field BLK 31		State	County	Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 518,262	Daily Costs 9,200	Cumulative Cost 527,462	AFE Remaining 738,308		AFE % 41.67	
Comment Summary 24 HR Forecast		TIH PICKING UP BIT, DC'S & TBG. D/O DV TOOL @ 7000', TIH TO PBTD. CIRC CLEAN. TOH, LD DC'S & BIT. LOG & PERF LOWER DEVONIAN, TIH W/ PKR, PREP FOR ACID						
24 HR Operational Comments								
From 07:00AM	To 07:00PM	Duration 12.00	Operation Description TIH PICKING UP BIT, DC'S, & TBG. TAG UP ON DV TOOL @ 7000'. PU SWIVEL, BREAK CIRC, D/O TOOL. TDH TO 9853'. CIRC CLEAN. POH STANDING BACK TBG. SDON					
Directional Information								
Initial Deviation 6,300		Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091				
Casing / Tubing Information								
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94	
BULKS								
Product				QTY				
DIESEL, RIG FUEL				0.0 2,324.0				



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	500	500	1,000	11,000	
70017	CONTRACT LABOR	20,000	2,115	3,500	5,615	14,385	HINTON
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	48,300	4,000	52,300	8,700	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	0	16,269	13,731	
70034	FORMATION STIMULATION	375,000	0	0	0	375,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	0	0	0	30,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	750	1,200	1,950	18,050	M&W
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	165,954	9,200	175,154	557,616	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	518,262	9,200	527,462	738,308	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 01-31-2013		
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 7	
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS		Engineer / Geologist SEAN MURRAY	
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP	Objective
RIG Name				RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:							
AFE Costs 1,265,770		Previous Day Cum 527,462		Daily Costs 25,900		Cumulative Cost 553,362		AFE Remaining 712,408	AFE % 43.72
Comment Summary 24 HR Forecast		LOG & PERF LOWER DEVONIAN, TIH W/ PKR. LEFT SWINGING ABOVE PERFS ACIDIZE LOWER DEVONIAN, F/B, SWAB							
24 HR Operational Comments									
From 07:00AM	To 07:00PM	Duration 12.00	Operation Description RU CORNELL WIRELINE. RUN BOND LOG. PU GUN & RIH. PERFORATE THE LOWER DEVONIAN INTERVAL FROM 9535'-9776' (23' NET, 241' GROSS, 92 HOLES) USING .54" CONNEX EHD CHARGES IN 1 RUN. RD WL. PU 5-1/2" TREATING PKR & TIH ON 2-7/8" TBG. LEFT PKR SWINGING ABOVE PERFS. SDON						
Actual Perforations									
Date 01/31/2013	Zone DEVONIAN	From 9,535	To 9,776.00	JSPF Phasing 4 90.00	Comments .54 CONNEX EHD CHARGES	Report Date 01/31/2013			
Directional Information									
Initial Deviation 6,300		Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					
Casing / Tubing Information									
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method	
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface	
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface	
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94		
BULKS									
Product				QTY					
DIESEL, RIG FUEL				0.0					
				2,324.0					



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	1,000	500	1,500	10,500	
70017	CONTRACT LABOR	20,000	5,615	5,000	10,615	9,385	HINTON
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	52,300	4,200	56,500	4,500	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	0	16,269	13,731	
70034	FORMATION STIMULATION	375,000	0	0	0	375,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	0	15,000	15,000	15,000	CORNELL
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	1,950	1,200	3,150	16,850	M&W
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	175,154	25,900	201,054	531,716	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	527,462	25,900	553,362	712,408	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-01-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 8
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor CASEY WILLIS			Engineer / Geologist SEAN MURRAY	
Field BLK 31	State	County		Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 553,362	Daily Costs 37,125	Cumulative Cost 590,487	AFE Remaining 675,283		AFE % 46.65	
Comment Summary 24 HR Forecast		ACIDIZE LOWER DEVONIAN, F/B, SWAB SDFWKND						
24 HR Operational Comments								
From 07:00AM	To 06:00PM	Duration 11.00	Operation Description RU CUDD, TREY & M&W. HELD SAFETY MEETING. TDH W/ TBG TO 9774'. BREAK CIRC, CIRC CLEAN, SPOT ACID ACROSS LOWER DEVONIAN PERFS. PUH & SET PKR @ 9415' (120' ABOVE PERFS). TEST LINES. ACIDIZE LOWER DEVONIAN 9535'-9776' W/ 10,000 GAL 15% NEFE ACID DROPPING 180 BALL SEALERS FOR DIVERSION. BALLED OUT W/ 135 BALLS ON FORMATION. SURGED BALLS OFF & FLUSHED TO BOTTOM PERF W/ 63 BBLs 2% WTR. ISIP=1511#, 5MIN=1173#, 10MIN=1060#, 15MIN=947#. MAX RATE= 6.2 BPM, AVG RATE= 5.4 BPM, MAX PRESS= 5214#, AVG PRESS= 2500#. TBLWTR= 295. LEFT SHUT IN FOR 1 HR. OPENED UP & FLOWED BACK TO TEST TANK. F/B 74 BLW THEN DIED. RU SWAB. RIH. IFL= SURFACE. MADE 00 SWAB RUNS. RECOVERED 00 BLW. FFL=000'. SHUT WELL IN. TBLWTR= 000 SDFWKND					
Actual Perforations								
Date 01/31/2013	Zone DEVONIAN		From 9,535	To 9,776.00	JSPF Phasing 4 90.00	Comments .54 CONNEX EHD CHARGES		Report Date 01/31/2013
Stimulation								
Date 02/01/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,535.00	Base(ft) 9,776.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type	Proppant Size	Weight
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					
Casing / Tubing Information								
Description SURFACE	Size 13.38	Weight 48	Grade H-40	Depth 975.00	Sacks 174	CMT Top 17.00	Packer / SN -1,558.00	TOC Method Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94	
BULKS								
Product DIESEL, RIG FUEL			QTY 0.0 2,324.0					



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	1,500	500	2,000	10,000	
70017	CONTRACT LABOR	20,000	10,615	1,325	11,940	8,060	C&C
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	56,500	3,800	60,300	700	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	0	16,269	13,731	
70034	FORMATION STIMULATION	375,000	0	29,000	29,000	346,000	CUDD
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	15,000	0	15,000	15,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	3,150	2,500	5,650	14,350	TREY/M&W
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	201,054	37,125	238,179	494,591	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	553,362	37,125	590,487	675,283	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-04-2013			
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 9		
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS		Engineer / Geologist SEAN MURRAY		
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP	Objective	
RIG Name				RIG PHONE NO		RIG Fax No		Tool Pusher		
AFE #: PA-12-0340-C		AFE Description:								
AFE Costs 1,265,770		Previous Day Cum 590,487		Daily Costs 3,800		Cumulative Cost 594,287		AFE Remaining 671,483		AFE % 46.95
Comment Summary 24 HR Forecast		SWAB TEST LOWER DEVONIAN SWAB								
24 HR Operational Comments										
From 07:00AM	To 06:00PM	Duration 11.00	Operation Description TP=150#. BLED DN TO TEST TANK. RU SWAB. RIH. IFL @ 1900'. MADE 20 SWAB RUNS. RECOVERED 152 BLW. FFL @ 7200'. NO OIL SHOW. TBLWTR= 16. SDON.							
Actual Perforations										
Date 01/31/2013	Zone DEVONIAN		From 9,535		To 9,776.00		JSPF Phasing 4 90.00	Comments .54 CONNEX EHD CHARGES		Report Date 01/31/2013
Stimulation										
Date 02/01/2013	Type Acid		Contractor CUDD							
Number 1	Top(ft) 9,535.00		Base(ft) 9,776.00		Zone Devonian		Diversion Type Ball Sealers			
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type	Proppant Size		Weight	
Directional Information										
Initial Deviation 6,300	Max Dev 7.5deg at 8,141			Max Dogleg 17.5 deg at 8,091						
Casing / Tubing Information										
Description SURFACE	Size 13.38	Weight 48	Grade H-40			Depth 975.00	Sacks 174	CMT Top 17.00	Packer / SN -1,558.00	TOC Method Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55			3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80			9,898.87			7,362.94	
BULKS										
Product DIESEL, RIG FUEL				QTY 0.0 2,324.0						



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	2,000	500	2,500	9,500	
70017	CONTRACT LABOR	20,000	11,940	0	11,940	8,060	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	60,300	3,300	63,600	-2,600	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	0	16,269	13,731	
70034	FORMATION STIMULATION	375,000	29,000	0	29,000	346,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	15,000	0	15,000	15,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	5,650	0	5,650	14,350	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	238,179	3,800	241,979	490,791	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	590,487	3,800	594,287	671,483	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-05-2013										
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 10			
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS				Engineer / Geologist SEAN MURRAY							
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP				Objective					
RIG Name				RIG PHONE NO				RIG Fax No				Tool Pusher					
AFE #: PA-12-0340-C		AFE Description:															
AFE Costs 1,265,770		Previous Day Cum 594,287		Daily Costs 4,300		Cumulative Cost 598,587		AFE Remaining 667,183		AFE % 47.29							
Comment Summary 24 HR Forecast		SWAB, RELEASE PKR, TOH. P.B. LOWER DEVONIAN, PERF MIDDLE DEVONIAN, TIH W/ PKR. PREP FOR ACID															
24 HR Operational Comments																	
From 07:00AM		To 05:00PM		Duration 10.00		Operation Description TP=100#. BLEED OFF TO TEST TANK. IFL=2500'. MADE 8 SWAB RUNS. RECOVERED 60 BW. ALL LOAD WATER RECOVERED. NO OIL SHOW. FFL=5400'. RELEASE PKR, TOH STANDING BACK TBG. SDON.											
Actual Perforations																	
Date 01/31/2013		Zone DEVONIAN		From 9,535		To 9,776.00		JSPF Phasing 4 90.00		Comments .54 CONNEX EHD CHARGES				Report Date 01/31/2013			
Stimulation																	
Date 02/01/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,535.00		Base(ft) 9,776.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 238.00		Avg. Rate 5.40		Max Rate 6.20		Avg. Press 2,500.00		Max Press 5,214.00		Proppant Type		Proppant Size		Weight	
Directional Information																	
Initial Deviation 6,300		Max Dev 7.5deg at 8,141				Max Dogleg 17.5 deg at 8,091											
Casing / Tubing Information																	
Description SURFACE		Size 13.38		Weight 48		Grade H-40		Depth 975.00		Sacks 174		CMT Top 17.00		Packer / SN -1,558.00		TOC Method Returns at Surface	
INTERMEDIATE 1		8.63		32		J55, K55		3,715.04		1,120		17.00		1,181.69		Returns at Surface	
PRODUCTION 1		5.50		17		L-80, L-80 KSI, L80		9,898.87						7,362.94			
BULKS																	
Product				QTY													
				0.0													
DIESEL, RIG FUEL				2,324.0													



