

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

API/UWI 42-461-39157-0000		Property Sub 927711-047		Operator PIONEER NATURAL RESRC USA INC		State TEXAS		County UPTON	
Field Name SPRABERRY (TREND AREA)				Surface Legal Location 10323' FNL / 1789 FWL, SEC: 18, BLK: 3, A-U18, SVY: UNIVERSITY LANDS					
Spud Date 5/25/2014		TD Date 6/15/2014		Drilling Rig Release Date 6/20/2014		Frac Date 8/5/2014		On Production Date	
Ground Elevation (ft) 2,678.00		Original KB Elevation (ft) 2,704.00		PBTD (All) (ftKB)		Total Depth (All) (ftKB) Original Hole - 18,080.0		Total Depth All (TVD) (ftKB) Original Hole - 8,506.0	
<b>Report #: 1 Daily Operation: 5/24/2014 11:00 - 5/25/2014 06:00</b>									
Job Category ORIG DRILLING				Primary Job Type ODR				AFE Number 029904	
Days From Spud (days) 0		Days on Location (days) 1		End Depth (ftKB) 0.0		End Depth (TVD) (ftKB)		Dens Last Mud (lb/gal) Rig H & P, 604	
<p>Operations Summary Skid Rig F/ 49H T 47H, WOW, Rigging up rig to Spud, Lay out and P/U BHA.</p> <p>Remarks H &amp; P 604 Well (University 3-19 47H) Progress: .80 days since rig accepted, 00 days from spud</p> <p>Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.</p> <p>Completion percentage: Surface: 00%, Intermediate: 00%, Curve: 0%, Lateral: 0%</p> <p>PTB: 000' 000° Inc 00° Azi 00' High, 00' Left</p> <p>Rig Accepted @ 11:00 on 5-24-14</p> <p>Spud @ 00:00 on</p> <p>( Called Ijuana with TRRC @ 18:30 Hr's 5/24/2014 with intent to Spud and Run 3 5/8" casing on University 3-19 47H )</p>									
<b>Time Log Summary</b>									
Operation		Com							Dur (hr)
SKID		Prep rig to skid							1
SKID		Skid Rig from University 3-19 #49H to University 3-19 #47H							4
U_WOW		Wait on weather to clear Due to bad thunderstorms and lighting.							1
RIG UP / RIG DOWN		Rigging up rig in preparation for spudding 47H, Hook up water line, airlines, ground skids, hydraulic to rig, roll up skidding hydraulic lines,							5.75
RIG UP / RIG DOWN		Pressure up and test surface mud lines to 1500 high / 200 low.							0.25
RIG UP / RIG DOWN		Continue with R/U install mouse hole, R/U water to Premix, install handrails on flow linw manifold.							2.5
RIG UP / RIG DOWN		Rig up cellar pumps, R/U 4" standpipe line, gather & strap BHA							2
BHA		M/U 9 5/8" Pathfinder motor, 17 1/4" stabilizer, float sub, MWD carrier NMDC, M/U 17 1/2" SF65 Security Bit, scribe motor, load MWD into carrier and orient to scribe line, M/U top 17 1/4" stabilizer & top NMDC, M/U shock sub and X-O to 8" DC, P/U 1 jt HWDP as kelly joint, fill pipe and conductor.							2.5
<b>Report #: 2 Daily Operation: 5/25/2014 06:00 - 5/26/2014 06:00</b>									
Job Category ORIG DRILLING				Primary Job Type ODR				AFE Number 029904	
Days From Spud (days) 1		Days on Location (days) 2		End Depth (ftKB) 1,207.0		End Depth (TVD) (ftKB) 1,206.8		Dens Last Mud (lb/gal) Rig H & P, 604	
<p>Operations Summary P/U BHA, Drill Surface hole F/ 146' T/ 1,207', Circ 2 X50 Bbl sweeps around, Make Wiper Trip. Circ sweeps around, Tooh.</p> <p>Remarks H &amp; P 604 Well (University 3-19 47H) Progress: 1.80 days since rig accepted, 0.89 days from spud</p> <p>Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.</p> <p>Completion percentage: Surface:100%, Intermediate: 00%, Curve: 0%, Lateral: 0%</p> <p>PTB: 1137' .88° Inc 344.82° Azi 00' High, 00' Left</p> <p>Rig Accepted @ 11:00 on 5-24-14</p> <p>Spud @ 08.30 on 5/25/14</p> <p>( Called Ijuana with TRRC @ 18:30 Hr's 5/24/2014 with intent to Spud and Run 3 5/8" casing on University 3-19 47H )</p>									

