

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

API/UWI 42-383-38512-0000		Property Sub 927549-023		Operator PIONEER NATURAL RESRC USA INC		State TEXAS		County REAGAN	
Field Name SPRABERRY (TREND AREA)				Surface Legal Location 1778' FNL / 817' FEL, SEC: 12, BLK: 10, SVY: UNIVERSITY LANDS					
Spud Date 12/3/2013		TD Date 1/6/2014		Drilling Rig Release Date 1/14/2014		Frac Date 2/1/2014		On Production Date 3/6/2014	
Ground Elevation (ft) 2,645.00		Original KB Elevation (ft) 2,668.50		PBTD (All) (ftGRD)		Total Depth (All) (ftGRD) Original Hole - 16,767.5		Total Depth All (TVD) (ftGRD) Original Hole - 8,734.4	
<b>Report #: 1 Daily Operation: 12/2/2013 18:00 - 12/3/2013 06:00</b>									
Job Category ORIG DRILLING				Primary Job Type ODR				AFE Number 029009	
Days From Spud (days) 0		Days on Location (days) 1		End Depth (ftGRD) -23.5		End Depth (TVD) (ftGRD)		Dens Last Mud (lb/gal) 8.40	
Rig ENSIGN DRILLING, 156									
<p>Operations Summary</p> <p>Skid Rig F/University 10-13 22H to University 10-13 23H and R/U to spud, R/U backyard, Cut top of conductor, Pre-Spud safety meeting with all contractors. M/U NOV 17 1/2 bit and Dir BHA.</p> <p>Remarks</p> <p>Rig Ensign 156 &amp; Well Progress 1 Days since Rig on location 1 days since rig accepted 0 days since spud.</p> <p>Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.</p> <p>Completion percentage: Surface 0%, Intermediate 0%, Curve Section 0% - Lateral Section 0%</p> <p>Line Proximity :</p> <p>Distance from closest well :</p> <p>Target Zone: Wolfcamp B2</p> <p>Daily walk around location and rig with Tool Pusher.</p> <p>Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)</p> <p>***Ensign 156 accepted @ 18:00 hrs on 12/2/2013.***</p> <p>***Amy with TRRC was notified of Spud on 12/2/2013 09:15 hrs.***</p>									
<b>Time Log Summary</b>									
Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com			
12/2/2013 18:00	12/3/2013 02:30	8.5	SURFACE - SKID	SKID RIG	SKID	Prep and Skid rig from University 10-13 22H to University 10-13 22H, Spot rig over hole center and level, Rig up all equipment , CutTop off conductor, Rig up cellar with pumps , drain pits of mud and fill pits up with water,			
12/3/2013 02:30	12/3/2013 03:00	0.5	SURFACE - BHA	P/U SURFACE BHA	DRLG	Pre-Spud/Safety meeting with PNR Rep, Ensign crews, Thomas Oil Field, Ryan DD and MWD. Topics were PU BHA, Drilling parameters, procedure for pumping cellar while drilling. Be aware and work safe.			
12/3/2013 03:00	12/3/2013 06:00	3	SURFACE	DRLG	BHA	Pick up and make up Dir BHA #1, Scribe motor,install MWD, M/U (NOV SKHi616M-C1G) 17 1/2 PDC bit.			

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 2 Daily Operation: 12/3/2013 06:00 - 12/4/2013 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
1	2	979.5	978.6	8.40	ENSIGN DRILLING, 156	

### Operations Summary

MU BHA #1, tag @ 145'. Spud well @ 07:00, Directional drill to 1,003' TD @ 21:00 hrs, Pumped 2 - 50 bbl Hi-Vis sweeps @ TD. TOOH and L/D BHA. MIRU B&L and run 13 3/8 48# J-55 Casing from Surface, landed @ 1003'. (Total csg run 24 joints).

### Remarks

Rig Ensign 156 & Well Progress 2 Days since Rig on location 2 days since rig accepted 1 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 0%, Curve Section 0% - Lateral Section 0%

Line Proximity : Ahead 9' 5" Right 0.6"

Distance from closest well : 22H- 34' 5"

Target Zone: Wolfcamp B2

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

\*\*Bobby with TRRC was notified of surface cement job on 12/3/2013 18:45 hrs.\*\*\*

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/3/2013 06:00	12/3/2013 07:00	1	SURFACE - BHA	P/U SURFACE BHA	DRLG	MU BHA #1 (17 1/2" NOV SKHi616M W/ 6X13's, 9 5/8" 9/10 4.0 Stage 1.5° (0.09 RPG) mud motor, and MWD from 108' to 145', tag with 5k down.
12/3/2013 07:00	12/3/2013 10:15	3.25	SURF-DRILL	DRILL SURFACE	DRL	Rotate drill 17 1/2" Surface hole 151' @ 46 fph, WOB 10-12, GPM 550, RPM 25-30, MRPM 50. Survey every kelly down.
12/3/2013 10:15	12/3/2013 11:30	1.25	SURF-TRIP	TOOH	TRIP	Rack back stand of HWDP & pick up 1 stand of 8" DC's. Wash stand to 296' and take MWD check shot.
12/3/2013 11:30	12/3/2013 12:00	0.5	SURF-DRILL	DRILL SURFACE	DRL	Slide Drill 11' @ 22' hr, MTF 240, WOB 5-10, 775-800 psi SPP, DIFF 100, GPM 550.
12/3/2013 12:00	12/3/2013 12:45	0.75	SURF-DRILL	DRILL SURFACE	DRL	Rotate drill 17 1/2" Surface hole 77' @ 102 fph, WOB 20, GPM 550-600, RPM 60, MRPM 50. Survey every kelly down. Unable to increase pump rate due to Cellar pumps not keeping up. 1 - Hydraulic grinder pump diesel engine wont run, diesel trash pump wont keep prime. Called for new pump and move back up pump in and RU.
12/3/2013 12:45	12/3/2013 13:15	0.5	SURF-DRILL	DRILL SURFACE	DRL	Slide Drill 17' @ 34' hr, MTF 240, WOB 5-10, 775-800 psi SPP, DIFF 100, GPM 600.
12/3/2013 13:15	12/3/2013 14:00	0.75	SURF-DRILL	DRILL SURFACE	DRL	Rotate drill 17 1/2" Surface hole 74' @ 102 fph, WOB 20, GPM 650, RPM 60, MRPM 58. Survey every kelly down. 2 - diesel cellar pumps running, able to keep up with 650 gpm.
12/3/2013 14:00	12/3/2013 14:30	0.5	SURF-DRILL	DRILL SURFACE	DRL	Slide Drill 25' @ 50' hr, MTF 200, WOB 25, 1275 psi SPP, DIFF 350, GPM 650.
12/3/2013 14:30	12/3/2013 18:00	3.5	SURF-DRILL	DRILL SURFACE	DRL	Rotate drill 17 1/2" Surface hole 380' @ 108 fph, WOB 20-30, GPM 650, RPM 50-65, MRPM 58. Survey every kelly down. 2 - diesel cellar pumps running, able to keep up with 650 gpm.
12/3/2013 18:00	12/3/2013 19:00	1	SURF-DRILL	DRILL SURFACE	DRL	Slide Drill 25' @ 25' hr, MTF 50, WOB 25, 1275 psi SPP, DIFF 350, GPM 650.
12/3/2013 19:00	12/3/2013 21:00	2	SURF-DRILL	DRILL SURFACE	DRL	Rotate drill 17 1/2" Surface hole 134' @ 67' fph, WOB 20-30, GPM 700, RPM 50-65, MRPM 63. Survey every kelly down. TD Surface hole @ 21:00 12-3-13
12/3/2013 21:00	12/3/2013 21:45	0.75	SURF-CIRC	CIRCULATE	CIRC	Pumped 50 BBL sweep B/U @ 1003',  Sweep came back on projected stokes hole appears to be Gauged by calculated strokes.

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Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/3/2013 21:45	12/3/2013 22:30	0.75	SURF-TRIP	TOOH	TRIP	Tooh F/1003' to dir BHA #1, No Issues
12/3/2013 22:30	12/3/2013 23:30	1	SURFACE - BHA	L/D SURFACE BHA	DRLG	L/O Dir BHA , L/O MWD tool, Shock Sub, 2 monels,Break bit and L/O motor.
12/3/2013 23:30	12/4/2013 00:00	0.5	SURFACE - BHA	L/D SURFACE BHA	DRLG	Clean Rig floor to run 13 3/8 csg.
12/4/2013 00:00	12/4/2013 00:30	0.5	SURF-CASE	RUN SURFACE CASING	CASE	PJSM W/Ensign,B&L, and Co Rep,R/U 13 3/8 csg tools.
12/4/2013 00:30	12/4/2013 02:00	1.5	SURF-CASE	RUN SURFACE CASING	CASE	R/u 13 3/8 csg equipment
12/4/2013 02:00	12/4/2013 06:00	4	SURF-CASE	RUN SURFACE CASING	CASE	Run 24 jts 13 3/8" 48 # J-55 L Csg, from surface, Landed @ 1003', run 1 jt shoe track and thread lock all connection on shoe track, 1 centralizer 10' up on first jt. from shoe, 1 centralize 5' up above flt collar, 1 every 4 jt to 200' from surface. No Issues

Report #: 3 Daily Operation: 12/4/2013 06:00 - 12/5/2013 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)
2	3	1,090.5
		End Depth (TVD) (ftGRD)
		1,089.4
		Dens Last Mud (lb/gal)
		8.40
		Rig
		ENSIGN DRILLING, 156

#### Operations Summary

Finish running 13 3/8" 48# J-55 casing and cement. N/U and test BOP and casing. Install wear bushing, and M/U 12 1/4" bit and directional assembly and TIH. Tag @ 949' and drill out cement and float equipment T/ 1003'. Rotate drill F/ 1003' T/ 1114'.

#### Remarks

Rig Ensign 156 & Well Progress 3 Days since Rig on location 3 days since rig accepted 2 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 2%, Curve Section 0% - Lateral Section 0%

Line Proximity : Ahead 9' 5" Right 0.6"

Distance from closest well : 22H- 34' 5"

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/4/2013 06:00	12/4/2013 07:00	1	SURF-CASE	RUN SURFACE CSG	CASE	Land 13 3/8" 48# J-55 STC surface casing @ 1003', 24 total joints. Shoe @ 1003', Non rotating Float collar @ 957'. PU 1' off bottom and circulate surface to surface @ 5 BPM, full returns.
12/4/2013 07:00	12/4/2013 10:30	3.5	CIRC	CIRCULATE	CIRC	Circulating 3-5 bpm while waiting on Schlumberger cement crew, taking returns back into mud tanks. Full returns.
12/4/2013 10:30	12/4/2013 11:15	0.75	SURF-CMT	CEMENT SURFACE CSG	CMT	PJSM with Schlumberger cement crew, Ensign rig crew, PNR rep. Topics: RU cement lines and head, lifting, rigging and hand signals. RU cement lines from pump to rig floor. Load top non-rotating cement plug (yellow) -- Visual by Pioneer reps. RU cement head. Pull slips and set casing on bottom 1003', Secure cement head to rig floor. Hold PJSM on pumping surface cement job.

## Drilling & Completion Summary - Ascending

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### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/4/2013 11:15	12/4/2013 13:15	2	SURF-CMT	CEMENT SURFACE CSG	CMT	<p>Pump surface cement job: Pump 5 bbls of H2O line fill. Close cement head and pressure test pump and lines to 3000 psi -- OK.</p> <p>Pump 25 bbls of H2O @ 3.5 bpm, 60 psi.</p> <p>Mix and pump 195 bbls (641 Sx, 94lb per sx) of 13.60 ppg Class C cement with 4% Extender, 2% CaCl -- Yield 1.71 ft3/sx, 8.940 gal/sx, @ 4.8 bpm, 225 psi.</p> <p>Drop top plug and displace 152 bbls of H2O - 10 bbls away 4.8 bpm, 100 psi, 50 bbls away - 4.8 bpm, 100 psi, 100 bbls away - 4.8 bpm, 275 psi, 150 bbls away 2.4 bpm, 300 psi. Bump plug with 2.4 bpm, 900 psi at calculated strokes. Hold 5 minutes -- OK. Bleed back 1.5 bbls -- Floats holding.</p> <p>CIP @ 13:15 hrs.</p> <p>56 bbls of good cement to pit.</p> <p>RDMO Schlumberger cement crew and equipment.</p>
12/4/2013 13:15	12/4/2013 16:00	2.75	WLHEAD	WELLHEAD	WLHEAD	Pump cement out of cellar, thin back with mud. Clean pumps and cellar. Welder cut conductor and surface casing as per Seaboard rep. Set wellhead 18" below ground level as per Seaboard rep.
12/4/2013 16:00	12/4/2013 17:00	1	PROD1	SHARE	BOPS	Ensign rig crew set stack on well head from stored position.
12/4/2013 17:00	12/4/2013 19:00	2	PROD1	SHARE	BOPS	ETS nipple up drilling spool to BOP and wellhead, HCR & kill line. Rig crew Nipple up flow line and bellnipple.
12/4/2013 19:00	12/4/2013 22:30	3.5	PROD1	SHARE	BOPS	<p>Testing BOP as per Pioneer, Test Annular, upper pipe rams, HCR, lower pipe rams blind rams and kill line. , TIW, and dart valve, all tested 250 low 2500 H. Tested stand pipe, lower kelly valve &amp; back to pump 250 low &amp; 4500 high. Good test on everything.</p> <p>Note: Performed Koomey test --O.K.</p>
12/4/2013 22:30	12/4/2013 23:00	0.5	PLAN	DRLG	CSG	Test Casing 250 psi low & 1000 psi high for 30 mins (Good Test).
12/4/2013 23:00	12/4/2013 23:30	0.5	PROD-1-WEARBUSHING	INSTALL/REMOVE/INSPECT WEARBUSHING	WEARBU SHING	Install wear bushing & lock down. Verified by Pioneer company rep.
12/4/2013 23:30	12/5/2013 00:00	0.5	RIG SERVICE	RIG SERVICE (DRAWWORKS, TOP DRIVE ECT.)	RIGSER	Lubricate rig.
12/5/2013 00:00	12/5/2013 02:00	2	TRIP IN HOLE	TRIP IN HOLE	TIH	P/U directional assembly and surface test same (test good). M/U 12 1/4" 6 blade PDC bit.
12/5/2013 02:00	12/5/2013 04:00	2	TRIP IN HOLE	TRIP IN HOLE	TIH	TIH F/ Surface T/ 949' (tag cement), P/U jars and L/D single of HWDP.
12/5/2013 04:00	12/5/2013 04:30	0.5	COMPL	cement bond log	LOGCBL	Drill out cement, float, and shoe F/ 949' T/ 1003'. (tag float @ 957'). WOB 5-15K, 30 RPM, 490 GPM.
12/5/2013 04:30	12/5/2013 06:00	1.5	INT-DRILL-VERT	DRILL INT VERT- ROTATE	DRL-ROT	Rotate drill 111' @ 74'/Hr, WOB-15K, GPM 500, RPM-60, MMRPM 80, TQ 5k.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 4 Daily Operation: 12/5/2013 06:00 - 12/6/2013 06:00

Job Category ORIG DRILLING				Primary Job Type ODR		AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
3	4	3,029.5	3,027.3	8.90	ENSIGN DRILLING, 156	

### Operations Summary

Rotate and slide drill F/ 1114' T/ 3053'. TOOH due to low ROP.

### Remarks

Rig Ensign 156 & Well Progress 4 Days since Rig on location 4 days since rig accepted 3 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 31%, Curve Section 0% - Lateral Section 0%

Line Proximity : Behind 7.6' Right 5.7'

Distance from closest well : 22H- 104'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/5/2013 06:00	12/5/2013 06:15	0.25	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide Drill 15' @ 60' hr, 50° MTF, 12k WOB, 530 GPM, 1200 psi, 400 psi Diff.
12/5/2013 06:15	12/5/2013 07:00	0.75	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 76' @ 101 fph, 15k WOB, GPM 530, 1200 psi, 275 psi Diff, 60 RPM, 85 MRPM. Survey every kelly down. Pumping 20 Hi-Visc sweep every kelly down.
12/5/2013 07:00	12/5/2013 07:15	0.25	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide Drill 24' @ 96' hr, 50° MTF, 12k WOB, 530 GPM, 1175 psi, 375 psi Diff.
12/5/2013 07:15	12/5/2013 09:15	2	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 259' @ 129 fph, 15k WOB, GPM 530, 1200 psi, 275 psi Diff, 60 RPM, 85 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down.
12/5/2013 09:15	12/5/2013 09:30	0.25	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide Drill 15' @ 60' hr, 320° MTF, 12k WOB, 690 GPM, 1650 psi, 125 psi Diff.
12/5/2013 09:30	12/5/2013 12:00	2.5	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 631' @ 144 fph, 25-35k WOB, GPM 690, 2020 psi, 375 psi Diff, 60 RPM, 110 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down.
12/5/2013 12:00	12/5/2013 12:15	0.25	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide Drill 25' @ 100' hr, 150° MTF, 15k WOB, 690 GPM, 1730 psi, 225 psi Diff.
12/5/2013 12:15	12/5/2013 14:15	2	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 257' @ 129 fph, 25-35k WOB, GPM 690, 2020 psi, 375 psi Diff, 60 RPM, 110 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down.
12/5/2013 14:15	12/5/2013 14:45	0.5	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide Drill 25' @ 50' hr, 60° MTF, 15k WOB, 690 GPM, 1730 psi, 225 psi Diff.
12/5/2013 14:45	12/5/2013 15:15	0.5	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 69' @ 138 fph, 25-35k WOB, GPM 690, 2152 psi, 449 psi Diff, 70 RPM, 110 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down.
12/5/2013 15:15	12/5/2013 15:45	0.5	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide Drill 29' @ 58' hr, 60° MTF, 14k WOB, 690 GPM, 1780 psi, 250 psi Diff.
12/5/2013 15:45	12/5/2013 16:15	0.5	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 65' @ 130 fph, 25-35k WOB, GPM 690, 2100 psi, 400 psi Diff, 70 RPM, 110 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down.
12/5/2013 16:15	12/5/2013 16:45	0.5	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide Drill 29' @ 58' hr, 70° MTF, 14k WOB, 690 GPM, 1825 psi, 275 psi Diff.
12/5/2013 16:45	12/6/2013 01:30	8.75	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 690' @ 78.8 fph, 30k WOB, GPM 700, 2100-2670 psi, 230-580 psi Diff, 65-75 RPM, 112 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down. ROP dropped off to 30 ft/hr @ approximately 2900'. Pumped nut plug 3 times to ensure bit was not balled up. Adjusted RPM from 40-80, WOB 30-45K, and had no increase in differential pressure. Contacted drilling superintendent and the decision was made to TOOH.

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### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/6/2013 01:30	12/6/2013 02:30	1	CIRC	CIRCULATE	CIRC	Pump Hi-Vis sweep and circulate suction to suction (sweep back to surface 3500 strokes past calculated strokes = 318.5 bbl wash out). Build slug. Flow check-well static. Pump slug.
12/6/2013 02:30	12/6/2013 06:00	3.5	TRIP OUT HOLE	TOOH	TOOH	TOOH F/ 3053' to surface due to low ROP, break bit & L/D motor. Monitor on trip tanks, hole took proper fill.

**Report #: 5 Daily Operation: 12/6/2013 06:00 - 12/7/2013 06:00**

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029009
Days From Spud (days) 4	Days on Location (days) 5	End Depth (ftGRD) 4,101.5
		End Depth (TVD) (ftGRD) 4,099.2
		Dens Last Mud (lb/gal) 9.00
		Rig ENSIGN DRILLING, 156

#### Operations Summary

Finish TOOH and L/D BHA #2. P/U new bit and motor and TIH. Rotate and slide drill F/ 3053' T/ 4125'. Displace with FW mud @ 4000'.

#### Remarks

Rig Ensign 156 & Well Progress 5 Days since Rig on location 5 days since rig accepted 4 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 48%, Curve Section 0% - Lateral Section 0%

Line Proximity : Behind 18.3' Right 11.2'

Distance from closest well : 22H- 104'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/6/2013 06:00	12/6/2013 08:00	2	BHA	BHA HANDLING	BHA	Lay down BHA #2. Break bit and motor and lay down same. 12 1/4" PDC NOV SKH1619M-C1G, 9X 13's, Depth In: 1003', Depth Out: 3053'. 2050' drilled, 21 hours, 97.6/hr average ROP. Dull Grade: 2-4-BT-S-X-CT-ROP
12/6/2013 08:00	12/6/2013 10:00	2	WLHEAD	WELLHEAD	WLHEAD	PU single and MU bushing puller and back out 2 lock down screws. Pull long wear bushing and inspect. No wear on bushing. PU single and MU mule shoe. Wash over wellhead @ 350 gpm, 25 rpm, working over entire stack. LD mule shoe. PU bushing puller and set wear bushing. Function test BOP rams. Run in 2 painted lock down screws.
12/6/2013 10:00	12/6/2013 12:00	2	BHA	BHA HANDLING	BHA	MU new mud motor (7 3/4" 7/8 3.0 Stage 1.83° .16 RPG), and BHA to 74'. Install new MWD. PU 5" DP single.
12/6/2013 12:00	12/6/2013 12:30	0.5	BHA	BHA HANDLING	BHA	Surface test MWD -- OK.
12/6/2013 12:30	12/6/2013 14:30	2	BHA	BHA HANDLING	BHA	LD 5" DP single, PU Monel and MU 12 1/4" Hughes DP607X with 7X 12's. TIH to 1204' with BHA #3.
12/6/2013 14:30	12/6/2013 15:00	0.5	TRIP IN HOLE	TRIP IN HOLE	TIH	TIH with BHA #3 on 5" drill pipe stands to 1950'. Monitor displacement on trip tanks -- Correct displacement.
12/6/2013 15:00	12/6/2013 16:00	1	W&R	WASH & REAM	WASH_R EAM	Wash and ream F/ 2804' T/ 3053', 690 gpm, 2000 psi, 50 rpm, 4k Tq.
12/6/2013 16:00	12/6/2013 19:00	3	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Pattern bit, increasing WOB from 5K to 20K F/ 3053' T/ 3063'. Rotate drill 317' @ 105.7 fph, 28-30k WOB, GPM 690, 2630 psi, 530 psi Diff, 70 RPM, 108 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down.
12/6/2013 19:00	12/6/2013 19:30	0.5	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide Drill 20' @ 40' hr, 200° MTF, 14k WOB, 690 GPM, 1750 psi, 275 psi Diff.
12/6/2013 19:30	12/6/2013 20:00	0.5	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate Drill 74' @ 148'/Hr.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/6/2013 20:00	12/6/2013 21:00	1	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide drill 25' @ 25'/Hr, MTF @ 150.
12/6/2013 21:00	12/6/2013 22:45	1.75	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate Drill 164' @ 93.7'/Hr.
12/6/2013 22:45	12/7/2013 00:00	1.25	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide drill 30' @ 24'/Hr, MTF @ 150. Sprit Energy and CTS crews arrived on locations to thaw lines, hoses, and valves so mud could be moved from the frac tanks to the mud pits @ 23:00.
12/7/2013 00:00	12/7/2013 01:30	1.5	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate Drill 159' @ 106'/Hr.
12/7/2013 01:30	12/7/2013 02:45	1.25	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide drill 25' @ 20'/Hr, MTF @ 180.
12/7/2013 02:45	12/7/2013 06:00	3.25	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate Drill 258' @ 79.4'/Hr. Displaced with 8.8 ppg FW mud 4000' while drilling ahead. Reduced pump rate to 400 GPM while displacing to maintain mud level in pits.

### Report #: 6 Daily Operation: 12/7/2013 06:00 - 12/8/2013 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
5	6	5,891.5	5,888.8	8.90	ENSIGN DRILLING, 156	

#### Operations Summary

Rotate and slide drill F/ 4125' T/ 5915' with no losses.

#### Remarks

Rig Ensign 156 & Well Progress 6 Days since Rig on location 6 days since rig accepted 5 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 75%, Curve Section 0% - Lateral Section 0%

Line Proximity : Behind 13.5' Right 7.8'

Distance from closest well : 22H- 112'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/7/2013 06:00	12/7/2013 11:15	5.25	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 282' @ 54 fph, 28-30k WOB, GPM 425-690, 1600-2630 psi, 530 psi Diff, 70 RPM, 68-108 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down. While displacing to FW gel mud reduce rate to 425 gpm to keep mud on shakers for approx 3 complete circulations. Sprit Energy 2 man crew on location to help build volume. CTS 2 man crew on location to continue to help thaw frozen lines and valves.
12/7/2013 11:15	12/7/2013 12:30	1.25	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide drill 25' @ 20'/Hr, 230° MTF. 18k WOB, 550 gpm, 200-275 Diff.
12/7/2013 12:30	12/7/2013 14:15	1.75	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 164' @ 94 fph, 28-35k WOB, GPM 650, 2450 psi, 600-680 psi Diff, 70 RPM, 104 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down.
12/7/2013 14:15	12/7/2013 15:15	1	INT-DRILL-VERT	DRILL INT VERT-SLIDE	DRL-SLIDE	Slide drill 34' @ 34'/Hr, 210° MTF. 18k WOB, 675 gpm, 275-300 Diff, 104 MRPM. (Putting 3 ppb LCM into the active system, Tiger bullets, LCF Blend, and Oil Seal)

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/7/2013 15:15	12/8/2013 06:00	14.7 5	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 1285' @ 87 fph, 21-30k WOB, GPM 500-650, 1890 -2745 psi, 380-700 psi Diff, 70 RPM, 84-104 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc sweep every kelly down. @ 5000' GPM=500, @ 5500' GPM=600, @ 5700' GPM=650, Max ROP set @ 250'/hr. There have been no losses down hole. (Putting 3 ppb LCM into the active system, Tiger bullets, LCF Blend, and Oil Seal) (sweep back to surface approximately 8500 strokes past calculated strokes = 775 bbl wash out).

Report #: 7 Daily Operation: 12/8/2013 06:00 - 12/9/2013 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009	
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig		
6	7	7,551.5	7,548.7	8.90	ENSIGN DRILLING, 156		

#### Operations Summary

Rotate and slide drill F/ 5915' T/ 7575' with no losses, TD @ 04:30. Perform clean up cycle prior to TOOH.

#### Remarks

Rig Ensign 156 & Well Progress 7 Days since Rig on location 7 days since rig accepted 6 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 0% - Lateral Section 0%

Line Proximity : Behind 2.9' Left 2.6'

Distance from closest well : 22H- 395'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

Contacted Chris with TRRC @ 00:11 on 12-9-13 about intermediate cement job. Job # 10309

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/8/2013 06:00	12/8/2013 20:00	14	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 1131' @ 80 fph, 25-32k WOB, GPM 650, 2625 psi, 550-600 psi Diff, 70 RPM, 104 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc 20# LCM with 10# Nut plug sweeps every kelly down. No Losses.
12/8/2013 20:00	12/8/2013 20:30	0.5	RIG SERVICE	RIG SERVICE (DRAWWORKS, TOP DRIVE ECT.)	RIGSER	Lubricate rig.
12/8/2013 20:30	12/9/2013 04:30	8	INT-DRILL-VERT	DRILL INT VERT-ROTATE	DRL-ROT	Rotate drill 529' @ 66 fph. Survey every kelly down. Pumping 20 bbl Hi-Visc 20# LCM with 10# Nut plug sweeps every kelly down. No Losses. TD intermediate @ 04:30 on 12-9-13.
12/9/2013 04:30	12/9/2013 06:00	1.5	CIRC	CIRCULATE	CIRC	Perform Clean up cycle: Pump 80 bbl Hi-Visc sweep surface to surface, 641 gpm, 2475 psi, working pipe.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 8 Daily Operation: 12/9/2013 06:00 - 12/10/2013 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
7	8	7,551.5	7,548.7	9.00	ENSIGN DRILLING, 156	

### Operations Summary

Finish clean up cycle. TOOH to BHA (Strap out of hole). L/D dir tools, break bit, Pull wear bushing, PJSM W/B&L casing crew, R/U and RIH W/ 9 5/8 43.5# & 40.0# L-80 LT&C Csg.

### Remarks

Rig Ensign 156 & Well Progress 8 Days since Rig on location 8 days since rig accepted 7 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 0% - Lateral Section 0%

Line Proximity : Behind 2.9' Left 2.6'

Distance from closest well : 22H- 395'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

Contacted Chris with TRRC @ 00:11 on 12-9-13 about intermediate cement job. Job # 10309

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/9/2013 06:00	12/9/2013 07:00	1	CIRC	CIRCULATE	CIRC	Perform Clean up cycle: Pump 80 bbl Hi-Visc sweep surface to surface, 650 gpm, 2475 psi, 70 rpm, while working pipe 7508' to 7575'. Full returns. While circulating bottoms up lost 600 psi of pump pressure. Pick stand above rotary and shut down pumps.
12/9/2013 07:00	12/9/2013 09:00	2	UNPLANNED	Rig Repair (NON-CODE 8, Replacing Pump Expendables)	U_RIG_OTR	Check all surface equipment -- No issues. Go through #1 mud pump fluid end and suction line rock catcher -- OK. Go through #2 mud pump fluid end and suction line rock catcher. Rock catcher screen plugged with gel and LCM. Clean screen and reinstall. Break circulation and increase to drilling rate 650 gpm, 2475 psi -- OK.
12/9/2013 09:00	12/9/2013 12:30	3.5	CIRC	CIRCULATE	CIRC	Circulate bottoms up, increase in cuttings at bottoms up. Pump 40 bbl Hi-Visc sweep surface to surface, 650 gpm, 2475 psi, 70 rpm, while working pipe 7508' to 7575'. Full returns. Calculated wash out -- 250 bbls.
12/9/2013 12:30	12/9/2013 17:30	5	TRIP OUT HOLE	TOOH	TOOH	TOOH F/ 7575' T/ 1201'. Monitor well on trip take, taking proper fill. At 6787' pull 25k over, wipe through -- Clear. 5917' to 5600' pulling 50-75k over. Wipe through until clear. 5800' to 5700' rotate @ 10 rpm while pulling. Hole took 30 bbls while wiping through tight spots. (No pumps). run each stand back on hole and pull out with no over pull. Monitor displacement on trip tanks.
12/9/2013 17:30	12/9/2013 18:30	1	TRIP OUT HOLE	TOOH	TOOH	Stand back HWDP and DC's, (LD Jars) from 1201' to 104'.
12/9/2013 18:30	12/9/2013 19:30	1	TRIP OUT HOLE	TOOH	TOOH	L/O Dir tools and break bit
12/9/2013 19:30	12/9/2013 20:30	1	TRIP OUT HOLE	TOOH	TOOH	Pull Wear Bushing (Coman on rig floor), wash well head using rig pumps,
12/9/2013 20:30	12/9/2013 21:00	0.5	TRIP OUT HOLE	TOOH	TOOH	Clean Rig floor from trip and prep for running csg.
12/9/2013 21:00	12/9/2013 22:30	1.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	PJSM W/B&L csg employees, rig up 9 5/8 csg tools and CRT , Test top drive torque against B&L line pull. Torque good.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/9/2013 22:30	12/10/2013 05:00	6.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	PJSM w/ B&L csg emp, rig crew, and company reps on casing run. Attempt to make up shoe track--M/U float shoe and try to M/U shoe track joints 3 times, 3rd time to max torque, still showing 6 threads. Contacted drilling superintendent, and the decision was made to make up joints with power tongs. Make up was successful with optimum torque. Center stack and level rig. Finish M/U shoe track with CRT Tool, (Flt Shoe, 2 joints, Flt collar, thread lock each connection, pump through shoe track), Cont. running 9 5/8 43.5# & 40# L-80 LT&C csg. to 2020'. (44 of 163 jts ran) Filling pipe every 40 jts. Taking returns in trip tank -- Correct displacement.
12/10/2013 05:00	12/10/2013 05:30	0.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	Circulate bottoms up @ 2020'. GPM 280, SPP 64 psi.
12/10/2013 05:30	12/10/2013 06:00	0.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	Cont. running 9 5/8 40# L-80 LT&C csg. to 2496'. (46 of 163 jts ran) Filling pipe every 40 jts. Taking returns in trip tank -- Correct displacement.