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	2,500	500	3,000	9,000	
70017	CONTRACT LABOR	20,000	11,940	0	11,940	8,060	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	63,600	3,800	67,400	-6,400	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	0	16,269	13,731	
70034	FORMATION STIMULATION	375,000	29,000	0	29,000	346,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	15,000	0	15,000	15,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	5,650	0	5,650	14,350	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	241,979	4,300	246,279	486,491	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	594,287	4,300	598,587	667,183	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-06-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 11
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor CASEY WILLIS			Engineer / Geologist SEAN MURRAY	
Field BLK 31	State	County	Event Code LCM	Event Type LAND-ORIG COMP		Objective		
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 598,587	Daily Costs 17,300	Cumulative Cost 615,887	AFE Remaining 649,883		AFE % 48.66	
Comment Summary 24 HR Forecast		P.B. LOWER DEVONIAN, PERF MIDDLE DEVONIAN, DUMP CMT. TIH W/ PKR. LEFT SWINGING ABOVE PERFS ACIDIZE MIDDLE DEVONIAN, F/B						
24 HR Operational Comments								
From 07:00AM	To 05:00PM	Duration 10.00	Operation Description RU CORNELL WL. RIH W/ CIBP & 3-1/8" GUN. SET CIBP @ 9494'. PUH & PERF MIDDLE DEVONIAN FROM 9330'-9436' (18' NET, 106' GROSS, 90 DEGREE PHASING, 4 SPF, 72 HOLES) USING .54 CONNEX EHD SHOTS IN 1 RUN. POH. RIH & DUMP 2 SX CMT ON PLUG. RD WL. PU 5-1/2" TREATING PKR & TIH ON 2-7/8" TBG. LEFT PKR SWINGING ABOVE PERFS. SDON					
Actual Perforations								
Date	Zone	From	To	JSPF Phasing	Comments		Report Date	
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES		02/06/2013	
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES		01/31/2013	
Stimulation								
Date 02/01/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,535.00	Base(ft) 9,776.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type	Proppant Size	Weight
Squeeze / Repair / Plugs								
Date 02/06/2013	From	To	Work Done P.B. LOWER DEVONIAN W/ 1.5 SX CMT				Date Report 01/23/2013 02/06/2013	
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					
Casing / Tubing Information								
Description SURFACE	Size 13.38	Weight 48	Grade H-40	Depth 975.00	Sacks 174	CMT Top 17.00	Packer / SN -1,558.00	TOC Method Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94	
BULKS								
Product DIESEL, RIG FUEL			QTY 0.0 2,324.0					



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	3,000	500	3,500	8,500	
70017	CONTRACT LABOR	20,000	11,940	1,700	13,640	6,360	C&C
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	67,400	3,600	71,000	-10,000	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	0	16,269	13,731	
70034	FORMATION STIMULATION	375,000	29,000	0	29,000	346,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	15,000	11,500	26,500	3,500	CORNELL
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	5,650	0	5,650	14,350	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	246,279	17,300	263,579	469,191	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	598,587	17,300	615,887	649,883	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-07-2013								
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 12	
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS				Engineer / Geologist SEAN MURRAY					
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP				Objective			
RIG Name				RIG PHONE NO				RIG Fax No				Tool Pusher			
AFE #: PA-12-0340-C		AFE Description:													
AFE Costs 1,265,770		Previous Day Cum 615,887		Daily Costs 21,470		Cumulative Cost 637,357		AFE Remaining 628,413		AFE % 50.35					
Comment Summary 24 HR Forecast		ACIDIZE MIDDLE DEVONIAN INTERVAL, F/B, SWAB SWAB													
24 HR Operational Comments															
From 07:00AM	To 06:00PM	Duration 11.00	Operation Description RU CUDD, TREY & M&W. HELD SAFETY MEETING. TDH W/ TBG TO 9436'. BREAK CIRC, CIRC CLEAN, SPOT ACID ACROSS LOWER DEVONIAN PERFS. PUH & SET PKR @ 9219' (111' ABOVE PERFS). TEST LINES. ACIDIZE LOWER DEVONIAN 9330'-9436' W/ 4,000 GAL 15% NEFE ACID DROPPING 110 BALL SEALERS FOR DIVERSION. DID NOT BALL OUT. FLUSHED TO BOTTOM PERF W/ 58 BBLS 2% WTR. ISIP=878#, 5MIN=856#, 10MIN=811#, 15MIN=788#. MAX RATE= 5.2 BPM, AVG RATE= 5 BPM, MAX PRESS= 2807#, AVG PRESS= 2000#. TBLWTR= 140. LEFT SHUT IN FOR 1 HR. TP=600#, OPENED UP & FLOWED BACK TO TEST TANK. F/B 92 BLW THEN DIED. RU SWAB. RIH. IFL=SURFACE. MADE 11 SWAB RUNS. RECOVERED 109 BLW. FFL=3700'. SHUT WELL IN. TBLWTR= ALL LOAD WTR RECOVERED. SDFWKND												
Actual Perforations															
Date	Zone	From	To	JSPF Phasing	Comments	Report Date									
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES	02/06/2013									
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES	01/31/2013									
Stimulation															
Date	Type			Contractor											
02/01/2013	Acid			CUDD											
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1	9,535.00	9,776.00	Devonian	Ball Sealers											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
15% Acid	238.00	5.40	6.20	2,500.00	5,214.00										
Date	Type			Contractor											
02/07/2013	Acid			CUDD											
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1	9,330.00	9,436.00		Ball Sealers											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
15% Acid	95.00	5.00	5.20	2,000.00	2,807.00										
Squeeze / Repair / Plugs															
Date	From	To	Work Done		Date Report										
02/06/2013			P.B. LOWER DEVONIAN W/ 1.5 SX CMT		01/23/2013 02/06/2013										
Directional Information															
Initial Deviation	Max Dev		Max Dogleg												
6,300	7.5deg at 8,141		17.5 deg at 8,091												
Casing / Tubing Information															
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method							
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface							
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface							
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94								
BULKS															
Product				QTY											
DIESEL, RIG FUEL				0.0 2,324.0											



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	3,500	500	4,000	8,000	
70017	CONTRACT LABOR	20,000	13,640	1,670	15,310	4,690	C&C
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	71,000	3,600	74,600	-13,600	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	0	16,269	13,731	
70034	FORMATION STIMULATION	375,000	29,000	13,500	42,500	332,500	CUDD
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	26,500	0	26,500	3,500	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	5,650	2,200	7,850	12,150	M&W/TREY
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	263,579	21,470	285,049	447,721	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	615,887	21,470	637,357	628,413	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-11-2013										
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 13			
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS				Engineer / Geologist SEAN MURRAY							
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP				Objective					
RIG Name				RIG PHONE NO				RIG Fax No				Tool Pusher					
AFE #: PA-12-0340-C		AFE Description:															
AFE Costs 1,265,770		Previous Day Cum 637,357		Daily Costs 18,900		Cumulative Cost 656,257		AFE Remaining 609,513		AFE % 51.85							
Status																	
Comment Summary		RELEASE PKR, TOH. RUWL. P.B. MIDDLE DEVONIAN, PERF UPPER DEVONIAN. TIH W/ PKR, LEFT SWINGING ABOVE PERFS.															
24 HR Forecast		ACIDIZE UPPER DEVONIAN. F/B, SWAB															
24 HR Operational Comments																	
From 07:00AM		To 05:00PM		Duration 10.00		Operation Description 2/8/13: TP=90#, BLED DN TO TEST TANK. IFL= 1600' FS. MADE 14 SWAB RUNS. RECOVERED 129 BBLS WTR. NO OIL SHOW. FFL= 5000' FROM SURFACE. SHUT WELL IN. SDFWKNKD 2/11/13: RU CORNELL WL. RIH W/ CIBP & 3-1/8" GUN. SET CIBP @ 9300'. PUH & PERF UPPER DEVONIAN FROM 8772'-8806' (20' NET, 34' GROSS, 90 DEGREE PHASING, 4 SPF, 80 HOLES) USING .54 CONNEX EHD SHOTS IN 1 RUN. POH. RIH & DUMP 2 SX CMT ON PLUG. RD WL. PU 5-1/2" TREATING PKR & TIH ON 2-7/8" TBG. LEFT PKR SWINGING ABOVE PERFS. SDON											
Actual Perforations																	
Date		Zone		From		To		JSPF Phasing		Comments		Report Date					
02/11/2013		DEVONIAN		8,772		8,806.00		4 90.00		.54 CONNEX EHD SHOTS		02/11/2013					
02/06/2013		DEVONIAN		9,330		9,436.00		4 90.00		.54 CONNEX EHD CHARGES		02/06/2013					
01/31/2013		DEVONIAN		9,535		9,776.00		4 90.00		.54 CONNEX EHD CHARGES		01/31/2013					
Stimulation																	
Date 02/01/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,535.00		Base(ft) 9,776.00		Zone Devonian		Diverson Type Ball Sealers									
Fluid 15% Acid		Volume 238.00		Avg. Rate 5.40		Max Rate 6.20		Avg. Press 2,500.00		Max Press 5,214.00		Proppant Type		Proppant Size		Weight	
Date 02/07/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,330.00		Base(ft) 9,436.00		Zone		Diverson Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.20		Avg. Press 2,000.00		Max Press 2,807.00		Proppant Type		Proppant Size		Weight	
Squeeze / Repair / Plugs																	
Date		From		To		Work Done						Date Report					
02/06/2013						P.B. LOWER DEVONIAN W/ 1.5 SX CMT						01/23/2013					
02/11/2013						P.B. MIDDLE DEVONIAN W/ 2 SX CMT						02/06/2013					
												02/11/2013					
Directional Information																	
Initial Deviation 6,300		Max Dev 7.5deg at 8,141				Max Dogleg 17.5 deg at 8,091											
Casing / Tubing Information																	
Description		Size		Weight		Grade		Depth		Sacks		CMT Top		Packer / SN		TOC Method	
SURFACE		13.38		48		H-40		975.00		174		17.00		-1,558.00		Returns at Surface	
INTERMEDIATE 1		8.63		32		J55, K55		3,715.04		1,120		17.00		1,181.69		Returns at Surface	
PRODUCTION 1		5.50		17		L-80, L-80 KSI, L80		9,898.87						7,362.94			
BULKS																	
Product				QTY													
DIESEL, RIG FUEL				0.0													
				2,324.0													