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
RIG UP / RIG DOWN	Continue riging up to drill	0.5
BHA	Picking up 17 1/2" BHBHA	2
DRL	Spud Well Drill 174' @ 36.6'/hr, 5-10 K WOB, 40 RPM, 767 GPM, Motor RPM 82, SPP 1074 psi, Diff. 95 psi Torque 4000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	4.75
DRL_SURV EY	Survey @ 243', Inc. 1.06° Azm. 133.97° DLS 0.04°	0.25
DRL	Drill 93' @ 124'/hr, 5-10 K WOB, 70 RPM, 767 GPM, Motor RPM 82, SPP 1250 psi, Diff. 100 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURV EY	Survey @ 340', Inc. 1.41° Azm. 125.10° DLS 0.41°	0.25
DRL	Drill 92' @ 122.6'/hr, 5-10 K WOB, 70 RPM, 767 GPM, Motor RPM 82, SPP 1250 psi, Diff. 100 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.75
DRL_SURV EY	Survey @ 432', Inc. 1.14° Azm. 118.68° DLS 0.33°	0.25
DRL	Drill 92' @ 122.6'/hr, 5-10 K WOB, 70 RPM, 767 GPM, Motor RPM 82, SPP 1370 psi, Diff. 100 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.75
DRL_SURV EY	Survey @ 524', Inc. 1.49° Azm. 129.84° DLS 0.47°	0.25
DRL	Drill 19' @ 76'/hr, 5-10 K WOB, 70 RPM, 767 GPM, Motor RPM 82, SPP 1370 psi, Diff. 100 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.25
DRL	Slide 13' @ 17.3 fph, 6K WOB, 1,350 psi, Diff 190 psi, 729 gpm, Mtr 77 rpm, TF 310°	0.75
DRL	Drill 60' @ 240'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1380 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.25
RIGSER	Service Rig	0.5
DRL_SURV EY	Survey @ 616', Inc. 0.62° Azm. 158.14° DLS 1.07°	0.25
DRL	Slide 14' @ 28 fph, 20K WOB, 1,350 psi, Diff 190 psi, 729 gpm, Mtr 77 rpm, TF 310°	0.5
DRL	Drill 80' @ 160'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURV EY	Survey @ 708', Inc. 0.44° Azm. 351.77° DLS 1.14°	0.25
DRL	Drill 91' @ 121'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.75
DRL_SURV EY	Survey @ 800', Inc. 0.79° Azm. 333.84° DLS 0.43°	0.25
DRL	Drill 91' @ 182'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURV EY	Survey @ 891', Inc. 0.79° Azm. 347.11° DLS 0.20°	0.25
DRL	Drill 95' @ 126'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 986', Inc. 0.88° Azm. 347.37° DLS 0.09°	0.25
DRL	Drill 94' @ 126'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	1
DRL_SURV EY	Survey @ 1080', Inc. 1.06° Azm. 334.19° DLS 0.30°	0.25
DRL	Drill 57' @ 126'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURV EY	Survey @ 1137', Inc. 0.887° Azm. 344.82° DLS 0.45°	0.25
CIRC	Circulate 2 X 50 bbls sweeps around.	1.25
TOOH	Tooh F/1,207' T/ 146', 20K OP @1050' wipe through spot and cleaned up.	1
TIH	Tih F/ 146' T/ 1,207' washed down last std for safety no hole issues.	1
CIRC	Circulate 2 X 50 bbls sweeps around.	1.25
TOOH	POOH to run 13 3/8" Casing.	1.25