Report #: 9 Daily Operation: 12/10/2013 06:00 - 12/11/2013 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days) 8	Days on Location (days) 9	End Depth (ftGRD) 7,551.5	End Depth (TVD) (ftGRD) 7,548.7	Dens Last Mud (lb/gal) 8.60	Rig ENSIGN DRILLING, 156	

#### Operations Summary

Rlh with w/ 9 5/8 40.0# L-80 LT&C Csg to 5640'. Lost returns after filling pipe and circulating. L/D 3 joints at a time attempting to regain circulation F/ 5640' T/ 4259'.

#### Remarks

Rig Ensign 156 & Well Progress 9 Days since Rig on location 9 days since rig accepted 8 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 0% - Lateral Section 0%

Line Proximity : Behind 2.9' Left 2.6'

Distance from closest well : 22H- 395'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

Contacted Chris with TRRC @ 00:11 on 12-9-13 about intermediate cement job. Job # 10309

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/10/2013 06:00	12/10/2013 08:30	2.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	Cont. running 9 5/8 40# L-80 LT&C csg. to 4024'. (89 of 163 jts ran) Filling pipe every 40 jts. Taking returns in trip tank -- Correct displacement.
12/10/2013 08:30	12/10/2013 10:00	1.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	Circulate bottoms up @ 4024'. GPM 206, SPP 78 psi.
12/10/2013 10:00	12/10/2013 12:15	2.25	INT-CASE	RUN INTERMEDIATE CASE	CASE	Cont. running 9 5/8 40# L-80 LT&C csg. to 5640'. (124 of 163 jts ran) Filling pipe every 40 jts. Taking returns in trip tank -- Correct displacement.
12/10/2013 12:15	12/10/2013 13:00	0.75	CIRC	CIRCULATE	CIRC	Fill pipe @ 5600' with full returns, 200 GPM 200 psi.
12/10/2013 13:00	12/10/2013 13:15	0.25	INT-CASE	RUN INTERMEDIATE CASE	CASE	Run 1 joint F/ 5600' T/ 5640' with no returns. Pick up to 5600'
12/10/2013 13:15	12/10/2013 14:00	0.75	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Work pipe and pump @ 1 BPM--with partial returns. Pump 20 minutes 1 BPM, lost returns. Work pipe and attempt to swab--no returns.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/10/2013 14:00	12/10/2013 14:30	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 2 joints T/ 5590'.
12/10/2013 14:30	12/10/2013 15:30	1	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Stage pumps to 2 BPM, 190 psi, lost returns. Attempt to swab--no returns (had returns @ 1 BPM, @ 1.5 BPM, and @ 2 BPM). MW in, 8.8 ppg, out 9.0 ppg.
12/10/2013 15:30	12/10/2013 16:00	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints T/ 5437'.
12/10/2013 16:00	12/10/2013 16:45	0.75	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".
12/10/2013 16:45	12/10/2013 17:15	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints T/ 5318'.
12/10/2013 17:15	12/10/2013 21:45	4.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1 BPM, 140 psi, gained circulation after swabbing 3 times. Increased pumps to 1.5 BPM, 200 psi. Increased pumps to 2 BPM, 200 psi. Increased pumps to 2.5 BPM, 190 psi. Increased pumps to 3 BPM, 190 psi. Increased pumps to 3.5 BPM, 200 psi. Lost returns. (had full returns while staging pumps to 3.5 BPM).  Stage pumps to 4.5 BPM with full returns, circulate 15 minutes @ 4.5 BPM, lost returns. Unable to swab. MW in 8.7 ppg 45 vis, out 9.35 37 vis.
12/10/2013 21:45	12/10/2013 22:15	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints to 5185'.
12/10/2013 22:15	12/10/2013 23:00	0.75	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".
12/10/2013 23:00	12/10/2013 23:30	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints to 5047'.
12/10/2013 23:30	12/10/2013 23:45	0.25	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".
12/10/2013 23:45	12/11/2013 00:15	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints to 4907'.
12/11/2013 00:15	12/11/2013 00:30	0.25	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1-3 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".
12/11/2013 00:30	12/11/2013 01:00	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints to 4770'.
12/11/2013 01:00	12/11/2013 01:30	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1-3 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".
12/11/2013 01:30	12/11/2013 02:15	0.75	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 5 joints to 4538'.
12/11/2013 02:15	12/11/2013 03:00	0.75	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1-3 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".
12/11/2013 03:00	12/11/2013 03:30	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints to 4399'.
12/11/2013 03:30	12/11/2013 04:30	1	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1-3 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/11/2013 04:30	12/11/2013 05:15	0.75	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints to 4259'.
12/11/2013 05:15	12/11/2013 06:00	0.75	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1-3 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".

**Report #: 10 Daily Operation: 12/11/2013 06:00 - 12/12/2013 06:00**

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029009
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Days From Spud (days) 9	Days on Location (days) 10	End Depth (ftGRD) 7,551.5	End Depth (TVD) (ftGRD) 7,548.7	Dens Last Mud (lb/gal) 8.60	Rig ENSIGN DRILLING, 156
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Operations Summary  
L/D casing T/ 3677'. Regain circulation while swabbing and circulating 1 BPM @ 3677'. Circulate while staging pumps to 4 BPM. Wash casing F/ 3677' T/ 7142' with full returns.

Remarks  
Rig Ensign 156 & Well Progress 10 Days since Rig on location 10 days since rig accepted 9 days since spud.  
  
Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.  
  
Completion percentage: Surface 100%, Intermediate 100%, Curve Section 0% - Lateral Section 0%  
  
Line Proximity : Behind 2.9' Left 2.6'  
  
Distance from closest well : 22H- 395'  
  
Target Zone: Wolfcamp C1  
  
Daily walk around location and rig with Tool Pusher.  
  
Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)  
  
Contacted Chris with TRRC @ 00:11 on 12-9-13 about intermediate cement job. Job # 10309

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/11/2013 06:00	12/11/2013 06:45	0.75	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints T/ 3977'.
12/11/2013 06:45	12/11/2013 07:00	0.25	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1-3 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".
12/11/2013 07:00	12/11/2013 07:30	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints T/ 3838'.
12/11/2013 07:30	12/11/2013 07:45	0.25	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1-3 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T".
12/11/2013 07:45	12/11/2013 08:15	0.5	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	L/D 3 joints T/ 3697'.
12/11/2013 08:15	12/11/2013 08:30	0.25	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1 BPM while attempting to swab, no returns. Keep backside full. Fluid level on backside at flow "T". At 3677', returns were established while swabbing. Able to circulate @ 1 BPM, 159 psi.
12/11/2013 08:30	12/11/2013 15:30	7	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Circulate @ 1 BPM, 159 psi with full returns. Increased pumps to 1.5 BPM, 200 psi. Increased pumps to 2 BPM, 135 psi. Increased pumps to 2.5 BPM, 100 psi. Increased pumps to 3 BPM, 80 psi. Increased pumps to 3.5 BPM, 80 psi. Increased pumps to 4 BPM, 70 psi. MW in 8.7 ppg vis 40. MW out 9.0 ppg vis 47. Maintaining 4 ppb LCM in the active system (2 ppb calcium carbonate, 2 ppb Oil Seal). 5 water trucks running since 07:00 hauling fresh water to the reserve (water well pump is now running).

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/11/2013 15:30	12/11/2013 23:30	8	UNPLANNED	Lost Circulation / Time spent while treating full	U_LC	Wash down 9 5/8 40# L-80 LT&C csg F/ 3677' T/ 5640' staging pump to 4 BPM max pump rate with psi 85. Full returns maintaining MW 8.6 ppg, vis 40. Had new casing cleaned, drifted, and strapped to replace damage joints.
12/11/2013 23:30	12/12/2013 06:00	6.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	Wash down 9 5/8 40# L-80 LT&C csg F/ 5640' T/ 7142' (155 of 164 jts ran) staging pump to 4 BPM max pump rate with psi 85. @ 6150' the casing started packing off, pressure increase to 189, work pipe pressure decrease to normal. Slowed down trip speed and circulated @ 4 BPM while monitoring pressure. Able to work through, continue running casing at normal speed. Full returns maintaining MW 8.6 ppg, vis 40.

Report #: 11 Daily Operation: 12/12/2013 06:00 - 12/13/2013 00:30

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
10	10	7,551.5	7,548.7	8.70	ENSIGN DRILLING, 156	

#### Operations Summary

Finish washing 9 5/8 40# L-80 LT&C csg T/ 7565' (run 164 of 164 jts). R/D B&L casing and MIRU Schlumberger cement crew and equipment and pump single stage cement job as per prog with full returns. Set pack off and test 5000 psi for 5 minutes -- OK. N/D BOP and stand back. Install well head cap. Released rig @ 00:30 hrs on 12/13/2013.

#### Remarks

Rig Ensign 156 & Well Progress 11 Days since Rig on location 11 days since rig accepted 10 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month of November.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 0% - Lateral Section 0%

Line Proximity : Behind 2.9' Left 2.6'

Distance from closest well : 22H- 395'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Completion % of repairs: 100% of list completed: Note: Ensign finished completion of repairs on rig move (Completed 11-19-13)

Contacted Chris with TRRC @ 00:11 on 12-9-13 about intermediate cement job. Job # 10309

Release rig @ 00:30 on 12-12-13

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/12/2013 06:00	12/12/2013 16:30	10.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	Wash down 9 5/8 40# L-80 LT&C csg F/ 7142' T/ 7565' staging pump to 4 BPM max pump rate with psi 150 - 220. Continue washing and working casing to bottom. (Before picking up landing joint, picked up one full jt washed to bottom at 7575', laid joint down, picked up mandrel, lay down CRT tool, picked up landing joint, had to wash landing joint down and land out, shoe @7565'). Full returns maintaining MW 8.6 ppg, vis 40.
12/12/2013 16:30	12/12/2013 18:00	1.5	INT-CASE	RUN INTERMEDIATE CASE	CASE	Cir casing landed out at 7565', rig down B&L casing crew. PJSM with Schlumberger, load bottom and top plug in cement head, install cement head & rig up cement lines.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/12/2013 18:00	12/12/2013 21:30	3.5	INT-CMT	CEMENT INTERMEDIATE CSG	CMT	Cement Intermediate Casing: Pump 5 bbls of fresh water for line fill (kick out bottom plug). Close valves and pressure test pump and lines to 3500 psi -- OK. Pump 20 bbls fresh water, Pump 40 bbls 9.2 ppg Mud Push Express+ 2 ppb CemNET throughout entire volume @ 4.5 bpm, 200 psi. Pump 838 sacks (351 bbls) of Lite CRETE Lead cement+ 2 ppb CemNET throughout entire volume (9.7 ppg, 2.34 yield, 8.082 gal/sx), initial pres 243 psi @3.8 bbls/min, Pump 192 sacks (37 bbls) of Tail TACK Slurry cement (16.40 ppg, 1.07 yield, 4.369 gal/sx) initial press @ 3.2 bpm, 236 psi. Drop top plug (PNR rep visual of plug away) and displace with Fresh water and Biocide, 565 bbls @ 4.5 bpm, (when cmt rounded corner lift press 324 psi, 1/4 up back side lift press 551 psi, 1/2 way up back side lift press 766, 3/4 way up back side lift press 974 psi, final lift press 1050 psi. Bump plug on time with 1700 psi -- Hold 5 minutes -- ok. Bleed back 3.5 bbls. Plug down @9:07 pm 12-12-13. 100% returns through out cement job.
12/12/2013 21:30	12/12/2013 23:00	1.5	NU/TEST	NIPPLE UP/TST	NU/TEST	Monitor well for 30 minutes on trip tank, well static. Installed packoff w/Seaboard Rep test packoff to 5,000 psi for 5 minutes.
12/12/2013 23:00	12/13/2013 00:30	1.5	NU/TEST	NIPPLE UP/TST	NU/TEST	Nipple down BOPS and installed well cap @ 00:30  Released Rig F/University 10-13 23H to University 10-13 24H @ 00:30 12-13-13.

**Report #: 12 Daily Operation: 12/29/2013 18:00 - 12/30/2013 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days) 27	Days on Location (days) 11	End Depth (ftGRD) 7,551.5	End Depth (TVD) (ftGRD) 7,548.7	Dens Last Mud (lb/gal) 9.40	Rig ENSIGN DRILLING, 156	

#### Operations Summary

Released F/University 10-13 24H to University 10-13 23H @ 18:00 12-29-13.

Prep rig to skid and skid rig 30', Remove well cap and nipple up BOP's, Test Bop's and back to pumps, Tested csg 2500 psi

#### Remarks

Rig Ensign 156 & Well Progress 11 Days since Rig on location 11 days since rig accepted 10 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month Dec.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 0% - Lateral Section 0%

Line Proximity : Behind 2.9' Left 2.6'

Distance from closest well : 22H- 395'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Released F/University 10-13 24H to University 10-13 23H @ 18:00 12-29-13

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/29/2013 18:00	12/29/2013 19:00	1	SKID	BATCH DRILLED WELLS - SKID TO NEXT WELL	SKID	Prep rig to skid F/ University 10-13 24H to University 10-13 23H
12/29/2013 19:00	12/29/2013 20:30	1.5	SKID	BATCH DRILLED WELLS - SKID TO NEXT WELL	SKID	Skid rig 30' F/ University 10-13 24H to University 10-13 23H, Coman confirmed center of hole.
12/29/2013 20:30	12/29/2013 22:00	1.5	NU/TEST	NIPPLE UP/TST	NU/TEST	Remove abandonment cap and Nipple up BOP's W/ETS nipple up crew.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/29/2013 22:00	12/30/2013 03:45	5.75	NU/TEST	NIPPLE UP/TST	NU/TEST	Testing BOP as per Pioneer, Test Annular, upper pipe rams, HCR, lower pipe rams blind rams and kill line. , TIW, and dart valve, all tested 250 low 2500 H. Tested stand pipe, lower kelly valve & back to pump 250 low & 4500 high. Good test on everything. Note: Performed Accumulator test --O.K. anti-freeze in choke line and all related equipment.
12/30/2013 03:45	12/30/2013 05:00	1.25	UNPLANNED	Other - Anything not listed above	U_OTR	Attempt to test csg but unable to get water to test unit due to frozen water lines, Test unit ran out of water rig rig water lines were frozen
12/30/2013 05:00	12/30/2013 06:00	1	TEST CSG/DO/FIT	TEST CSG/DRILL OUT/FIT	TEST CSG/DRI LL OUT/FIT	Test 9 5/8 csg to 2500 psi W/ ETS testers.

Report #: 13 Daily Operation: 12/30/2013 06:00 - 12/31/2013 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			APE Number 029009
Days From Spud (days) 28	Days on Location (days) 12	End Depth (ftGRD) 8,180.5	End Depth (TVD) (ftGRD) 8,176.4	Dens Last Mud (lb/gal) 9.40	Rig ENSIGN DRILLING, 156	

### Operations Summary

Finish testing 9 5/8 csg to 2500 psi, P/U & M/U BHA #4, TIH to 7377' tagged cmt, Drilled shoe track and 10' new formation, Performed FIT test W/9.1MW and 1230 psi= 12.2 ppg EMW, Displaced 9.1 WBM W/ 9.3 OBM, Rotate Drilled F/7585' to 7976', Shut well in due to H2S alarm contacted Safety Solutions and cleared location, Circ B/U thru choke no gas. Opened well to resume drilling. Rotate & Slide Drilled F/ 7976' to 8204'. (KOP 8078')

### Remarks

Rig Ensign 156 & Well Progress 12 Days since Rig on location 12 days since rig accepted 11 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month Dec.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 20% - Lateral Section 0%

Line Proximity : Ahead 3.7' Left 17.7'

Distance from closest well : 24H- 630'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 1

Total cuttings loads hauled off: 1

KOP @ 8078' @ 01:00 12-31-13

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/30/2013 06:00	12/30/2013 07:00	1	TEST CSG/DO/FIT	TEST CSG/DRILL OUT/FIT	TEST CSG/DRI LL OUT/FIT	Finish pressure testing 9 5/8" intermediate casing to 2500 psi for 30 minutes -- Test good. Bleed off pressure and line up choke manifold and BOP equipment and pump water with antifreeze through all lines. Install short wear bushing -- PNR Co Rep verify.
12/30/2013 07:00	12/30/2013 09:00	2	BHA	BHA HANDLING	BHA	Make up BHA #4. Scribe Motor (6/7 5.0 Stg, 2.0°, 0.29 rpg, FBH), UBHO, and monels. Install MWD tool and surface test MWD -- OK. MU 8 1/2" Security MMD55DM dressed with 5x22's.
12/30/2013 09:00	12/30/2013 12:00	3	TRIP IN HOLE	TRIP IN HOLE	TIH	Trip in hole with BHA #4 from 92' to 7377', tag cement with 15k down. Fill pipe @ 30 stands.
12/30/2013 12:00	12/30/2013 12:30	0.5	CIRC	CIRCULATE	CIRC	Break circulation, fill pipe and circulate @ 325 gpm, 375 psi.
12/30/2013 12:30	12/30/2013 14:00	1.5	TEST CSG/DO/FIT	TEST CSG/DRILL OUT/FIT	TEST CSG/DRI LL OUT/FIT	Drill cement stringers to 7463', drill good cement to 7474' (plugs and FC) Drill float collar, 2 joint shoe track and float shoe @ 300-450 gpm, 600-1050 psi, 25 rpm, 5-10k WOB. Drill 10' of new formation for FIT to 7585'. 490 gpm, 1500 psi, 350 diff, 8k WOB, 25 rpm.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/30/2013 14:00	12/30/2013 15:00	1	TEST CSG/DO/FIT	TEST CSG/DRILL OUT/FIT	TEST CSG/DRI LL OUT/FIT	Circulate bottoms up MW in/out 9.15 ppg fresh water from outer reserve pit. Perform FIT: Close top rams open kill line. Pump 2.75 bbls to 1321 psi, hold for 10 minutes, pressure stable @ 1230 psi -- 12.2 ppg EMW. Contact engineer 12.2 ppg is sufficient. Bleed back 2.75 bbls.
12/30/2013 15:00	12/30/2013 17:00	2	CIRC	CIRCULATE	CIRC	Displace WBM with OBM.( Pumped thru choke manifold with OBM )
12/30/2013 17:00	12/30/2013 22:00	5	PROD-DRILL VERTICAL	DRILL PROD VERTICAL-ROTATE	DRL-ROT	Rotate Drill 391' @ 78 ft/hr: 25k WOB, 65 RPM, 600 gpm, 174 MMTR, 550 psi Diff, 2848 psi SPP, 7 k TQ. Note: Drilled F/7585' to 7670' @ reduced rate until BHA was out of shoe.
12/30/2013 22:00	12/31/2013 00:00	2	UNPLANNED	Well Control events & any circulating related to g	U_WC	H2S alarm went off, Shut well in and evacuate rig to muster area #1. All personnel on location accounted for. Notify Superintendent of H2S alarm. Monitor pressure until Safety Solutions arrive on location -- Checked all H2S sensors on location -- OK. Circulate B/U thru choke manifold while Safety Solutions monitor for H2S as a safety precaution -- No H2S indicated, Open well. MW 9.3 in/out.
12/31/2013 00:00	12/31/2013 01:00	1	PROD-DRILL VERTICAL	DRILL PROD VERTICAL-ROTATE	DRL-ROT	Rotate Drill 102' @ 102 ft/hr: 25k WOB, 65 RPM, 600 gpm, 174 MMTR, 550 psi Diff, 2848 psi SPP, 7 k TQ.
12/31/2013 01:00	12/31/2013 03:00	2	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE- SLIDE	Slide Drill 63' @ 31 ft/hr:150 MTF, 9k WOB, 155 spm, 600 gpm, 171 MMTR RPM, 150 psi Diff, 2621 psi SPP, KOP 8079'
12/31/2013 03:00	12/31/2013 03:30	0.5	PROD-DRILL CURVE	DRILL CURVE- ROTATE	DRL CURVE- ROT	Rotate Drill 14' @ 28 ft/hr: 25k WOB, 65 RPM, 600 gpm, 174 MMTR, 550 psi Diff, 2848 psi SPP, 7 k TQ.
12/31/2013 03:30	12/31/2013 04:00	0.5	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE- SLIDE	Slide Drill 18' @ 36 ft/hr:180 MTF, 9k WOB, 155 spm, 600 gpm, 171 MMTR RPM, 150 psi Diff, 2621 psi SPP,
12/31/2013 04:00	12/31/2013 04:30	0.5	PROD-DRILL CURVE	DRILL CURVE- ROTATE	DRL CURVE- ROT	Rotate Drill 6' @ 24 ft/hr: 16k WOB, 65 RPM, 600 gpm, 174 MMTR, 450 psi Diff, 2848 psi SPP, 7 k TQ.
12/31/2013 04:30	12/31/2013 06:00	1.5	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE- SLIDE	Slide Drill 25' @ 16 ft/hr:15L, 9k WOB, 155 spm, 600 gpm, 171 MMTR RPM, 150 psi Diff, 2621 psi SPP,

### Report #: 14 Daily Operation: 12/31/2013 06:00 - 1/1/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days) 29	Days on Location (days) 13	End Depth (ftGRD) 8,529.5	End Depth (TVD) (ftGRD) 8,488.2	Dens Last Mud (lb/gal) 9.30	Rig ENSIGN DRILLING, 156	

#### Operations Summary

Rotate and slide drill the curve F/8204' to 8553'.  
Last Slide yielded 9.1 per 100  
Needing 10.2 's to land on the line.

#### Remarks

Rig Ensign 156 & Well Progress 13 Days since Rig on location 13 days since rig accepted 12 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month Dec.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 44% - Lateral Section 0%

Line Proximity : Ahead 24.1' Left 8.2'

Distance from closest well : 24H- 908'

Target Zone: Wolfcamp C1

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 1  
Total cuttings loads hauled off: 2

KOP @ 8078' @ 01:00 12-31-13

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/31/2013 06:00	12/31/2013 06:15	0.25	PROD-DRILL CURVE	DRILL CURVE-ROTATE	DRL CURVE-ROT	Rotate Drill 6' @ 24 ft/hr: 16k WOB, 30 RPM, 600 gpm, 174 MMTR, 450 psi Diff, 2848 psi SPP, 7 k TQ.
12/31/2013 06:15	12/31/2013 07:45	1.5	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 25' @ 20 ft/hr: 15L GTF, 14k WOB, 155 spm, 600 gpm, 171 MMTR RPM, 75-125 psi Diff, 2325 psi SPP, MWD Survey every 30'.
12/31/2013 07:45	12/31/2013 08:00	0.25	PROD-DRILL CURVE	DRILL CURVE-ROTATE	DRL CURVE-ROT	Rotate Drill 10' @ 40 ft/hr: 15k WOB, 30 RPM, 600 gpm, 174 MMTR, 400-450 psi Diff, 2848 psi SPP, 7 k TQ.
12/31/2013 08:00	12/31/2013 11:00	3	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 53' @ 17 ft/hr: 15L GTF, 14k WOB, 155 spm, 600 gpm, 171 MMTR RPM, 75-125 psi Diff, 2325 psi SPP, MWD Survey every 30'.
12/31/2013 11:00	12/31/2013 11:15	0.25	PROD-DRILL CURVE	DRILL CURVE-ROTATE	DRL CURVE-ROT	Rotate Drill 10' @ 40 ft/hr: 10-24k WOB, 6530 RPM, 600 gpm, 174 MMTR, 400-450 psi Diff, 2848 psi SPP, 7 k TQ.
12/31/2013 11:15	12/31/2013 22:30	11.25	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 179' @ 15.9 ft/hr: HS GTF, 10-20k WOB, 155 spm, 600 gpm, 171 MMTR RPM, 75-200 psi Diff, 2325 psi SPP, Adjusting parameters to achieve maximum ROP and build rate.. MWD Survey every 30'.
12/31/2013 22:30	12/31/2013 23:00	0.5	RIG SERVICE	RIG SERVICE (DRAWWORKS, TOP DRIVE ECT.)	RIGSER	Rig service
12/31/2013 23:00	1/1/2014 06:00	7	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 66' @ 9.4 ft/hr: HS GTF, 10-20k WOB, 155 spm, 600 gpm, 171 MMTR RPM, 75-200 psi Diff, 2325 psi SPP, Adjusting parameters to achieve maximum ROP and build rate.. MWD Survey every 30'.

### Report #: 15 Daily Operation: 1/1/2014 06:00 - 1/2/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009	
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig		
30	14	8,808.5	8,657.4	9.30	ENSIGN DRILLING, 156		

#### Operations Summary

Slide drill the curve F/ 8553' to T/ 8832'.  
Last Slide motor yielded 12.1° per 100'  
Needing 12.9° 's to land on the line.

#### Remarks

Rig Ensign 156 & Well Progress 14 Days since Rig on location 14 days since rig accepted 13 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month Dec.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 78% - Lateral Section 0%

Line Proximity : Above 2.1' Left 4.3'

Distance from closest well : 24H- 1042'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 1  
Total cuttings loads hauled off: 3

KOP @ 8078' @ 01:00 12-31-13

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/1/2014 06:00	1/2/2014 06:00	24	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 292' @ 12.2 ft/hr: HS GTF, 10-20k WOB, 155 spm, 400-600 gpm, 174 MMTR RPM, 75-200 psi Diff, 2475 psi SPP, Adjusting parameters to achieve maximum ROP and build rate. Last survey - 12.1° motor yield, Need 12.9° to land on line, 8.8° to land 20' low of line, 15.6° to land 8' above original target line. Pump 20 bbl Lo-Visc, followed by a 30 bbl Hi-Visc sweep (graphite and nut plug) every 30' after MWD survey, starting @ 8614'. MWD Survey every 30'. Safety Solutions on location to test and calibrate H2S monitors installed on rig & test and calibrate personal monitors on day crew.

Report #: 16 Daily Operation: 1/2/2014 06:00 - 1/3/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)
31	15	10,419.5
		End Depth (TVD) (ftGRD)
		8,691.2
		Dens Last Mud (lb/gal)
		9.90
		Rig
		ENSIGN DRILLING, 156

### Operations Summary

Slide drill the curve F/ 8832' to T/ 9022' (Landed curve @ 14:00 hrs on 1/2/2014 @ 9022', 7.5' below target line). Rotate and slide drill F/ 9022' T/ 10443'. Currently dusting MW up to 10.3 ppg, 10.1 ppg at report time.

### Remarks

Rig Ensign 156 & Well Progress 15 Days since Rig on location 15 days since rig accepted 14 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 17%

Line Proximity : Below 3.2' Left 16.8'

Distance from closest well : 24H- 1080'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 3

Total cuttings loads hauled off: 6

KOP @ 8078' @ 01:00 12-31-13

EOC @ 9022 @ 14:00 01-02-14

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/2/2014 06:00	1/2/2014 11:00	5	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 56' @ 11 ft/hr: HS GTF, 10-20k WOB, 155 spm, 600 gpm, 174 MMTR RPM, 100-200 psi Diff, 2475 psi SPP, Adjusting parameters to achieve maximum ROP and build rate. Pump 20 bbl Lo-Visc, followed by a 30 bbl Hi-Visc sweep (graphite and nut plug) every 30' after MWD survey. MWD Survey every 30'. Increase MW from 9.3 to 9.8 ppg. Drilling break @ 8888'.
1/2/2014 11:00	1/2/2014 14:00	3	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 134' @ 45 ft/hr: HS GTF, 15-20k WOB, 155 spm, 600 gpm, 174 MMTR RPM, 200-300 psi Diff, 2775 psi SPP. Pump 20 bbl Lo-Visc, followed by a 30 bbl Hi-Visc sweep (graphite and nut plug) every 30' after MWD survey. Landed curve @ 14:00 hrs on 1/2/2014 @ 9022', 7.5' below target line.
1/2/2014 14:00	1/2/2014 15:45	1.75	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 122' @ 69.7 ft/hr, 25-30k WOB, GPM 600, 3000 psi, 550-600 psi Diff, 30 RPM, 174 MRPM. Survey every kelly down. Pumping 20 bbl Hi-Visc (Graphite and Nut plug) sweeps as needed. No Losses. Record slow pump rates.
1/2/2014 15:45	1/2/2014 16:30	0.75	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 15' @ 20 ft/hr: 40R GTF, 18k WOB, 600 gpm, 174 MMTR RPM, 350 psi Diff, 2900 psi SPP. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/2/2014 16:30	1/2/2014 17:00	0.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 76' @ 152 ft/hr, 20-25k WOB, GPM 600, 3100-3200 psi, 400-600 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/2/2014 17:00	1/2/2014 17:30	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 160L GTF, 18k WOB, 600 gpm, 174 MMTR RPM, 250 psi Diff, 2800 psi SPP. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/2/2014 17:30	1/2/2014 18:15	0.75	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 81' @ 108 ft/hr, 20-25k WOB, GPM 600, 3100-3400 psi, 400-600 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/2/2014 18:15	1/2/2014 18:45	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 170L GTF, 18k WOB, 600 gpm, 174 MMTR RPM, 200 psi Diff, 2750 psi SPP. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/2/2014 18:45	1/2/2014 20:00	1.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 174' @ 139.2 ft/hr, 25k WOB, GPM 600, 3430 psi, 580 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/2/2014 20:00	1/2/2014 20:30	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 8' @ 16 ft/hr: 180 GTF, 18k WOB, 600 gpm, 174 MMTR RPM, 200 psi Diff, 2750 psi SPP. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/2/2014 20:30	1/2/2014 22:45	2.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 265' @ 117.7 ft/hr, 25k WOB, GPM 600, 3410 psi, 450 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/2/2014 22:45	1/2/2014 23:30	0.75	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 15' @ 20 ft/hr: 180 GTF, 18k WOB, 600 gpm, 174 MMTR RPM, 280 psi Diff, 3200 psi SPP. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/2/2014 23:30	1/3/2014 00:00	0.5	RIG SERVICE	RIG SERVICE (DRAWWORKS, TOP DRIVE ECT.)	RIGSER	Lubricate rig.
1/3/2014 00:00	1/3/2014 01:45	1.75	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 268' @ 153.1 ft/hr, 23-25k WOB, GPM 600, 3350-3550 psi, 375-550 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/3/2014 01:45	1/3/2014 02:30	0.75	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 80R GTF, 15k-18k WOB, 600 gpm, 174 MMTR RPM, 200 psi Diff, 3000 psi SPP. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/3/2014 02:30	1/3/2014 04:00	1.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 178' @ 118.7 ft/hr, 23-25k WOB, GPM 600, 3350-3550 psi, 375-550 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses
1/3/2014 04:00	1/3/2014 04:30	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 165R GTF, 15k-18k WOB, 600 gpm, 174 MMTR RPM, 300 psi Diff, 3300 psi SPP. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/3/2014 04:30	1/3/2014 06:00	1.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 179' @ 119.3 ft/hr, 23-24k WOB, GPM 600, 3630 psi, 550 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.