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	4,000	500	4,500	7,500	
70017	CONTRACT LABOR	20,000	15,310	1,700	17,010	2,990	C&C
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	74,600	4,200	78,800	-17,800	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	0	16,269	13,731	
70034	FORMATION STIMULATION	375,000	42,500	0	42,500	332,500	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	26,500	11,500	38,000	-8,000	CORNELL
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	7,850	1,000	8,850	11,150	TREY
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	0	0	30,000	
Total Intangible Cost		732,770	285,049	18,900	303,949	428,821	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	637,357	18,900	656,257	609,513	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-12-2013										
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 14			
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS				Engineer / Geologist SEAN MURRAY							
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP			Objective						
RIG Name				RIG PHONE NO			RIG Fax No			Tool Pusher							
AFE #: PA-12-0340-C		AFE Description:															
AFE Costs 1,265,770		Previous Day Cum 656,257		Daily Costs 44,365		Cumulative Cost 700,622		AFE Remaining 565,148		AFE % 55.35							
Comment Summary 24 HR Forecast		ACIDIZE UPPER DEVONIAN INTERVAL, F/B, SWAB SWAB															
24 HR Operational Comments																	
From		To		Duration		Operation Description											
Actual Perforations																	
Date		Zone		From		To		JSPF Phasing		Comments			Report Date				
02/11/2013		DEVONIAN		8,772		8,806.00		4 90.00		.54 CONNEX EHD SHOTS			02/11/2013				
02/06/2013		DEVONIAN		9,330		9,436.00		4 90.00		.54 CONNEX EHD CHARGES			02/06/2013				
01/31/2013		DEVONIAN		9,535		9,776.00		4 90.00		.54 CONNEX EHD CHARGES			01/31/2013				
Stimulation																	
Date 02/01/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,535.00		Base(ft) 9,776.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 238.00		Avg. Rate 5.40		Max Rate 6.20		Avg. Press 2,500.00		Max Press 5,214.00		Proppant Type		Proppant Size		Weight	
Date 02/12/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 8,772.00		Base(ft) 8,806.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.10		Avg. Press 2,150.00		Max Press 2,659.00		Proppant Type		Proppant Size		Weight	
Date 02/07/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,330.00		Base(ft) 9,436.00		Zone		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.20		Avg. Press 2,000.00		Max Press 2,807.00		Proppant Type		Proppant Size		Weight	
Squeeze / Repair / Plugs																	
Date		From		To		Work Done							Date Report				
02/06/2013						P.B. LOWER DEVONIAN W/ 1.5 SX CMT							01/23/2013				
02/11/2013						P.B. MIDDLE DEVONIAN W/ 2 SX CMT							02/06/2013 02/11/2013				
Directional Information																	
Initial Deviation 6,300		Max Dev 7.5deg at 8,141				Max Dogleg 17.5 deg at 8,091											
Casing / Tubing Information																	
Description		Size		Weight		Grade		Depth		Sacks		CMT Top		Packer / SN		TOC Method	
SURFACE		13.38		48		H-40		975.00		174		17.00		-1,558.00		Returns at Surface	
INTERMEDIATE 1		8.63		32		J55, K55		3,715.04		1,120		17.00		1,181.69		Returns at Surface	
PRODUCTION 1		5.50		17		L-80, L-80 KSI, L80		9,898.87						7,362.94			
BULKS																	
Product				QTY													
DIESEL, RIG FUEL				0.0 2,324.0													



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	4,500	500	5,000	7,000	
70017	CONTRACT LABOR	20,000	17,010	1,665	18,675	1,325	C&C
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	78,800	3,700	82,500	-21,500	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	16,269	10,000	26,269	3,731	TREY
70034	FORMATION STIMULATION	375,000	42,500	13,500	56,000	319,000	CUDD
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	8,850	0	8,850	11,150	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	0	15,000	15,000	15,000	TREY
Total Intangible Cost		732,770	303,949	44,365	348,314	384,456	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	656,257	44,365	700,622	565,148	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-13-2013		
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 15	
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor CASEY WILLIS		Engineer / Geologist SEAN MURRAY			
Field BLK 31		State	County	Event Code LCM	Event Type LAND-ORIG COMP		Objective		
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher		
AFE #: PA-12-0340-C		AFE Description:							
AFE Costs 1,265,770		Previous Day Cum 700,622	Daily Costs 5,700	Cumulative Cost 706,322	AFE Remaining 559,448		AFE % 55.80		
Comment Summary 24 HR Forecast		SWAB RELEASE PKR, TOH W/ TBG. NDBOP, NUFV. RDMOWSU							
24 HR Operational Comments									
From 07:00AM	To 05:00PM	Duration 10.00	Operation Description SITP=300#, OPEN UP & BLEED DN TO TEST TANK. RU SWAB, RIH. IFL@ 5000'. MADE 8 RUNS RECOVERED 32 BBLS W/ 15% OIL CUT. FFL@ 7800'. LD SWAB. SHUT WELL IN. SDON						
Actual Perforations									
Date 02/11/2013	Zone DEVONIAN	From 8,772	To 8,806.00	JSPF Phasing 4 90.00	Comments .54 CONNEX EHD SHOTS		Report Date 02/11/2013		
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES		02/06/2013		
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES		01/31/2013		
Stimulation									
Date 02/01/2013	Type Acid	Contractor CUDD							
Number 1	Top(ft) 9,535.00	Base(ft) 9,776.00	Zone Devonian	Diversion Type Ball Sealers					
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type		Proppant Size	Weight
Date 02/12/2013	Type Acid	Contractor CUDD							
Number 1	Top(ft) 8,772.00	Base(ft) 8,806.00	Zone Devonian	Diversion Type Ball Sealers					
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.10	Avg. Press 2,150.00	Max Press 2,659.00	Proppant Type		Proppant Size	Weight
Date 02/07/2013	Type Acid	Contractor CUDD							
Number 1	Top(ft) 9,330.00	Base(ft) 9,436.00	Zone	Diversion Type Ball Sealers					
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.20	Avg. Press 2,000.00	Max Press 2,807.00	Proppant Type		Proppant Size	Weight
Squeeze / Repair / Plugs									
Date 02/06/2013 02/11/2013	From	To	Work Done P.B. LOWER DEVONIAN W/ 1.5 SX CMT P.B. MIDDLE DEVONIAN W/ 2 SX CMT				Date Report 01/23/2013 02/06/2013 02/11/2013		
Directional Information									
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091						
Casing / Tubing Information									
Description SURFACE INTERMEDIATE 1 PRODUCTION 1	Size 13.38 8.63 5.50	Weight 48 32 17	Grade H-40 J55, K55 L-80, L-80 KSI, L80	Depth 975.00 3,715.04 9,898.87	Sacks 174 1,120	CMT Top 17.00 17.00	Packer / SN -1,558.00 1,181.69 7,362.94	TOC Method Returns at Surface Returns at Surface	
BULKS									
Product			QTY 0.0						