Report #: 3 Daily Operation: 5/26/2014 06:00 - 5/27/2014 06:00

Job Category	Primary Job Type				AFE Number
ORIG DRILLING	ODR				029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
2	3	1,207.0	1,206.8	8.70	H & P, 604

#### Operations Summary

L/D directional Bha, R/U csg running equipt, Wait on Express tong head, Run 13 3/8" csg, Level Drk, Wait on welder to cut bent skid pin, Cut bent pin & skid rig to center casing in Conductor, Run 13 3/8" csg T/ 1,205', Circ prior to casing job, cement 13 3/8" csg, R/d cmt lines, Center csg & welder cut csg.

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 2.80 days since rig accepted, 1.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 00%, Curve: 0%, Lateral: 0%

PTB: 1137' .88° Inc 344.82° Azi 00' High, 00' Left

Rig Accepted @ 11:00 on 5-24-14

Spud @ 08.30 on 5/25/14

### Time Log Summary

Operation	Com	Dur (hr)
BHA	Laying down Directional BHA	2.5
RIG UP / RIG DOWN	Rig up Express Casing Running Equipment.	1.5
U_WT	Wait on Express Casing for back up tong for 13 3/8" casing. The Lug jaw they brought out would not fit H&P set of tong.	4
CASE	Pick up float shoe make up shoe tract, check float equipment, OK, Run 13 3/8" 48 ppf J-55, STC Casing to 85'	0.5
CASE	Attempting to get Cent pass conductor pipe. Casing collars hanging up on conductor.	0.75
CASE	Continue running 13 3/8" 48 ppf J-55, STC Casing F/ 85' to 332'.	1.75
RIG UP / RIG DOWN	Install shims on driller side of derrick.	1
CASE	Attempt to Skid rig to center casing in Conductor pipe, Guide skid pin bent unable to skid with bent pin.	1
CASE	Wait on welder to arrive on location to cut bent skid guide pin.	2
CASE	Welder cut bent pin and skid rig 5" to draw works to center casing in conductor pipe	1.5
CASE	Continue running 13 3/8" 48 ppf J-55, STC Casing F/ 332' T/ 1,205'	2.5
CIRC	Rig up Crest Cement lines. Circulate prior to cement job 1 casing volume.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
CMT	<p>Test lines to 3,500 psi. Pump 40 bbl's fresh water to reserve pit to ensure clean &amp; clear lines. Mix and pump 480 sks, 162 bbls "Lead" cement, 6.0% bentonite, 3.0% calcium chloride @ 12.8 ppg, yield 1.91 mix water 9.86 gal/sk. 345 sks, 105 bbls "tail" cement 4.0% bentonite, 2.0% calcium chloride @ 13.6 ppg, yield 1.71 mix water 8.91 gal/sk. Pumped @ 6.87 bpm, slowed to 2.5 bpm for last 10 bbl's, @ 270 psi bumped plug with 500 psi over circulating rate @ 770 psi. Pressure held 5 min, Bleed off, Pressure bled back 1.0 bbl, Floats holding, Monitor 15 minutes. Cement in place @ 04:00 hrs</p> <p>Lift Pressures: 10 bbl's - 6.87 bpm @ 190 psi, 20 bbl's- 6.8 bpm @ 190 psi, 50 bbl's- 6.87 bpm @ 210 psi, 100 bbl's- 6.87 bpm @ 310 psi, 140 bbl's - 6.87 bpm @ 390 psi. 160 bbl's - 6.5 bpm @ 420 psi, 170 bbl's - 2.5 bpm @ 270 psi.</p> <p>Full returns during entire cement job, got 85 bbls cement back to surface.</p> <p>Shoe: 1,205' Shoe Track: 44.91' Float Collar: 1,160'</p>	2
CMT	Rig Down Crest cement lines and head.	0.5
WLHEAD	Center 13 3/8" casing in conductor and welder cut casing and lay out cut piece.	1.5