Report #: 17 Daily Operation: 1/3/2014 06:00 - 1/4/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
32	16	12,785.5	8,715.3	10.30	ENSIGN DRILLING, 156	

#### Operations Summary

Rotate and slide drill F/ 10443' T/ 12809'.

#### Remarks

Rig Ensign 156 & Well Progress 15 Days since Rig on location 15 days since rig accepted 14 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 46%

Line Proximity : Above 14.0' Left 9.9'

Distance from closest well : 24H- 1103'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 4

Total cuttings loads hauled off: 10

KOP @ 8078' @ 01:00 12-31-13

EOC @ 9022 @ 14:00 01-02-14

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/3/2014 06:00	1/3/2014 08:30	2.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 282' @ 113 ft/hr, 23-25k WOB, GPM 600, 3550 psi, 550-600 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/3/2014 08:30	1/3/2014 08:45	0.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 8' @ 32 ft/hr: 180R GTF, 15k-21k WOB, 600 gpm, 174 MMTR RPM, 300 psi Diff, 3300 psi SPP.
1/3/2014 08:45	1/3/2014 10:00	1.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 182' @ 145 ft/hr, 23-25k WOB, GPM 600, 3350 psi, 550-600 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. (Target changed to drop 15', back to original plan #2).
1/3/2014 10:00	1/3/2014 10:15	0.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 13' @ 52 ft/hr: 150L GTF, 15k-21k WOB, 600 gpm, 174 MMTR RPM, 300 psi Diff, 3300 psi SPP.
1/3/2014 10:15	1/3/2014 11:00	0.75	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 81' @ 108 ft/hr, 23-25k WOB, GPM 600, 3350 psi, 550-600 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. (Target changed to drop 15', back to original plan #2).
1/3/2014 11:00	1/3/2014 11:15	0.25	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 14' @ 56 ft/hr: 150L GTF, 15k-21k WOB, 600 gpm, 174 MMTR RPM, 300 psi Diff, 3300 psi SPP.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/3/2014 11:15	1/3/2014 15:00	3.75	PROD-DRILL CURVE	DRILL CURVE-ROTATE	DRL CURVE-ROT	Rotate drill 362' @ 96 ft/hr, 23-25k WOB, GPM 600, 3350 psi, 550-600 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. Increase in torque @ 11,230'. Increase weight to 10.2+ ppg. 11,300' to 11,360 API gamma count drop from 150 to 70. Lithology @ 11,380' -- 60% Shale, 40% Limestone.
1/3/2014 15:00	1/3/2014 15:15	0.25	CIRC	CIRCULATE	CIRC	Record slow pump rates and pressure.
1/3/2014 15:15	1/3/2014 16:00	0.75	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 13' @ 17.3 ft/hr: 40R GTF, 25-30k WOB, 600 gpm, 174 MMTR RPM, 150 psi Diff, 3300 psi SPP.
1/3/2014 16:00	1/3/2014 17:30	1.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 176' @ 117.3 ft/hr, 21-25k WOB, GPM 600, 3650-3900 psi, 550-600 psi Diff, 60 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/3/2014 17:30	1/3/2014 18:00	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 12' @ 24 ft/hr: 170L GTF, 15k-21k WOB, 600 gpm, 174 MMTR RPM, 300 psi Diff, 3400 psi SPP.
1/3/2014 18:00	1/3/2014 18:30	0.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 81' @ 162 ft/hr, 20-25k WOB, GPM 600, 3750 psi, 550-600 psi Diff, 70 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/3/2014 18:30	1/3/2014 19:00	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 170L GTF, 15k-21k WOB, 600 gpm, 174 MMTR RPM, 340 psi Diff, 3500 psi SPP.
1/3/2014 19:00	1/3/2014 20:15	1.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 179' @ 143.2 ft/hr, 20-25k WOB, GPM 600, 3750 psi, 485 psi Diff, 70 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/3/2014 20:15	1/3/2014 20:45	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 160R GTF, 25k WOB, 600 gpm, 174 MMTR RPM, 300 psi Diff, 3300 psi SPP.
1/3/2014 20:45	1/3/2014 22:00	1.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 178' @ 142.4 ft/hr, 20-25k WOB, GPM 600, 3900 psi, 600 psi Diff, 70 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/3/2014 22:00	1/3/2014 22:15	0.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 40 ft/hr: 160R GTF, 28k WOB, 600 gpm, 174 MMTR RPM, 300 psi Diff, 3300 psi SPP.
1/3/2014 22:15	1/3/2014 23:30	1.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 179' @ 143.2 ft/hr, 20-25k WOB, GPM 600, 4000 psi, 550 psi Diff, 70 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/3/2014 23:30	1/4/2014 00:00	0.5	RIG SERVICE	RIG SERVICE (DRAWWORKS, TOP DRIVE ECT.)	RIGSER	Lubricate rig and take slow pump rates.
1/4/2014 00:00	1/4/2014 01:30	1.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 189' @ 126 ft/hr, 20-25k WOB, GPM 600, 4000-4100 psi, 500-600 psi Diff, 70 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/4/2014 01:30	1/4/2014 02:00	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 150L GTF, 28k WOB, 600 gpm, 174 MMTR RPM, 300 psi Diff, 3300 psi SPP.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/4/2014 02:00	1/4/2014 02:30	0.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 84' @ 168 ft/hr, 20-25k WOB, GPM 600, 4000-4100 psi, 500-600 psi Diff, 70 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/4/2014 02:30	1/4/2014 03:00	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 170R GTF, 25k WOB, 600 gpm, 174 MMTR RPM, 400 psi Diff, 3400 psi SPP.
1/4/2014 03:00	1/4/2014 05:30	2.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 273' @ 109 ft/hr, 20-25k WOB, GPM 600, 4000-4100 psi, 500-600 psi Diff, 70 RPM, 174 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/4/2014 05:30	1/4/2014 06:00	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 180 GTF, 25k WOB, 600 gpm, 174 MMTR RPM, 400 psi Diff, 3400 psi SPP.

Report #: 18 Daily Operation: 1/4/2014 06:00 - 1/5/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029009
Days From Spud (days) 33	Days on Location (days) 17	End Depth (ftGRD) 14,876.5
	End Depth (TVD) (ftGRD) 8,731.2	Dens Last Mud (lb/gal) 10.35
		Rig ENSIGN DRILLING, 156

#### Operations Summary

Rotate and slide drill F/ 12809' T/ 14900'.

#### Remarks

Rig Ensign 156 & Well Progress 16 Days since Rig on location 16 days since rig accepted 15 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 72%

Line Proximity : Above 17.8' Right 3.2'

Distance from closest well : 24H- 1116'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 4

Total cuttings loads hauled off: 14

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/4/2014 06:00	1/4/2014 07:15	1.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 179' @ 143 ft/hr, 20-25k WOB, GPM 550, 4000-4100 psi, 500-600 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/4/2014 07:15	1/4/2014 07:30	0.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 150L GTF, 25k WOB, 550 gpm, 159 MRPM, 400 psi Diff, 3400 psi SPP.
1/4/2014 07:30	1/4/2014 11:00	3.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 367' @ 105 ft/hr, 20-25k WOB, GPM 550, 4000-4100 psi, 500-600 psi Diff, 60 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/4/2014 11:00	1/4/2014 11:15	0.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 13' @ 52 ft/hr: 140L GTF, 25k WOB, 550 gpm, 159 MRPM, 500 psi Diff, 3500 psi SPP.
1/4/2014 11:15	1/4/2014 14:15	3	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 270' @ 90 ft/hr, 20-25k WOB, GPM 550, 4000-4100 psi, 500-600 psi Diff, 60 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/4/2014 14:15	1/4/2014 14:30	0.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 13' @ 52 ft/hr: 180 GTF, 25k WOB, 550 gpm, 159 MRPM, 500 psi Diff, 3500 psi SPP.
1/4/2014 14:30	1/4/2014 18:15	3.75	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 457' @ 121.9 ft/hr, 20-25k WOB, GPM 550, 4000-4100 psi, 500-600 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/4/2014 18:15	1/4/2014 18:45	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 160R GTF, 23k WOB, 550 gpm, 159 MRPM, 500 psi Diff, 3500 psi SPP.
1/4/2014 18:45	1/4/2014 22:30	3.75	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 368' @ 98.1 ft/hr, 20-25k WOB, GPM 550, 4000-4100 psi, 500-600 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/4/2014 22:30	1/4/2014 23:00	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 12' @ 24 ft/hr: 150L GTF, 28k WOB, 550 gpm, 159 MRPM RPM, 500 psi Diff, 3500 psi SPP.
1/4/2014 23:00	1/4/2014 23:30	0.5	RIG SERVICE	RIG SERVICE (DRAWWORKS, TOP DRIVE ECT.)	RIGSER	Lubricate rig
1/4/2014 23:30	1/5/2014 00:00	0.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 82' @ 164 ft/hr, 20-25k WOB, GPM 550, 3750 psi, 450 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/5/2014 00:00	1/5/2014 00:15	0.25	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 10' @ 40 ft/hr: 160L GTF, 28k WOB, 550 gpm, 159 MRPM RPM, 440 psi Diff, 3810 psi SPP.
1/5/2014 00:15	1/5/2014 01:00	0.75	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 84' @ 112 ft/hr, 25k WOB, GPM 550, 4000 psi, 540 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/5/2014 01:00	1/5/2014 01:30	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 180 GTF, 25k WOB, 550 gpm, 159 MRPM RPM, 300 psi Diff, 3700 psi SPP.
1/5/2014 01:30	1/5/2014 04:00	2.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 136' @ 54.4 ft/hr, 25k WOB, GPM 550, 3900 psi, 340 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. @ 14745' Gamma decreased from 150 to 61 API.
1/5/2014 04:00	1/5/2014 04:30	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 8' @ 16 ft/hr: HS GTF, 25k WOB, 550 gpm, 159 MRPM RPM, 150 psi Diff, 3500 psi SPP.
1/5/2014 04:30	1/5/2014 06:00	1.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 62' @ 41 ft/hr, 25k WOB, GPM 550, 3800 psi, 450 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. Currently on one pump, changing our swab.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 19 Daily Operation: 1/5/2014 06:00 - 1/6/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR			AFE Number 029009	
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig			
34	18	16,168.5	8,729.0	10.40	ENSIGN DRILLING, 156			

### Operations Summary

Rotate and slide drill F/ 14900' T/ 16192'.

### Remarks

Rig Ensign 156 & Well Progress 17 Days since Rig on location 17 days since rig accepted 16 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 88%

Line Proximity : Above 37.1' Right 28.6'

Distance from closest well : 24H- 1126'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 1

Total cuttings loads hauled off: 15

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/5/2014 06:00	1/5/2014 06:30	0.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 62' @ 134 ft/hr, 25k WOB, GPM 406, 2515 psi, 450 psi Diff, 70 RPM, 117 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. Currently on one pump, changing out swab.
1/5/2014 06:30	1/5/2014 07:30	1	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 13' @ 13 ft/hr: 180 GTF, 25k WOB, 406 gpm, 117 MRPM RPM, 150 psi Diff, 2100 psi SPP. Drill on one pump to change out swab.
1/5/2014 07:30	1/5/2014 11:00	3.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 175' @ 50 ft/hr, 25k WOB, GPM 406, 2515 psi, 450 psi Diff, 70 RPM, 117 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. Currently on one pump, finish changing out swab, then change out seat and cracked pony rod.
1/5/2014 11:00	1/5/2014 11:45	0.75	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 11' @ 15 ft/hr: 180 GTF, 25k WOB, 406 gpm, 117 MRPM RPM, 150 psi Diff, 2100 psi SPP. Drill on one pump to change out only rod and seat.
1/5/2014 11:45	1/5/2014 13:00	1.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 83' @ 66 ft/hr, 25k WOB, GPM 406, 2515 psi, 450 psi Diff, 70 RPM, 117 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. Currently on one pump, change out seat and cracked pony rod.
1/5/2014 13:00	1/5/2014 13:45	0.75	PROD-DRILL CURVE	DRILL CURVE-SLIDE	DRL CURVE-SLIDE	Slide Drill 14' @ 19 ft/hr: 180 GTF, 25k WOB, 550 gpm, 130 MRPM RPM, 200 psi Diff, 3570 psi SPP. Both pumps back on the hole.
1/5/2014 13:45	1/5/2014 16:30	2.75	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 190' @ 69 ft/hr, 25k WOB, GPM 550, 4100 psi, 450 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/5/2014 16:30	1/5/2014 17:45	1.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 14' @ 11.2 ft/hr: 30L GTF, 40k WOB, 550 gpm, 159 MRPM RPM, 150 psi Diff, 3400 psi SPP.
1/5/2014 17:45	1/5/2014 20:00	2.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 159' @ 70.6 ft/hr, 22k WOB, GPM 550, 4100 psi, 450 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/5/2014 20:00	1/5/2014 21:30	1.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 12' @ 8 ft/hr: 160L GTF, 35k WOB, 550 gpm, 159 MRPM RPM, 225 psi Diff, 3600 psi SPP.
1/5/2014 21:30	1/5/2014 22:30	1	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 83' @ 83 ft/hr, 22k WOB, GPM 550, 3950 psi, 550 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/5/2014 22:30	1/5/2014 23:30	1	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 10 ft/hr: 160L GTF, 34k WOB, 550 gpm, 159 MRPM RPM, 175 psi Diff, 3500 psi SPP.
1/5/2014 23:30	1/6/2014 00:00	0.5	RIG SERVICE	RIG SERVICE (DRAWWORKS, TOP DRIVE ECT.)	RIGSER	Lubricate rig.
1/6/2014 00:00	1/6/2014 02:30	2.5	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 273' @ 109.2 ft/hr, 23k WOB, GPM 550, 4000 psi, 550 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/6/2014 02:30	1/6/2014 03:45	1.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 8 ft/hr: 140L GTF, 30k WOB, 550 gpm, 159 MRPM RPM, 175 psi Diff, 3600 psi SPP.
1/6/2014 03:45	1/6/2014 06:00	2.25	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 178' @ 79.1 ft/hr, 24k WOB, GPM 550, 3950 psi, 530 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.

Report #: 20 Daily Operation: 1/6/2014 06:00 - 1/7/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009	
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig		
35	19	16,767.5	8,734.4	11.20	ENSIGN DRILLING, 156		

#### Operations Summary

Rotate and slide drill F/ 16192' T/16791'. ROP dropped and hole started packing off @ 16791', PU off bottom and could not get back to bottom with out excessive torque and pressure. Back ream 5 stands T/ 16216' while trying to stage pumps and circulate without packing off. Circulated and raised MW to 11.2+ ppg and stage pumps to 340 GPM.

#### Remarks

Rig Ensign 156 & Well Progress 18 Days since Rig on location 18 days since rig accepted 17 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 94%

Line Proximity : Above 40.6' Right 41.6'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 2  
Total cuttings loads hauled off: 16

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/6/2014 06:00	1/6/2014 07:15	1.25	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 8 ft/hr: 100L GTF, 30k WOB, 550 gpm, 159 MRPM RPM, 175 psi Diff, 3600 psi SPP.
1/6/2014 07:15	1/6/2014 10:15	3	PROD-DRILL LATERAL	DRILL LATERAL-ROTATE	DRL LAT-ROT	Rotate drill 544' @ 181 ft/hr, 23k WOB, GPM 550, 4000 psi, 550 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses.
1/6/2014 10:15	1/6/2014 10:45	0.5	PROD-DRILL LATERAL	DRILL LATERAL-SLIDE	DRL LAT-SLIDE	Slide Drill 10' @ 20 ft/hr: 180L GTF, 30k WOB, 550 gpm, 159 MRPM RPM, 175 psi Diff, 3600 psi SPP.
1/6/2014 10:45	1/6/2014 15:00	4.25	PROD-DRILL CURVE	DRILL CURVE-ROTATE	DRL CURVE-ROT	Rotate drill 305' @ 72 ft/hr, 23k WOB, GPM 550, 4000 psi, 550 psi Diff, 70 RPM, 159 MRPM. Survey every kelly down. Pumping 10 bbl Lo-Vis sweeps followed by 20 bbl Hi-Vis (Graphite and Nut plug) sweeps as needed. No Losses. At 16,791' ROP drop from 125' hr to 35/hr. PU and zero WOB and Diff pressure. While slacking off back to bottom taking weight and packing off. Reduce rate to not pack off.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/6/2014 15:00	1/7/2014 06:00	15	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Rack back one stand to 16752' and stage pumps from 150 GPM to 340 GPM. While circulating and reaming, raised MW from 10.5 ppg to 11.0 ppg. Back ream T/ 16660' and rack back one stand. Staged pumps from 150 GPM to 450 GPM and hole packing off. Back ream T/ 16564' and stage pumps from 150 GPM to 300 GPM hole packing off. Back ream T/ 16476' and rack back one stand. Staged pumps from 150 GPM to 340 GPM and hole packing off. Back ream T/ 16381' and rack on stand back. Staged pumps from 200 GPM to 300 GPM and hole packing off. Back ream T/ 16280' and rack on stand back. Staged pumps from 150 GPM T/ 300 GPM and hole packing off. Back ream T/ 16216' and circulate at 150 GPM while bringing MW from 11.0 ppg to 11.2+ ppg. Staged pumps to 300 GPM, hole packing off. Brought GPM to 255 and staged up again to 375 GPM before hole packing off. Back ream T/ 16184' and rack one stand back. Continuing to try to stage pumps without packing off while reaming out of the hole. Increase MW to 11.4 ppg.

Report #: 21 Daily Operation: 1/7/2014 06:00 - 1/8/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)
36	20	16,767.5
End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig
8,734.4	11.40	ENSIGN DRILLING, 156

#### Operations Summary

Back ream F/ 16184 T/ 15230'. Preform clean up cycle pumping 5 weighted sweeps. Back ream F/ 15230' T/ 13711'. Circulate bottoms up due to pack off and pump weighted sweep.

#### Remarks

Rig Ensign 156 & Well Progress 19 Days since Rig on location 19 days since rig accepted 18 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 95%

Line Proximity : Above 40.6' Right 41.6'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 1  
Total cuttings loads hauled off: 17

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/7/2014 06:00	1/7/2014 13:00	7	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Continue back reaming from 16184' to 15230', stage pumps without packing off while reaming out of the hole 60 strokes, 225 gpm, 900-3000 psi, 30-50 rpm, 7-20k Tq. Unable to work string down. Pack off @ 15230', stage pumps while rotating. Increasing MW to 11.4 ppg, In/Out



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/7/2014 13:00	1/7/2014 23:00	10	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Sage pumps to 120 stks, 458 gpm, 900 - 3100 psi. Increase rotary from 40-80, while working stand 10' up, and 10' down. Able to work stand 90', circulate 458 gpm up, only able to circulate 225 gpm down without packing off and torquing up, steady increase rate to 458 gpm down. Increase rate to 550 gpm, 3200 psi, work stand 90' at 80 rpm, 7-10k Tq. Pump 40 bbl Low-Visc 1.5# over weighted sweep. 100% increase in cuttings at shakers -- large chunks to fines. Pump 2nd - 40 bbl Low-Visc 1.5# over weighted sweep. 75% increase in cuttings at shakers -- medium sized cuttings to fines. Pump 3rd - 40 bbl Low-Visc 1.5# over weighted sweep. 100% increase in cuttings at shakers -- large chunks to fines. Working stand 90', while rotating at 80 rpm. Pump 4th - 40 bbl Low-Visc 1.5# over weighted sweep. 50% increase in cuttings at shakers -- large chunks to fines. Working stand 90', while rotating at 80 rpm. Pump 5th - 40 bbl Low-Visc 1.5# over weighted sweep followed by 40 bbl hi-vis sweep. 10% increase in cuttings at shakers -- large chunks to fines. Working stand 90', while rotating at 80 rpm. The shakers cleared up after hi-vis sweep cleared hole. Contacted drilling superintendent and continued with plan to ream out of the hole.
1/7/2014 23:00	1/8/2014 05:00	6	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Back ream out of the hole F/ 15230' T/ 15155' hole packed off. Established good flow at 530 GPM and worked pipe 90' while circulating bottoms up. Back ream out of the hole 5 stands 2 times F/ 15155' T/ 14684' at 530 GPM, SPP 3550-3660 psi, Tq. 6-9k, hole free and clear. Continue back reaming F/ 14684' T/ 13805', hole packed off. Rack one stand back and back ream T/ 13711' with good flow but unable to rotate without torqueing, pull 50k over and broke free. Able to rotate with Tq. 6-8k, GPM 350-530, while working pipe 30'. Circulate bottoms up while rotating and pumping 530 GPM increasing pipe stroke to 90'.
1/8/2014 05:00	1/8/2014 06:00	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Pump 40 bbl Low-Visc 1.5# over weighted sweep and circulate out of the hole.

Report #: 22 Daily Operation: 1/8/2014 06:00 - 1/9/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR		AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
37	21	16,767.5	8,734.4	11.50	ENSIGN DRILLING, 156	

#### Operations Summary

Back ream F/ 13711 T/ 10915'. Preform clean up cycle as needed due to packing off, pumping 1.5# over Lo-Vis, weighted sweeps and working pipe 20' to 90' as torque and pressure would allow.

#### Remarks

Rig Ensign 156 & Well Progress 20 Days since Rig on location 20 days since rig accepted 19 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 100%

Line Proximity : Above 40.6' Right 41.6'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 2  
Total cuttings loads hauled off: 19

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/8/2014 06:00	1/8/2014 08:00	2	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Pump 2nd - 40 bbl Low-Visc 1.5# over weighted sweep and circulate out of the hole, 50% increase in cuttings/fines. Pump 3 rd - 40 bbl Low-Visc 1.5# over weighted sweep and circulate out of the hole, 10% increase in cuttings/fines. Circulate @ 550 gpm, 3600 psi, 80 rpm, 7-9k Tq.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/8/2014 08:00	1/8/2014 08:30	0.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Back ream out of the hole from 13,711, to 13,500', hole packed off. 550 gpm, 3600 psi, 70 rpm, 7-9kTq. MW 11.4 with 64 Visc.
1/8/2014 08:30	1/8/2014 14:00	5.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Establish circulation @ 13,500'. Stage pumps in 5 stroke increments from 12X12 to 70X70 (550 gpm) 900 -3600 psi. Work pipe 20-90' as torque and pressure would allow. Rotate 80 rpm - 8-19k Tq. When able to work full stand 90' and down with no pack off issues, circulate bottoms up and then pump 40 bbl Low-Visc 1.5# over sweep to surface 25% increase in fines at shakers. Circulate an extra 1000 strokes. 11.5 ppg MW.
1/8/2014 14:00	1/8/2014 18:00	4	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Back ream out of the hole from 13,500, to 11856', 550 gpm, 3600 psi, 70 rpm, 7-9kTq. MW 11.5 with 64 Visc., hole packed off.
1/8/2014 18:00	1/8/2014 21:00	3	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Established circulation @ 11856'. Stage pumps in 5 stroke increments from 25X25 to 70X70 (550 gpm) 900 -3600 psi. Work pipe 20-90' as torque and pressure would allow. Rotate 70 rpm - 8-17k Tq.
1/8/2014 21:00	1/8/2014 21:30	0.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Back ream out of the hole from 11856' to 11762', 550 gpm, 3400 psi, 70 rpm, 5-8 Tq. MW 11.5 with 65 Vis., hole packed off.
1/8/2014 21:30	1/9/2014 02:00	4.5	UNPLANNED	Stuck Pipe and events related to fix prob (cement)	U_SP	Established circulation @ 11762'. Stage pumps in 5 stroke increments from 25X25 to 70X70 (550 gpm) 900 -3600 psi. Work pipe 90' as torque and pressure would allow. Rotate 70 rpm - 8-17k Tq. Worked pipe free with no increase in pressure or torque, and circulated bottoms up. 100% increase in cuttings at shaker during bottoms up. Pumped 40 bbl 1.5# over weighted Lo-vis sweep and circulated out. Pump 2nd - 40 bbl 1.5# over weighted Lo-vis sweep and circulate out of the hole. There was steady cuttings during circulation of sweeps from fines to 1.5". Changed swab and liner in #2 mud pump while waiting on sweeps to clear hole. Shakers cleared to small amount of fines only.
1/9/2014 02:00	1/9/2014 04:00	2	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Back ream out of the hole from 11,762', to 10,915', hole packed off. 550 gpm, 3220 psi, 70 rpm, 6-8kTq. MW 11.5 with 65 Visc.
1/9/2014 04:00	1/9/2014 06:00	2	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Established circulation @ 10,915'. Stage pumps in 5 stroke increments from 40X40 (300 gpm) to 70X70 (550 gpm) 1280 - 3600 psi. Work pipe 90' as torque and pressure would allow. Rotate 70 rpm - 5-13k Tq. Worked pipe free with no increase in pressure or torque, and circulated bottoms up. Pumped 40 bbl 1.5# over weighted Lo-vis sweep and circulated out.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 23 Daily Operation: 1/9/2014 06:00 - 1/10/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR			AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig		
38	22	16,767.5	8,734.4	11.50	ENSIGN DRILLING, 156		

### Operations Summary

Back ream F/ 10915 T/ 7565' (casing shoe). Circulate hole clean. Cut and slip 116' of drill line. TOOH F/ 7565' T/ 92'. L/D BHA and bit. Pull wear bushing and wash well head.

### Remarks

Rig Ensign 156 & Well Progress 21 Days since Rig on location 21 days since rig accepted 20 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 100%

Line Proximity : Above 40.6' Right 41.6'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 1  
Total cuttings loads hauled off: 20

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/9/2014 06:00	1/9/2014 08:30	2.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Cont. circulation @ 10,915'. Work pipe 90' as torque and pressure would allow. Rotate 70 rpm - 5-13k Tq. Worked pipe free with no increase in pressure or torque, and circulated bottoms up. Had 50% increase in cutting on bottoms up with low vis weighted sweep followed with Hi-vis sweep. Cont. circulating until hole cleaned up. Cuttings sizes were fines to 2" cuttings.
1/9/2014 08:30	1/9/2014 12:00	3.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Back ream out of the hole from 10,915' to 9877', hole packed off. 550 gpm, 3220 psi, 70 rpm, 6-8kTq. MW 11.5 with 65 Visc. Cuttings sizes were fines to 2" cuttings.
1/9/2014 12:00	1/9/2014 14:30	2.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Circulate & work pipe @70 RPM's pumping @300 gpm, until had good returns & staging pumps up to 600 gpm @ 9877'. Work pipe 90' as torque and pressure would allow. Rotate 70 rpm - 5-12k Tq., circulated bottoms up @ 600 gpm. Had 70% increase in cutting on bottoms up pumping at a rate of 600 gpm. Pump 40 bbls weighted low vis sweep, followed by 40 bbls Hi-Vis. Cont. circulating until hole cleaned up. (When weighted sweep & Hi-Vis sweep reached surface, no increase in cuttings). Cuttings sizes were fines to 2" cuttings.
1/9/2014 14:30	1/9/2014 16:00	1.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Back ream out of the hole from 9877' to 9418', hole packed off. 600 gpm, 3400 psi, 70 rpm, 6-8kTq. MW 11.5 with 65 Visc. Cuttings sizes were fines to 2" cuttings.
1/9/2014 16:00	1/9/2014 17:30	1.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Circulate & work pipe @70 RPM's pumping @300 gpm, until had good returns & staging pumps up to 600 gpm @ 9418'. Work pipe 90' as torque and pressure would allow. Rotate 70 rpm - 5-12k Tq., circulated bottoms up @ 600 gpm. Had 70% increase in cutting on bottoms up pumping at a rate of 600 gpm. Cont. circulating until hole cleaned up. Cuttings sizes were fines to 2" cuttings.
1/9/2014 17:30	1/9/2014 21:00	3.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Cont. Back ream out of the hole from 9418' to 9053', (end of curve) 600 gpm, 2830 psi, 70 rpm, 6-10kTq. MW 11.5 with 65 Visc. Cont. back ream through curve from 9053 - 8078' (KOP) rotate @30 RPM's, 600 GPM 2700 psi., 2-6k Tq. (Attempt to pump out with out rotating, hole packing off, no success, Started rotating no more issues on packing off or having excessive torque). Cont. backing reaming from 8079 to 7565' (Casing shoe) @70 RPM's, 600 gpm 2700 psi, 2-4k Tq. Cuttings sizes were fines to 2" cuttings.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/9/2014 21:00	1/9/2014 22:30	1.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Circulate 40 bbl Hi-Vis sweep surface to surface while working pipe, 600 gpm, SPP 2600 psi, 30 rpm, 2.9k Tq., monitoring the shakers for cuttings. There was no increase in cuttings and 100% fines seen back at surface when sweep got back.
1/9/2014 22:30	1/9/2014 23:30	1	PROD1	SHARE	CUTDL	Slip and cut 116' drill line while monitoring the well on trip tank.
1/9/2014 23:30	1/10/2014 00:00	0.5	RIG SERVICE	RIG SERVICE (DRAWWORKS, TOP DRIVE ECT.)	RIGSER	Rig Service, Grease top drive and drawworks.
1/10/2014 00:00	1/10/2014 00:30	0.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Flow check, well static. Pump slug.
1/10/2014 00:30	1/10/2014 04:00	3.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	TOOH F/ 7565' T/ 92', (Ryan Directional BHA). Monitor well on trip tanks, took proper fill.
1/10/2014 04:00	1/10/2014 05:00	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Flow check, well static. L/D directional tools and bit. Monitor well on trip tanks, took proper fill.
1/10/2014 05:00	1/10/2014 06:00	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Pull Wear Bushing (Co. Man under rig floor to verify backing off proper lock screws), wash well head using rig pumps. Install new wear bushing same.

Report #: 24 Daily Operation: 1/10/2014 06:00 - 1/11/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR		AFE Number 029009
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
39	23	16,767.5	8,734.4	11.30	ENSIGN DRILLING, 156	

#### Operations Summary

M/U Hughes 8 1/2in, GX-20M and jar. TIH to 9224' (EOC) and circulate bottoms up. Continue TIH 16480', circulating bottoms up every 2000'. Attempt to wash to bottoms and hole packed off. Back ream 4 stands to 16106' and re-establish good circulation. Wash and ream F/ 16106' T/ 16389'.