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	5,000	500	5,500	6,500	
70017	CONTRACT LABOR	20,000	18,675	0	18,675	1,325	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	82,500	3,200	85,700	-24,700	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	26,269	0	26,269	3,731	
70034	FORMATION STIMULATION	375,000	56,000	0	56,000	319,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	8,850	2,000	10,850	9,150	TREY
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	348,314	5,700	354,014	378,756	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	700,622	5,700	706,322	559,448	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-14-2013										
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 16			
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS				Engineer / Geologist SEAN MURRAY							
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP				Objective					
RIG Name				RIG PHONE NO				RIG Fax No				Tool Pusher					
AFE #: PA-12-0340-C		AFE Description:															
AFE Costs 1,265,770		Previous Day Cum 706,322		Daily Costs 15,500		Cumulative Cost 721,822		AFE Remaining 543,948		AFE % 57.03							
Comment Summary 24 HR Forecast		RELEASE PKR, LD TBG, ND BOP, NU 10K FRAC VALVE, RDMOSU. READY FOR FRAC. SUSPEND REPORT PENDING FRAC 2/18/13.															
24 HR Operational Comments																	
From 07:00AM		To 05:00PM		Duration 10.00		Operation Description TP= 200#, BLED TBG TO TANK. RELEASED PKR, TDH CLEARING BALLS OFF PERFS. TOH LD 2 7/8" TBG. ND BOP, NU 10K FRAC VALVE, RDMOSU.											
Actual Perforations																	
Date		Zone		From		To		JSPF Phasing		Comments		Report Date					
02/11/2013		DEVONIAN		8,772		8,806.00		4 90.00		.54 CONNEX EHD SHOTS		02/11/2013					
02/06/2013		DEVONIAN		9,330		9,436.00		4 90.00		.54 CONNEX EHD CHARGES		02/06/2013					
01/31/2013		DEVONIAN		9,535		9,776.00		4 90.00		.54 CONNEX EHD CHARGES		01/31/2013					
Stimulation																	
Date 02/01/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,535.00		Base(ft) 9,776.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 238.00		Avg. Rate 5.40		Max Rate 6.20		Avg. Press 2,500.00		Max Press 5,214.00		Proppant Type		Proppant Size		Weight	
Date 02/12/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 8,772.00		Base(ft) 8,806.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.10		Avg. Press 2,150.00		Max Press 2,659.00		Proppant Type		Proppant Size		Weight	
Date 02/07/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,330.00		Base(ft) 9,436.00		Zone		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.20		Avg. Press 2,000.00		Max Press 2,807.00		Proppant Type		Proppant Size		Weight	
Squeeze / Repair / Plugs																	
Date		From		To		Work Done							Date Report				
02/06/2013						P.B. LOWER DEVONIAN W/ 1.5 SX CMT							01/23/2013				
02/11/2013						P.B. MIDDLE DEVONIAN W/ 2 SX CMT							02/06/2013				
													02/11/2013				
Directional Information																	
Initial Deviation 6,300		Max Dev 7.5deg at 8,141				Max Dogleg 17.5 deg at 8,091											
Casing / Tubing Information																	
Description		Size		Weight		Grade		Depth		Sacks		CMT Top		Packer / SN		TOC Method	
SURFACE		13.38		48		H-40		975.00		174		17.00		-1,558.00		Returns at Surface	
INTERMEDIATE 1		8.63		32		J55, K55		3,715.04		1,120		17.00		1,181.69		Returns at Surface	
PRODUCTION 1		5.50		17		L-80, L-80 KSI, L80		9,898.87						7,362.94			
BULKS																	
Product								QTY									
								0.0									
DIESEL, RIG FUEL								2,324.0									



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	5,500	500	6,000	6,000	
70017	CONTRACT LABOR	20,000	18,675	0	18,675	1,325	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	85,700	0	85,700	-24,700	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	26,269	7,000	33,269	-3,269	CCPKR/SWEPKO
70034	FORMATION STIMULATION	375,000	56,000	0	56,000	319,000	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	10,850	8,000	18,850	1,150	TREY
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	354,014	15,500	369,514	363,256	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	706,322	15,500	721,822	543,948	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-18-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 17
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor CASEY WILLIS			Engineer / Geologist SEAN MURRAY	
Field BLK 31	State	County		Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 721,822		Daily Costs 141,626	Cumulative Cost 863,448	AFE Remaining 402,322	AFE % 68.22	
Comment Summary 24 HR Forecast		FRAC UPPER DEVONIAN. SI FOR SAND CURE. F/B & PREP FOR C/O.						
24 HR Operational Comments								
From 08:00AM	To 11:00AM	Duration 3.00	Operation Description RU CUDD, RUN QC , HELD SAFETY MEETING, TESTED LINES. FRAC THE UPPER DEVONIAN 8772'-8806' DN 5 1/2" CSG @ 70 BPM W/ 1500 GAL ACID SPEAR & 170,000 GAL SLICK WATER , 19,536 # OF 100 MESH & 170,108# OF 40/70 GARNET SAND IN 12 STAGES OF SAND & SWEEP. FLUSHED TO TOP PERF W/ 202 BBL SLICK WATER. ISIP= 3190#, 5 MIN= 2535#, 10 MIN=2396#, 15 MIN= 2298#. PMAX= 4953#, PMIN= 3436#, AVG PSI= 4043#, AVG RATE= 72 BPM. TLTR=4047 BBL. TOTAL SAND DH= 189,644#. RD CUDD, LEFT WELL SI FOR SAND CURE.					
Actual Perforations								
Date	Zone	From	To	JSPF Phasing	Comments		Report Date	
02/11/2013	DEVONIAN	8,772	8,806.00	4 90.00	.54 CONNEX EHD SHOTS		02/11/2013	
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES		02/06/2013	
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES		01/31/2013	
Stimulation								
Date 02/01/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,535.00	Base(ft) 9,776.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type	Proppant Size	Weight
Date 02/12/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 8,772.00	Base(ft) 8,806.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.10	Avg. Press 2,150.00	Max Press 2,659.00	Proppant Type	Proppant Size	Weight
Date 02/18/2013	Type Fracture	Contractor CUDD						
Number 1	Top(ft)	Base(ft)	Zone Devonian	Diversion Type None				
Fluid Slick Water	Volume 4,042.00	Avg. Rate 72.00	Max Rate 81.00	Avg. Press 4,043.00	Max Press 4,953.00	Proppant Type Curable Resin-Coated Sand	Proppant Size 40/70	Weight 189,644.00
Date 02/07/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,330.00	Base(ft) 9,436.00	Zone	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.20	Avg. Press 2,000.00	Max Press 2,807.00	Proppant Type	Proppant Size	Weight
Squeeze / Repair / Plugs								
Date	From	To	Work Done				Date Report	
02/06/2013			P.B. LOWER DEVONIAN W/ 1.5 SX CMT				01/23/2013	
02/11/2013			P.B. MIDDLE DEVONIAN W/ 2 SX CMT				02/06/2013	
							02/11/2013	
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	6,000	500	6,500	5,500	
70017	CONTRACT LABOR	20,000	18,675	0	18,675	1,325	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	85,700	3,800	89,500	-28,500	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	33,269	5,000	38,269	-8,269	TREY/SWEPCO
70034	FORMATION STIMULATION	375,000	56,000	131,826	187,826	187,174	CUDD
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	18,850	500	19,350	650	TREY
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	369,514	141,626	511,140	221,630	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	721,822	141,626	863,448	402,322	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-19-2013										
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 18			
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor CASEY WILLIS				Engineer / Geologist SEAN MURRAY							
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP			Objective						
RIG Name				RIG PHONE NO			RIG Fax No			Tool Pusher							
AFE #: PA-12-0340-C		AFE Description:															
AFE Costs 1,265,770		Previous Day Cum 863,448		Daily Costs 2,150		Cumulative Cost 865,598		AFE Remaining 400,172		AFE % 68.39							
Comment Summary 24 HR Forecast		SICP=150#. OPEN UP & F/B TO TEST TANK MIRUWSU, NDFV, NUBOP, RUN PROD TBG.															
24 HR Operational Comments																	
From		To		Duration		Operation Description											
Actual Perforations																	
Date		Zone		From		To		JSPF Phasing		Comments			Report Date				
02/11/2013		DEVONIAN		8,772		8,806.00		4 90.00		.54 CONNEX EHD SHOTS			02/11/2013				
02/06/2013		DEVONIAN		9,330		9,436.00		4 90.00		.54 CONNEX EHD CHARGES			02/06/2013				
01/31/2013		DEVONIAN		9,535		9,776.00		4 90.00		.54 CONNEX EHD CHARGES			01/31/2013				
Stimulation																	
Date 02/01/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,535.00		Base(ft) 9,776.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 238.00		Avg. Rate 5.40		Max Rate 6.20		Avg. Press 2,500.00		Max Press 5,214.00		Proppant Type		Proppant Size		Weight	
Date 02/12/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 8,772.00		Base(ft) 8,806.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.10		Avg. Press 2,150.00		Max Press 2,659.00		Proppant Type		Proppant Size		Weight	
Date 02/18/2013		Type Fracture		Contractor CUDD													
Number 1		Top(ft)		Base(ft)		Zone Devonian		Diversion Type None									
Fluid Slick Water		Volume 4,042.00		Avg. Rate 72.00		Max Rate 81.00		Avg. Press 4,043.00		Max Press 4,953.00		Proppant Type Curable Resin-Coated Sand		Proppant Size 40/70		Weight 189,644.00	
Date 02/07/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,330.00		Base(ft) 9,436.00		Zone		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.20		Avg. Press 2,000.00		Max Press 2,807.00		Proppant Type		Proppant Size		Weight	
Squeeze / Repair / Plugs																	
Date		From		To		Work Done							Date Report				
02/06/2013						P.B. LOWER DEVONIAN W/ 1.5 SX CMT							01/23/2013				
02/11/2013						P.B. MIDDLE DEVONIAN W/ 2 SX CMT							02/06/2013 02/11/2013				
Directional Information																	
Initial Deviation 6,300		Max Dev 7.5deg at 8,141				Max Dogleg 17.5 deg at 8,091											
Casing / Tubing Information																	
Description SURFACE		Size 13.38		Weight 48		Grade H-40		Depth 975.00		Sacks 174		CMT Top 17.00		Packer / SN -1,558.00		TOC Method Returns at Surface	