### Report #: 4 Daily Operation: 5/27/2014 06:00 - 5/28/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
3	4	1,207.0
		End Depth (TVD) (ftKB)
		1,206.8
		Dens Last Mud (lb/gal)
		9.00
		Rig
		H & P, 604

#### Operations Summary

Install well head, N/U Bop's, Test Bop's, Csg test, Accumulator test, Install Wear bushings,

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 3.80 days since rig accepted, 2.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 00%, Curve: 0%, Lateral: 0%

PTB: 1137' .88° Inc 344.82° Azi 00' High, 00' Left

Rig Accepted @ 11:00 on 5-24-14

Spud @ 08:30 on 5/25/14

### Time Log Summary

Operation	Com	Dur (hr)
WLHEAD	Installing Wellhead. Cut off excess conductor and surface casing, and weld on wellhead.	4
NU/TEST	Nipple up BOP's, Preform top job with Basin fill cellar to bottom casing head flange	5.75
NU/TEST	Review JSA on testing BOPs, RU testing equipment, M/U test plug, open csg valve, set 13 5/8" test plug, RU test BOP's Pipe rams, Annular, & blind rams 250 psi low and 3,500 psi high. TIW & inside BOP safety valves, Choke & Kill line 250 psi low 3,500 psi high. Choke & choke manifold & valves 250 psi. low 3500 psi. high. Tested stand pipe back to rig pumps 250 psi. low 4,500 psi. high. all test held for 5min. and charted.	6.25
NU/TEST	Test 13 3/8" casing 250 psi low 5 min 1,000 psi high for 30 minutes n Chart.	1.5
NU/TEST	Perform Accumulator Test.	1
WEARBUS HING	Install Wear Bushings.	0.5
RIG UP / RIG DOWN	Bell nipple leaking between bell nipple and Bop's tighten bell nipple.	0.5
BHA	M/U Pathfindre 7 3/4" G2 7:8 4.0 @ 1.83° Motor, 2- NMDC, scrib and install MWD & test MWD, M/u Security 121/4" MM75D PDC bit, P/U shock sub, 6-8" Dc's and Jars. Shallow test Mud Motor nd MWD (OK)	3.5
BHA	Continue picking up BHA	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 5 Daily Operation: 5/28/2014 06:00 - 5/29/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 029904	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
4	5	3,157.0	3,156.7	9.04	H & P, 604	

### Operations Summary

P/U 12 1/4" Bha, Cut & Slip drill line, Tih t/ 1,158', Drill shoe track T/ 1205', Drill 12 1/4" Intermediate hole Section F/ 1,207' T/ 3157'

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 4.80 days since rig accepted, 3.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 29%, Curve: 0%, Lateral: 0%