#### Remarks

Rig Ensign 156 & Well Progress 22 Days since Rig on location 22 days since rig accepted 21 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 100%

Line Proximity : Above 40.6' Right 41.6'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 0

Total cuttings loads hauled off: 20

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/10/2014 06:00	1/10/2014 06:30	0.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Clean rig floor and prep to pick up BHA.
1/10/2014 06:30	1/10/2014 12:30	6	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Make up BHA #5, Pick up bit sub, install float, make up on end of 5" heavy wt drill pipe, make up bit #5 Baker Hughes GX-20 mill tooth bit. TIH with 5 stands of 5" Hvy wt DP, continue TIH to 7565' casing shoe depth, break circulation, continue TIH from 7565 to 9224', 200' past end of curve. (Install drilling jars 1000' behind bit) breaking circulation every 30 stands. (Did not see any tight hole tripping through curve).

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/10/2014 12:30	1/10/2014 13:00	0.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Circulate bottoms up @9224' working pipe 90', rotating 110 RPM pumping 600 gpm. (Mud wt 11.5 ppg). (Did not see much on bottoms up, a few big pieces of shale).
1/10/2014 13:00	1/10/2014 14:30	1.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Continue TIH from 9,224' to 11,204' (Did not see any tight hole)
1/10/2014 14:30	1/10/2014 15:30	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Circulate bottoms up @11,204' working pipe 90', rotating 110 RPM pumping 600 gpm. (Mud wt 11.5 ppg). (Did not see much on bottoms up, a few big pieces of shale).
1/10/2014 15:30	1/10/2014 16:30	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Continue TIH from 11,204' to 13,278' (Did not see any tight hole)
1/10/2014 16:30	1/10/2014 17:30	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Circulate bottoms up @13,278' working pipe 90', rotating 110 RPM pumping 600 gpm. (Mud wt 11.5 ppg). (Did not see much on bottoms up, a few big pieces of shale).
1/10/2014 17:30	1/10/2014 18:30	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Continue TIH from 13,278' to 15,257' (Did not see any tight hole)
1/10/2014 18:30	1/10/2014 19:30	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Circulate bottoms up @15,257' working pipe 90', rotating 110 RPM pumping 600 gpm. (Mud wt 11.5 ppg). (Did not see much on bottoms up, a few big pieces of shale).
1/10/2014 19:30	1/10/2014 20:30	1	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Continue TIH from 15,257' to 16,480' (Did not see any tight hole)
1/10/2014 20:30	1/10/2014 21:00	0.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Attempt to circulate bottoms up @ 16,480', hole packed off, rotating 110 RPM pumping 600 gpm. (Mud wt 11.5 ppg). Tried staging pumps from 150 GPM to 300 GPM, hole packed off @ 300 GPM.
1/10/2014 21:00	1/10/2014 22:30	1.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Back ream out of the hole from 16,480' to 16,106'. 300 gpm, 1500 psi, 80 rpm, 6-8kTq. MW 11.5 with 62 Visc. Hole would pack off when pump rate was over 300 gpm. Fines with a few 1/2" cuttings at the shakers.
1/10/2014 22:30	1/11/2014 02:00	3.5	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Establish good circulation @ 600 gpm and work pipe 90'. Circulate 40 bbl 1.5# over weighted sweep followed by 40 bbl Hi-vis sweep surface to surface. (Did not see much, mainly fines with a few big pieces of shale). 600 gpm, 3519 psi, 6-9 Tq, 110 rpm.
1/11/2014 02:00	1/11/2014 06:00	4	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Wash and ream F/ 16,106' T/ 16,389'. 500-550 gpm, 2770-3050 psi, 6-9 Tq, 110 rpm. Unable to keep 600 gpm flow rate with out packing off and torquing.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 25 Daily Operation: 1/11/2014 06:00 - 1/12/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR			AFE Number 029009	
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig			
40	24	16,767.5	8,734.4	11.70	ENSIGN DRILLING, 156			

### Operations Summary

Finish washing and reaming T/ 16,791'. Short trip 10 stands T/ 15,854'. TIH T/ 16,420', and wash T/ 16,791'. Perform clean up cycle and Back ream out T/ 12,900'. Pump sweep and circulate hole clean. Back ream T/ 9,038'. Pump sweep and circulate hole clean. Back ream to 7,790'. Pump sweep and circulate hole clean.

### Remarks

Rig Ensign 156 & Well Progress 23 Days since Rig on location 23 days since rig accepted 22 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 100%

Line Proximity : Above 40.6' Right 41.6'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 0

Total cuttings loads hauled off: 20

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/11/2014 06:00	1/11/2014 08:00	2	UNPLANNED	Tight Hole / Swabbing / Circulating in relation to	U_TH	Wash and ream F/ 16,389' T/ 16,791'. 500-600 gpm, 2800-3800 psi, 6-9 Tq, 110 rpm. Increased MW from 11.5 ppg to 11.7 ppg, Vis 65.
1/11/2014 08:00	1/11/2014 09:30	1.5	CIRC	CIRCULATE	CIRC	Circulate bottoms up pumping 600 gpm pres. 3786 psi, rotating drill string 110 RPM working string up and down 90'. (On bottoms up still getting a lot of big chunks of shale back across shaker) Mud wt 11.7 ppg Vis 65.
1/11/2014 09:30	1/11/2014 11:00	1.5	TRIP OUT HOLE	TOOH	TOOH	Short trip out 10 stands from 16791' to 16791'. (No issues on trip out) Trip in hole 6 stands from 15854' to 16420'. (No issues on TIH)
1/11/2014 11:00	1/11/2014 11:30	0.5	W&R	WASH & REAM	WASH_REAM	Wash and ream 4 stands back to bottom from 16420' to 16791' rotating 110 RPM, pumping 600 gpm pressure 3786 psi. Mud wt 11.7 ppg. Vis 65.
1/11/2014 11:30	1/11/2014 17:00	5.5	CIRC	CIRCULATE	CIRC	Perform clean up cycle #1, pump 40 bbl low vis weighted sweep of 13.3 ppg, circulate surface to surface working string 90', rotating 110 RPM, pumping 600 gpm pressure 3786 psi. Rack back 2 stands and circulate cycle #2, pump 40 bbl low vis weighted sweep of 13.3 ppg, circulate surface to surface working string 90', rotating 110 RPM, pumping 600 gpm pressure 3786 psi. Mud wt 11.7 ppg Vis 65. Rack back 2 stands and circulate cycle #3, 600 gpm pressure 3786 psi. 110 rpm. Mud wt. 11.7 ppg Vis 65. (Bottoms up on circulation cycle #1, #2, and #3, still getting back a lot of big chunks of shale).
1/11/2014 17:00	1/11/2014 21:30	4.5	W&R	WASH & REAM	WASH_REAM	Flow check, well static. Back ream out of the hole from 16,791' to 12,900'. 600 gpm, 3200-3350 psi, 110 rpm, 6-8kTq. MW 11.7 with 64 Vis.
1/11/2014 21:30	1/11/2014 23:00	1.5	CIRC	CIRCULATE	CIRC	Circulate lo-vis weighted sweep 1.5 ppg over MW surface to surface, while working pipe 90'. 600 GPM, 3000 psi, 5-7k Tq., 110 rpm. (On bottoms up still getting a lot of big chunks of shale back across shaker)
1/11/2014 23:00	1/12/2014 02:30	3.5	W&R	WASH & REAM	WASH_REAM	Flow check, well static. Back ream out of the hole from 12900' to 9038'. 600 gpm, 2400 psi, 4-7k Tq. MW 11.7 with 65 Vis.
1/12/2014 02:30	1/12/2014 04:00	1.5	CIRC	CIRCULATE	CIRC	Circulate 40 bbl lo-vis weighted sweep 1.5 ppg over MW followed by 40 bbl Hi-Vis sweep surface to surface, while working pipe 90'. 600 GPM, 2500 psi, 4k Tq., 110 rpm. (On bottoms up shakers cleared up fewer large chunks and was mostly fines).



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/12/2014 04:00	1/12/2014 05:30	1.5	W&R	WASH & REAM	WASH_R EAM	Flow check, well static. Back ream, through the curve, from 9038' to 7790'. 600 gpm, 2200 psi, 2k Tq. 30 rpm. MW 11.7 with 65 Vis. (while circulating, the shakers cleared up with only minimal fines).
1/12/2014 05:30	1/12/2014 06:00	0.5	CIRC	CIRCULATE	CIRC	Circulate 40 bbl Hi-Vis sweep surface to surface.

**Report #: 26 Daily Operation: 1/12/2014 06:00 - 1/13/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days) 41	Days on Location (days) 25	End Depth (ftGRD) 16,767.5	End Depth (TVD) (ftGRD) 8,734.4	Dens Last Mud (lb/gal) 11.70	Rig ENSIGN DRILLING, 156	

#### Operations Summary

TOOH F/ 7696' T/ surface and L/D bit. Pull wear bushing and wash well head. HPJSM with B&L casing, rig crew, and company rep. M/U shoe/float track and RIH with 5.5", P-110, #20, BTC casing T/ 12,934'.

#### Remarks

Rig Ensign 156 & Well Progress 24 Days since Rig on location 24 days since rig accepted 23 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 100%

Line Proximity : Above 40.6' Right 41.6'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 1  
Total cuttings loads hauled off: 21

Notified TRRC on 1-12-14 @ 16:30 and spoke with Pam. Job #10309

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/12/2014 06:00	1/12/2014 06:30	0.5	TRIP OUT HOLE	TOOH	TOOH	Flow check (Well Static) pump slug.
1/12/2014 06:30	1/12/2014 10:00	3.5	TRIP OUT HOLE	TOOH	TOOH	TOOH to run 5 1/2" casing from 7790'
1/12/2014 10:00	1/12/2014 11:00	1	TRIP OUT HOLE	TOOH	TOOH	Install wear bushing puller, back out locking screws, pull wear bushing and lay down. Pick up mule shoe sub & wash out around well head & BOP, lay down same.(Witnessed by Pioneer Rep.)
1/12/2014 11:00	1/12/2014 11:30	0.5	PROD-CASE	RUN PRODUCTION CSG	CASE	Clean rig floor & prepare rig for running casing.
1/12/2014 11:30	1/12/2014 13:00	1.5	PROD-CASE	RUN PRODUCTION CSG	CASE	PJSM with rig crew & casing crew, Rig up B&L casing crew & equip. Safety meeting prior to running casing with B&L casing crew, Tesco thread Rep and rig crew.
1/12/2014 13:00	1/12/2014 17:30	4.5	PROD-CASE	RUN PRODUCTION CSG	CASE	Pick up 1st jt of 5 1/2" 20# P-110 BTC csg., make up 6 1/2" reaming shoe with thread lock, (Torque shoe 5500 Ft Lbs to diamond) make up 2nd jt, for 2 joint shoe track, (Verified torque with tong load cell on B&L tongs for a torque of 11,500 ft lbs, for running with torque rings) make up Weatherford latch in float collar with thread lock and torque to 5500 ft lbs, make up 20' short joint on top of float collar and thread lock, torque to 5500 ft lbs, (Pump through shoe track to verify floats are working) make up Toe Sleeve with 8' short joint on bottom and top, (They were pre-made up with thread lock prior to receiving Toe Sleeve). Continue running 5 1/2" 20# P-110 BTC casing with torque rings, torque casing to approx 11,500 ft lbs., avg. make up torque, breaking circulation every 2000', from surface to 2033'. Run 48 of 401 total joints. Monitoring returns in trip tank. (Taking proper displacement)
1/12/2014 17:30	1/12/2014 18:00	0.5	PROD-CASE	RUN PRODUCTION CSG	CASE	Circulate bottoms up at 2033'. MW 11.7 Vis 70 Full returns.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/12/2014 18:00	1/13/2014 01:30	7.5	PROD-CASE	RUN PRODUCTION CSG	CASE	Continue running 5 1/2" 20# P-110 BTC casing with torque rings, torque casing to approx 11,500 ft lbs., avg. make up torque, breaking circulation every 2000', from 2033' to 9048'. Run 215 of 401 total joints. Monitoring returns in trip tank. Full returns
1/13/2014 01:30	1/13/2014 02:30	1	PROD-CASE	RUN PRODUCTION CSG	CASE	Circulate surface to surface at 9048' at end of curve. MW 11.7 Vis 70 Full returns.
1/13/2014 02:30	1/13/2014 06:00	3.5	PROD-CASE	RUN PRODUCTION CSG	CASE	Continue running 5 1/2" 20# P-110 BTC casing with torque rings, torque casing to approx 11,500 ft lbs., avg. make up torque, breaking circulation every 2000', from 9048' to 12,934'. Run 309 of 401 total joints. Monitoring returns in trip tank. Full returns

**Report #: 27 Daily Operation: 1/13/2014 06:00 - 1/14/2014 03:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029009
Days From Spud (days) 42	Days on Location (days) 26	End Depth (ftGRD) 16,767.5	End Depth (TVD) (ftGRD) 8,734.4	Dens Last Mud (lb/gal) 11.70	Rig ENSIGN DRILLING, 156	

#### Operations Summary

Continue running 5.5", P-110, #20, BTC casing T/ 16,748', washing last 400'. R/D casing crew and R/U Schlumberger. Cement casing and R/D Schlumberger. N/D BOP and set slips. Prep to skid rig to University 10-13 22H. Release rig at 03:00, 1-14-14

#### Remarks

Rig Ensign 156 & Well Progress 25 Days since Rig on location 25 days since rig accepted 24 days since spud.

Rig NPT: 0 hours for previous 24 hours, 0 hours for month January.

Completion percentage: Surface 100%, Intermediate 100%, Curve Section 100% - Lateral Section 100%

Line Proximity : Above 40.6' Right 41.6'

Daily walk around location and rig with Tool Pusher.

Daily cuttings loads hauled off: 1  
Total cuttings loads hauled off: 22

Notified TRRC on 1-12-14 @ 16:30 and spoke with Pam. Job #10309

Release rig to 22H @ 03:00, 1-14-14.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/13/2014 06:00	1/13/2014 07:30	1.5	PROD-CASE	RUN PRODUCTION CSG	CASE	Circulate bottoms up @12,892'
1/13/2014 07:30	1/13/2014 11:30	4	PROD-CASE	RUN PRODUCTION CSG	CASE	Continue running 5 1/2" 20# P-110 BTC casing with torque rings, torque casing to approx 11,500 ft lbs., avg. make up torque, breaking circulation every 2000', from 12,934' to 16,365'. Run 392 of 401 total joints. Monitoring returns in trip tank. Full returns
1/13/2014 11:30	1/13/2014 12:30	1	PROD-CASE	RUN PRODUCTION CSG	CASE	Continue running 5 1/2" 20# P-110 BTC casing with torque rings, torque casing to approx 11,500 ft lbs., avg. make up torque, Pumping 5 bbls/min washing casing from 16,365' to 16,495'. Would not wash any more running casing. Pump 5 bbls/min and rotate from 16,495 to 16,748' (Torque on casing rotating 9000-10,500 Ft lbs). Run a total of 401 jts of casing. (Did not run landing joint and mandrel do to, not being able to wash casing to bottom with out rotating).
1/13/2014 12:30	1/13/2014 15:30	3	PROD-CASE	RUN PRODUCTION CSG	CASE	Circulate casing on bottom @16,748' surface to surface to make sure hole is in good shape for cement job.
1/13/2014 15:30	1/13/2014 17:30	2	PROD-CASE	RUN PRODUCTION CSG	CASE	Rig down CRT tool, RU Power tongs to MU 5 1/2" full opening TIW valve and pup joint -- torque to specs. RD power tongs and send off rig floor. RU cement head and lines to rig floor load bottom latch in plug. (Company man witness loading plug)

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/13/2014 17:30	1/13/2014 22:00	4.5	PROD-CMT	CEMENT PRODUCTION CSG	CMT	PJSM with Schlumberger, Ensign and PNR. Pressure test pump and lines to 4000 psi (test good), pump 40 bbls of mudpush express @ 11.9 ppg, 4.5 bpm, 490 psi. Pump Tail Cement -- 1594 sacks (466 bbls) @ 12.5 ppg, yield 1.64. Full returns.  Shut down load Weatherford Latch in Plug. (Witnessed by company man)  Displacement: Pump 23.8 bbls bbls of 10% Acetic Acid @ 6 bpm 681 psi. Pump 346.3 bbls of H2O with Biocide. Displace a total of 370.1 bbls (23.8 Acetic Acid, 346.3 bbls of H2O with Biocide 5 bbls early). Initial 6 bpm, 540 psi, 200 bbls away - 6 bpm, 2301 psi, 300 bbls away - 6 bpm, 2557 psi, 350 bbls away - 4.5 bpm, 2466 psi, Final cir. press. @2.3 bbls/min 2350 psi. Bumped plug with 370 bbls @ 2.3 bpm, 2900 psi. Hold 5 minutes -- Bleed back 4.5 bbls. Check floats -- Holding. Final lift - 2338 psi. Plug down @ 21:38 hrs. Full returns throughout entire cement job.
1/13/2014 22:00	1/13/2014 22:30	0.5	PROD-CMT	CEMENT PRODUCTION CSG	CMT	Rig down Schlumberger cement iron, cement head, TIW valve, and power tongs.
1/13/2014 22:30	1/14/2014 01:30	3	WLHEAD	WELLHEAD	WLHEAD	Nipple down BOP and lift stack. Set slips with 150K of string weight. Rough cut casing and land blind flange. Layout casing. N/D trip nipple.
1/14/2014 01:30	1/14/2014 03:00	1.5	WLHEAD	WELLHEAD	WLHEAD	Prep rig to skid to University 10-13 22H. Install well head cap. (release rig @ 3:00 am 1/14/14)

### Report #: 1 Daily Operation: 1/30/2014 06:00 - 1/31/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 59	Days on Location (days) 1	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	

#### Operations Summary

Prepped cellar for Toe prep Seaboard RU C-section. API ran CBL, Set FMC well services Frac stack

#### Remarks

No incidents or accidents to report.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/30/2014 06:00	1/30/2014 08:00	2	COMPL	Other operations	OTHR	Wait on daylight.Hold safety meeting.
1/30/2014 08:00	1/30/2014 18:00	10	NU/TEST	NIPPLE UP/TST	NU/TEST	Plumbed Sellar Surface and Intermediate casing. Seaboard RU c-section. Set Tanks for CT cleanout run and initial pumpdowns.
1/30/2014 18:00	1/30/2014 20:30	2.5	NU/TEST	NIPPLE UP/TST	NU/TEST	Set and NU FMC 7-1/16 10K lower frac valve and flow cross
1/30/2014 20:30	1/30/2014 21:30	1	COMPL	RURD any equipment: WL, EL, CT, etc.	RURD	Rig Up API wireline to RIH with Junk basket and gauge ring.
1/30/2014 21:30	1/31/2014 01:00	3.5	COMPL	Other wireline operations	WLOTHR	RIH with API wireline with a 3.2" junk basket and a 4.5" gauge ring to a depth of 8,640' about 30 degrees and POOH. RIH w/radial variable density CBL/GR/CCL tools. Log from 8,200' to GL with 1500 psi on casing. Good cement Estimated TOC @ 7,200'. RD API WL.
1/31/2014 01:00	1/31/2014 06:00	5	PROD1	OTHER	WSI	Well shut in waiting on 22H and 24H to be logged

### Report #: 2 Daily Operation: 1/31/2014 06:00 - 2/1/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 60	Days on Location (days) 2	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	

#### Operations Summary

NU upper frac valve and goat head. WSI waiting on cleanout run to be done on 22H.

#### Remarks

No incidents or accidents to report.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
1/31/2014 06:00	2/1/2014 06:00	24	COMPL	Other operations	OTHR	WSI waiting on toe prep ops.

**Report #: 3 Daily Operation: 2/1/2014 06:00 - 2/2/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 61	Days on Location (days) 3	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

#### Operations Summary

PJSM  
Rig up Pioneer Pumping Services  
Open toe sleeve and perform toe prep procedure  
Perf stage #1.  
WSI

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs

FTR- 1175

RT-

CR-

LTR- 1175

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/1/2014 06:00	2/1/2014 18:00	12	COMPL	Other operations	OTHR	WSI waiting on Perf stage #1.
2/1/2014 18:00	2/1/2014 20:00	2	MOBILIZATION	MIRU	MIRU	MIRU Pioneer Pumping Services, blender, 2 frac pumps, acid transport, limonene transport, and API wireline with 10K gear for toe prep
2/1/2014 20:00	2/2/2014 01:00	5	COMPL	Frac	STIM	PJSM, Test lines to 9300 psi, Test Intermediate to 1500 psi and hold pressure, open frac valve and test casing to 7625 psi hold for 10 mins. Bring up pressure to 9,000 psi to initiate sleeve opening. Sleeve opened in 17 minutes. Pump 1500 gals of acid followed by a 5 bbl fresh water spacer, 500 gals of limonene. Over flush well by 200 bbls and shut down for isip and 5,10,15  Started out on acid and limonene at 2.5 bpm then walked rate up to 20 bpm at 5500 psi  ISIP: 3860  5: 3562 10: 3381 15: 3326  FTR: 651 bbls
2/2/2014 01:00	2/2/2014 04:30	3.5	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage 1 Toe Prep. RIH & pumped down w/API CFP & 5 - 3-1/8" guns, set CFP @ 16,618' Perforated Intervals: 16,366'-16,368' / 16,426'-16,428' / 16,486'-16,488' / 16,546'-16,548' / 16,606'-16,608' w/ 60 deg phased, 24 gram charge, 0.42" EHD perf guns. 40 holes total. POOH, Logging Gamma Ray  Pump Down @ 15 bpm / 4938 psi. Line Speed 275 ft/min  TBP- 524 Bbls FTR- Total 1175 Bbls
2/2/2014 04:30	2/2/2014 06:00	1.5	PROD1	OTHER	WSI	Well Shut in waiting on Frac ops

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Report #: 4 Daily Operation: 2/2/2014 06:00 - 2/3/2014 06:00

Job Category ORIG COMPLETION				Primary Job Type OCM		AFE Number 029082
Days From Spud (days) 62	Days on Location (days) 4	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

#### Operations Summary

WSI waiting on frac ops.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs

FTR- 1175

RT-

CR-

LTR- 1175

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/2/2014 06:00	2/3/2014 06:00	24	COMPL	Other operations	OTHR	WSI waiting on frac ops.

### Report #: 5 Daily Operation: 2/3/2014 06:00 - 2/4/2014 06:00

Job Category ORIG COMPLETION				Primary Job Type OCM		AFE Number 029082
Days From Spud (days) 63	Days on Location (days) 5	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	

#### Operations Summary

Wsi waiting on frac ops.Start MIRU for frac.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
Arklatex WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Water trans. Downtime: 0 hrs Cum tot: 0 hrs

FTR- 1,175

RT-

CR-

LTR- 1,175

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/3/2014 06:00	2/4/2014 06:00	24	COMPL	Other operations	OTHR	WSI waiting on frac ops.

### Report #: 6 Daily Operation: 2/4/2014 06:00 - 2/5/2014 06:00

Job Category ORIG COMPLETION				Primary Job Type OCM		AFE Number 029082
Days From Spud (days) 64	Days on Location (days) 6	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

#### Operations Summary

MIRU PPS and other support services for zipper frac on 23H and 24H

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
Arklatex WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Water trans Downtime: 0 hrs Cum tot: 0 hrs

FTR- 1,175

RT-

CR-

LTR- 1,175

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/4/2014 06:00	2/5/2014 06:00	24	MOBILIZATION	MIRU	MIRU	Continue MIRU PPS and support services for zipper frac.

Report #: 7 Daily Operation: 2/5/2014 06:00 - 2/6/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 65	Days on Location (days) 7	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

#### Operations Summary

MIRU PPS and other support services for zipper frac on 23H and 24H.

Frac stage #1

Attempted to RIH to perf stage #2. Froze up at grease head and pack-off while swapping wells. Return line froze is froze up. Currently on standby w/wireline.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs

Arklatex WL Downtime: 0 hrs Cum tot: 0 hrs

RSI Downtime: 0 hrs Cum tot: 0 hrs

Select Downtime: 0 hrs Cum tot: 0 hrs

Weather Downtime: 9 hrs Cum tot: 9 hrs

FTR- 9,192 Bbls

RT-

CR-

LTR- 9,192 Bbls

TSIF: 336,386 LBS

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/5/2014 06:00	2/5/2014 11:00	5	MOBILIZATION	MIRU	MIRU	Continue MIRU PPS and support services for zipper frac.
2/5/2014 11:00	2/5/2014 15:00	4	COMPL	Other operations	OTHR	Wait on frac opps on the 24H.
2/5/2014 15:00	2/5/2014 18:00	3	COMPL	Frac	STIM	<p>FRAC STG # 1 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 46 bbls 15% HCL, 336,386 lbs. 40/70 brown sand &amp; 8,017 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4,754 psi. Acid on form @ 40 bpm @ 5,858 psi. Acid cleared @ 50 bpm @ 5,670 psi.</p> <p>Step down: 80 bpm @ 7,131 psi 60 bpm @ 6,157 psi 40 bpm @ 5,307 psi 20 bpm @ 4,641 psi Pad ISIP 4,170 psi. FG 0.91 psi / ft 5 min 3,788 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,786 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 463 bbls. Ending rate 80 bpm @ 8,180 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 80 bpm Avg psi: 7,889 psi Max rate: 82 bpm Max psi: 8,725 psi ISIP: 4,011 psi FG: 0.89 psi/ft</p> <p>FTR= 9,192 bbls SIF= 336,386 lbs. TSIF= 336,386 lbs</p>
2/5/2014 18:00	2/5/2014 21:00	3	COMPL	Other operations	OTHR	Wait on pumpdown to be complete on 24H.
2/5/2014 21:00	2/5/2014 23:00	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	Tried to PD for stage #2 but froze up at pack-off and grease head. Return line is also froze up.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/5/2014 23:00	2/6/2014 06:00	7	COMPL_UNPLN D	Waiting on weather	U_WOW	Froze up in grease head and pack-off/return line is also froze up. We left lubricator on well due to possibility of wire breaking and live guns dropping out.

**Report #: 8 Daily Operation: 2/6/2014 06:00 - 2/7/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 66	Days on Location (days) 8	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

#### Operations Summary

Attempted to RIH to perf stage #2. Froze up at grease head and pack-off while swapping wells. Return line and Lube is froze up. Layed down lubricator and gun string. Currently on standby w/wireline.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
 Arklatex WL Downtime: 0 hrs Cum tot: 0 hrs  
 RSI Downtime: 0 hrs Cum tot: 0 hrs  
 Select Downtime: 0 hrs Cum tot: 0 hrs  
 Weather Downtime: 20 hrs Cum tot: 29 hrs

FTR- 9,192 Bbls

RT-

CR-

LTR- 9,192 Bbls

TSIF: 336,386 LBS

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/6/2014 06:00	2/7/2014 06:00	24	COMPL	Other operations	OTHR	Attempted to RIH to perf stage #2. Froze up at grease head and pack-off while swapping wells. Return line is froze up. Layed down lubricator and gun string. Currently on standby w/wireline waiting to thaw out ice.

**Report #: 9 Daily Operation: 2/7/2014 06:00 - 2/8/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 67	Days on Location (days) 9	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

#### Operations Summary

Continue thawing out lines and pressure control with steamer.  
 Perf Stage #2.  
 Frac Stage #2  
 Arklatex WL birdcaged reel/re-placing with API wireline. Stage #3 still needs to be perfed.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
 Arklatex WL Downtime: 3 hrs Cum tot: 3 hrs  
 RSI Downtime: 0 hrs Cum tot: 0 hrs  
 Select Downtime: 0 hrs Cum tot: 0 hrs  
 Weather Downtime: 12 hrs Cum tot: 41 hrs

FTR-17,451 Bbls

RT-

CR-

LTR- 17,451 Bbls

TSIF: 675,727 LBS

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/7/2014 06:00	2/7/2014 17:00	11	UNPLANNED	Other - Anything not listed above	U_OTR	Continue thawing out lines, pressure control and well head with steamer .

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/7/2014 17:00	2/7/2014 20:00	3	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU Ark-La-Tex WL for Stage # 2 of 24. RIH & pump down Baker CFP & 5 each 3 3/8" guns. Set CFP @ 16,337'. Perforate intervals : 16,066' -68', 16,126' -28', 16,186' -88', 16,246' - 48' & 16,306' - 08' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 6,900 psi. Line speed 250 ft/min.  Used 370 bbls FTR:9,562 bbls
2/7/2014 20:00	2/8/2014 00:00	4	COMPL	Other operations	OTHR	WSI waiting on frac ops on the 24H.
2/8/2014 00:00	2/8/2014 02:00	2	COMPL	Frac	STIM	FRAC STG # 2 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 34 bbls 15% HCL. 339341 lbs.40/70 brown sand & 7890 bbls of hybrid fluid linear/xlink down 5.5" csg.  Formation broke @ 20 bpm @ 5021 psi. Acid on form @ 40 bpm @ 5326 psi. Acid cleared @ 50 bpm @ 5308 psi.  Step down: 80 bpm @ 7386 psi 60 bpm @ 6313 psi 40 bpm @ 5106 psi 20 bpm @ 4114 psi Pad ISIP 4107 psi. FG 0.90 psi / ft 5 min 3735 psi.  Increased rate to 81 bpm. Pumped 2,786 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 463 bbls. Ending rate 80 bpm @ 8350 psi. Pro technics Ran tracer during all sand stages.  Avg rate: 79.8 bpm Avg psi: 7947 psi Max rate: 81 bpm Max psi: 8543 psi ISIP: 4141 psi FG: 0.91 psi/ft  FTR= 17,451 bbls SIF= 336,386 lbs. TSIF= 675,727 lbs
2/8/2014 02:00	2/8/2014 03:00	1	COMPL	Other operations	OTHR	WSI waiting on frac ops on the 24H.
2/8/2014 03:00	2/8/2014 06:00	3	COMPL_UNPLN D	Wireline equipment failure, includes WL truck, lub	U_WL	Arklatex wireline birdcaged reel/unable to perf stage #3 Going to replace with API wireline.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 10 Daily Operation: 2/8/2014 06:00 - 2/9/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 68	Days on Location (days) 10	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

### Operations Summary

RDMO Arklatex wireline. Wait on API wireline. MIRU API wireline.

Perf stage #3.

Frac stage #3.