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	6,500	500	7,000	5,000	
70017	CONTRACT LABOR	20,000	18,675	450	19,125	875	J&J
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	89,500	0	89,500	-28,500	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	19,350	1,200	20,550	-550	ASAP
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	511,140	2,150	513,290	219,480	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	0	0	8,000	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	0	0	45,000	
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308		352,308	180,692	
Total:		1,265,770	863,448	2,150	865,598	400,172	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-20-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 19
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor CASEY WILLIS			Engineer / Geologist SEAN MURRAY	
Field BLK 31		State	County	Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 865,598	Daily Costs 56,700	Cumulative Cost 922,298	AFE Remaining 343,472		AFE % 72.86	
Comment Summary 24 HR Forecast		MIRUWSU, NDFV, NUBOP. PU & RIH W/ PROD TBG. DELIVER RODS & PUMP. FINISH RUNNING RODS, HANG OFF, SPACE OUT. BEGIN TESTING AT BATTERY.						
24 HR Operational Comments								
From 10:00AM	To 06:30PM	Duration 8.50	Operation Description CP=0#. MIRUWSU. NDFV. NUBOP. PU & RIH W/ TBG AS FOLLOWS: (1) 2-7/8" PIN COLLAR, (1) 2-7/8" X 4' PERF SUB, (1) 2-7/8" SEATING NIPPLE, (1) JT. 2-7/8" J-55 IPC, (2) JTS 2-7/8" L-80 NEW, (1) 2-7/8" X 5-1/2" 45K SHEAR TAC, (267) JTS 2-7/8" L-80 TBG. NDBOP, SET TAC, FUWH.					
Actual Perforations								
Date 02/11/2013	Zone DEVONIAN	From 8,772	To 8,806.00	JSPF Phasing 4 90.00	Comments .54 CONNEX EHD SHOTS		Report Date 02/11/2013	
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES		02/06/2013	
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES		01/31/2013	
Stimulation								
Date 02/01/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,535.00	Base(ft) 9,776.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type	Proppant Size	Weight
Date 02/12/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 8,772.00	Base(ft) 8,806.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.10	Avg. Press 2,150.00	Max Press 2,659.00	Proppant Type	Proppant Size	Weight
Date 02/18/2013	Type Fracture	Contractor CUDD						
Number 1	Top(ft)	Base(ft)	Zone Devonian	Diversion Type None				
Fluid Slick Water	Volume 4,042.00	Avg. Rate 72.00	Max Rate 81.00	Avg. Press 4,043.00	Max Press 4,953.00	Proppant Type Curable Resin-Coated Sand	Proppant Size 40/70	Weight 189,644.00
Date 02/07/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,330.00	Base(ft) 9,436.00	Zone	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.20	Avg. Press 2,000.00	Max Press 2,807.00	Proppant Type	Proppant Size	Weight
Squeeze / Repair / Plugs								
Date 02/06/2013 02/11/2013	From	To	Work Done P.B. LOWER DEVONIAN W/ 1.5 SX CMT P.B. MIDDLE DEVONIAN W/ 2 SX CMT				Date Report 01/23/2013 02/06/2013 02/11/2013	
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					



APACHE CORPORATION

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Daily Land - Orig Comp Report

Casing / Tubing Information

Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94	

WellBore Equipment

Assembly Name		Assembly Size		MD Top		MD Base		Date Installed	
TUBING STRING		2.88		8.00				2/20/2013 12:00:00AM	
Section Type	Component Type	Top	Length	No. of Joints	Condition	GRADE	OD_BODY Weight	DESCRIPTION	
Tubing	Tubing Joint(s)	8.00	8,720.93	267	New	L-80	2.880 6.50		
Tubing	Tubing Anchor Catcher	8,728.93	3.00	1	New		2.880	45k shear	
Tubing	Tubing Joint(s)	8,731.93	65.47	2	New	L-80	2.880 6.50		
Tubing	Tubing Joint(s)	8,797.40	32.50	1	New	J-55	2.880 6.40	TK99	
Wellbore Equipmer Seating Nipple		8,829.90	1.00	1	New	J-55	2.880	API	
Wellbore Equipmer Perforated Pup Joint		8,830.90	4.00	1	New	J-55	2.880	W/ pin collar	
		8,826.90							

BULKS

Product	QTY
	0.0
DIESEL, RIG FUEL	2,324.0



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,000	0	7,000	5,000	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	89,500	3,700	93,200	-32,200	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	0	0	20,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	513,290	3,700	516,990	215,780	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	0	0	20,000	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	0	0	5,000	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	0	0	8,000	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	0	8,000	8,000	0	QUINN
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	0	45,000	45,000	0	WEATHERFORD
71051	TANK BATTERY	15,000	0	0	0	15,000	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	0	7,409	2,591	
Total Tangible Cost		533,000	352,308	53,000	405,308	127,692	
Total:		1,265,770	865,598	56,700	922,298	343,472	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-21-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 20
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor CASEY WILLIS		Engineer / Geologist SEAN MURRAY		
Field BLK 31		State	County	Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 922,298	Daily Costs 122,310	Cumulative Cost 1,044,608	AFE Remaining 221,162		AFE % 82.53	
Comment Summary 24 HR Forecast		RIH W/ NEW PUMP & PROD RODS, START TEST. TEST.						
24 HR Operational Comments								
From 07:00AM	To 05:00PM	Duration 10.00	Operation Description DELIVERED & PREP PRODUCTION RODS. TIH PU 8 NEW 1.5: GR 'C" WT BARS, NEW 2.5"X1.5"X24' RHBC, 8 1 1/2" GR "C" FLEXBARS, 212 NEW 3/4" S-88 RODS, 131 7/8" S-88 RODS. SPACED OUT, HUNG ON, L&T 500# (OK). CONSTRUCTED WELL HEAD CONNECT POWER, RE:LEASED RENTALS. LEFT WELL PUMPING ON TEST @ 5:00 PM. LTR=3900 BBL.					
Actual Perforations								
Date 02/11/2013	Zone DEVONIAN	From 8,772	To 8,806.00	JSPF Phasing 4 90.00	Comments .54 CONNEX EHD SHOTS		Report Date 02/11/2013	
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES		02/06/2013	
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES		01/31/2013	
Stimulation								
Date 02/01/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,535.00	Base(ft) 9,776.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type	Proppant Size	Weight
Date 02/12/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 8,772.00	Base(ft) 8,806.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.10	Avg. Press 2,150.00	Max Press 2,659.00	Proppant Type	Proppant Size	Weight
Date 02/18/2013	Type Fracture	Contractor CUDD						
Number 1	Top(ft)	Base(ft)	Zone Devonian	Diversion Type None				
Fluid Slick Water	Volume 4,042.00	Avg. Rate 72.00	Max Rate 81.00	Avg. Press 4,043.00	Max Press 4,953.00	Proppant Type Curable Resin-Coated Sand	Proppant Size 40/70	Weight 189,644.00
Date 02/07/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,330.00	Base(ft) 9,436.00	Zone	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.20	Avg. Press 2,000.00	Max Press 2,807.00	Proppant Type	Proppant Size	Weight
Squeeze / Repair / Plugs								
Date 02/06/2013 02/11/2013	From	To	Work Done P.B. LOWER DEVONIAN W/ 1.5 SX CMT P.B. MIDDLE DEVONIAN W/ 2 SX CMT				Date Report 01/23/2013 02/06/2013 02/11/2013	
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					



APACHE CORPORATION

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Daily Land - Orig Comp Report

Casing / Tubing Information

Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94	

WellBore Equipment

Assembly Name		Assembly Size		MD Top		MD Base		Date Installed
ROD STRING		875.00		8.00				2/21/2013 12:00:00AM
Section Type	Component Type	Top	Length	No. of Joints	Condition	GRADE	OD_BODY Weight	DESCRIPTION
Rods	Polished Rod	8.00	26.00	1	New	SM-125	1.500	
Rods	Pony Rod(s)	34.00	4.00	1	New	XD	0.880	S-88.
Rods	Rod(s)	38.00	5,300.00	212	New	XD	0.880	S-88.
Rods	Rod(s)	5,338.00	3,275.00	131	New	XD	0.750	S88.
Rods	Sinker Bar	8,613.00	200.00	8	New	C	1.500	
Rod Pump	Rod Pump	8,813.00	24.00	1	New		1.500	QUINN.
		8,829.00						

BULKS

Product	QTY
	0.0
DIESEL, RIG FUEL	2,324.0



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,000	500	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	93,200	3,660	96,860	-35,860	FALCON
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	0	18,000	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	516,990	22,160	539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	0	20,000	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	0	5,000	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	0	8,000	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	45,000	49,650	94,650	-49,650	
71051	TANK BATTERY	15,000	0	15,000	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	7,409	2,500	9,909	91	WILSON
Total Tangible Cost		533,000	405,308	100,150	505,458	27,542	
Total:		1,265,770	922,298	122,310	1,044,608	221,162	