PTB: 1137' .88° Inc 344.82° Azi 00' High, 00' Left

Rig Accepted @ 11:00 on 5-24-14

Spud @ 08.30 on 5/25/14

### Time Log Summary

Operation	Com	Dur (hr)
BHA	Continue Picking up 12 1/4" BHA.	1.5
SFTY	Held Pre-Job safety meeting on slipping and cutting Drill Line	0.5
CUTDL	Slip and cut drill line.	1.75
RIGSER	Service Rig (Lubricate)	0.5
NU/TEST	Install drip pan under rotary table. and change rubbers on dresser sleeve to stop leak.	2.75
TIH	Trip in hole to top float collar 1158'	0.5
WLHEAD	DrillFloa and shoe tract. f/ 1158' to 1205' w/ 5-10 K on bit 40 RPM.	1
DRL-ROT	Drill 55' @ 73'/hr, 5-10 K WOB, 500 GPM 40 RPM, 500 GPM, Motor RPM 82, SPP 1350 psi, Diff. 100 psi Torque 9000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.75
DRL_SURVEY	Survey @ 1207', Inc. 0.70° Azm. 37.29° DLS 1.01°	0.25
DRL-ROT	Drill 95' @ 126'/hr, 14 K WOB, 683 GPM 40 RPM, Motor RPM 113, SPP 1350 psi, Diff. 290 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	1
DRL_SURVEY	Survey @ 1302, Inc. 0.53° Azm. 336.56° DLS 0.68°	0.25
DRL-ROT	Drill 95' @ 126'/hr, 14 K WOB, 683 GPM 40 RPM, Motor RPM 113, SPP 1350 psi, Diff. 290 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.75
DRL_SURVEY	Survey @ 1397, Inc. 0.62° Azm. 332.43° DLS 0.10°	0.25
DRL-ROT	Drill 95' @ 126'/hr, 14 K WOB, 752 GPM 40 RPM, Motor RPM 124, SPP 1850 psi, Diff. 299 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.75
DRL_SURVEY	Survey @ 1492, Inc. 0.70° Azm. 319.69° DLS 0.17°	0.25
DRL-ROT	Drill 95' @ 190'/hr, 14 K WOB, 752 GPM 50 RPM, Motor RPM 124, SPP 1850 psi, Diff. 299 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURVEY	Survey @ 1586, Inc. 0.88° Azm. 313.89° DLS 0.21°	0.25
DRL-ROT	Drill 94' @ 188'/hr, 14 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1850 psi, Diff. 299 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURVEY	Survey @ 1681, Inc. 0.97° Azm. 301.76° DLS 0.23°	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
DRL-ROT	Drill 96' @ 384 '/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1754 psi, Diff. 560 psi Torque 12000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURV EY	Survey @ 1776, Inc. 0.88° Azm. 285.94° DLS 0.28°	0.25
DRL-ROT	Drill 95' @ 380'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1755 psi, Diff. 560 psi Torque 14000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURV EY	Survey @ 1871, Inc. 0.88° Azm. 287.08° DLS 0.02°	0.25
DRL-ROT	Drill 94' @ 188'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1755 psi, Diff. 560 psi Torque 14000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURV EY	Survey @ 1966, Inc. 0.79° Azm. 299.47° DLS 0.21°	0.25
DRL-ROT	Drill 94' @ 376'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 560 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURV EY	Survey @ 2060, Inc. 0.79° Azm. 306.24° DLS 0.10°	0.25
DRL-ROT	Drill 95' @ 380'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 560 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURV EY	Survey @ 2155, Inc. 0.62° Azm. 303.52° DLS 0.18°	0.25
DRL-ROT	Drill 96' @ 192'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURV EY	Survey @ 2250, Inc. 0.53° Azm. 296.66° DLS 0.12°	0.25
DRL-ROT	Drill 93' @ 186'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURV EY	Survey @ 2344, Inc. 0.35° Azm. 298.33° DLS 0.19°	0.25
DRL-ROT	Drill 96' @ 128'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.75
DRL_SURV EY	Survey @ 2439', Inc. 0.18° Azm. 309.76° DLS 0.19°	0.25
DRL-ROT	Drill 94' @ 188'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURV EY	Survey @ 2534', Inc. 0.09° Azm. 325.40° DLS 0.10°	0.25
DRL-ROT	Drill 95' @ 380'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURV EY	Survey @ 2629', Inc. 0.09° Azm. 16.11° DLS 0.08°	0.25
DRL-ROT	Drill 94' @ 94'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURVEY	Survey @ 2723', Inc. 0.18° Azm. 21.74° DLS 0.10°	0.25
DRL-ROT	Drill 95' @ 190'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURVEY	Survey @ 2818', Inc. 0.26° Azm. 19.28° DLS 0.08°	0.25
DRL-ROT	Drill 95' @ 190'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURVEY	Survey @ 2913', Inc. 0.26° Azm. 17.61° DLS 0.01°	0.25
DRL-ROT	Drill 95' @ 380'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.25
DRL_SURVEY	Survey @ 3008', Inc. 0.26° Azm. 17.61° DLS 0.01°	0.25
DRL-ROT	Drill 94' @ 188'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5