Perf. stage #4

Frac stage #4

### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Downtime: 0 hrs Cum tot: 0 hrs  
Weather Downtime: 0 hrs Cum tot: 41 hrs

FTR-33774 Bbls

RT-

CR-

LTR- 33774 Bbls

TSIF: 1,376,636 LBS

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/8/2014 06:00	2/8/2014 18:30	12.5	COMPL	Other operations	OTHR	RDMO Arklatex wireline. Wait on API wireline. MIRU API wireline.
2/8/2014 18:30	2/8/2014 20:30	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage # 3 of 24. RIH & pump down Baker CFP & 5 each 3 1/8" guns. Set CFP @ 16,037'. Perforate intervals : 15,766' -68', 15,826' -28', 15,886' -88', 15,946' - 48' & 16,006' - 08' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 6,900 psi. Line speed 300 ft/min.  Used 470 bbls FTR 17,921: bbls
2/8/2014 20:30	2/8/2014 22:00	1.5	COMPL	Other operations	OTHR	WSI while perfring the 24H stage #4.
2/8/2014 22:00	2/9/2014 00:00	2	COMPL	Frac	STIM	FRAC STG # 3 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 28 bbls 15% HCL, 335650 lbs. 40/70 brown sand & 7632 bbls of hybrid fluid linear/xlink down 5.5" csg.  Formation broke @ 20 bpm @ 4708 psi. Acid on form @ 40 bpm @ 4617 psi. Acid cleared @ 50 bpm @ 4882 psi.  Step down: 80 bpm @ 7224 psi 60 bpm @ 6229 psi 40 bpm @ 5283 psi 20 bpm @ 4835 psi Pad ISIP 4034 psi. FG 0.95 psi / ft 5 min 3654 psi.  Increased rate to 80 bpm. Pumped 2286 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 430 bbls. Ending rate 80 bpm @ 4000 psi. Pro technics Ran tracer during all sand stages.  Avg rate: 80 bpm Avg psi: 7643 psi Max rate: 80.9 bpm Max psi: 8559 psi ISIP: 3889 psi FG: 0.78 psi/ft  FTR= 25,553 bbls SIF= 335650 lbs. TSIF= 1,011,377 lbs

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/9/2014 00:00	2/9/2014 02:00	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage # 4 of 24. RIH & pump down Baker CFP & 5 each 3 3/8" guns. Set CFP @ 15,737'. Perforate intervals : 15,466' -68', 15,526' -28',15,586' -88', 15,646' - 48' & 15,706' - 08' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 5,600 psi. Line speed 300 ft/min.  Used 370 bbls FTR 25,923: bbls
2/9/2014 02:00	2/9/2014 04:00	2	COMPL	Other operations	OTHR	WSI while fracing the 24H stage #4.
2/9/2014 04:00	2/9/2014 06:00	2	COMPL	Frac	STIM	FRAC STG # 4 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 32 bbls 15% HCL, 365259 lbs.40/70 brown sand &7851 bbls of hybrid fluid linear/xlink down 5.5" csg.  Formation broke @ 20 bpm @ 4887 psi. Acid on form @ 40 bpm @ 4819 psi. Acid cleared @ 50 bpm @ 4979 psi.  Step down: 80 bpm @ 7820 psi 60 bpm @ 6422 psi 40 bpm @ 5382 psi 20 bpm @ 4611 psi Pad ISIP 4075 psi. FG 0.90 psi / ft 5 min 3588 psi.  Increased rate to 81.8 bpm. Pumped 2286 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 424 bbls. Ending rate 80 bpm @ xxxx psi. Pro technics Ran tracer during all sand stages.  Avg rate: 80.3 bpm Avg psi: 7800 psi Max rate: 81.8 bpm Max psi: 8520 psi ISIP: 4121 psi FG: 0.95 psi/ft  FTR= 33774 bbls SIF= 365259 lbs. TSIF= 1,376,636 lbs

**Report #: 11 Daily Operation: 2/9/2014 06:00 - 2/10/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082	
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	Pioneer Pumping Services, SWAT 1	
69	11	-23.5					

#### Operations Summary

Perf stage #5  
Frac stage #5  
Perf stage #6  
Frac stage #6  
Perf stage #7  
Frac stage #7  
Perf stage #8.  
Fracing stage #8 at report time.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Downtime: 0 hrs Cum tot: 0 hrs  
Weather Downtime: 0 hrs Cum tot:41 hrs

FTR-58908 Bbls

RT-

CR-

LTR- 58908 Bbls

TSIF: 2,385,723 LBS

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/9/2014 06:00	2/9/2014 08:45	2.75	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage # 5 of 24. RIH & pump down Baker CFP & 5 each 3 3/8" guns. Set CFP @ 15,437'. Perforate intervals : 15,406' -08', 15,346' -48',15,286' -88', 15,226' - 28' & 15,166' - 68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 5500 psi. Line speed 300 ft/min.  Used 350 bbls FTR 34124: bbls
2/9/2014 08:45	2/9/2014 11:45	3	COMPL	Other operations	OTHR	WSI while fracing the 24H stage #5. Wait on PPS to prime up and pressure test, fix leaks, chang valve out on the bleed off line and set pop offs.
2/9/2014 11:45	2/9/2014 14:00	2.25	COMPL	Frac	STIM	FRAC STG # 5 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 46 bbls 15% HCL. 336,964 lbs.30/50 brown sand & 8591 bbls of hybrid fluid linear/xlink down 5.5" csg.  Formation broke @ 20 bpm @ 5,251 psi. Acid on form @ 40 bpm @ 6,480 psi. Acid cleared @ 50 bpm @ 6,110 psi.  Step down: 80 bpm @ 7551 psi 60 bpm @ 6470 psi 40 bpm @ 5386 psi 20 bpm @ 4484 psi Pad ISIP 3935 psi. FG .88 psi / ft 5 min 3,654 psi.  Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 435 bbls. Ending rate 80 bpm @ 7888 psi. Pro technics Ran tracer during all sand stages.  Avg rate: 74 bpm Avg psi: 7862 psi Max rate: 81 bpm Max psi: 8596 psi ISIP: 3951 psi FG: .88 psi/ft  FTR= 42,715 bbls SIF= 336,964 lbs. TSIF= 1,713,600 lbs
2/9/2014 14:00	2/9/2014 16:00	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage #6 of 24. RIH & pump down Baker CFP & 5 each 3 3/8" guns. Set CFP @ 15,137'. Perforate intervals : 15,106' -08', 15,046' -48',14,986' -88', 14,926' - 28' & 14,866' - 68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 6200 psi. Line speed 300 ft/min.  Used 403 bbls FTR 43,118: bbls
2/9/2014 16:00	2/9/2014 17:30	1.5	COMPL	Other operations	OTHR	WSI while fracing the 24H stage #6.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/9/2014 17:30	2/9/2014 19:45	2.25	COMPL	Frac	STIM	<p>FRAC STG # 6 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 47 bbls 15% HCL, 335,444 lbs.30/50 brown sand &amp; 7,560 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 5,001 psi. Acid on form @ 40 bpm @ 5,342 psi. Acid cleared @ 50 bpm @ 6,870 psi.</p> <p>Step down: 80 bpm @ 7,596 psi 60 bpm @ 6,438 psi 40 bpm @ 5,365 psi 20 bpm @ 4,494 psi Pad ISIP 4,128 psi. FG .91 psi / ft 5 min 3,809 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 404 bbls. Ending rate 80 bpm @ 8,832 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 79.9 bpm Avg psi: 7,597 psi Max rate: 81 bpm Max psi: 8,326 psi ISIP: 3,992 psi FG: .89 psi/ft</p> <p>FTR= 50,678 bbls SIF= 335,444 lbs. TSIF= 2,049,044 lbs</p>
2/9/2014 19:45	2/9/2014 21:45	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #7 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 3/8" guns. Set CFP @ 14,837'. Perforate intervals : 14,806' -08', 14,746' -48', 14,686' -88', 14,626' - 28' &amp; 14,566' - 68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL. Pump down @ 15 bpm / 5300 psi. Line speed 300 ft/min.</p> <p>Used 352 bbls FTR 51030: bbls</p>
2/9/2014 21:45	2/9/2014 23:45	2	COMPL	Other operations	OTHR	WSI while fracing the 24H stage #6.
2/9/2014 23:45	2/10/2014 01:45	2	COMPL	Frac	STIM	<p>FRAC STG # 7 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 39 bbls 15% HCL, 336,679 lbs.30/50 brown sand &amp; 7,593 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4,875 psi. Acid on form @ 40 bpm @ 5,026 psi. Acid cleared @ 50 bpm @ 6,064 psi.</p> <p>Step down: 80 bpm @ 8,636 psi 60 bpm @ 6,762 psi 40 bpm @ 5,432 psi 20 bpm @ 4,389 psi Pad ISIP 3,860 psi. FG .88 psi / ft 5 min 3,430 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 404 bbls. Ending rate 80.7 bpm @ 6987 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 81.3 bpm Avg psi: 7,571 psi Max rate: 80 bpm Max psi: 8,220 psi ISIP: 4,019 psi FG: .89 psi/ft</p> <p>FTR=7,593 bbls SIF= 336,679 lbs. TSIF= 2,385,723 lbs</p>



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/10/2014 01:45	2/10/2014 03:45	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage #8 of 24. RIH & pump down Baker CFP & 5 each 3 3/8" guns. Set CFP @ 14,537'. Perforate intervals : 14,506' -08', 14,446' -48', 14,386' -88', 14,326' -28' & 14,266' -68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 5800 psi. Line speed 300 ft/min.  Used 285 bbls FTR-58908: bbls
2/10/2014 03:45	2/10/2014 05:30	1.75	COMPL	Other operations	OTHR	WSI while fracing the 24H stage #6.
2/10/2014 05:30	2/10/2014 06:00	0.5	COMPL	Frac	STIM	Fracing stage #8 at report time.

**Report #: 12 Daily Operation: 2/10/2014 06:00 - 2/11/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
70	12	-23.5			Pioneer Pumping Services, SWAT 1	

#### Operations Summary

Frac stage #8  
Perf stage #9  
Frac stage #9  
Perf stage #10  
Frac stage #10  
Perf. stage #11  
Frac stg #11.  
RIH to perf stage #12 and can't move at all. Going to lay down and un-thaw grease head with steamer.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Downtime: 0 hrs Cum tot: 0 hrs  
Weather Downtime: 0 hrs Cum tot: 41 hrs

FTR-89,948 Bbls

RT-

CR-

LTR- 89,948 Bbls

TSIF: 3,728,663 LBS

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/10/2014 06:00	2/10/2014 08:15	2.25	COMPL	Frac	STIM	<p>FRAC STG # 8 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 42 bbls 15% HCL, 335,283 lbs.30/50 brown sand &amp; 7,585 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4720 psi. Acid on form @ 40 bpm @ 5262 psi. Acid cleared @ 50 bpm @ 6,288 psi.</p> <p>Step down: 80 bpm @ 7249 psi 60 bpm @ 6106 psi 40 bpm @ 5164 psi 20 bpm @ 4380 psi Pad ISIP 3924 psi. FG 0.88 psi / ft 5 min 3740 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 397 bbls. Ending rate 80 bpm @ 7580 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 80 bpm Avg psi: 7277 psi Max rate: 80 bpm Max psi: 7941 psi ISIP: 4361 psi FG: 0.93 psi/ft</p> <p>FTR= 66,493 bbls SIF= 335,283 lbs. TSIF= 2,721,006 lbs</p>
2/10/2014 08:15	2/10/2014 10:15	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #9 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 3/8" guns. Set CFP @ 14,244 '. Perforate intervals : 14,206' -08', 14,146' -48',14,086' -88', 14,026'- 28' &amp; 13,966' - 68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 5200 psi. Line speed 300 ft/min.</p> <p>Used 317 bbls FTR- 66,810 bbls</p>
2/10/2014 10:15	2/10/2014 12:45	2.5	COMPL	Other operations	OTHR	WSI while fracing the 24H stage #9.
2/10/2014 12:45	2/10/2014 14:45	2	COMPL	Frac	STIM	<p>FRAC STG # 9 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 43 bbls 15% HCL, 336,157 lbs.30/50 brown sand &amp; 7,561 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4,787 psi. Acid on form @ 40 bpm @ 5385 psi. Acid cleared @ 50 bpm @ 5799 psi.</p> <p>Step down: 80 bpm @ 6891 psi 60 bpm @ 5889 psi 40 bpm @ 5032 psi 20 bpm @ 4335 psi Pad ISIP 3884 psi. FG 0.87 psi / ft 5 min 3665 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 383 bbls. Ending rate 80 bpm @ 7584 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 80 bpm Avg psi: 7270 psi Max rate: 80 bpm Max psi: 7857 psi ISIP: 4061 psi FG: 0.89 psi/ft</p> <p>FTR= 74,371 bbls SIF= 336,157 lbs. TSIF= 3,057,163 lbs</p>

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/10/2014 14:45	2/10/2014 16:45	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage #10 of 24. RIH & pump down Baker CFP & 5 each 3 3/8" guns. Set CFP @ 13,937'. Perforate intervals : 13,906' -08', 13,846' -48', 13,786' -88', 13,726' - 28' & 13,666' - 68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 6600 psi. Line speed 300 ft/min.  Used 299 bbls FTR- 74,670 bbls
2/10/2014 16:45	2/10/2014 18:30	1.75	COMPL	Other operations	OTHR	WSI while fracing the 24H
2/10/2014 18:30	2/10/2014 20:30	2	COMPL	Frac	STIM	FRAC STG # 10 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perms per schedule w/ 32 bbls 15% HCL, 335523 lbs.30/50 brown sand & 7523 bbls of hybrid fluid linear/xlink down 5.5" csg.  Formation broke @ 20 bpm @ 5384 psi. Acid on form @ 40 bpm @ 4871 psi. Acid cleared @ 50 bpm @ 5019 psi.  Step down: 80 bpm @ 7155 psi 60 bpm @ 6163 psi 40 bpm @ 5209 psi 20 bpm @ 4496 psi Pad ISIP 4038 psi. FG 0.89 psi / ft 5 min 3790 psi.  Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 397 bbls. Ending rate 81 bpm @ 7356 psi. Pro technics Ran tracer during all sand stages.  Avg rate: 74 bpm Avg psi: 7490 psi Max rate: 81 bpm Max psi: 7935 psi ISIP: 3962 psi FG: 0.89 psi/ft  FTR= 82,193 bbls SIF= 335,523 lbs. TSIF= 3,392,686 lbs
2/10/2014 20:30	2/10/2014 22:30	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage #11 of 24. RIH & pump down Baker CFP & 5 each 3 1/8" guns. Set CFP @ 13,637'. Perforate intervals : 13,606' -08', 13,546' -48', 13,486' -88', 13,426' - 28' & 13,366' - 68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 3,600 psi. Line speed 300 ft/min.  Used 259 bbls FTR- 82,452 bbls
2/10/2014 22:30	2/11/2014 00:15	1.75	COMPL	Other operations	OTHR	WSI while fracing the 24H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/11/2014 00:15	2/11/2014 02:15	2	COMPL	Frac	STIM	<p>FRAC STG # 11 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 30 bbls 15% HCL, 335977 lbs.30/50 brown sand &amp; 7496 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4888 psi. Acid on form @ 40 bpm @ 4142 psi. Acid cleared @ 50 bpm @ 4413 psi.</p> <p>Step down: 80 bpm @ 6774 psi 60 bpm @ 5904 psi 40 bpm @ 5112 psi 20 bpm @ 4219 psi Pad ISIP 3951 psi. FG 0.88 psi / ft 5 min 3732 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 395 bbls. Ending rate 81 bpm @ 5867 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 72 bpm Avg psi: 7424 psi Max rate: 80 bpm Max psi: 7608 psi ISIP: 4200 psi FG: 0.91 psi/ft</p> <p>FTR= 89,948 bbls SIF= 335977 lbs. TSIF= 3728663 lbs</p>
2/11/2014 02:15	2/11/2014 06:00	3.75	UNPLANNED	Waiting on Weather	U_WOW	RIH w WL to perf stage #12 and can't move up or down. Grease head froze up. Going to lay down and thaw out lube with steamer.

### Report #: 13 Daily Operation: 2/11/2014 06:00 - 2/12/2014 06:00

Job Category ORIG COMPLETION	Primary Job Type OCM	AFE Number 029082
Days From Spud (days) 71	Days on Location (days) 13	End Depth (ftGRD) -23.5
End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1

#### Operations Summary

Layed down and un-thaw grease head with steamer.  
Perf stage #12  
Frac stg #12.  
Perf stg #13. Had mis-run 2 top guns didn't fire. RIH perf agin 2nd attempt successful.  
Frac stg #13  
Perf stg #14

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Downtime: 0 hrs Cum tot: 0 hrs  
Weather Downtime: 8 hrs Cum tot:49 hrs

FTR-105,921 Bbls

RT-

CR-

LTR- 105,921 Bbls

TSIF: 4,403,926 LBS

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/11/2014 06:00	2/11/2014 08:00	2	COMPL	Other operations	OTHR	Finish Frac stage #11 on the 24H. Layed down and un-thaw grease head with steamer.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/11/2014 08:00	2/11/2014 10:30	2.5	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage #12 of 24. RIH & pump down Baker CFP & 5 each 3 1/8" guns. Set CFP @ 13,337'. Perforate intervals : 13,306' -08', 13,246' -48', 13,186' -88', 13,126' -28' & 13,066' -68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 5,400 psi. Line speed 300 ft/min.  Used 257 bbls FTR- 90,205 bbls
2/11/2014 10:30	2/11/2014 16:00	5.5	COMPL	Other operations	OTHR	WSI while thawing out risers
2/11/2014 16:00	2/11/2014 18:00	2	COMPL	Frac	STIM	FRAC STG # 12 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 33 bbls 15% HCL, 340,325 lbs.30/50 brown sand & 7,537 bbls of hybrid fluid linear/xlink down 5.5" csg.  Formation broke @ 20 bpm @ 4,710 psi. Acid on form @ 40 bpm @ 5,980 psi. Acid cleared @ 50 bpm @ 5,822 psi.  Step down: 80 bpm @ 6,128 psi 60 bpm @ 5,560 psi 40 bpm @ 4,880 psi 20 bpm @ 4,347 psi Pad ISIP 3,935 psi. FG 0.88 psi / ft 5 min 3,837 psi.  Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 369 bbls. Ending rate 80 bpm @ 7,081 psi. Pro technics Ran tracer during all sand stages.  Avg rate: 80.9 bpm Avg psi: 6,791 psi Max rate: 84.3 bpm Max psi: 7,430 psi ISIP: 3,868 psi FG: 0.87 psi/ft  FTR= 97,742 bbls SIF= 340,325 lbs. TSIF= 4,068,988 lbs
2/11/2014 18:00	2/11/2014 20:00	2	COMPL_UNPLN D	Wireline equipment failure, includes WL truck, lub	U_WL	Had mis-run POOH top 2 guns didn't fire. FIX problem and RIH to perf stage 13.
2/11/2014 20:00	2/11/2014 21:30	1.5	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage #13 of 24. RIH & pump down Baker CFP & 5 each 3 1/8" guns. Set CFP @ 13,037'. Perforate intervals : 13,006' -08', 12,946' -48', 12,886' -88', 12,826' -28' & 12,766' -68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 6,800 psi. Line speed 300 ft/min.  Used 495 bbls FTR-98,237 bbls
2/11/2014 21:30	2/12/2014 01:30	4	COMPL	Other operations	OTHR	WSI while fracing the 24H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/12/2014 01:30	2/12/2014 03:30	2	COMPL	Frac	STIM	<p>FRAC STG # 13 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 41 bbls 15% HCL, 334938 lbs.30/50 brown sand &amp; 7444 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 5172 psi. Acid on form @ 40 bpm @ 5302 psi. Acid cleared @ 50 bpm @ 5711 psi.</p> <p>Step down: 80 bpm @ 6558 psi 60 bpm @ 5640 psi 40 bpm @ 4961 psi 20 bpm @ 4481 psi Pad ISIP 3927 psi. FG 0.88 psi / ft 5 min 3467 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 383 bbls. Ending rate 80 bpm @ 6123 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 75 bpm Avg psi: 7167 psi Max rate: 80 bpm Max psi: 7411 psi ISIP: 3895psi FG: 0.88 psi/ft</p> <p>FTR= 105861 bbls SIF= 334938 lbs. TSIF= 4,068,988 lbs</p>
2/12/2014 03:30	2/12/2014 06:00	2.5	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #14 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 12,737'. Perforate intervals : 12,706' -08', 12,646' -48',12,586' -88', 12,526' -28' &amp; 12,466' -68' w/ 40 shots, 4 SPF, 60*, 25 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 5,600 psi. Line speed 300 ft/min.</p> <p>Used 240 bbls FTR-105,921 bbls</p>

**Report #: 14 Daily Operation: 2/12/2014 06:00 - 2/13/2014 06:00**

Job Category ORIG COMPLETION				Primary Job Type OCM		AFE Number 029082
Days From Spud (days) 72	Days on Location (days) 14	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

#### Operations Summary

Frac Stg 14  
 Perf Stg 15  
 Frac Stg 15  
 Perf Stg 16  
 Frac stg 16  
 Perf stg 17  
 Frac stg 17  
 Perf stg 18

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
 API WL Downtime: 0 hrs Cum tot: 0 hrs  
 RSI Downtime: 0 hrs Cum tot: 0 hrs  
 Select Downtime: 0 hrs Cum tot: 0 hrs  
 Weather Downtime: 0 hrs Cum tot:49 hrs

FTR-136903 Bbls

RT-

CR-

LTR- 136903 Bbls

TSIF: 5,745,867 LBS



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/12/2014 06:00	2/12/2014 08:45	2.75	COMPL	Frac	STIM	<p>FRAC STG # 14 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 38 bbls 15% HCL, 335,074 lbs.30/50 brown sand &amp; 7566 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4990 psi. Acid on form @ 40 bpm @ 5724 psi. Acid cleared @ 50 bpm @ 5685 psi.</p> <p>Step down: 80 bpm @ 6736 psi 60 bpm @ 5902 psi 40 bpm @ 5155 psi 20 bpm @ 4530 psi Pad ISIP 3862 psi. FG 0.88 psi / ft 5 min 3511 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 405 bbls. Ending rate 80 bpm @ 7153 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 80 bpm Avg psi: 6868 psi Max rate: 80 bpm Max psi: 7326 psi ISIP: 3973 psi FG: 0.89 psi/ft</p> <p>FTR= 113,487 bbls SIF= 335,074 lbs. TSIF= 4,739,000 lbs</p>
2/12/2014 08:45	2/12/2014 10:45	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #15 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 12,437'. Perforate intervals : 12,406' -08', 12,346' -48',12,286' -88', 12,226' -28' &amp; 12,166' -68' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 6000 psi. Line speed 300 ft/min.</p> <p>Used 201 bbls FTR- 113,688 bbls</p>
2/12/2014 10:45	2/12/2014 13:45	3	COMPL	Other operations	OTHR	WSI while fracing the 24H
2/12/2014 13:45	2/12/2014 16:15	2.5	COMPL	Frac	STIM	<p>FRAC STG # 15 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 33 bbls 15% HCL, 335,605 lbs.30/50 brown sand &amp; 7,835 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4762 psi. Acid on form @ 50 bpm @ 5780 psi. Acid cleared @ 60 bpm @ 5888 psi.</p> <p>Step down: 80 bpm @ 6508 psi 60 bpm @ 5661 psi 40 bpm @ 4947 psi 20 bpm @ 4399 psi Pad ISIP 3996 psi. FG 0.89 psi / ft 5 min 3812 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 349 bbls. Ending rate 80 bpm @ 6836 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 80 bpm Avg psi: 6601 psi Max rate: 82 bpm Max psi: 7106 psi ISIP: 4011 psi FG: 0.89 psi/ft</p> <p>FTR= 121,322 bbls SIF= 335,605 lbs. TSIF= 5,074,605 lbs</p>

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/12/2014 16:15	2/12/2014 18:15	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage #16 of 24. RIH & pump down Baker CFP & 5 each 3 1/8" guns. Set CFP @ 12,137'. Perforate intervals : 12,106' -08', 12,046' -48', 11,986' -88', 11,926' -28' & 11,866' -68' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 5400 psi. Line speed 300 ft/min.  Used 211 bbls FTR- 121,533 bbls
2/12/2014 18:15	2/12/2014 20:15	2	COMPL	Other operations	OTHR	WSI while fracing the 24H
2/12/2014 20:15	2/12/2014 22:45	2.5	COMPL	Frac	STIM	FRAC STG # 16 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 32 bbls 15% HCL, 335,538 lbs.30/50 brown sand & 7,430 bbls of hybrid fluid linear/xlink down 5.5" csg.  Formation broke @ 20 bpm @ 4,624 psi. Acid on form @ 50 bpm @ 4,973 psi. Acid cleared @ 60 bpm @ 5,850 psi.  Step down: 80 bpm @ 6,302 psi 60 bpm @ 5,424 psi 40 bpm @ 4,798 psi 20 bpm @ 4,357 psi Pad ISIP 3,742 psi. FG 0.86 psi / ft 5 min 3,453 psi.  Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 363 bbls. Ending rate 80 bpm @ 5,860 psi. Pro technics Ran tracer during all sand stages.  Avg rate: 70.6 bpm Avg psi: 6,299 psi Max rate: 80 bpm Max psi: 6,299 psi ISIP: 4,023 psi FG: 0.89 psi/ft  FTR= 128,963 bbls SIF= 335,538 lbs. TSIF= 5,410,143 lbs
2/12/2014 22:45	2/13/2014 00:45	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	RU API WL for Stage #17 of 24. RIH & pump down Baker CFP & 5 each 3 1/8" guns. Set CFP @ 11,837'. Perforate intervals : 11,806' -08', 11,746' -48', 11,686' -88', 11,626' -28' & 11,566' -68' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 5400 psi. Line speed 300 ft/min.  Used 180 bbls FTR-129133 bbls
2/13/2014 00:45	2/13/2014 02:45	2	COMPL	Other operations	OTHR	WSI while fracing the 24H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/13/2014 02:45	2/13/2014 04:45	2	COMPL	Frac	STIM	<p>FRAC STG # 17 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 37 bbls 15% HCL, 335,724 lbs.30/50 brown sand &amp; 7,391 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4,776 psi. Acid on form @ 50 bpm @ 5,438 psi. Acid cleared @ 60 bpm @ 6,395 psi.</p> <p>Step down: 80 bpm @ 6,276 psi 60 bpm @ 5,530 psi 40 bpm @ 4,826 psi 20 bpm @ 4,300 psi Pad ISIP 3,803 psi. FG 0.86 psi / ft 5 min 3,813 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 357 bbls. Ending rate 80 bpm @ 6,51 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 74 bpm Avg psi: 6,393 psi Max rate: 80 bpm Max psi: 7,332 psi ISIP: 3,892 psi FG: 0.87 psi/ft</p> <p>FTR= 136,524 bbls SIF= 335,724 lbs. TSIF= 5,745,867 lbs</p>
2/13/2014 04:45	2/13/2014 06:00	1.25	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #18 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 11,537'. Perforate intervals : 11,266' -68', 11,326' -28',11,386' -88', 11,446' -48' &amp; 11,506' -08' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 18 bpm / 5800 psi. Line speed 350 ft/min.</p> <p>Used 168 bbls FTR- 136903 bbls</p>

Report #: 15 Daily Operation: 2/13/2014 06:00 - 2/14/2014 06:00

Job Category ORIG COMPLETION				Primary Job Type OCM		AFE Number 029082
Days From Spud (days) 73	Days on Location (days) 15	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Pioneer Pumping Services, SWAT 1	

#### Operations Summary

Frac stg 18  
 Perf stg 19  
 Frac stg 19  
 Perf stg 20  
 Frac stg 20  
 Perf stg 21  
 Frac stg 21  
 Perf stg 22  
 Waiting on frac ops on the 24H at report time

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
 API WL Downtime: 0 hrs Cum tot: 0 hrs  
 RSI Downtime: 0 hrs Cum tot: 0 hrs  
 Select Downtime: 0 hrs Cum tot: 0 hrs  
 Weather Downtime: 0 hrs Cum tot:49 hrs

FTR- 164,488 Bbls

RT-

CR-

LTR- 164,488 Bbls

TSIF: 6,766,264 LBS

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/13/2014 06:00	2/13/2014 08:15	2.25	COMPL	Other operations	OTHR	WSI while fracing the 24H
2/13/2014 08:15	2/13/2014 10:15	2	COMPL	Frac	STIM	<p>FRAC STG # 18 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 41 bbls 15% HCL, 334,924 lbs.30/50 brown sand &amp; 7,490 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4,678 psi. Acid on form @ 30 bpm @ 5,950 psi. Acid cleared @ 60 bpm @ 5,703 psi.</p> <p>Step down: 80 bpm @ 6,150 psi 60 bpm @ 5,400 psi 40 bpm @ 4,781 psi 20 bpm @ 4,279 psi Pad ISIP 3,995 psi. FG 0.89 psi / ft 5 min 3,818 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 330 bbls. Ending rate 80 bpm @ 6,435 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 81 bpm Avg psi: 6,300 psi Max rate: 82 bpm Max psi: 6,791 psi ISIP: 4,082 psi FG: 0.90 psi/ft</p> <p>FTR= 144,392 bbls SIF= 338,698 lbs. TSIF= 6,084,565 lbs</p>
2/13/2014 10:15	2/13/2014 12:15	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #19 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 11,237'. Perforate intervals : 10,966' -68', 11,026' -28', 11,086' -88', 11,146' - 48' &amp; 11,206' - 08' w/ 40 shots, 4 SPF, 60", 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 4400 psi. Line speed 350 ft/min.</p> <p>Used 150 bbls FTR- 144,543 bbls</p>
2/13/2014 12:15	2/13/2014 15:00	2.75	COMPL	Other operations	OTHR	WSI while fracing the 24H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/13/2014 15:00	2/13/2014 17:00	2	COMPL	Frac	STIM	<p>FRAC STG # 19 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 37 bbls 15% HCL, 336,574 lbs.30/50 brown sand &amp; 7,448 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 5,262 psi. Acid on form @ 30 bpm @ 5,990 psi. Acid cleared @ 60 bpm @ 6,025 psi.</p> <p>Step down: 80 bpm @ 6,390 psi 60 bpm @ 5,640 psi 40 bpm @ 4,915 psi 20 bpm @ 4,335 psi Pad ISIP 3,946 psi. FG 0.88 psi / ft 5 min 3,629 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 323 bbls. Ending rate 80 bpm @ 6410 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 81 bpm Avg psi: 6756 psi Max rate: 81 bpm Max psi: 7181 psi ISIP: 3985 psi FG: 0.89 psi/ft</p> <p>FTR= 151,991 bbls SIF= 336,574 lbs. TSIF= 6,421,129 lbs</p>
2/13/2014 17:00	2/13/2014 19:00	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #20 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 10,937'. Perforate intervals : 10,666' -68', 10,726' -28',10,786' -88', 10,846' - 48' &amp; 10,906' - 08' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 5200 psi. Line speed 300 ft/min.</p> <p>Used 150 bbls</p> <p>FTR 152,141 bbls</p>
2/13/2014 19:00	2/13/2014 21:45	2.75	COMPL	Other operations	OTHR	WSI while fracing the 24H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/13/2014 21:45	2/13/2014 23:30	1.75	COMPL	Frac	STIM	<p>FRAC STG # 20 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perms w/ 74 total bbls 15% HCL (ran 2 shots of acid), 9168 lbs. 30/50 brown sand &amp; 4695 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 5680 psi. Acid on form @ 30 bpm @ 6880 psi. Acid cleared @ 60 bpm @ 6920 psi.</p> <p>Step down: 80 bpm @ 7288 psi 60 bpm @ 6235 psi 40 bpm @ 5391 psi 20 bpm @ 4729 psi Pad ISIP 4017 psi. FG 0.89 psi / ft 5 min 3756 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 597 bbls. Ending rate 60 bpm @ 8890 psi. Pro technics Ran tracer during all sand stages. Had to cut sand and flush well during the .5 ppg sand stage due to pressure increase. Could not get pressure to break back. Spoke to engineer and he called it a stage.</p> <p>Avg rate: 54 bpm Avg psi: 8070 psi Max rate: 78 bpm Max psi: 9531 psi ISIP: 3406 psi FG: 0.82 psi/ft</p> <p>FTR= 156,836 bbls SIF= 9168 lbs. TSIF= 6,430,297 lbs</p>
2/13/2014 23:30	2/14/2014 01:00	1.5	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #21 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 10,637'. Perforate intervals : 10,606' -68', 10,546' -28', 10,486' -88', 10,426' - 48' &amp; 10,366' - 08' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 7800 psi. Line speed 300 ft/min.</p> <p>Used 135 bbls</p> <p>FTR 156,971 bbls</p>
2/14/2014 01:00	2/14/2014 02:00	1	COMPL	Other operations	OTHR	WSI while fracing the 24H