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-24-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 22
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor ROY SMYERS			Engineer / Geologist SEAN MURRAY	
Field BLK 31	State	County		Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 1,044,608	Daily Costs	Cumulative Cost	AFE Remaining		AFE %	
Comment Summary 24 HR Forecast		TEST; 2/22/13= 0 BO, 202 BLW, 51 MCF, 24 HR. 2/23/13= 0 BO, 40 BLW, 40 MCF, 19 HRS TRASH IN PUMP. LTR=3627 BBL. TEST.						
24 HR Operational Comments								
From 07:00AM	To 07:00AM	Duration 24.00	Operation Description TEST; 2/22/13= 0 BO, 202 BLW, 51 MCF, 24 HR. 2/23/13= 0 BO, 40 BLW, 40 MCF, 19 HRS TRASH IN PUMP. LTR=3627 BBL.					
Actual Perforations								
Date	Zone	From	To	JSPF Phasing	Comments		Report Date	
02/11/2013	DEVONIAN	8,772	8,806.00	4 90.00	.54 CONNEX EHD SHOTS		02/11/2013	
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES		02/06/2013	
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES		01/31/2013	
Stimulation								
Date 02/01/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,535.00	Base(ft) 9,776.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type	Proppant Size	Weight
Date 02/12/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 8,772.00	Base(ft) 8,806.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.10	Avg. Press 2,150.00	Max Press 2,659.00	Proppant Type	Proppant Size	Weight
Date 02/18/2013	Type Fracture	Contractor CUDD						
Number 1	Top(ft)	Base(ft)	Zone Devonian	Diversion Type None				
Fluid Slick Water	Volume 4,042.00	Avg. Rate 72.00	Max Rate 81.00	Avg. Press 4,043.00	Max Press 4,953.00	Proppant Type Curable Resin-Coated Sand	Proppant Size 40/70	Weight 189,644.00
Date 02/07/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,330.00	Base(ft) 9,436.00	Zone	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.20	Avg. Press 2,000.00	Max Press 2,807.00	Proppant Type	Proppant Size	Weight
Squeeze / Repair / Plugs								
Date 02/06/2013 02/11/2013	From	To	Work Done P.B. LOWER DEVONIAN W/ 1.5 SX CMT P.B. MIDDLE DEVONIAN W/ 2 SX CMT				Date Report 01/23/2013 02/06/2013 02/11/2013	
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					
Casing / Tubing Information								
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,500	0	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	96,860	0	96,860	-35,860	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	18,000	0	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	539,150		539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	20,000	0	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	5,000	0	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	8,000	0	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	94,650	0	94,650	-49,650	
71051	TANK BATTERY	15,000	15,000	0	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	9,909	0	9,909	91	
Total Tangible Cost		533,000	505,458		505,458	27,542	
Total:		1,265,770	1,044,608		1,044,608		



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-25-2013										
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 23			
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor ROY SMYERS				Engineer / Geologist SEAN MURRAY							
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP				Objective					
RIG Name				RIG PHONE NO			RIG Fax No			Tool Pusher							
AFE #: PA-12-0340-C		AFE Description:															
AFE Costs 1,265,770		Previous Day Cum 1,044,608			Daily Costs		Cumulative Cost		AFE Remaining			AFE %					
Comment Summary 24 HR Forecast		TEST: 0 BO, 70 BLW, 30 MCF, 4 HRS, LTR= 3550 BBL. PUMP TRASHING UP. TEST.															
24 HR Operational Comments																	
From		To		Duration		Operation Description											
Actual Perforations																	
Date		Zone		From		To		JSPF Phasing		Comments				Report Date			
02/11/2013		DEVONIAN		8,772		8,806.00		4 90.00		.54 CONNEX EHD SHOTS				02/11/2013			
02/06/2013		DEVONIAN		9,330		9,436.00		4 90.00		.54 CONNEX EHD CHARGES				02/06/2013			
01/31/2013		DEVONIAN		9,535		9,776.00		4 90.00		.54 CONNEX EHD CHARGES				01/31/2013			
Stimulation																	
Date 02/01/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,535.00		Base(ft) 9,776.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 238.00		Avg. Rate 5.40		Max Rate 6.20		Avg. Press 2,500.00		Max Press 5,214.00		Proppant Type		Proppant Size		Weight	
Date 02/12/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 8,772.00		Base(ft) 8,806.00		Zone Devonian		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.10		Avg. Press 2,150.00		Max Press 2,659.00		Proppant Type		Proppant Size		Weight	
Date 02/18/2013		Type Fracture		Contractor CUDD													
Number 1		Top(ft)		Base(ft)		Zone Devonian		Diversion Type None									
Fluid Slick Water		Volume 4,042.00		Avg. Rate 72.00		Max Rate 81.00		Avg. Press 4,043.00		Max Press 4,953.00		Proppant Type Curable Resin-Coated Sand		Proppant Size 40/70		Weight 189,644.00	
Date 02/07/2013		Type Acid		Contractor CUDD													
Number 1		Top(ft) 9,330.00		Base(ft) 9,436.00		Zone		Diversion Type Ball Sealers									
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.20		Avg. Press 2,000.00		Max Press 2,807.00		Proppant Type		Proppant Size		Weight	
Squeeze / Repair / Plugs																	
Date		From		To		Work Done								Date Report			
02/06/2013						P.B. LOWER DEVONIAN W/ 1.5 SX CMT								01/23/2013			
02/11/2013						P.B. MIDDLE DEVONIAN W/ 2 SX CMT								02/06/2013 02/11/2013			
Directional Information																	
Initial Deviation 6,300		Max Dev 7.5deg at 8,141				Max Dogleg 17.5 deg at 8,091											
Casing / Tubing Information																	
Description SURFACE		Size 13.38		Weight 48		Grade H-40		Depth 975.00		Sacks 174		CMT Top 17.00		Packer / SN -1,558.00		TOC Method Returns at Surface	



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,500	0	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	96,860	0	96,860	-35,860	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	18,000	0	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	539,150		539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	20,000	0	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	5,000	0	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	8,000	0	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	94,650	0	94,650	-49,650	
71051	TANK BATTERY	15,000	15,000	0	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	9,909	0	9,909	91	
Total Tangible Cost		533,000	505,458		505,458	27,542	
Total:		1,265,770	1,044,608		1,044,608		



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-26-2013								
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 24	
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor ROY SMYERS				Engineer / Geologist SEAN MURRAY					
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP				Objective			
RIG Name				RIG PHONE NO			RIG Fax No			Tool Pusher					
AFE #: PA-12-0340-C		AFE Description:													
AFE Costs 1,265,770		Previous Day Cum 1,044,608		Daily Costs		Cumulative Cost		AFE Remaining		AFE %					
Comment Summary 24 HR Forecast		TEST: 0 BO, 137 BLW, 25 MCF, 14 HRS, LTR= 3413 BBL. TEST.													
24 HR Operational Comments															
From 07:00AM	To 09:00PM	Duration 14.00	Operation Description TEST: 0 BO, 137 BLW, 25 MCF, 14 HRS, LTR= 3413 BBL.												
Actual Perforations															
Date	Zone	From	To	JSPF Phasing	Comments	Report Date									
02/11/2013	DEVONIAN	8,772	8,806.00	4 90.00	.54 CONNEX EHD SHOTS	02/11/2013									
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES	02/06/2013									
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES	01/31/2013									
Stimulation															
Date	Type	Contractor													
02/01/2013	Acid	CUDD													
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1	9,535.00	9,776.00	Devonian	Ball Sealers											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
15% Acid	238.00	5.40	6.20	2,500.00	5,214.00										
Date	Type	Contractor													
02/12/2013	Acid	CUDD													
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1	8,772.00	8,806.00	Devonian	Ball Sealers											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
15% Acid	95.00	5.00	5.10	2,150.00	2,659.00										
Date	Type	Contractor													
02/18/2013	Fracture	CUDD													
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1			Devonian	None											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
Slick Water	4,042.00	72.00	81.00	4,043.00	4,953.00	Curable Resin-Coated Sand	40/70	189,644.00							
Date	Type	Contractor													
02/07/2013	Acid	CUDD													
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1	9,330.00	9,436.00		Ball Sealers											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
15% Acid	95.00	5.00	5.20	2,000.00	2,807.00										
Squeeze / Repair / Plugs															
Date	From	To	Work Done									Date Report			
02/06/2013			P.B. LOWER DEVONIAN W/ 1.5 SX CMT									01/23/2013			
02/11/2013			P.B. MIDDLE DEVONIAN W/ 2 SX CMT									02/06/2013			
												02/11/2013			
Directional Information															
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091												
Casing / Tubing Information															
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method							



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,500	0	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	96,860	0	96,860	-35,860	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	18,000	0	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	539,150		539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	20,000	0	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	5,000	0	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	8,000	0	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	94,650	0	94,650	-49,650	
71051	TANK BATTERY	15,000	15,000	0	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	9,909	0	9,909	91	
Total Tangible Cost		533,000	505,458		505,458	27,542	
Total:		1,265,770	1,044,608		1,044,608		