Report #: 6 Daily Operation: 5/29/2014 06:00 - 5/30/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
5	6	4,957.0
		End Depth (TVD) (ftKB)
		4,956.6
		Dens Last Mud (lb/gal)
		8.95
		Rig
		H & P, 604

### Operations Summary

Rot / Slid Drilg f/ 3,157' t/ 4957' Replace swab & Liner in MP# 2 While circulating with MP#1, Continue tocheck Pressure problems on MP's.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 5.80 days since rig accepted, 4.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 56%, Curve: 0%, Lateral: 0%

Rig Accepted @ 11:00 on 5-24-14

Spud @ 08:30 on 5/25/14

PTB: 4901 .0.09° Inc 253.68° Azi 4.68' Center to center 0.41° Right

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Rotate 493' @ 116 ft/hr, 35k wob, 196 spm, 752 gpm, 70 rpm, 125 mrpm, 2,060 psi, 550 diff, 14k torque on bottom.	4.25
DRL-SLIDE	Slide 8' @ 32 ft/hr, 25k wob, 196 spm, 752 gpm, 125 mrpm, 2,060 psi, 300 diff, 180 mtf.	0.25
DRL-ROT	Rotate 86' @ 115 ft/hr.	0.75
DRL-SLIDE	Slide 14' @ 28 ft/hr, 270 mtf.	0.5
DRL-ROT	Rotate 441' @ 110.25 ft/hr.	4
RIGSER	Service Rig.	0.5
DRL-ROT	Rotate 109' @ 87.2 ft/hr.	1.25
DRL-SLIDE	Slide 13' @ 26 ft/hr, 140 mtf.	0.5
DRL-ROT	Rotate 200' @ 80 ft/hr.	2.5
DRL-ROT	Rotate 340' @ 85 ft/hr.	4.25
	** Displace 10.0# brine water w/ 8.9 fresh water gel. Slow drilling parameters while displacing. Hole calculated 7,127 strokes. Gel mud returned @ 10,540, circulated another 2,000 strokes due to high mud weight. MW out 9.0 / 35 vis, In 8.8+ / 50 vis. Circulating steel pits. **	
DRL-SLIDE	Slide 10' @ 40 ft/hr, 315 mtf.	0.25



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Rotate 85' @ 57 ft/hr.	1.5
U_RIG_OT R	Circulate @ 320 GPM 84 stks with MP # 1 while replacing swab & liner in MP #2. Bring MP# 2 back on line MP Pressure still low by 400 psi with both MP's @ 198 SPM, Continue to check MP's.	3.5

Report #: 7 Daily Operation: 5/30/2014 06:00 - 5/31/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
Days From Spud (days) 6	Days on Location (days) 7	End Depth (ftKB) 5,527.0
	End Depth (TVD) (ftKB) 5,525.8	Dens Last Mud (lb/gal) 8.95
	Rig H & P, 604	

#### Operations Summary

Pump soft line, TOO H f/ 4,957' t/ 586', L/D 3 jnts HWDP, Rack back BHA, C/O motor & bit, Level derrick, TIH f/ 117" t/ 4,957', Drill 12 1/4" Inter Sec @ 5527'

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 6.80 days since rig accepted, 5.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 65%, Curve: 0%, Lateral: 0%