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/14/2014 02:00	2/14/2014 04:00	2	COMPL	Frac	STIM	<p>FRAC STG # 21 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 36 bbls 15% HCL, 335,967 lbs.30/50 brown sand &amp; 7,397 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 5563 psi. Acid on form @ 50 bpm @ 7280 psi. Acid cleared @ 60 bpm @ 7450 psi.</p> <p>Step down: 80 bpm @ 6831 psi 60 bpm @ 5964 psi 40 bpm @ 5211 psi 20 bpm @ 4640 psi Pad ISIP 4060 psi. FG 0.90 psi / ft 5 min 3820 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 286 bbls. Ending rate 80 bpm @ 6771 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 72 bpm Avg psi: 7243 psi Max rate: 80 bpm Max psi: 8062 psi ISIP: 4039 psi FG: 0.89 psi/ft</p> <p>FTR= 164,368 bbls SIF= 335,967 lbs. TSIF= 6,430,297 lbs</p>
2/14/2014 04:00	2/14/2014 06:00	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #22 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 10,337'. Perforate intervals : 10,306' -68', 10,246' -28',10,4186' -88', 10,126'- 48' &amp; 10,066' -08' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 5300 psi. Line speed 300 ft/min.</p> <p>Used 120 bbls</p> <p>FTR 164,488 bbls</p>

**Report #: 16 Daily Operation: 2/14/2014 06:00 - 2/15/2014 06:00**

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	029082
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)
74	16	-23.5
End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig
		Pioneer Pumping Services, SWAT 1

#### Operations Summary

Frac stg 22  
Perf stg 23  
Frac stg 23  
Perf stg 24  
Frac stg 24  
Frac ops complete, WSI waiting on drill out.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Downtime: 0 hrs Cum tot: 0 hrs  
Weather Downtime: 0 hrs Cum tot:49 hrs

FTR- 186,397 Bbls

RT-

CR-

LTR- 186,397 Bbls

TSIF: 7,750,338 LBS

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/14/2014 06:00	2/14/2014 11:30	5.5	COMPL	Other operations	OTHR	WSI while fracing the 24H.
2/14/2014 11:30	2/14/2014 13:30	2	COMPL	Frac	STIM	<p>FRAC STG # 22 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 29 bbls 15% HCL, 329,607 lbs.30/50 brown sand &amp; 7,362 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4,724 psi. Acid on form @ 50 bpm @ 6,510 psi. Acid cleared @ 60 bpm @ 5,510 psi.</p> <p>Step down: 80 bpm @ 5,965 psi 60 bpm @ 5,355 psi 40 bpm @ 4,758 psi 20 bpm @ 4,288 psi Pad ISIP 3,944 psi. FG 0.88 psi / ft 5 min 3,725 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 279 bbls. Ending rate 80 bpm @ 6221 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 81 bpm Avg psi: 6,317 psi Max rate: 81 bpm Max psi: 6,857 psi ISIP: 4,240 psi FG: 0.92 psi/ft</p> <p>FTR= 171,850 bbls SIF= 329,607 lbs. TSIF= 7,095,871 lbs</p>
2/14/2014 13:30	2/14/2014 15:30	2	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #23 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 10,037'. Perforate intervals : 9,766' -68', 9,826' -28', 9,886' -88', 9,946' - 48' &amp; 10,006' - 08' w/ 40 shots, 4 SPF, 60", 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 5100 psi. Line speed 300 ft/min.</p> <p>Used 70 bbls</p> <p>FTR 171,920 bbls</p>
2/14/2014 15:30	2/14/2014 18:15	2.75	COMPL	Other operations	OTHR	WSI while fracing the 24H.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/14/2014 18:15	2/14/2014 20:45	2.5	COMPL	Frac	STIM	<p>FRAC STG # 23 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 34 bbls 15% HCL, 325,472 lbs.30/50 brown sand &amp; 7,163 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4785 psi. Acid on form @ 50 bpm @ 6100 psi. Acid cleared @ 60 bpm @ 5820 psi.</p> <p>Step down: 80 bpm @ 5885 psi 60 bpm @ 5235 psi 40 bpm @ 4693 psi 20 bpm @ 4274 psi Pad ISIP 3955 psi. FG 0.88 psi / ft 5 min 3684 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 273 bbls. Ending rate 80 bpm @ 6138 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 80 bpm Avg psi: 6376 psi Max rate: 81 bpm Max psi: 7079 psi ISIP: 4077 psi FG: 0.90 psi/ft</p> <p>FTR= 179,083 bbls SIF= 325,472 lbs. TSIF= 7,421,343 lbs</p>
2/14/2014 20:45	2/14/2014 22:00	1.25	COMPL	RIH w/WL, set plug and perf, POOH w/WL	PERF	<p>RU API WL for Stage #24 of 24. RIH &amp; pump down Baker CFP &amp; 5 each 3 1/8" guns. Set CFP @ 9,737'. Perforate intervals : 9,706' -68', 9,646' -28', 9,586' -88', 9,526' -48' &amp; 9,466' - 08' w/ 40 shots, 4 SPF, 60*, 23 GR, 0.42" EHD perf guns. 40 holes total. POOH. All shots fired. RD WL . Pump down @ 15 bpm / 5300 psi. Line speed 300 ft/min.</p> <p>Used 80 bbls</p> <p>FTR 179,163 bbls</p>
2/14/2014 22:00	2/15/2014 00:30	2.5	COMPL	Other operations	OTHR	WSI while fracing the 24H.
2/15/2014 00:30	2/15/2014 02:30	2	COMPL	Frac	STIM	<p>FRAC STG # 24 of 24: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 36 bbls 15% HCL, 328,995 lbs.30/50 brown sand &amp; 7234 bbls of hybrid fluid linear/xlink down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 4862 psi. Acid on form @ 50 bpm @ 6480 psi. Acid cleared @ 60 bpm @ 6540 psi.</p> <p>Step down: 80 bpm @ 6016 psi 60 bpm @ 5302 psi 40 bpm @ 4738 psi 20 bpm @ 4276 psi Pad ISIP 4024 psi. FG 0.89 psi / ft 5 min 3795 psi.</p> <p>Increased rate to 80 bpm. Pumped 2,286 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3.0 ppg. Flushed well with 265 bbls. Ending rate 80 bpm @ 6245 psi. Pro technics Ran tracer during all sand stages.</p> <p>Avg rate: 79 bpm Avg psi: 6491 psi Max rate: 80 bpm Max psi: 7567 psi ISIP: 4269 psi FG: 0.92 psi/ft</p> <p>FTR= 186,397 bbls SIF= 328,995 lbs. TSIF= 7,750,338 lbs</p>

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/15/2014 02:30	2/15/2014 06:00	3.5	COMPL	Other operations	OTHR	Frac ops complete, RDMO frac iron. WSI waiting on drill out.

### Report #: 17 Daily Operation: 2/15/2014 06:00 - 2/16/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 75	Days on Location (days) 17	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	

#### Operations Summary

WSI waiting on drill out.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Downtime: 0 hrs Cum tot: 0 hrs  
Weather Downtime: 0 hrs Cum tot: 49 hrs

FTR- 186,397 Bbls

RT-

CR-

LTR- 186,397 Bbls

TSIF: 7,750,338 LBS

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/15/2014 06:00	2/16/2014 06:00	24	COMPL	Other operations	OTHR	WSI, Wait on drill out ops.

### Report #: 18 Daily Operation: 2/16/2014 06:00 - 2/17/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 76	Days on Location (days) 18	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	

#### Operations Summary

WSI waiting on drill out.

#### Remarks

PPS Downtime: 0 hrs Cum tot: 0 hrs  
API WL Downtime: 0 hrs Cum tot: 0 hrs  
RSI Downtime: 0 hrs Cum tot: 0 hrs  
Select Downtime: 0 hrs Cum tot: 0 hrs  
Weather Downtime: 0 hrs Cum tot: 49 hrs

FTR- 186,397 Bbls

RT-

CR-

LTR- 186,397 Bbls

TSIF: 7,750,338 LBS

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/16/2014 06:00	2/17/2014 06:00	24	COMPL	Other operations	OTHR	WSI, Wait on drill out ops.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 19 Daily Operation: 2/23/2014 06:00 - 2/24/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 83	Days on Location (days) 19	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Key Coil Unit, # 1320123	

### Operations Summary

#### Safety Meeting

MIRU Key 2-3/8" Coil Unit, Heritage Flowback Equipment, Voyager Flare and Emerald Surf Mixing for Drillout Ops. RIH drilling plugs

#### Remarks

Key Energy Services Downtime: 1.5 hrs Cum 1.5 hrs.  
Voyager Energy Services Downtime: 0 hrs Cum 0 hrs  
Heritage Production Services Downtime: 0 hrs Cum 0 hrs.  
Oil States Downtime: 0 hrs. Cum 0 hrs.  
Emerald Surf Downtime: 0 hrs. Cum 0 hrs.

FTR -186,397

RT - -45

CR - -45

LTR - 186,442

TSIF - 8,375,623 lbs

### OIL STATES ( BHA )

Pick up BHA follows

	OD		ID	Length
Coil Connector	3.11	X	2	0.87
Dual Flapper Check Valves	2.88	X	1.1	1.21
CTT Bio Jar	2.88	X	1.18	5.90
T.J Diss Connect	2.88	X	0.65	2.12
X-Over	3.12	X		0.61
Temprees Screen	3.12	X		2.89
Temprees Tool	3.12	X		2.93
X-Over	3.12	X		0.56
X-Over	3.13	X		0.68
3-1/8 High Tourge Motor	3.12	X		11.37
X-Over	3.75	X		0.52
4-5/8 JZ Rock Bit / SN.# 1326904	4.625	X		0.48
Total BHA				30.14

KEY ROLL OFF BOXES  
IN USE FULL  
25449

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/23/2014 06:00	2/23/2014 08:00	2	COMPL	Other operations	OTHR	No Activity.
2/23/2014 08:00	2/23/2014 08:30	0.5	SAFETY	PRE-JOB SAFETY MEETING	SAFETY	PRE-JOB SAFETY MEETING on location for Drillout Ops with Key 2-3/8" Coil Unit.
2/23/2014 08:30	2/23/2014 17:00	8.5	MOBILIZATION	MIRU	MIRU	MIRU Key 2-3/8" Coil Unit, Heritage Flowback Equipment, Voyager Flare and Emerald Surf Mixing and Chemicals for Drillout Ops. RU Oil States BHA, Pull tested Coil Connector 2 X to 30,000lbs test ok. Tested upper BHA at 2 bpm @ 1200 psi , 3 bpm @ 3000 psi and 4 bpm @ 5000 psi. test ok. Then we did a low pressure test on the Coil Unit and surface iron to 500 psi. Then test lubricator against 2 chokes manifolds to 5000 psi test was good.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/23/2014 17:00	2/23/2014 18:30	1.5	COMPL	Milling plugs with coil tubing. Includes RIH w/mil	MILL	RIH with Key Coil Tubing Unit. and Oil States BHA as follows: OIL STATES ( BHA ) Pick up BHA follows  OD ID Length Coil Connector 3.11 X 2 0.87 Dual Flapper Check Valves 2.88 X 1.1 1.21 CTT Bio Jar 2.88 X 1.18 5.90 T.J Diss Connect 2.88 X 0.65 2.12 X-Over 3.12 X 0.61 Temprees Screen 3.12 X 2.89 Temprees Tool 3.12 X 2.93 X-Over 3.12 X 0.56 X-Over 3.13 X 0.68 3-1/8 High Tourge Motor 3.12 X 11.37 X-Over 3.75 X 0.52 4-5/8 JZ Rock Bit / SN.# 1326904 4.625 X 0.48  Total BHA 30.14
2/23/2014 18:30	2/23/2014 20:00	1.5	COMPL_UNPLN D	Downtime related to coil tubing unit	U_CT	SD @ 8000' due to Key CTU Computer in doghouse not working.
2/23/2014 20:00	2/23/2014 20:30	0.5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #24 @ 9,762' pumping 4.50 bpm/ 5,300 psi, returning 5.00 bpm/ 2100 psi. Drill time 13 Min. Pump 10 bbl dyed sweep
2/23/2014 20:30	2/23/2014 21:30	1	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #23 @ 10,060' pumping 3.50 bpm/ 4400 psi, returning 4.00 bpm/ 2100 psi. Drill time 13 Min. Pump 10 bbl dyed sweep
2/23/2014 21:30	2/23/2014 22:30	1	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #22 @ 10,364' pumping 3.50 bpm/ 4400 psi, returning 4.00 bpm/ 2400 psi. Drill time 12 min. Pump 10 bbl dyed sweep
2/23/2014 22:30	2/23/2014 23:00	0.5	COMPL	Milling plugs	MILL	RIH to tag CFP #21 Pump 20 bbl sweep.
2/23/2014 23:00	2/24/2014 00:45	1.75	COMPL	Milling plugs	MILL	POOH on short trip to 7500'
2/24/2014 00:45	2/24/2014 01:45	1	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #21 @ 10,653' pumping 3.50 bpm/ 4000 psi, returning 4.00 bpm/ 2100 psi. Drill time 11 min. Pump 10 bbl dyed sweep. Washed through moderate sand 10730-10780
2/24/2014 01:45	2/24/2014 02:30	0.75	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #20 @ 10,946' pumping 3.50 bpm/ 4100 psi, returning 4.00 bpm/ 2000 psi. Drill time 11 min. Pump 11 bbl dyed sweep
2/24/2014 02:30	2/24/2014 03:15	0.75	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #19 @ 11,250' pumping 3.50 bpm/ 4300 psi, returning 4.00 bpm/ 2000 psi. Drill time 13 min. Pump 10 bbl dyed sweep
2/24/2014 03:15	2/24/2014 03:45	0.5	COMPL	Milling plugs	MILL	RIH to tag CFP #18 @ 11,550 Pump 20 bbl sweep.
2/24/2014 03:45	2/24/2014 06:00	2.25	COMPL	Milling plugs	MILL	POOH on short trip to 7600'

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 20 Daily Operation: 2/24/2014 06:00 - 2/25/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 84	Days on Location (days) 20	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Key Coil Unit, # 1320123	

Operations Summary  
Drilling out plugs  
POOH to check BHA  
RIH and drill plugs 18-10

Remarks  
Key Energy Services Downtime: 1.5 hrs Cum 3.0 hrs.  
Voyager Energy Services Downtime: 0 hrs Cum 0 hrs  
Heritage Production Services Downtime: 1.25 hrs Cum 1.25 hrs.  
Oil States Downtime: 0 hrs. Cum 0 hrs.  
Emerald Surf Downtime: 0 hrs. Cum 0 hrs.

FTR -186,397

RT - 392

CR - 347

LTR - 186,050

TSIF - 8,375,623 lbs

OIL STATES ( BHA )  
Pick up BHA follows

	OD		ID	Length
Coil Connector	3.11	X	2	0.87
Dual Flapper Check Valves	2.88	X	1.1	1.21
CTT Bio Jar	2.88	X	1.18	5.90
T.J Diss Connect	2.88	X	0.65	2.12
X-Over	3.12	X		0.61
Temprees Screen	3.12	X		2.89
Temprees Tool	3.12	X		2.93
X-Over	3.12	X		0.56
X-Over	3.13	X		0.68
3-1/8 High Tourge Motor	3.12	X		11.37
X-Over	3.75	X		0.52
4-5/8 JZ Rock Bit / SN.# 1326904	4.625	X		0.48
Total BHA				30.14

SPRINT ROLL OFF BOXES  
IN USE FULL  
RT250341

KEY ROLL OFF BOXES  
IN USE FULL  
25449

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/24/2014 06:00	2/24/2014 06:15	0.25	SAFETY	PRE-JOB SAFETY MEETING	SAFETY	PRE-JOB SAFETY MEETING on location for Drillout Ops with Key 2-3/8" Coil Unit.
2/24/2014 06:15	2/24/2014 06:30	0.25	COMPL	Milling plugs	MILL	POOH on short trip to 7600'
2/24/2014 06:30	2/24/2014 07:15	0.75	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #18 @ 11,544' CTM pumping 3.50 bpm/ 4000 psi, returning 4.00 bpm/ WHP 2100 psi. Drill time 17 min. Pump 10 bbl dyed sweep. Wash to CFP #17.
2/24/2014 07:15	2/24/2014 08:00	0.75	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #17 @ 11,842' CTM pumping 3.50 bpm/ 4000 psi, returning 4.00 bpm/ WHP 2100 psi. Drill time 22 min. Pump 10 bbl dyed sweep. Wash to CFP #16.
2/24/2014 08:00	2/24/2014 09:30	1.5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #16 @ 12,119' CTM pumping 3.50 bpm/ 4100 psi, returning 4.00 bpm/ WHP 2100 psi. Drill time 20 min. Pump 10 bbl dyed sweep. Wash to CFP #15 with heavy sand returns.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/24/2014 09:30	2/24/2014 12:15	2.75	COMPL	Milling plugs	MILL	Tag CFP # 15 at 12,443' Send 10 bbl 75vis Gel sweep. 20 bbls after sweep exits coil, short Trip at 35 ft per min to 7,700'. Circulate sweep to surface before RIH to drill CFP # 15
2/24/2014 12:15	2/24/2014 13:30	1.25	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #15 @ 12,442 ' CTM pumping 3.50 bpm/ 4000 psi, returning 4.00 bpm/ WHP 2100 psi. Drill time 5 min. Pump 10 bbl dyed sweep. Wash to CFP #14 .
2/24/2014 13:30	2/24/2014 14:15	0.75	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #14 @ 12,740 ' CTM pumping 3.50 bpm/ 4000 psi, returning 4.00 bpm/ WHP 2100 psi. Drill time 12 min. Pump 10 bbl dyed sweep. Wash to CFP #13 .
2/24/2014 14:15	2/24/2014 14:45	0.5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #13 @ 13,033 ' CTM pumping 3.50 bpm/ 4000 psi, returning 4.00 bpm/ WHP 1900 psi. Drill time 10 min. Pump 10 bbl dyed sweep. Wash to CFP #12 .
2/24/2014 14:45	2/24/2014 18:30	3.75	COMPL	Milling plugs	MILL	Tag CFP # 12 at 13,327' Send 10 bbl 75vis Gel sweep. . POOH to surface to check BHA .
2/24/2014 18:30	2/24/2014 20:45	2.25	COMPL	Milling plugs	MILL	Function test BHA and inspect pipe. Cleaned plug catcher.
2/24/2014 20:45	2/24/2014 23:15	2.5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #12 @ 13314 ' CTM pumping 3.50 bpm/ 3800 psi, returning 4.00 bpm/ WHP 2000 psi. Drill time 3 min. Pump 10 bbl dyed sweep. Wash to CFP #11 .
2/24/2014 23:15	2/25/2014 00:00	0.75	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #11 @ 13615 ' CTM pumping 3.50 bpm/ 3800 psi, returning 4.00 bpm/ WHP 2000 psi. Drill time 9 min. Pump 10 bbl dyed sweep. Wash to CFP #10 .
2/25/2014 00:00	2/25/2014 00:30	0.5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #10 @ 13931 ' CTM pumping 3.50 bpm/ 4000 psi, returning 4.00 bpm/ WHP 2000 psi. Drill time 10 min. Pump 10 bbl dyed sweep. Wash to CFP #9 .
2/25/2014 00:30	2/25/2014 04:30	4	COMPL	Milling plugs	MILL	Tag CFP # 9 at 14,233' Send 20 bbl 75vis Gel sweep. Short trip to 7900
2/25/2014 04:30	2/25/2014 06:00	1.5	COMPL_UNPLN D	Downtime related to coil tubing unit	U_CT	While waiting for sweep to come around the CTU Power pack tractor went down.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 21 Daily Operation: 2/25/2014 06:00 - 2/26/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 85	Days on Location (days) 21	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Key Coil Unit, # 1320123	

### Operations Summary

CTU Powerpack Tractor went down. ( 3Hrs. Downtime ).

Drill out plugs 9 Thru. 4

Drilling #3 at report

### Remarks

Key Energy Services Downtime: 3 hrs Cum 6.0 hrs.

Voyager Energy Services Downtime: 0 hrs Cum 0 hrs

Heritage Production Services Downtime: 0 hrs Cum 1.25 hrs.

Oil States Downtime: 0 hrs. Cum 0 hrs.

Emerald Surf Downtime: 0 hrs. Cum 0 hrs.

FTR -186,397

RT - 382

CR - 729

LTR - 185,668

TSIF - 8,375,623 lbs

### OIL STATES ( BHA )

Pick up BHA follows

	OD		ID	Length
Coil Connector	3.11	X	2	0.87
Dual Flapper Check Valves	2.88	X	1.1	1.21
CTT Bio Jar	2.88	X	1.18	5.90
T.J Diss Connect	2.88	X	0.65	2.12
X-Over	3.12	X		0.61
Temprees Screen	3.12	X		2.89
Temprees Tool	3.12	X		2.93
X-Over	3.12	X		0.56
X-Over	3.13	X		0.68
3-1/8 High Tourge Motor	3.12	X		11.37
X-Over	3.75	X		0.52
4-5/8 JZ Rock Bit / SN.# 1326904	4.625	X		0.48
Total BHA				30.14

### SPRINT ROLL OFF BOXES

IN USE FULL  
RT250341

### KEY ROLL OFF BOXES

IN USE FULL  
25449 Note: ( Protechnics proppant tracers )

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/25/2014 06:00	2/25/2014 09:00	3	COMPL_UNPLN D	Downtime related to coil tubing unit	U_CT	Tag CFP # 9 at 14,223' CTM Send 20 bbl 75vis Gel sweep. Short trip to 7900', CTU Power pack tractor went down.
2/25/2014 09:00	2/25/2014 11:00	2	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #9 @14,220' CTM pumping 3.50 bpm/ 4000 psi, returning 4.2 bpm/ WHP 1900 psi. Drill time 20 min. Pump 10 bbl dyed sweep. Wash to CFP #8 .
2/25/2014 11:00	2/25/2014 12:00	1	COMPL	Milling plugs with coil tubing. Includes RIH w/mil	MILL	RIH to tag & drill CFP #8 @14,515' CTM pumping 3.50 bpm/ 4100 psi, returning 4.0 bpm/ WHP 1900 psi. Drill time 23 min. Pump 10 bbl dyed sweep. Wash to CFP #7 .
2/25/2014 12:00	2/25/2014 12:45	0.75	COMPL	Milling plugs with coil tubing. Includes RIH w/mil	MILL	RIH to tag & drill CFP #7 @14,515' CTM pumping 3.50 bpm/ 4100 psi, returning 4.1 bpm/ WHP 1900 psi. Drill time 12 min. Pump 10 bbl dyed sweep. Wash to CFP #6 . Started running pipe on pipe @ .25 gal/1000.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/25/2014 12:45	2/25/2014 17:30	4.75	COMPL	Milling plugs with coil tubing. Includes RIH w/mil	MILL	Tag CFP # 6 at 15,109' CTM Send 20 bbl 75vis Gel sweep. Short trip to 8,000'.
2/25/2014 17:30	2/25/2014 19:00	1.5	COMPL	Milling plugs	MILL	8,000' RIH to drill plug #6
2/25/2014 19:00	2/25/2014 20:00	1	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #6 @15,102' CTM pumping 3.50 bpm/ 4200 psi, returning 4.0 bpm/ WHP 1900 psi. Drill time 17 min. Pump 10 bbl dyed sweep. Wash to CFP #5 . running pipe on pipe @ .25 gal/1000.
2/25/2014 20:00	2/25/2014 21:00	1	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #5 @15,404' CTM pumping 3.50 bpm/ 3850 psi, returning 3.9 bpm/ WHP 2000 psi. Drill time 16 min. Pump 10 bbl dyed sweep. Wash to CFP #4 . running pipe on pipe @ .25 gal/1000.
2/25/2014 21:00	2/26/2014 02:00	5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #4 @15,706' CTM pumping 3.50 bpm/ 3900 psi, returning 3.8 bpm/ WHP 1900 psi. Drill time 25 min. Pump 10 bbl dyed sweep. Wash to CFP #3 . running pipe on pipe @ .25 gal/1000. RIH to to 15900 and locked up, PU 200' and wased back down showing little sand returns. Increased pipe on pipe to 0.30 gal/1000 and started short trip to 8100'
2/26/2014 02:00	2/26/2014 06:00	4	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #3 @ 15990' CTM Drilling on plug #3 at report

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 22 Daily Operation: 2/26/2014 06:00 - 2/27/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 86	Days on Location (days) 22	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Key Coil Unit, # 1320123	

### Operations Summary

Working to get weight on plug, pumped two pipe on pipe sweeps and one 10 bbl sweep, while picking up 100 thru 300'. Pump 10 bbl sweep, Unable to get motor to torque, pooh and check BHA motor free spinning, Change out DEF filters on coil tractor. Make up 2nd BHA and RIH to and Tag CFP#3 @ 16,089' CTM.

Drilled Out CFP# 3 Thru 1

TOOH @ 11,770' Report time.

### Remarks

Key Energy Services Downtime: 4 hrs Cum 10.0 hrs.  
Voyager Energy Services Downtime: 0 hrs Cum 0 hrs  
Heritage Production Services Downtime: 0 hrs Cum 1.25 hrs.  
Oil States Downtime: 11.5 hrs. Cum 11.5 hrs.  
Emerald Surf Downtime: 0 hrs. Cum 0 hrs.

FTR -186,397

RT - 355

CR - 1129

LTR - 185,313

TSIF - 8,375,623 lbs

### OIL STATES ( BHA )

Pick up BHA follows

	OD	ID	LENGTH	SN#
Coil Connector	3.11	2	0.85	145186
Dual Flapper Check Valves	2.88	1.1	1.21	49701
CTT Bio Jar	2.88	1.18	5.9	287655
T.J Diss Connect	2.88	0.65	2.12	133960
X-Over	3.12	0.61		64182
Temprees Screen	3.12	2.89		150
Temprees Tool	3.12	2.93		151
X-Over	3.12	0.56		N/A
X-Over	3.13	0.68		140089
3-1/8 High Tourge Motor	3.12	11.37		76683
X-Over	3.75	0.52		81484
4-5/8 JZ Rock Bit	4.625	0.48	1326904	
Total BHA #2				30.12

### SPRINT ROLL OFF BOXES

IN USE FULL  
RT250341 Note: ( Protechnics proppant tracers )

### KEY ROLL OFF BOXES

IN USE FULL  
OT-25445-(Dynamic) 25449 Note: ( Protechnics proppant tracers )

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/26/2014 06:00	2/26/2014 09:30	3.5	COMPL	Milling plugs	MILL	Working to get weight on plug, pumped two pipe on pipe sweeps and one 10 bbl sweep, while picking up 100 thru 300'. Surge backside in attempt to get pipe moving down. Sweep to surface did not see any increase in sand until sweep was out of pipe saw sand increase to moderate. Pumped 10 bbl sweep for short trip. Pumped sweep above EOC and start out of hole for short trip did not lose any PSI on coil when picked up off plug.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/26/2014 09:30	2/26/2014 16:00	6.5	COMPL	Milling plugs	MILL	POOH with coil pulling heavy, sand on top of bit, stop at 10,000' and pump 10 bbl sweep to sweep curve and clean sand off top of BHA.
2/26/2014 16:00	2/26/2014 17:15	1.25	COMPL	Other operations	OTHR	Bump up ( -77' on coil counter) shut well in bled wellhead down nipple down lubricator. Bit in good shape motor was bad rotor was free spinning. Break down BHA and checked coil for flat spots.
2/26/2014 17:15	2/26/2014 21:00	3.75	COMPL_UNPLN D	Downtime related to coil tubing unit	U_CT	Shut down coil unit to change out DEF filters.
2/26/2014 21:00	2/27/2014 01:00	4	COMPL_UNPLN D	Downtime related to motor failure from time off bt	U_MTR	Oil States Motor failure @ 15,991' POOH to surface cut 50' pipe and RU BHA with new Motor to 16,089'.
2/27/2014 01:00	2/27/2014 01:30	0.5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #3 @16,089' CTM pumping 3.50 bpm/ 4600 psi, returning 3.75 bpm/ WHP 2000 psi. Drill time 3 min. Pump 10 bbl dyed sweep. Wash to CFP #2 .
2/27/2014 01:30	2/27/2014 02:00	0.5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #2 @16,408' CTM pumping 3.50 bpm/ 4600 psi, returning 3.75 bpm/ WHP 2000 psi. Drill time 3 min. Pump 10 bbl dyed sweep. Wash to CFP #1 .
2/27/2014 02:00	2/27/2014 02:30	0.5	COMPL	Milling plugs	MILL	RIH to tag & drill CFP #1 @16,702' CTM pumping 3.50 bpm/ 4600 psi, returning 3.75 bpm/ WHP 2000 psi. Drill time 15 min. Pump 10 bbl dyed sweep. Wash down to Top of Sleeve @ 16,714 .
2/27/2014 02:30	2/27/2014 06:00	3.5	TRIP OUT HOLE	TOOH	TOOH	RIH to & tag Top of Sleeve @ 16,714 CTM pull up 20' . Run 20 bbl 90 Visc. Sweep followed by a 30 bbl spacer followed by another 20 bbl 90 Visc. Sweep. Started POOH after the 1st 20 bbl sweep was 20 bbls. above BHA at no more than 35 ft/ per/min. Sending a 3rd 20 bbl 90 Visc sweep at 10,000'. Following sweeps out of hole. At Report Time we are @ 11,700' from surface.

**Report #: 23 Daily Operation: 2/27/2014 06:00 - 2/28/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
87	23	-23.5			Key Coil Unit, # 1320123	

#### Operations Summary

POOH with BHA, Run tracer log.  
SWI RD CTU and move over to the 22H.

#### Remarks

Key Energy Services Downtime: 0 hrs Cum 10.0 hrs.  
Voyager Energy Services Downtime: 0 hrs Cum 0 hrs  
Heritage Production Services Downtime: 0 hrs Cum 1.25 hrs.  
Oil States Downtime: 0 hrs. Cum 11.5 hrs.  
Emerald Surf Downtime: 0 hrs. Cum 0 hrs.