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-27-2013								
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 25	
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor ROY SMYERS				Engineer / Geologist SEAN MURRAY					
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP				Objective			
RIG Name				RIG PHONE NO		RIG Fax No				Tool Pusher					
AFE #: PA-12-0340-C		AFE Description:													
AFE Costs 1,265,770		Previous Day Cum 1,044,608		Daily Costs		Cumulative Cost		AFE Remaining				AFE %			
Comment Summary 24 HR Forecast		TEST: 0 BO, 177 BLW, 30 MCF, 24 HR. LTR= 3236 BBL.													
24 HR Operational Comments															
From 07:00AM		To 07:00AM		Duration 24.00		Operation Description TEST: 0 BO, 177 BLW, 30 MCF, 24 HR. LTR= 3236 BBL.									
Actual Perforations															
Date		Zone		From		To		JSPF Phasing		Comments				Report Date	
02/11/2013		DEVONIAN		8,772		8,806.00		4 90.00		.54 CONNEX EHD SHOTS				02/11/2013	
02/06/2013		DEVONIAN		9,330		9,436.00		4 90.00		.54 CONNEX EHD CHARGES				02/06/2013	
01/31/2013		DEVONIAN		9,535		9,776.00		4 90.00		.54 CONNEX EHD CHARGES				01/31/2013	
Stimulation															
Date 02/01/2013		Type Acid		Contractor CUDD											
Number 1		Top(ft) 9,535.00		Base(ft) 9,776.00		Zone Devonian		Diversion Type Ball Sealers							
Fluid 15% Acid		Volume 238.00		Avg. Rate 5.40		Max Rate 6.20		Avg. Press 2,500.00		Max Press 5,214.00		Proppant Type		Proppant Size Weight	
Date 02/12/2013		Type Acid		Contractor CUDD											
Number 1		Top(ft) 8,772.00		Base(ft) 8,806.00		Zone Devonian		Diversion Type Ball Sealers							
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.10		Avg. Press 2,150.00		Max Press 2,659.00		Proppant Type		Proppant Size Weight	
Date 02/18/2013		Type Fracture		Contractor CUDD											
Number 1		Top(ft)		Base(ft)		Zone Devonian		Diversion Type None							
Fluid Slick Water		Volume 4,042.00		Avg. Rate 72.00		Max Rate 81.00		Avg. Press 4,043.00		Max Press 4,953.00		Proppant Type Curable Resin-Coated Sand		Proppant Size 40/70 Weight 189,644.00	
Date 02/07/2013		Type Acid		Contractor CUDD											
Number 1		Top(ft) 9,330.00		Base(ft) 9,436.00		Zone		Diversion Type Ball Sealers							
Fluid 15% Acid		Volume 95.00		Avg. Rate 5.00		Max Rate 5.20		Avg. Press 2,000.00		Max Press 2,807.00		Proppant Type		Proppant Size Weight	
Squeeze / Repair / Plugs															
Date		From		To		Work Done								Date Report	
02/06/2013						P.B. LOWER DEVONIAN W/ 1.5 SX CMT								01/23/2013	
02/11/2013						P.B. MIDDLE DEVONIAN W/ 2 SX CMT								02/06/2013 02/11/2013	
Directional Information															
Initial Deviation 6,300		Max Dev 7.5deg at 8,141				Max Dogleg 17.5 deg at 8,091									
Casing / Tubing Information															
Description		Size		Weight		Grade		Depth		Sacks		CMT Top		Packer / SN TOC Method	



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,500	0	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	96,860	0	96,860	-35,860	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	18,000	0	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	539,150		539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	20,000	0	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	5,000	0	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	8,000	0	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	94,650	0	94,650	-49,650	
71051	TANK BATTERY	15,000	15,000	0	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	9,909	0	9,909	91	
Total Tangible Cost		533,000	505,458		505,458	27,542	
Total:		1,265,770	1,044,608		1,044,608		



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 02-28-2013										
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 26			
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor ROY SMYERS				Engineer / Geologist SEAN MURRAY							
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP			Objective						
RIG Name				RIG PHONE NO			RIG Fax No			Tool Pusher							
AFE #: PA-12-0340-C		AFE Description:															
AFE Costs 1,265,770		Previous Day Cum 1,044,608			Daily Costs		Cumulative Cost		AFE Remaining			AFE %					
Comment Summary 24 HR Forecast		TEST: 35 BO, 136 BLW, 125 MCF, 24 HR, LTR= 3100 BBL. OIL FLOWING UP BACKSIDE. TEST.															
Actual Perforations																	
Date		Zone		From		To		JSPF Phasing		Comments		Report Date					
02/11/2013		DEVONIAN		8,772		8,806.00		4 90.00		.54 CONNEX EHD SHOTS		02/11/2013					
02/06/2013		DEVONIAN		9,330		9,436.00		4 90.00		.54 CONNEX EHD CHARGES		02/06/2013					
01/31/2013		DEVONIAN		9,535		9,776.00		4 90.00		.54 CONNEX EHD CHARGES		01/31/2013					
Stimulation																	
Date		Type		Contractor													
02/01/2013		Acid		CUDD													
Number		Top(ft)		Base(ft)		Zone		Diverson Type									
1		9,535.00		9,776.00		Devonian		Ball Sealers									
Fluid		Volume		Avg. Rate		Max Rate		Avg. Press		Max Press		Proppant Type		Proppant Size		Weight	
15% Acid		238.00		5.40		6.20		2,500.00		5,214.00							
Date		Type		Contractor													
02/12/2013		Acid		CUDD													
Number		Top(ft)		Base(ft)		Zone		Diverson Type									
1		8,772.00		8,806.00		Devonian		Ball Sealers									
Fluid		Volume		Avg. Rate		Max Rate		Avg. Press		Max Press		Proppant Type		Proppant Size		Weight	
15% Acid		95.00		5.00		5.10		2,150.00		2,659.00							
Date		Type		Contractor													
02/18/2013		Fracture		CUDD													
Number		Top(ft)		Base(ft)		Zone		Diverson Type									
1						Devonian		None									
Fluid		Volume		Avg. Rate		Max Rate		Avg. Press		Max Press		Proppant Type		Proppant Size		Weight	
Slick Water		4,042.00		72.00		81.00		4,043.00		4,953.00		Curable Resin-Coated Sand		40/70		189,644.00	
Date		Type		Contractor													
02/07/2013		Acid		CUDD													
Number		Top(ft)		Base(ft)		Zone		Diverson Type									
1		9,330.00		9,436.00				Ball Sealers									
Fluid		Volume		Avg. Rate		Max Rate		Avg. Press		Max Press		Proppant Type		Proppant Size		Weight	
15% Acid		95.00		5.00		5.20		2,000.00		2,807.00							
Squeeze / Repair / Plugs																	
Date		From		To		Work Done						Date Report					
02/06/2013						P.B. LOWER DEVONIAN W/ 1.5 SX CMT						01/23/2013					
02/11/2013						P.B. MIDDLE DEVONIAN W/ 2 SX CMT						02/06/2013					
												02/11/2013					
Directional Information																	
Initial Deviation		Max Dev				Max Dogleg											
6,300		7.5deg at 8,141				17.5 deg at 8,091											
Casing / Tubing Information																	
Description		Size		Weight		Grade		Depth		Sacks		CMT Top		Packer / SN		TOC Method	
SURFACE		13.38		48		H-40		975.00		174		17.00		-1,558.00		Returns at Surface	
INTERMEDIATE 1		8.63		32		J55, K55		3,715.04		1,120		17.00		1,181.69		Returns at Surface	
PRODUCTION 1		5.50		17		L-80, L-80 KSI, L80		9,898.87						7,362.94			
BULKS																	



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,500	0	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	96,860	0	96,860	-35,860	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	18,000	0	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	539,150		539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	20,000	0	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	5,000	0	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	8,000	0	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	94,650	0	94,650	-49,650	
71051	TANK BATTERY	15,000	15,000	0	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	9,909	0	9,909	91	
Total Tangible Cost		533,000	505,458		505,458	27,542	
Total:		1,265,770	1,044,608		1,044,608		



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 03-01-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 27
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor ROY SMYERS			Engineer / Geologist SEAN MURRAY	
Field BLK 31	State	County		Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 1,044,608		Daily Costs	Cumulative Cost	AFE Remaining		AFE %
Comment Summary 24 HR Forecast		TEST: 45 BO, 175 BLW, 99 MCF, 24 HR. LTR= 2925 BBL. TEST.						
Actual Perforations								
Date	Zone	From	To	JSPF Phasing	Comments	Report Date		
02/11/2013	DEVONIAN	8,772	8,806.00	4 90.00	.54 CONNEX EHD SHOTS	02/11/2013		
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES	02/06/2013		
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES	01/31/2013		
Stimulation								
Date	Type			Contractor				
02/01/2013	Acid			CUDD				
Number	Top(ft)	Base(ft)	Zone	Diversio		Type		
1	9,535.00	9,776.00	Devonian	Ball Sealers				
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight
15% Acid	238.00	5.40	6.20	2,500.00	5,214.00			
Date	Type			Contractor				
02/12/2013	Acid			CUDD				
Number	Top(ft)	Base(ft)	Zone	Diversio		Type		
1	8,772.00	8,806.00	Devonian	Ball Sealers				
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight
15% Acid	95.00	5.00	5.10	2,150.00	2,659.00			
Date	Type			Contractor				
02/18/2013	Fracture			CUDD				
Number	Top(ft)	Base(ft)	Zone	Diversio		Type		
1			Devonian	None				
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight
Slick Water	4,042.00	72.00	81.00	4,043.00	4,953.00	Curable Resin-Coated Sand	40/70	189,644.00
Date	Type			Contractor				
02/07/2013	Acid			CUDD				
Number	Top(ft)	Base(ft)	Zone	Diversio		Type		
1	9,330.00	9,436.00		Ball Sealers				
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight
15% Acid	95.00	5.00	5.20	2,000.00	2,807.00			
Squeeze / Repair / Plugs								
Date	From	To	Work Done				Date Report	
02/06/2013			P.B. LOWER DEVONIAN W/ 1.5 SX CMT				01/23/2013	
02/11/2013			P.B. MIDDLE DEVONIAN W/ 2 SX CMT				02/06/2013	
							02/11/2013	
Directional Information								
Initial Deviation	Max Dev		Max Dogleg					
6,300	7.5deg at 8,141		17.5 deg at 8,091					
Casing / Tubing Information								
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method
SURFACE	13.38	48	H-40	975.00	174	17.00	-1,558.00	Returns at Surface
INTERMEDIATE 1	8.63	32	J55, K55	3,715.04	1,120	17.00	1,181.69	Returns at Surface
PRODUCTION 1	5.50	17	L-80, L-80 KSI, L80	9,898.87			7,362.94	
BULKS								



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,500	0	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	96,860	0	96,860	-35,860	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	18,000	0	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	539,150		539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	20,000	0	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	5,000	0	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	8,000	0	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	94,650	0	94,650	-49,650	
71051	TANK BATTERY	15,000	15,000	0	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	9,909	0	9,909	91	
Total Tangible Cost		533,000	505,458		505,458	27,542	
Total:		1,265,770	1,044,608		1,044,608		