PTB: 5282 2.99° Inc 270.20° Azi 6.6' Center to center 1.51' left

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_LPP	Pump soft line, pressure increase @ 756 strokes. Calculated 4,200'.	0.5
U_LPP	L/D 1 jnt of DP to change breaks. TOO H f/ 4,957' t/ 586'. Found washout in between the 19th & 20th joint of HWDP - 4,371'.	5
U_LPP	L/D three joints of HWDP. Had cracked box & washed pin.	0.5
U_LPP	Rack back 12 - 8" D.C's	1.25
U_LPP	L/D shock sub, X/O, motor, & bit.	1.25
U_LPP	P/U motor, bit, shock sub, X/O, scribe.	1
RIGSER	Service Rig / Level derrick	1
U_LPP	Tih with BHA F/ 117' T/ 1,076', Breaking each connection visually inspecting box and pins. Found no issues and ensuring proper torque values used.	4.5
U_LPP	Tih F/ 1,076' T/ 4,769', taking returns to trip tank, getting back proper pipe displacement.	2
U_LPP	Wash down for safety F/ 4,769' T/ 4,957' and take SPR's.	0.5
DRL-SLIDE	Slide 12' @ 48 ft/hr, 16k wob, 196 spm, 752 gpm, 125 mrpm, 2,340 psi, 236 diff, 250 mtf.	0.25
DRL-ROT	Rotate 84' @ 84 ft/hr, 35k wob, 196 spm, 752 gpm, 70 rpm, 125 mrpm, 2,127 psi, 606 diff, 14k torque on bottom.	1
DRL-SLIDE	Slide 15' @ 30 ft/hr, 105 mtf.	0.5
DRL-ROT	Rotate 80' @ 106 ft/hr.	0.75
DRL-SLIDE	Slide 10' @ 40 ft/hr, 270 mtf.	0.25
DRL-ROT	Rotate 85' @ 85 ft/hr.	1
DRL-SLIDE	Slide 12' @ 48 ft/hr, 280 mtf.	0.25
DRL-ROT	Rotate 83' @ 166 ft/hr.	0.5
DRL-SLIDE	Slide 12' @ 48 ft/hr, 270 mtf.	0.5
DRL-ROT	Rotate 82' @ 109 ft/hr.	0.75
DRL-SLIDE	Slide 12' @ 48 ft/hr, 270 mtf.	0.25
DRL-ROT	Rotate 83' @ 166 ft/hr.	0.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 8 Daily Operation: 5/31/2014 06:00 - 6/1/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR				AFE Number 029904			
Days From Spud (days)	7	Days on Location (days)	8	End Depth (ftKB)	6,878.0	End Depth (TVD) (ftKB)	6,873.3	Dens Last Mud (lb/gal)	8.90	Rig	H & P, 604

### Operations Summary

Rot / Sld Drlg f/ 5,527' t/ 6190', Rig service, Rot / Sld Drlg f/ 6190' t/6878'

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 7.80 days since rig accepted, 6.89 days from spud

Rig NPT: .25 hours for previous 24 hours, 18.75 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 86%, Curve: 0%, Lateral: 0%