FTR -186,442

RT - 68

CR - 1197

LTR - 185,245

TSIF - 8,375,623 lbs

#### SPRINT ROLL OFF BOXES

IN USE FULL  
RT250341 Note: ( Protechnics proppant tracers ) Sprint Energy ROLL OFF BOX

#### KEY ROLL OFF BOXES

IN USE FULL  
25449 Note: ( Protechnics proppant tracers ) Key ROLL OFF BOX  
OT-25445-(Dynamic) Note: ( Protechnics proppant tracers ) Key ROLL OFF BOX

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/27/2014 06:00	2/27/2014 08:15	2.25	COMPL	Milling plugs	MILL	POOH with BHA, pump 10 bbl sweep to sweep curve.
2/27/2014 08:15	2/27/2014 09:30	1.25	COMPL	Other operations	OTHR	Bump up, shut well in, bled wellhead down, nipple down lubricator, break down BHA, make up logging tools, nipple up lubricator, test 5k. equalize well open well and run in hole with logging tools.
2/27/2014 09:30	2/27/2014 22:30	13	COMPL	Production logging	LOGPRO D	Ran Spectra scan logs from 9,000' to 16,600', running in at 30 FPM. Ran spectra scan log from 16,000' to 9,000' running out at 30 FPM.
2/27/2014 22:30	2/27/2014 23:45	1.25	COMPL	Other operations	OTHR	Bump up secure well check log data,
2/27/2014 23:45	2/28/2014 00:45	1	COMPL	RURD any equipment: WL, EL, CT, etc.	RURD	RD coil unit and move to 22H for drill out.
2/28/2014 00:45	2/28/2014 06:00	5.25	COMPL	Other operations	OTHR	No activity well shut in ready for production tubing pending tube up ops on 24H.

**Report #: 24 Daily Operation: 2/28/2014 06:00 - 3/1/2014 06:00**

Job Category <b>ORIG COMPLETION</b>			Primary Job Type <b>OCM</b>			AFE Number <b>029082</b>
Days From Spud (days) <b>88</b>	Days on Location (days) <b>24</b>	End Depth (ftGRD) <b>-23.5</b>	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig <b>API, Wireline</b>	

#### Operations Summary

WSI Pending ops on 24H

#### Remarks

Key Energy Services Downtime: 0 hrs Cum 10.0 hrs.  
 Voyager Energy Services Downtime: 0 hrs Cum 0 hrs  
 Heritage Production Services Downtime: 0 hrs Cum 1.25 hrs.  
 Oil States Downtime: 0 hrs. Cum 11.5 hrs.  
 Emerald Surf Downtime: 0 hrs. Cum 0 hrs.

FTR - 186,442

RT - 68

CR - 1197

LTR - 185,245

TSIF - 8,375,623 lbs

#### SPRINT ROLL OFF BOXES

IN USE FULL  
 RT250341 Note: ( Protechnics proppant tracers ) Sprint Energy ROLL OFF BOX

#### KEY ROLL OFF BOXES

IN USE FULL  
 25449 Note: ( Protechnics proppant tracers ) Key ROLL OFF BOX  
 OT-25445-(Dynamic) Note: ( Protechnics proppant tracers ) Key ROLL OFF BOX

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
2/28/2014 06:00	3/1/2014 06:00	24	COMPL	Other operations	OTHR	WSI pending ops on 24H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

**Report #: 25 Daily Operation: 3/2/2014 06:00 - 3/3/2014 06:00**

Job Category ORIG COMPLETION				Primary Job Type OCM			AFE Number 029082	
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig			
90	25	-23.5			Mesa WOR, 10			

**Operations Summary**

RIH w/ GR/JB  
Set vision AS1X 5 1/2" packer

**Remarks**

API Down Time: 0 Hrs Cum Hrs 0

FTR - 186,442

RT - 68

CR - 1197

LTR - 185,245

TSIF - 8,375,623 lbs

Vision Oil Tools AS1X packer full bore mandrel w/ X-Profile Nipple 2.31" ID @ 8177' WLM

**Time Log Summary**

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
3/2/2014 06:00	3/2/2014 22:00	16	COMPL	Other operations	OTHR	WO ops to be completed on the 24H WO API to arrive. ETA 2230hrs
3/2/2014 22:00	3/3/2014 06:00	8	COMPL	Wireline operations to set packer	WLPK	MIRU API Wireline. NU Lubricator. MURIH w/CCL, 4.625" GR and JB. Run to a depth of 8200' WLM and corrolate off of marker joints. POOH w/GR and JB. MURIH w/ CCL & 5 1/2" (4.62" OD) AS1X Packer 2.31" Profile Full Bore Mandrel (Vision Oil Tools). Set Packer @ 8,177' WLM. POOH w/WL at report time.  Note: RIH with packer, we got stuck @ 2100+/- . Worked it up to 1600+/- . Could not come up anymore, but we could go down. Went down to depth and set packer @ 8177' WLM.

**Report #: 26 Daily Operation: 3/3/2014 06:00 - 3/4/2014 06:00**

Job Category ORIG COMPLETION				Primary Job Type OCM			AFE Number 029082	
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig			
91	26	-23.5			Mesa WOR, 10			

**Operations Summary**

MIRU MESA WOR. NU BOP w/ annular. Set catwalk, piperacks, and production tubing on piperacks. Tally tubing.

**Remarks**

API Down Time: 0 Hrs Cum Hrs 0  
Mesa Down Time: 0 Hrs Cum Hrs 0

FTR - 186,442

RT - 68

CR - 1197

LTR - 185,245

TSIF - 8,375,623 lbs

Vision Oil Tools AS1X packer full bore mandrel w/ X-Profile Nipple 2.31" ID @ 8177' WLM

**Time Log Summary**

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
3/3/2014 06:00	3/3/2014 07:00	1	R/U/R/D	RIG UP / RIG DOWN	RIG UP / RIG DOWN	RD API wireline.
3/3/2014 07:00	3/3/2014 16:00	9	UNPLANNED	Waiting on anything other than weather (orders, eq	U_WT	Waiting on MASA WOR.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
3/3/2014 16:00	3/3/2014 23:00	7	MOBILIZATION	MIRU	MIRU	MIRU MESA WOR. NU BOP w/ annular. Set catwalk, piperacks, and production tubing on piperacks. Tally tubing.
3/3/2014 23:00	3/4/2014 06:00	7	PROD1	Shut down for night	SDFN	WSI, no activity. All 3rd parties set up for 0600 for ESP installation and run production tubing.

**Report #: 27 Daily Operation: 3/4/2014 06:00 - 3/5/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days) 92	Days on Location (days) 27	End Depth (ftGRD) -23.5	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig Mesa WOR, 10	

#### Operations Summary

Started IH with Halliburton ESP, OD. of flanges was to big. Sent back to shop to mill to proper OD. TIH with production tubing. POOH standing up so dbls can be ran during ESP install.

#### Remarks

Mesa Down Time: 3 Hrs Cum Hrs 3

FTR -186,442

RT - 68

CR - 1197

LTR - 185,245

TSIF - 8,375,623 lbs

Vision Oil Tools AS1X packer full bore mandrel w/ X-Profile Nipple 2.31" ID @ 8177' WLM

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
3/4/2014 06:00	3/4/2014 06:15	0.25	SAFETY	PRE-JOB SAFETY MEETING	SAFETY	Held safety meeting (PPE and picking up pipe)
3/4/2014 06:15	3/4/2014 09:00	2.75	UNPLANNED	RIG RELATED PRBLMS (BOPE, ETC)	U_RIG	Fix air valve for slips
3/4/2014 09:00	3/4/2014 16:00	7	TRIP IN HOLE	TRIP IN HOLE	TIH	TIH w/ 240 jts 2-7/8 production tubing 7726'
3/4/2014 16:00	3/4/2014 18:00	2	PROD1	Pull out of hole	POOH	POOH w/ 240 jts 2-7/8 production tubing.
3/4/2014 18:00	3/5/2014 06:00	12	COMPL	Shut down for night	SDFN	SDFN, well secured. Wil resume ESP install @ 0600 hrs.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Report #: 28 Daily Operation: 3/5/2014 06:00 - 3/6/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 029082
Days From Spud (days)	Days on Location (days)	End Depth (ftGRD)	End Depth (TVD) (ftGRD)	Dens Last Mud (lb/gal)	Rig	
93	28	-23.5			Mesa WOR, 10	

### Operations Summary

Started IH with Halliburton ESP,  
Land tubing with ESP  
ND BOP and annular  
NU QCI wellhead w/ electric cable and cap string  
Pump out ceramic disc  
SWI turn over to production SIP 2,000 psi

### Remarks

Mesa Down Time: 0 Hrs Cum Hrs 3

FTR -186,442

RT - 68

CR - 1197

LTR - 185,245

TSIF - 8,375,623 lbs

Vision Oil Tools AS1X packer full bore mandrel w/ X-Profile Nipple 2.31" ID @ 8177' WLM

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
3/5/2014 06:00	3/5/2014 06:15	0.25	PROD1	SHARE	SFTY	Held Safety meeting with all crews on location
3/5/2014 06:15	3/5/2014 15:00	8.75	PROD1	Ran in hole	RIH	Picked up & ran ESP pump to 8100' (bottom of bullplug) / 3jts. of 2-7/8 tail pipe , ESP pump, and 248 jts. 2-7/8 production tubing. ( #4 electric cable and 1/4" Stainless steel capillary string were run with ESP.) Land tubing. Found split in insulation on wire. Pulled hanger and layed one joint out. Recut wire and hang tubing back.  251 jts.-2-7/8 tubing 1-ESP assymby 1-Bullplug 1-1/4" capillary string 1-#4 Electric cable 1-QCI wellhead
3/5/2014 15:00	3/5/2014 20:30	5.5	PROD1	Nipple up and down blow out preventer	NU/ND BOP	ND BOP and NU well head. / Tested well head
3/5/2014 20:30	3/5/2014 21:30	1	COMPL	Other operations	OTHR	Rigged up Globe's pump truck and blowed out disk at 3500psi. Shut in well pressure 2000 psi. Rig WOR down.
3/5/2014 21:30	3/6/2014 06:00	8.5	PROD1	OTHER	WSI	Turn well over to production.

### WELL DETAILS

Well Name UNIVERSITY 10-13 23H	API/UWI 42-383-38512-0000	Operator PIONEER NATURAL RESRC USA INC
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### Wellbore Hole Size

Section Des	Size (in)	Act Top (ftGRD)	Act Btm (ftGRD)	Start Date	End Date
Conductor	30	0.0	120.0	11/6/2013	11/6/2013
Surface	17 1/2	120.0	979.5	12/3/2013	12/3/2013
Intermediate	12 1/4	979.5	7,551.5	12/5/2013	12/9/2013
Production	8 1/2	7,551.5	16,767.5	12/29/2013	1/6/2014

### Conductor Casing

Run Date	Set Depth (ftGRD)				Centralizers			
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
Casing Joints	20	19.124	94.00				-23.5	-23.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Conductor Casing

Run Date 11/6/2013	Set Depth (ftGRD) 120.0	Centralizers						
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
Casing Joints	20	19.124	94.00	K-55	120.00	1	0.0	120.0

### Surface Casing

Set Depth (ftGRD)	Run Date	Centralizers						
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
Casing Joints	13 3/8	12.715	48.00	J-55	975.00	25	-998.5	-23.5
Set Depth (ftGRD)	Run Date	Centralizers						
979.5	12/4/2013							
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
Casing Joints	13 3/8	12.715	48.00	J-55	933.75	23	0.0	933.8
Float Collar	13 3/8	12.715	48.00	J-55	1.35	1	933.8	935.1
Casing Joints	13 3/8	12.715	48.00	J-55	42.88	1	935.1	978.0
Float Shoe	13 3/8	12.715	48.00	J-55	1.50	1	978.0	979.5

### Surface Casing Cement

Type Casing	String Surface, 979.5ftGRD	Cementing Start Date 12/4/2013	Cementing End Date 12/4/2013	Cementing Company SCHLUMBERGER	Top (ftGRD) 0.0	Btm (ftGRD) 979.5
Class Class C	Amount (sacks) 641	Yield (ft³/sack) 1.71	Density (lb/gal) 13.60			

### Intermediate Casing

Set Depth (ftGRD)	Run Date	Centralizers						
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
Casing Joints	9 5/8	8.835	40.00	L-80	7,525.00	189	-7,548.5	-23.5
Set Depth (ftGRD)	Run Date	Centralizers						
7,541.5	12/12/2013	40						
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
Casing Landing Joint	9 5/8	8.835	40.00	L-80	0.00	0	0.0	0.0
Casing Hanger	9 5/8	8.835	40.00	L-80	1.00	1	0.0	1.0
Casing Pup Joint	9 5/8	8.835	40.00	L-80	3.00	1	1.0	4.0
Casing Pup Joint	9 5/8	8.835	40.00	L-80	20.10	1	4.0	24.1
Casing Joints	9 5/8	8.835	40.00	L-80	2,840.97	62	24.1	2,865.0
Casing Rite Wrap	9 5/8	8.835	40.00	L-80	2,272.12	49	2,865.0	5,137.2
Casing Rite Wrap	9 5/8	8.835	40.00	L-80	47.13	1	5,137.2	5,184.3
Casing Joints	9 5/8	8.835	40.00	L-80	823.74	18	5,184.3	6,008.0
Casing Joints	9 5/8	8.755	43.50	L-80	1,442.95	31	6,008.0	7,451.0
Float Collar	9 5/8	8.755	43.50	L-80	1.20	1	7,451.0	7,452.2
Casing Joints	9 5/8	8.755	43.50	L-80	87.43	2	7,452.2	7,539.6
Float Shoe	9 5/8	8.755	43.50	L-80	1.90	1	7,539.6	7,541.5

### Intermediate Casing Cement

Type Casing	String Intermediate, 7,541.5ftGRD	Cementing Start Date 12/12/2013	Cementing End Date 12/12/2013	Cementing Company SCHLUMBERGER	Top (ftGRD) 0.0	Btm (ftGRD) 7,541.5
Class Express + CemNet	Amount (sacks) 0	Yield (ft³/sack)	Density (lb/gal) 9.50			
Class LITECRETE	Amount (sacks) 838	Yield (ft³/sack) 2.34	Density (lb/gal) 9.70			
Class Class H	Amount (sacks) 192	Yield (ft³/sack) 1.07	Density (lb/gal) 16.40			

### Production Casing

Set Depth (ftGRD)	Run Date	Centralizers						
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
Casing Joints	5 1/2	4.778	20.00	P-110	17,475.00	437	-17,498.5	-23.5
Set Depth (ftGRD)	Run Date	Centralizers						
16,724.5	1/13/2014							
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
MARKER JOINT	5 1/2	4.778	20.00	P-110	0.00	0	0.0	0.0
Casing Joints	5 1/2	4.778	20.00	P-110	0.00	0	0.0	0.0
LANDING JOINT	5 1/2	4.778	20.00	P-110	0.00	0	0.0	0.0
CASING HANGER	5 1/2	4.778	20.00	P-110	0.00	0	0.0	0.0
Casing Cut off	5 1/2	4.778	20.00	P-110	14.03	1	0.0	14.1
Casing Joints	5 1/2	4.778	20.00	P-110	7,828.98	189	14.1	7,843.0

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
MARKER JOINT	5 1/2	4.778	20.00	P-110	10.04	1	7,843.0	7,853.1
Casing Joints	5 1/2	4.778	20.00	P-110	170.96	4	7,853.1	8,024.0
MARKER JOINT	5 1/2	4.778	20.00	P-110	9.62	1	8,024.0	8,033.7
Casing Joints	5 1/2	4.778	20.00	P-110	8,564.05	205	8,033.7	16,597.7
PUP JOINT	5 1/2	4.778	20.00	P-110	7.53	1	16,597.7	16,605.2
TOE SLEEVE	5 1/2	4.778	20.00	P-110	5.33	1	16,605.2	16,610.6
PUP JOINT	5 1/2	4.778	20.00	P-110	7.45	1	16,610.6	16,618.0
MARKER JOINT	5 1/2	4.778	20.00	P-110	19.53	1	16,618.0	16,637.6
LATCH FLOAT COLLAR	5 1/2	0.000	20.00	P-110	2.25	1	16,637.6	16,639.8
Casing Joints	5 1/2	4.778	20.00	P-110	83.45	2	16,639.8	16,723.3
FLOAT SHOE	5 1/2	0.000	20.00	P-110	1.25	1	16,723.3	16,724.5

### Production Casing Cement

Type	String	Cementing Start Date	Cementing End Date	Cementing Company	Top (ftGRD)	Btm (ftGRD)
Casing	Production, 16,724.5ftGRD	1/13/2014	1/13/2014	SCHLUMBERGER	5,647.5	16,757.5
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
				11.90		
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
CemNET	1,594	1.64		12.50		
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
Acetic Acid				8.22		
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
Biocide water				8.32		

### Cement Squeeze

Description	Type	String	Cementing Start Date	Cementing End Date	Top (ftGRD)	Btm (ftGRD)
Amount (sacks)	Yield (ft³/sack)	Dens (lb/gal)				

### Perforations

Top (ftGRD)	Btm (ftGRD)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
9,442.5	9,444.5	Wolfcamp C1, Original Hole	4.0	8	Stage 24 Cluster 5
9,502.5	9,504.5	Wolfcamp C1, Original Hole	4.0	8	Stage 24 Cluster 4
9,562.5	9,564.5	Wolfcamp C1, Original Hole	4.0	8	Stage 24 Cluster 3
9,622.5	9,624.5	Wolfcamp C1, Original Hole	4.0	8	Stage 24 Cluster 2
9,682.5	9,684.5	Wolfcamp C1, Original Hole	4.0	8	Stage 24 Cluster 1
9,742.5	9,744.5	Wolfcamp C1, Original Hole	4.0	8	Stage 23 Cluster 5
9,802.5	9,804.5	Wolfcamp C1, Original Hole	4.0	8	Stage 23 Cluster 4
9,862.5	9,864.5	Wolfcamp C1, Original Hole	4.0	8	Stage 23 Cluster 3
9,922.5	9,924.5	Wolfcamp C1, Original Hole	4.0	8	Stage 23 Cluster 2
9,982.5	9,984.5	Wolfcamp C1, Original Hole	4.0	8	Stage 23 Cluster 1
10,042.5	10,044.5	Wolfcamp C1, Original Hole	4.0	8	Stage 22 Cluster 5
10,102.5	10,104.5	Wolfcamp C1, Original Hole	4.0	8	Stage 22 Cluster 4
10,162.5	10,164.5	Wolfcamp C1, Original Hole	4.0	8	Stage 22 Cluster 3
10,222.5	10,224.5	Wolfcamp C1, Original Hole	4.0	8	Stage 22 Cluster 2
10,282.5	10,284.5	Wolfcamp C1, Original Hole	4.0	8	Stage 22 Cluster 1
10,342.5	10,344.5	Wolfcamp C1, Original Hole	4.0	8	Stage 21 Cluster 5
10,402.5	10,404.5	Wolfcamp C1, Original Hole	4.0	8	Stage 21 Cluster 4
10,462.5	10,464.5	Wolfcamp C1, Original Hole	4.0	8	Stage 21 Cluster 3
10,522.5	10,524.5	Wolfcamp C1, Original Hole	4.0	8	Stage 21 Cluster 2
10,582.5	10,584.5	Wolfcamp C1, Original Hole	4.0	8	Stage 21 Cluster 1
10,642.5	10,644.5	Wolfcamp C1, Original Hole	4.0	8	Stage 20 Cluster 5
10,702.5	10,704.5	Wolfcamp C1, Original Hole	4.0	8	Stage 20 Cluster 4
10,762.5	10,764.5	Wolfcamp C1, Original Hole	4.0	8	Stage 20 Cluster 3
10,822.5	10,824.5	Wolfcamp C1, Original Hole	4.0	8	Stage 20 Cluster 2
10,882.5	10,884.5	Wolfcamp C1, Original Hole	4.0	8	Stage 20 Cluster 1
10,942.5	10,944.5	Wolfcamp C1, Original Hole	4.0	8	Stage 19 Cluster 5
11,002.5	11,004.5	Wolfcamp C1, Original Hole	4.0	8	Stage 19 Cluster 4
11,062.5	11,064.5	Wolfcamp C1, Original Hole	4.0	8	Stage 19 Cluster 3
11,122.5	11,124.5	Wolfcamp C1, Original Hole	4.0	8	Stage 19 Cluster 2
11,182.5	11,184.5	Wolfcamp C1, Original Hole	4.0	8	Stage 19 Cluster 1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Perforations

Top (ftGRD)	Btm (ftGRD)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
11,242.5	11,244.5	Wolfcamp C1, Original Hole	4.0	8	Stage 18 Cluster 5
11,302.5	11,304.5	Wolfcamp C1, Original Hole	4.0	8	Stage 18 Cluster 4
11,362.5	11,364.5	Wolfcamp C1, Original Hole	4.0	8	Stage 18 Cluster 3
11,422.5	11,424.5	Wolfcamp C1, Original Hole	4.0	8	Stage 18 Cluster 2
11,482.5	11,484.5	Wolfcamp C1, Original Hole	4.0	8	Stage 18 Cluster 1
11,542.5	11,544.5	Wolfcamp C1, Original Hole	4.0	8	Stage 17 Cluster 5
11,602.5	11,604.5	Wolfcamp C1, Original Hole	4.0	8	Stage 17 Cluster4
11,662.5	11,664.5	Wolfcamp C1, Original Hole	4.0	8	Stage 17 Cluster 3
11,722.5	11,724.5	Wolfcamp C1, Original Hole	4.0	8	Stage 17 Cluster 2
11,782.5	11,784.5	Wolfcamp C1, Original Hole	4.0	8	Stage 17 Cluster 1
11,842.5	11,844.5	Wolfcamp C1, Original Hole	4.0	8	Stage 16 Cluster 5
11,902.5	11,904.5	Wolfcamp C1, Original Hole	4.0	8	Stage 16 Cluster 4
11,962.5	11,964.5	Wolfcamp C1, Original Hole	4.0	8	Stage 16 Cluster 3
12,022.5	12,024.5	Wolfcamp C1, Original Hole	4.0	8	Stage 16 Cluster 2
12,082.5	12,084.5	Wolfcamp C1, Original Hole	4.0	8	Stage 16 Cluster 1
12,142.5	12,144.5	Wolfcamp C1, Original Hole	4.0	8	Stage 15 Cluster 5
12,202.5	12,204.5	Wolfcamp C1, Original Hole	4.0	8	Stage 15 Cluster 4
12,262.5	12,264.5	Wolfcamp C1, Original Hole	4.0	8	Stage 15 Cluster 3
12,322.5	12,324.5	Wolfcamp C1, Original Hole	4.0	8	Stage 15 Cluster 2
12,382.5	12,384.5	Wolfcamp C1, Original Hole	4.0	8	Stage 15 Cluster 1
12,442.5	12,444.5	Wolfcamp C1, Original Hole	4.0	8	Stage 14 Cluster 5
12,502.5	12,504.5	Wolfcamp C1, Original Hole	4.0	8	Stage 14 Cluster 4
12,562.5	12,564.5	Wolfcamp C1, Original Hole	4.0	8	Stage 14 Cluster3
12,622.5	12,624.5	Wolfcamp C1, Original Hole	4.0	8	Stage 14 Cluster 2
12,682.5	12,684.5	Wolfcamp C1, Original Hole	4.0	8	Stage 14 Cluster 1
12,742.5	12,744.5	Wolfcamp C1, Original Hole	4.0	8	Stage 13 Cluster 5
12,802.5	12,804.5	Wolfcamp C1, Original Hole	4.0	8	Stage 13 Cluster 4
12,862.5	12,864.5	Wolfcamp C1, Original Hole	4.0	8	Stage 13 Cluster 3
12,922.5	12,924.5	Wolfcamp C1, Original Hole	4.0	8	Stage 13 Cluster 2
12,982.5	12,984.5	Wolfcamp C1, Original Hole	4.0	8	Stage 13 Cluster 1
13,042.5	13,044.5	Wolfcamp C1, Original Hole	4.0	8	Stage 12 Cluster 5
13,102.5	13,104.5	Wolfcamp C1, Original Hole	4.0	8	Stage 12 Cluster 4
13,162.5	13,164.5	Wolfcamp C1, Original Hole	4.0	8	Stage 12 Cluster 3
13,222.5	13,224.5	Wolfcamp C1, Original Hole	4.0	8	Stage 12 Cluster 2
13,282.5	13,284.5	Wolfcamp C1, Original Hole	4.0	8	Stage 12 Cluster 1
13,342.5	13,344.5	Wolfcamp C1, Original Hole	4.0	8	Stage 11 Cluster 5
13,402.5	13,404.5	Wolfcamp C1, Original Hole	4.0	8	Stage 11 Cluster 4
13,462.5	13,464.5	Wolfcamp C1, Original Hole	4.0	8	Stage 11 Cluster 3
13,522.5	13,524.5	Wolfcamp C1, Original Hole	4.0	8	Stage 11 Cluster 2
13,582.5	13,584.5	Wolfcamp C1, Original Hole	4.0	8	Stage 11 Cluster 1
13,642.5	13,644.5	Wolfcamp C1, Original Hole	4.0	8	Stage 10 Cluster 5
13,702.5	13,704.5	Wolfcamp C1, Original Hole	4.0	8	Stage 10 Cluster 4
13,762.5	13,764.5	Wolfcamp C1, Original Hole	4.0	8	Stage 10 Cluster 3
13,822.5	13,824.5	Wolfcamp C1, Original Hole	4.0	8	Stage 10 Cluster 2
13,882.5	13,884.5	Wolfcamp C1, Original Hole	4.0	8	Stage 10 Cluster 1
13,942.5	13,944.5	Wolfcamp C1, Original Hole	4.0	8	Stage 9 Cluster 5
14,002.5	14,004.5	Wolfcamp C1, Original Hole	4.0	8	Stage 9 Cluster 4
14,062.5	14,064.5	Wolfcamp C1, Original Hole	4.0	8	Stage 9 Cluster 3
14,122.5	14,124.5	Wolfcamp C1, Original Hole	4.0	8	Stage 9 Cluster 2
14,182.5	14,184.5	Wolfcamp C1, Original Hole	4.0	8	Stage 9 Cluster 1
14,242.5	14,244.5	Wolfcamp C1, Original Hole	4.0	8	Stage 8 Cluster 5
14,302.5	14,304.5	Wolfcamp C1, Original Hole	4.0	8	Stage 8 Cluster 4
14,362.5	14,364.5	Wolfcamp C1, Original Hole	4.0	8	Stage 8 Cluster 3
14,422.5	14,424.5	Wolfcamp C1, Original Hole	4.0	8	Stage 8 Cluster 2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Perforations

Top (ftGRD)	Btm (ftGRD)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
14,482.5	14,484.5	Wolfcamp C1, Original Hole	4.0	8	Stage 8 Cluster 1
14,542.5	14,544.5	Wolfcamp C1, Original Hole	4.0	8	Stage 7 Cluster 5
14,602.5	14,604.5	Wolfcamp C1, Original Hole	4.0	8	Stage 7 Cluster 4
14,662.5	14,664.5	Wolfcamp C1, Original Hole	4.0	8	Stage 7 Cluster 3
14,722.5	14,724.5	Wolfcamp C1, Original Hole	4.0	8	Stage 7 Cluster 2
14,782.5	14,784.5	Wolfcamp C1, Original Hole	4.0	8	Stage 7 Cluster 1
14,842.5	14,844.5	Wolfcamp C1, Original Hole	4.0	8	Stage 6 Cluster 5
14,902.5	14,904.5	Wolfcamp C1, Original Hole	4.0	8	Stage 6 Cluster 4
14,962.5	14,964.5	Wolfcamp C1, Original Hole	4.0	8	Stage 6 Cluster 3
15,022.5	15,024.5	Wolfcamp C1, Original Hole	4.0	8	Stage 6 Cluster 2
15,082.5	15,084.5	Wolfcamp C1, Original Hole	4.0	8	Stage 6 Cluster 1
15,142.5	15,144.5	Wolfcamp C1, Original Hole	4.0	8	Stage 5 Cluster 5
15,202.5	15,204.5	Wolfcamp C1, Original Hole	4.0	8	Stage 5 Cluster 4
15,262.5	15,264.5	Wolfcamp C1, Original Hole	4.0	8	Stage 5 Cluster 3
15,322.5	15,324.5	Wolfcamp C1, Original Hole	4.0	8	Stage 5 Cluster 2
15,382.5	15,384.5	Wolfcamp C1, Original Hole	4.0	8	Stage 5 Cluster 1
15,442.5	15,444.5	Wolfcamp C1, Original Hole	4.0	8	Stage 4 Cluster 5
15,502.5	15,504.5	Wolfcamp C1, Original Hole	4.0	8	Stage 4 Cluster 4
15,562.5	15,564.5	Wolfcamp C1, Original Hole	4.0	8	Stage 4 Cluster 3
15,622.5	15,624.5	Wolfcamp C1, Original Hole	4.0	8	Stage 4 Cluster 2
15,682.5	15,684.5	Wolfcamp C1, Original Hole	4.0	8	Stage 4 Cluster 1
15,742.5	15,744.5	Wolfcamp C1, Original Hole	4.0	8	Stage 3 Cluster 5
15,802.5	15,804.5	Wolfcamp C1, Original Hole	4.0	8	Stage 3 Cluster 4
15,862.5	15,864.5	Wolfcamp C1, Original Hole	4.0	8	Stage 3 Cluster 3
15,922.5	15,924.5	Wolfcamp C1, Original Hole	4.0	8	Stage 3 Cluster 2
15,982.5	15,984.5	Wolfcamp C1, Original Hole	4.0	8	Stage 3 Cluster 1
16,042.5	16,044.5	Wolfcamp C1, Original Hole	4.0	8	Stage 2 Cluster 5
16,102.5	16,104.5	Wolfcamp C1, Original Hole	4.0	8	Stage 2 Cluster 4
16,162.5	16,164.5	Wolfcamp C1, Original Hole	4.0	8	Stage 2 Cluster 3
16,222.5	16,224.5	Wolfcamp C1, Original Hole	4.0	8	Stage 2 Cluster 2
16,282.5	16,284.5	Wolfcamp C1, Original Hole	4.0	8	Stage 2 Cluster 1
16,342.5	16,344.5	Wolfcamp C1, Original Hole	0.4	8	Stage 1 Cluster 5
16,402.5	16,404.5	Wolfcamp C1, Original Hole	0.4	8	Stage 1 Cluster 4
16,462.5	16,464.5	Wolfcamp C1, Original Hole	0.4	8	Stage 1 Cluster 3
16,522.5	16,524.5	Wolfcamp C1, Original Hole	0.4	8	Stage 1 Cluster 2
16,582.5	16,584.5	Wolfcamp C1, Original Hole	0.4	8	

### Stimulations & Treatments (Actual)

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/5/2014	STAGE 1	Pioneer Pumping Services	16,342.5	16,584.5	BROWN SAND Bulk Sand 336386 lb	8,387.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/7/2014	STAGE 2	Pioneer Pumping Services	16,042.5	16,284.5	BROWN SAND Bulk Sand 339341 lb	8,359.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/8/2014	STAGE 3	Pioneer Pumping Services	15,742.5	15,984.5	BROWN SAND Bulk Sand 335650 lb	8,002.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/9/2014	STAGE 4	Pioneer Pumping Services	15,442.5	15,684.5	BROWN SAND Bulk Sand 365259 lb	8,201.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/9/2014	STAGE 5	Pioneer Pumping Services	15,142.5	15,384.5	BROWN SAND Bulk Sand 336964 lb	8,994.00