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 03-03-2013								
Operator APACHE CORPORATION		API 4210336004		GL 2,516.00		TMD 9,898.00		TVD		RKB/RT 2,533.00		Working Int % 100.00		Report No 28	
Region PERMIAN		District NOTREES - TX CZ		License		Well Supervisor ROY SMYERS				Engineer / Geologist SEAN MURRAY					
Field BLK 31		State		County		Event Code LCM		Event Type LAND-ORIG COMP				Objective			
RIG Name				RIG PHONE NO			RIG Fax No			Tool Pusher					
AFE #: PA-12-0340-C		AFE Description:													
AFE Costs 1,265,770		Previous Day Cum 1,044,608		Daily Costs		Cumulative Cost		AFE Remaining		AFE %					
Comment Summary 24 HR Forecast		TEST; 3/1/13 46 BO, 131 BLW, 201 MCF, 24 HR. 3/2/13 53 BO, 111 BLW, 176 MCF, 24 HR. LTR= 2683 BBL. FINAL TEST.													
24 HR Operational Comments															
From 07:00AM	To 07:00AM	Duration 24.00	Operation Description TEST; 3/1/13 46 BO, 131 BLW, 201 MCF, 24 HR. 3/2/13 53 BO, 111 BLW, 176 MCF, 24 HR. LTR= 2683 BBL.												
Actual Perforations															
Date	Zone	From	To	JSPF Phasing	Comments	Report Date									
02/11/2013	DEVONIAN	8,772	8,806.00	4 90.00	.54 CONNEX EHD SHOTS	02/11/2013									
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES	02/06/2013									
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES	01/31/2013									
Stimulation															
Date	Type	Contractor													
02/01/2013	Acid	CUDD													
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1	9,535.00	9,776.00	Devonian	Ball Sealers											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
15% Acid	238.00	5.40	6.20	2,500.00	5,214.00										
Date	Type	Contractor													
02/12/2013	Acid	CUDD													
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1	8,772.00	8,806.00	Devonian	Ball Sealers											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
15% Acid	95.00	5.00	5.10	2,150.00	2,659.00										
Date	Type	Contractor													
02/18/2013	Fracture	CUDD													
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1			Devonian	None											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
Slick Water	4,042.00	72.00	81.00	4,043.00	4,953.00	Curable Resin-Coated Sand	40/70	189,644.00							
Date	Type	Contractor													
02/07/2013	Acid	CUDD													
Number	Top(ft)	Base(ft)	Zone	Diversion Type											
1	9,330.00	9,436.00		Ball Sealers											
Fluid	Volume	Avg. Rate	Max Rate	Avg. Press	Max Press	Proppant Type	Proppant Size	Weight							
15% Acid	95.00	5.00	5.20	2,000.00	2,807.00										
Squeeze / Repair / Plugs															
Date	From	To	Work Done									Date Report			
02/06/2013			P.B. LOWER DEVONIAN W/ 1.5 SX CMT									01/23/2013			
02/11/2013			P.B. MIDDLE DEVONIAN W/ 2 SX CMT									02/06/2013			
												02/11/2013			
Directional Information															
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091												
Casing / Tubing Information															
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method							



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,500	0	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	96,860	0	96,860	-35,860	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	18,000	0	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	539,150		539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	20,000	0	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	5,000	0	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	8,000	0	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	94,650	0	94,650	-49,650	
71051	TANK BATTERY	15,000	15,000	0	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	9,909	0	9,909	91	
Total Tangible Cost		533,000	505,458		505,458	27,542	
Total:		1,265,770	1,044,608		1,044,608		



APACHE CORPORATION

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Daily Land - Orig Comp Report

WELL NAME UNIVERSITY DEVONIAN A 37 5							DATE 03-04-2013	
Operator APACHE CORPORATION		API 4210336004	GL 2,516.00	TMD 9,898.00	TVD	RKB/RT 2,533.00	Working Int % 100.00	Report No 29
Region PERMIAN		District NOTREES - TX CZ	License	Well Supervisor ROY SMYERS			Engineer / Geologist SEAN MURRAY	
Field BLK 31	State	County		Event Code LCM	Event Type LAND-ORIG COMP		Objective	
RIG Name			RIG PHONE NO		RIG Fax No		Tool Pusher	
AFE #: PA-12-0340-C		AFE Description:						
AFE Costs 1,265,770		Previous Day Cum 1,044,608	Daily Costs	Cumulative Cost	AFE Remaining		AFE %	
Comment Summary 24 HR Forecast		FINAL TEST; 51 BO, 111 BLW, 200 MCF, 24 HR. LTR= 2572 BBL. COMPLETE.						
24 HR Operational Comments								
From 07:00AM	To 07:00AM	Duration 24.00	Operation Description FINAL TEST; 51 BO, 111 BLW, 200 MCF, 24 HR. LTR= 2572 BBL.					
Actual Perforations								
Date	Zone	From	To	JSPF Phasing	Comments		Report Date	
02/11/2013	DEVONIAN	8,772	8,806.00	4 90.00	.54 CONNEX EHD SHOTS		02/11/2013	
02/06/2013	DEVONIAN	9,330	9,436.00	4 90.00	.54 CONNEX EHD CHARGES		02/06/2013	
01/31/2013	DEVONIAN	9,535	9,776.00	4 90.00	.54 CONNEX EHD CHARGES		01/31/2013	
Stimulation								
Date 02/01/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,535.00	Base(ft) 9,776.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 238.00	Avg. Rate 5.40	Max Rate 6.20	Avg. Press 2,500.00	Max Press 5,214.00	Proppant Type	Proppant Size	Weight
Date 02/12/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 8,772.00	Base(ft) 8,806.00	Zone Devonian	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.10	Avg. Press 2,150.00	Max Press 2,659.00	Proppant Type	Proppant Size	Weight
Date 02/18/2013	Type Fracture	Contractor CUDD						
Number 1	Top(ft)	Base(ft)	Zone Devonian	Diversion Type None				
Fluid Slick Water	Volume 4,042.00	Avg. Rate 72.00	Max Rate 81.00	Avg. Press 4,043.00	Max Press 4,953.00	Proppant Type Curable Resin-Coated Sand	Proppant Size 40/70	Weight 189,644.00
Date 02/07/2013	Type Acid	Contractor CUDD						
Number 1	Top(ft) 9,330.00	Base(ft) 9,436.00	Zone	Diversion Type Ball Sealers				
Fluid 15% Acid	Volume 95.00	Avg. Rate 5.00	Max Rate 5.20	Avg. Press 2,000.00	Max Press 2,807.00	Proppant Type	Proppant Size	Weight
Squeeze / Repair / Plugs								
Date 02/06/2013 02/11/2013	From	To	Work Done P.B. LOWER DEVONIAN W/ 1.5 SX CMT P.B. MIDDLE DEVONIAN W/ 2 SX CMT				Date Report 01/23/2013 02/06/2013 02/11/2013	
Directional Information								
Initial Deviation 6,300	Max Dev 7.5deg at 8,141		Max Dogleg 17.5 deg at 8,091					
Casing / Tubing Information								
Description	Size	Weight	Grade	Depth	Sacks	CMT Top	Packer / SN	TOC Method



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	15,463	0	15,463	-3,463	
70006	CEMENT AND CEMENTING SERVICES	65,000	51,898	0	51,898	13,102	
70009	COMPANY LABOR	5,000	0	0	0	5,000	
70011	COMPANY SUPERVISION	12,000	7,500	0	7,500	4,500	
70017	CONTRACT LABOR	20,000	19,125	0	19,125	875	
70019	CONTRACT DRILLING-DAY/TURNKEY	61,000	96,860	0	96,860	-35,860	
70021	CONTRACT SUPERVISION	6,900	5,100	0	5,100	1,800	
70025	DRILLING FLUIDS		16,188	0	16,188		
70026	ELECTRICAL CONTRACT	20,000	18,000	0	18,000	2,000	
70031	EQUIPMENT RENTAL	30,000	38,269	0	38,269	-8,269	
70034	FORMATION STIMULATION	375,000	187,826	0	187,826	187,174	
70039	ENGR/ GEOLOGICAL-CONTRACTORS/CON		0	0	0		
70046	LAND AND SITE RECLAMATION	2,500	2,000	0	2,000	500	
70049	LOGGING AND WIRELINE	30,000	38,000	0	38,000	-8,000	
70054	OTHER INTANGIBLE	35,370	7,371	0	7,371	27,999	
70065	SITE PREPARATION	2,000	0	0	0	2,000	
70074	TRUCKING AND HAULING	20,000	20,550	0	20,550	-550	
70076	TUBULAR INSPECTION/TESTING	6,000	0	0	0	6,000	
70077	WATER	30,000	15,000	0	15,000	15,000	
Total Intangible Cost		732,770	539,150		539,150	193,620	
71001	ARTIFICIAL LIFT	125,000	125,000	0	125,000	0	
71012	FLOWLINES TO BATTERY	20,000	20,000	0	20,000	0	
71032	OTHER SUBSURFACE EQUIPMENT	5,000	5,000	0	5,000	0	
71033	OTHER SURFACE EQUIPMENT	40,000	0	0	0	40,000	
71039	PRIME MOVER	8,000	8,000	0	8,000	0	
71040	PRODUCTION CASING	178,000	157,899	0	157,899	20,101	
71043	PUMPS	8,000	8,000	0	8,000	0	
71046	SEPARATORS	27,000	0	0	0	27,000	
71048	SUCKER RODS	45,000	94,650	0	94,650	-49,650	
71051	TANK BATTERY	15,000	15,000	0	15,000	0	
71053	TUBING	52,000	62,000	0	62,000	-10,000	
71056	WELLHEAD ASSEMBLY	10,000	9,909	0	9,909	91	
Total Tangible Cost		533,000	505,458		505,458	27,542	
Total:		1,265,770	1,044,608		1,044,608		