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Stimulations & Treatments (Actual)

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/9/2014	STAGE 6	Pioneer Pumping Services	14,842.5	15,084.5	BROWN SAND Bulk Sand 230000 lb	7,911.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/10/2014	STAGE 7	Pioneer Pumping Services	14,542.5	14,784.5	BROWN SAND Bulk Sand 336679 lb	7,878.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/10/2014	STAGE 8	Pioneer Pumping Services	14,242.5	14,484.5	BROWN SAND Bulk Sand 335283 lb	7,902.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/10/2014	STAGE 9	Pioneer Pumping Services	13,942.5	14,184.5	BROWN SAND Bulk Sand 336157 lb	7,860.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/10/2014	STAGE 10	Pioneer Pumping Services	13,642.5	13,884.5	BROWN SAND Bulk Sand 335523 lb	7,782.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/11/2014	STAGE 11	Pioneer Pumping Services	13,342.5	13,584.5	BROWN SAND Bulk Sand 335977 lb	7,753.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/11/2014	STAGE 12	Pioneer Pumping Services	13,042.5	13,284.5	BROWN SAND Bulk Sand 340325 lb	8,032.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/11/2014	STAGE 13	Pioneer Pumping Services	12,742.5	12,984.5	BROWN SAND Bulk Sand 334938 lb	7,684.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/12/2014	STAGE 14	Pioneer Pumping Services	12,442.5	12,684.5	BROWN SAND Bulk Sand 335074 lb	7,767.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/12/2014	STAGE 15	Pioneer Pumping Services	12,142.5	12,384.5	BROWN SAND Bulk Sand 335605 lb	8,046.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/12/2014	STAGE 16	Pioneer Pumping Services	11,842.5	12,084.5	BROWN SAND Bulk Sand 335538 lb	7,431.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/13/2014	STAGE 17	Pioneer Pumping Services	11,542.5	11,784.5	BROWN SAND Bulk Sand 335724 lb	7,559.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/13/2014	STAGE 18	Pioneer Pumping Services	11,242.5	11,484.5	BROWN SAND Bulk Sand 334924 lb	7,640.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/13/2014	STAGE 19	Pioneer Pumping Services	10,942.5	11,184.5	BROWN SAND Bulk Sand 336574 lb	7,598.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/13/2014	STAGE 20	Pioneer Pumping Services	10,642.5	10,884.5	BROWN SAND Bulk Sand 9168 lb	4,830.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/14/2014	STAGE 21	Pioneer Pumping Services	10,342.5	10,584.5	BROWN SAND Bulk Sand 335967 lb	7,517.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/14/2014	STAGE 22	Pioneer Pumping Services	10,042.5	10,284.5	BROWN SAND Bulk Sand 329928 lb	7,432.00



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Stimulations & Treatments (Actual)

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/14/2014	STAGE 23	Pioneer Pumping Services	9,742.5	9,984.5	BROWN SAND Bulk Sand 325472 lb	7,243.00

#### <Comment?>, Wolfcamp C1, Original Hole

Date	Type	Stim/Treat Company	Min Top Depth (ftGRD)	Max Btm Depth (ftGRD)	Total Add Amount	Total Clean Volume (bbl)
2/15/2014	STAGE 24	Pioneer Pumping Services	9,442.5	9,684.5	BROWN SAND Bulk Sand 328995 lb	7,234.00

### Zones

Zone Name	Top (ftGRD)
Wolfcamp C1	

### Tubing Details

Tubing Description	Set Depth (ftGRD)	Run Date
Tubing	8,076.7	3/5/2014

### Tubing Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)
Tubing	2 7/8	6.50	L-80	7,842.20	248	0.0	7,842.2
ESP - Pump	4			18.20	1	7,842.2	7,860.4
ESP - Pump	4			17.61	1	7,860.4	7,878.0
ESP - Pump	4			19.00	1	7,878.0	7,897.0
ESP - Pump	4			20.43	1	7,897.0	7,917.4
Gasbypass	4			13.53	1	7,917.4	7,931.0
Seals	4			12.23	1	7,931.0	7,943.2
ESP - Motor	4.56			30.72	1	7,943.2	7,973.9
GRC Sensor	4.56			3.18	1	7,973.9	7,977.1
Desander	4.56			4.40	1	7,977.1	7,981.5
Tubing	2 7/8	6.50	L-80	94.73	3	7,981.5	8,076.2
Bull Plug 2-7/8	2 7/8			0.50	1	8,076.2	8,076.7

### Rod Strings

Rod Description	Set Depth (ftGRD)	Run Date
#4 Flat Electrical Cable	7,911.5	3/5/2014

### Rod Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftGRD)	Btm (ftGRD)	Make	Model	SN
#4 Flat Electrical Cable	1			7,911.50	1	0.0	7,911.5			

### Other In Hole

Des	Top (ftGRD)	Btm (ftGRD)	OD (in)	Run Date	Pull Date	Com	String	Wellbore
Composite Plug 1	16,594.5	16,596.5	4.89	2/1/2014	2/27/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 2	16,313.5	16,315.5	4.89	2/7/2014	2/27/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 3	16,013.5	16,015.5	4.89	2/8/2014	2/27/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 4	15,713.5	15,715.5	4.89	2/9/2014	2/25/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 5	15,413.5	15,415.5	4.89	2/9/2014	2/25/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 6	15,113.5	15,115.5	4.89	2/9/2014	2/25/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 7	14,813.5	14,815.5	4.89	2/9/2014	2/25/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 8	14,513.5	14,515.5	4.89	2/10/2014	2/25/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 9	14,213.5	14,215.5	4.89	2/10/2014	2/25/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 10	13,913.5	13,915.5	4.89	2/10/2014	2/25/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 11	13,613.5	13,615.5	4.89	2/10/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 12	13,313.5	13,315.5	4.89	2/11/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 13	13,013.5	13,015.5	4.89	2/11/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

### Other In Hole

Des	Top (ftGRD)	Btm (ftGRD)	OD (in)	Run Date	Pull Date	Com	String	Wellbore
Composite Plug 14	12,713.5	12,715.5	4.89	2/12/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 15	12,413.5	12,415.5	4.89	2/12/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 16	12,113.5	12,115.5	4.89	2/12/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 17	11,813.5	11,815.5	4.89	2/12/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 18	11,513.5	11,515.5	4.89	2/13/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 19	11,213.5	11,215.5	4.89	2/13/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 20	10,913.5	10,915.5	4.89	2/13/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 21	10,613.5	10,615.5	4.89	2/14/2014	2/24/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 22	10,313.5	10,315.5	4.89	2/14/2014	2/23/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 23	10,013.5	10,015.5	4.89	2/14/2014	2/23/2014		Production, 16,724.5ftGRD	Original Hole
Composite Plug 24	9,713.5	9,715.5	4.89	2/14/2014	2/23/2014		Production, 16,724.5ftGRD	Original Hole

### Well Tests

Description					Volume Oil Total (bbl)	Volume Gas Total (MCF)	Volume Water Total (bbl)	
BEFORE IP					4653.5	6,380.480	65659.4	
Start Date	End Date	Sz Dia Choke (in)	P Tub End (psi)	P Cas End (psi)	Com	Vol Oil Tot (bbl)	Vol Gas Tot (MCF)	Vol Water Tot (bbl)
3/6/2014		0.000	500.0	300.0	FL	278.0	277.000	4446.0
3/7/2014		0.000	340.0	205.0	FL	273.0	287.000	4812.0
3/8/2014		0.000	310.0	195.0	FL	193.0	196.000	3926.0
3/9/2014		0.000	355.0	175.0	FL	5.0	2.000	2265.0
3/10/2014		0.000	445.0	170.0	FL	156.0	163.000	2984.0
3/11/2014		0.000	185.0	150.0	SB	153.0	160.000	2740.0
3/12/2014		0.000	190.0	150.0	SB	152.7	125.450	2682.5
3/13/2014		0.000	190.0	155.0	SB	139.8	134.610	2315.5
3/14/2014		0.000	140.0	150.0	SB	159.2	161.680	2470.7
3/15/2014		0.000	150.0	150.0	SB	142.7	136.420	2228.2
3/16/2014		0.000	155.0	150.0	SB	111.0	51.000	1446.0
3/17/2014		0.000	140.0	150.0	SB	209.5	277.090	3026.2
3/18/2014		0.000	165.0	150.0	SB	160.4	123.270	1666.9
3/19/2014		0.000	155.0	150.0	SB	127.6	136.360	1576.4
3/20/2014		0.000	150.0	150.0	SB	111.0	121.000	1497.0
3/21/2014		0.000	150.0	150.0	SB	118.9	111.270	1420.4
3/22/2014		0.000	145.0	150.0	SB	107.0	93.000	1228.0
3/23/2014		0.000	150.0	150.0	SB	108.0	97.000	1175.0
3/26/2014		0.000	170.0	150.0	SB	114.0	1,166.400	116.4
3/27/2014		0.000	160.0	150.0	SB	61.0	53.000	757.0
3/28/2014		0.000	320.0	150.0	SB	40.0	29.000	536.0
3/29/2014		0.000	150.0	150.0	SB	138.0	147.000	1024.0
3/30/2014		0.000	330.0	150.0	SB	84.0	90.000	956.4
3/31/2014		0.000	250.0	150.0	SB	212.0	271.000	1920.0
4/1/2014		0.000	265.0	220.0	SB	220.8	253.200	2376.0
4/2/2014		0.000	150.0	140.0	SB	166.7	225.330	2440.0
4/3/2014		0.000	160.0	140.0	SB	174.0	234.000	2126.0
4/4/2014		0.000	155.0	145.0	SB	166.0	239.000	2031.0
4/5/2014		0.000	155.0	145.0	SB	156.0	253.000	1953.0
4/6/2014		0.000	160.0	150.0	SB	151.0	258.000	1912.0
4/7/2014		0.000	160.0	150.0	SB	139.2	254.400	1870.8

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Start Date	End Date	Sz Dia Choke (in)	P Tub End (psi)	P Cas End (psi)	Com	Vol Oil Tot (bbl)	Vol Gas Tot (MCF)	Vol Water Tot (bbl)
4/8/2014		0.000	220.0	125.0	SB	125.0	254.000	1735.0
<b>Directional Survey</b>								
Date			Description					
12/3/2013			MAIN HOLE SURVEY					
Date	MD (ftGRD)	Incl (°)	Azm (°)	TVD (ftGRD)	Unwrap Displace (ft)	Survey Company		
1/7/2014	-23.50	0.00	0.00	-23.50	0.00	Ryan Directional Services		
12/3/2013	173.50	0.10	292.00	173.50	0.17	Ryan Directional Services		
12/3/2013	203.50	0.20	334.70	203.50	0.25	Ryan Directional Services		
12/3/2013	295.50	0.50	286.00	295.50	0.77	Ryan Directional Services		
12/3/2013	386.50	0.80	268.80	386.49	1.79	Ryan Directional Services		
12/3/2013	478.50	2.10	235.80	478.46	4.04	Ryan Directional Services		
12/3/2013	569.50	2.50	226.80	569.39	7.68	Ryan Directional Services		
12/3/2013	659.50	3.60	234.80	659.26	12.46	Ryan Directional Services		
12/3/2013	751.50	4.30	236.20	751.04	18.80	Ryan Directional Services		
12/3/2013	842.50	3.50	238.20	841.83	24.98	Ryan Directional Services		
12/3/2013	910.50	3.50	242.70	909.70	29.13	Ryan Directional Services		
12/5/2013	1,024.50	3.70	237.90	1,023.48	36.28	Ryan Directional Services		
12/5/2013	1,115.50	3.10	234.50	1,114.32	41.68	Ryan Directional Services		
12/5/2013	1,210.50	1.70	233.60	1,209.23	45.66	Ryan Directional Services		
12/5/2013	1,304.50	1.80	225.40	1,303.19	48.52	Ryan Directional Services		
12/5/2013	1,398.50	1.90	222.90	1,397.14	51.55	Ryan Directional Services		
12/5/2013	1,492.50	1.90	240.90	1,491.09	54.63	Ryan Directional Services		
12/5/2013	1,586.50	1.60	243.80	1,585.04	57.50	Ryan Directional Services		
12/5/2013	1,680.50	1.90	255.70	1,679.00	60.36	Ryan Directional Services		
12/5/2013	1,774.50	2.20	279.80	1,772.94	63.65	Ryan Directional Services		
12/5/2013	1,868.50	2.40	246.60	1,866.87	67.26	Ryan Directional Services		
12/5/2013	1,962.50	2.90	241.20	1,960.77	71.60	Ryan Directional Services		
12/5/2013	2,056.50	3.60	247.60	2,054.62	76.92	Ryan Directional Services		
12/5/2013	2,150.50	3.20	249.20	2,148.45	82.50	Ryan Directional Services		
12/5/2013	2,244.50	2.00	253.20	2,242.35	86.76	Ryan Directional Services		
12/5/2013	2,338.50	0.40	269.90	2,336.33	88.72	Ryan Directional Services		
12/5/2013	2,433.50	0.20	62.20	2,431.33	88.92	Ryan Directional Services		
12/5/2013	2,527.50	0.40	25.70	2,525.33	89.39	Ryan Directional Services		
12/5/2013	2,621.50	0.70	53.30	2,619.33	90.26	Ryan Directional Services		
12/5/2013	2,715.50	0.80	23.30	2,713.32	91.45	Ryan Directional Services		
12/5/2013	2,809.50	1.00	37.70	2,807.31	92.92	Ryan Directional Services		
12/6/2013	2,904.50	1.10	34.30	2,902.29	94.66	Ryan Directional Services		
12/6/2013	2,998.50	1.00	26.90	2,996.27	96.38	Ryan Directional Services		
12/6/2013	3,092.50	1.10	31.30	3,090.26	98.10	Ryan Directional Services		
12/6/2013	3,186.50	1.10	27.40	3,184.24	99.90	Ryan Directional Services		
12/6/2013	3,281.50	0.80	30.00	3,279.23	101.48	Ryan Directional Services		
12/6/2013	3,470.50	0.70	16.50	3,468.21	103.93	Ryan Directional Services		
12/6/2013	3,564.50	0.50	17.40	3,562.21	104.92	Ryan Directional Services		
12/7/2013	3,658.50	0.40	20.80	3,656.20	105.66	Ryan Directional Services		
12/7/2013	3,753.50	0.50	77.80	3,751.20	106.31	Ryan Directional Services		
12/7/2013	3,847.50	0.60	88.60	3,845.20	107.21	Ryan Directional Services		
12/7/2013	3,941.50	1.00	80.70	3,939.19	108.52	Ryan Directional Services		
12/7/2013	4,036.50	1.10	73.20	4,034.17	110.26	Ryan Directional Services		
12/7/2013	4,130.50	0.80	54.80	4,128.16	111.80	Ryan Directional Services		
12/7/2013	4,224.50	0.80	79.20	4,222.15	113.08	Ryan Directional Services		
12/7/2013	4,318.50	0.70	78.30	4,316.14	114.31	Ryan Directional Services		
12/7/2013	4,412.50	0.60	104.40	4,410.14	115.35	Ryan Directional Services		
12/7/2013	4,507.50	0.60	93.90	4,505.13	116.34	Ryan Directional Services		
12/7/2013	4,602.50	0.60	140.30	4,600.13	117.25	Ryan Directional Services		
12/7/2013	4,696.50	0.70	136.40	4,694.12	118.32	Ryan Directional Services		
12/7/2013	4,790.50	0.60	132.90	4,788.11	119.39	Ryan Directional Services		

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Date	MD (ftGRD)	Incl (°)	Azm (°)	TVD (ftGRD)	Unwrap Displace (ft)	Survey Company
12/7/2013	4,884.50	0.60	142.40	4,882.11	120.37	Ryan Directional Services
12/7/2013	4,978.50	0.60	124.30	4,976.10	121.34	Ryan Directional Services
12/7/2013	5,072.50	0.20	81.20	5,070.10	121.96	Ryan Directional Services
12/7/2013	5,167.50	0.00	156.30	5,165.10	122.13	Ryan Directional Services
12/7/2013	5,261.50	0.50	256.90	5,259.10	122.54	Ryan Directional Services
12/8/2013	5,354.50	2.00	250.00	5,352.08	124.56	Ryan Directional Services
12/8/2013	5,543.50	1.80	261.50	5,540.97	130.80	Ryan Directional Services
12/8/2013	5,637.50	1.70	260.60	5,634.93	133.67	Ryan Directional Services
12/8/2013	5,732.50	1.60	272.50	5,729.89	136.39	Ryan Directional Services
12/8/2013	5,826.50	1.20	275.90	5,823.86	138.69	Ryan Directional Services
12/8/2013	5,920.50	1.40	268.00	5,917.84	140.81	Ryan Directional Services
12/8/2013	6,015.50	0.70	260.60	6,012.82	142.55	Ryan Directional Services
12/8/2013	6,109.50	0.80	250.20	6,106.81	143.78	Ryan Directional Services
12/8/2013	6,203.50	0.30	231.20	6,200.81	144.67	Ryan Directional Services
12/8/2013	6,298.50	0.30	202.30	6,295.81	145.15	Ryan Directional Services
12/8/2013	6,392.50	0.30	180.70	6,389.81	145.63	Ryan Directional Services
12/8/2013	6,486.50	0.50	153.40	6,483.80	146.27	Ryan Directional Services
12/8/2013	6,580.50	0.50	152.00	6,577.80	147.09	Ryan Directional Services
12/8/2013	6,675.50	0.40	120.70	6,672.80	147.81	Ryan Directional Services
12/8/2013	6,769.50	0.60	145.20	6,766.79	148.61	Ryan Directional Services
12/8/2013	6,863.50	0.80	123.50	6,860.79	149.74	Ryan Directional Services
12/8/2013	6,958.50	0.70	121.90	6,955.78	150.99	Ryan Directional Services
12/8/2013	7,052.50	0.90	130.00	7,049.77	152.29	Ryan Directional Services
12/8/2013	7,146.50	1.10	113.90	7,143.75	153.92	Ryan Directional Services
12/9/2013	7,240.50	1.10	133.60	7,237.74	155.70	Ryan Directional Services
12/9/2013	7,335.50	0.90	132.60	7,332.72	157.36	Ryan Directional Services
12/9/2013	7,429.50	0.70	122.10	7,426.71	158.66	Ryan Directional Services
12/9/2013	7,486.50	0.90	127.70	7,483.71	159.46	Ryan Directional Services
12/30/2013	7,563.50	1.10	121.00	7,560.70	160.80	Ryan Directional Services
12/30/2013	7,657.50	1.00	120.60	7,654.68	162.52	Ryan Directional Services
12/30/2013	7,751.50	1.10	106.90	7,748.67	164.23	Ryan Directional Services
12/31/2013	7,845.50	1.00	123.70	7,842.65	165.94	Ryan Directional Services
12/31/2013	7,940.50	0.80	110.10	7,937.64	167.42	Ryan Directional Services
12/31/2013	8,034.50	0.80	121.90	8,031.63	168.72	Ryan Directional Services
12/31/2013	8,065.50	2.30	171.10	8,062.62	169.50	Ryan Directional Services
12/31/2013	8,097.50	5.60	186.70	8,094.54	171.69	Ryan Directional Services
12/31/2013	8,128.50	7.70	186.70	8,125.33	175.28	Ryan Directional Services
12/31/2013	8,159.50	11.10	185.70	8,155.91	180.34	Ryan Directional Services
12/31/2013	8,190.50	14.30	184.40	8,186.14	187.16	Ryan Directional Services
12/31/2013	8,222.50	17.10	184.80	8,216.95	195.82	Ryan Directional Services
12/31/2013	8,253.50	19.00	183.60	8,246.42	205.42	Ryan Directional Services
12/31/2013	8,285.50	20.70	183.20	8,276.52	216.28	Ryan Directional Services
12/31/2013	8,316.50	23.10	184.00	8,305.28	227.85	Ryan Directional Services
12/31/2013	8,348.50	25.50	182.70	8,334.44	241.01	Ryan Directional Services
12/31/2013	8,379.50	26.50	183.60	8,362.30	254.60	Ryan Directional Services
1/1/2014	8,411.50	29.10	185.60	8,390.61	269.52	Ryan Directional Services
1/1/2014	8,442.50	31.80	187.20	8,417.33	285.23	Ryan Directional Services
1/1/2014	8,474.50	34.30	186.50	8,444.15	302.68	Ryan Directional Services
1/1/2014	8,505.50	37.00	184.20	8,469.34	320.74	Ryan Directional Services
1/1/2014	8,536.50	40.00	182.80	8,493.60	340.04	Ryan Directional Services
1/1/2014	8,568.50	43.20	181.80	8,517.53	361.28	Ryan Directional Services
1/1/2014	8,599.50	45.60	182.90	8,539.67	382.97	Ryan Directional Services
1/1/2014	8,631.50	48.00	182.30	8,561.58	406.29	Ryan Directional Services
1/1/2014	8,662.50	51.20	181.00	8,581.67	429.90	Ryan Directional Services
1/2/2014	8,694.50	54.30	181.20	8,601.03	455.37	Ryan Directional Services
1/2/2014	8,725.50	57.80	182.80	8,618.35	481.08	Ryan Directional Services

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Date	MD (ftGRD)	Incl (°)	Azm (°)	TVD (ftGRD)	Unwrap Displace (ft)	Survey Company
1/2/2014	8,756.50	60.80	183.50	8,634.17	507.73	Ryan Directional Services
1/2/2014	8,788.50	64.00	183.80	8,648.99	536.08	Ryan Directional Services
1/2/2014	8,819.50	67.70	183.40	8,661.67	564.37	Ryan Directional Services
1/2/2014	8,851.50	71.70	183.10	8,672.77	594.37	Ryan Directional Services
1/2/2014	8,882.50	75.40	183.70	8,681.55	624.10	Ryan Directional Services
1/2/2014	8,914.50	80.50	184.50	8,688.23	655.38	Ryan Directional Services
1/2/2014	8,946.50	84.50	184.70	8,692.41	687.10	Ryan Directional Services
1/2/2014	8,977.50	87.20	181.60	8,694.65	718.01	Ryan Directional Services
1/2/2014	9,068.50	88.80	180.00	8,697.83	808.95	Ryan Directional Services
1/2/2014	9,159.50	94.30	181.70	8,695.36	899.88	Ryan Directional Services
1/2/2014	9,250.50	93.20	181.90	8,689.41	990.68	Ryan Directional Services
1/2/2014	9,342.50	91.10	181.30	8,685.96	1,082.61	Ryan Directional Services
1/2/2014	9,434.50	91.20	180.60	8,684.12	1,174.59	Ryan Directional Services
1/2/2014	9,524.50	89.90	180.90	8,683.25	1,264.59	Ryan Directional Services
1/2/2014	9,615.50	90.90	181.00	8,682.62	1,355.59	Ryan Directional Services
1/2/2014	9,707.50	91.30	180.50	8,680.85	1,447.57	Ryan Directional Services
1/3/2014	9,801.50	87.30	178.70	8,682.00	1,541.54	Ryan Directional Services
1/3/2014	9,895.50	87.80	178.80	8,686.02	1,635.45	Ryan Directional Services
1/3/2014	9,990.50	88.40	178.10	8,689.17	1,730.40	Ryan Directional Services
1/3/2014	10,084.50	88.80	179.90	8,691.46	1,824.37	Ryan Directional Services
1/3/2014	10,178.50	91.00	180.70	8,691.63	1,918.36	Ryan Directional Services
1/3/2014	10,272.50	90.30	181.50	8,690.56	2,012.35	Ryan Directional Services
1/3/2014	10,367.50	89.60	180.30	8,690.64	2,107.35	Ryan Directional Services
1/3/2014	10,461.50	88.70	182.30	8,692.04	2,201.33	Ryan Directional Services
1/3/2014	10,554.50	90.10	182.60	8,693.01	2,294.33	Ryan Directional Services
1/3/2014	10,649.50	90.80	182.10	8,692.27	2,389.32	Ryan Directional Services
1/3/2014	10,744.50	89.90	182.70	8,691.69	2,484.32	Ryan Directional Services
1/3/2014	10,839.50	90.60	182.10	8,691.27	2,579.32	Ryan Directional Services
1/3/2014	10,933.50	89.40	183.10	8,691.27	2,673.31	Ryan Directional Services
1/3/2014	11,027.50	87.00	181.70	8,694.22	2,767.26	Ryan Directional Services
1/3/2014	11,121.50	87.00	181.00	8,699.14	2,861.13	Ryan Directional Services
1/3/2014	11,215.50	87.00	181.60	8,704.06	2,955.00	Ryan Directional Services
1/3/2014	11,309.50	88.30	182.20	8,707.92	3,048.92	Ryan Directional Services
1/3/2014	11,404.50	91.20	181.10	8,708.33	3,143.91	Ryan Directional Services
1/3/2014	11,498.50	92.60	180.80	8,705.22	3,237.85	Ryan Directional Services
1/3/2014	11,591.50	91.30	181.70	8,702.05	3,330.80	Ryan Directional Services
1/3/2014	11,686.50	89.50	181.00	8,701.39	3,425.79	Ryan Directional Services
1/3/2014	11,780.50	90.60	179.90	8,701.31	3,519.79	Ryan Directional Services
1/3/2014	11,874.50	88.20	179.20	8,702.29	3,613.77	Ryan Directional Services
1/3/2014	11,968.50	88.90	179.50	8,704.67	3,707.74	Ryan Directional Services
1/3/2014	12,062.50	88.00	180.00	8,707.21	3,801.71	Ryan Directional Services
1/4/2014	12,157.50	88.20	179.70	8,710.36	3,896.65	Ryan Directional Services
1/4/2014	12,252.50	89.80	181.10	8,712.02	3,991.63	Ryan Directional Services
1/4/2014	12,346.50	91.50	181.50	8,710.95	4,085.62	Ryan Directional Services
1/4/2014	12,440.50	89.80	180.30	8,709.89	4,179.61	Ryan Directional Services
1/4/2014	12,535.50	88.40	181.60	8,711.38	4,274.60	Ryan Directional Services
1/4/2014	12,629.50	88.80	181.10	8,713.67	4,368.57	Ryan Directional Services
1/4/2014	12,723.50	89.90	181.40	8,714.74	4,462.56	Ryan Directional Services
1/4/2014	12,817.50	88.70	183.00	8,715.89	4,556.55	Ryan Directional Services
1/4/2014	12,912.50	90.00	183.00	8,716.97	4,651.54	Ryan Directional Services
1/4/2014	13,006.50	88.30	182.80	8,718.36	4,745.53	Ryan Directional Services
1/4/2014	13,100.50	88.40	183.40	8,721.07	4,839.49	Ryan Directional Services
1/4/2014	13,194.50	89.70	184.30	8,722.63	4,933.47	Ryan Directional Services
1/4/2014	13,289.50	91.40	184.70	8,721.72	5,028.46	Ryan Directional Services
1/4/2014	13,383.50	91.40	183.00	8,719.42	5,122.43	Ryan Directional Services
1/4/2014	13,477.50	90.20	181.90	8,718.11	5,216.42	Ryan Directional Services



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 10-13 23H

Date	MD (ftGRD)	Incl (°)	Azm (°)	TVD (ftGRD)	Unwrap Displace (ft)	Survey Company
1/4/2014	13,572.50	90.70	181.10	8,717.36	5,311.42	Ryan Directional Services
1/4/2014	13,666.50	87.70	180.20	8,718.67	5,405.39	Ryan Directional Services
1/4/2014	13,760.50	87.90	180.00	8,722.28	5,499.33	Ryan Directional Services
1/4/2014	13,854.50	88.80	179.90	8,724.99	5,593.29	Ryan Directional Services
1/4/2014	13,948.50	88.80	179.60	8,726.96	5,687.26	Ryan Directional Services
1/4/2014	14,042.50	89.40	178.90	8,728.43	5,781.25	Ryan Directional Services
1/4/2014	14,137.50	89.60	180.60	8,729.26	5,876.25	Ryan Directional Services
1/4/2014	14,231.50	89.20	180.70	8,730.25	5,970.24	Ryan Directional Services
1/4/2014	14,325.50	89.50	181.50	8,731.31	6,064.23	Ryan Directional Services
1/4/2014	14,420.50	91.30	182.60	8,730.65	6,159.23	Ryan Directional Services
1/5/2014	14,514.50	89.90	181.40	8,729.66	6,253.22	Ryan Directional Services
1/5/2014	14,608.50	89.00	180.60	8,730.57	6,347.21	Ryan Directional Services
1/5/2014	14,703.50	88.40	181.20	8,732.72	6,442.18	Ryan Directional Services
1/5/2014	14,797.50	90.80	181.60	8,733.38	6,536.18	Ryan Directional Services
1/5/2014	14,891.50	92.60	181.90	8,730.59	6,630.13	Ryan Directional Services
1/5/2014	14,985.50	91.60	182.10	8,727.15	6,724.07	Ryan Directional Services
1/5/2014	15,079.50	90.40	182.10	8,725.50	6,818.05	Ryan Directional Services
1/5/2014	15,173.50	89.40	183.00	8,725.67	6,912.05	Ryan Directional Services
1/5/2014	15,267.50	87.70	182.60	8,728.05	7,006.01	Ryan Directional Services
1/5/2014	15,362.50	87.60	183.10	8,731.94	7,100.93	Ryan Directional Services
1/5/2014	15,456.50	90.00	182.10	8,733.91	7,194.90	Ryan Directional Services
1/5/2014	15,550.50	92.60	181.90	8,731.78	7,288.87	Ryan Directional Services
1/5/2014	15,645.50	91.50	182.30	8,728.38	7,383.81	Ryan Directional Services
1/6/2014	15,739.50	89.90	182.30	8,727.23	7,477.80	Ryan Directional Services
1/6/2014	15,833.50	90.00	182.80	8,727.31	7,571.80	Ryan Directional Services
1/6/2014	15,928.50	90.20	183.20	8,727.15	7,666.80	Ryan Directional Services
1/6/2014	16,022.50	89.10	183.20	8,727.72	7,760.80	Ryan Directional Services
1/6/2014	16,116.50	89.70	183.70	8,728.71	7,854.79	Ryan Directional Services
1/6/2014	16,210.50	89.80	183.40	8,729.12	7,948.79	Ryan Directional Services
1/6/2014	16,305.50	90.20	182.40	8,729.12	8,043.79	Ryan Directional Services
1/6/2014	16,400.50	91.00	182.10	8,728.12	8,138.78	Ryan Directional Services
1/6/2014	16,494.50	89.90	182.20	8,727.38	8,232.78	Ryan Directional Services
1/6/2014	16,588.50	88.30	180.60	8,728.86	8,326.76	Ryan Directional Services
1/6/2014	16,682.50	88.20	181.20	8,731.73	8,420.72	Ryan Directional Services
1/7/2014	16,767.50	88.20	181.20	8,734.40	8,505.67	Ryan Directional Services