PTB: 6703 5.19° Inc 258.43° Azi 16.77' Center to center 2.82' left

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Rotate 113' @ 75 ft/hr, 40k wob, 196 spm, 752 gpm, 70 rpm, 125 mrpm, 2,300 psi, 750 diff, 16k torque on bottom.	1.5
DRL-SLIDE	Slide 15' @ 30 ft/hr, 28k wob, 196 spm, 752 gpm, 125 mrpm, 2,250 psi, 350 diff, 280 mtf.	0.5
DRL-ROT	Rotate 77' @ 77 ft/hr.	1
DRL-SLIDE	Slide 24' @ 48 ft/hr, 20R tfo.	0.5
DRL-ROT	Rotate 260' @ 104 ft/hr.	2.5
DRL-SLIDE	Slide 32' @ 32 ft/hr, 270 mtf.	1
DRL-ROT	Rotate 70' @ 93 ft/hr.	0.75
DRL-SLIDE	Slide 50' @ 32 ft/hr, 270 mtf.	1
DRL-ROT	Rotate 32' @ 128 ft/hr.	0.25
RIGSER	Servie Rig.	0.5
DRL-ROT	Rotate 15' @ 30 ft/hr.	0.5
DRL-SLIDE	Slide 36' @ 48 ft/hr, 270 mtf.	0.75
DRL-ROT	Rotate 59' @ 59 ft/hr.	1
DRL-SLIDE	Slide 40' @ 32 ft/hr, 270 mtf.	0.75
DRL-ROT	Rotate 39' @ 39 ft/hr.	1
DRL-SLIDE	Slide 45' @ 32 ft/hr, 270 mtf.	1.25
DRL-ROT	Rotate 50' @ 100 ft/hr.	0.5
U_RIG_OT R	Change out washed out MP pop off on MP31.	0.25
DRL-SLIDE	Slide 40' @ 22 ft/hr, 270 mtf.	1.75
DRL-ROT	Rotate 55' @ 110 ft/hr.	0.5
DRL-SLIDE	Slide 27' @ 27 ft/hr, 0° MFO	1
DRL-ROT	Rotate 68' @ 91 ft/hr.	0.75
DRL-SLIDE	Slide 30' @ 24 ft/hr 0° MFO	1.25
DRL-ROT	Rotate 64' @ 64 ft/hr.	1
DRL-SLIDE	Slide 25' @ 33 ft/hr, 0° MFO	0.75
DRL-ROT	Rotate 70' @ 93 ft/hr.	0.75
DRL-SLIDE	Slide ' @ 33 ft/hr, 0° MFO	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 9 Daily Operation: 6/1/2014 06:00 - 6/2/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
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Days From Spud (days) 8	Days on Location (days) 9	End Depth (ftKB) 7,611.0	End Depth (TVD) (ftKB) 7,604.3	Dens Last Mud (lb/gal) 9.03	Rig H & P, 604
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Operations Summary  
Rot / Slid Drlg f/ 6,878' t/ 7,552', Repair MP#2, Lost returns build & pump LCM sweeps, Drlg f/ 7,552' t/ 7,611', Relog Gamma

Remarks  
H & P 604 Well (University 3-19 47H) Progress: 8.80 days since rig accepted, 7.89 days from spud

Rig NPT: 0.0 hours for previous 24 hours, 0.0 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 97%, Curve: 0%, Lateral: 0%

PTB: 7461 4.84° Inc 261.86° Azi 30.48' Center to center 10.19' left

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL-SLIDE	Slide 6' @ 12 ft/hr, 20k wob, 196 spm, 752 gpm, 125 mrpm, 2,310 psi, 350 diff, 30R tfo.	0.5
DRL-ROT	Rotate 195' @ 97.5 ft/hr, 40k wob, 196 spm, 752 gpm, 70 rpm, 125 mrpm, 2,410 psi, 650 diff, 17k torque on bottom.	2
DRL-SLIDE	Slide 24' @ 16 ft/hr, HS tfo.	1.5
DRL-ROT	Rotate 57' @ 57 ft/hr.	1
DRL-SLIDE	Slide 20' @ 13 ft/hr, 270 mtf..	1.5
DRL-ROT	Rotate 62' @ 62 ft/hr.	1
DRL-SLIDE	Slide 40' @ 24 ft/hr, 290 mtf.	1.75
DRL-ROT	Rotate 44' @ 88 ft/hr.	0.5
RIGSER	Service Rig.	0.5
DRL-SLIDE	Slide 50' @ 29 ft/hr, 290 mtf.	1.75
DRL-ROT	Rotate 45' @ 90 ft/hr.	1
DRL-SLIDE	Slide 50' @ 22 ft/hr, 290 mtf.	2.25
DRL-ROT	Rotate 45' @ 90 ft/hr.	0.75
DRL-SLIDE	Slide 36' @ 48 ft/hr, 290 mtf.	2.75
U_RIG_OT R	Circulate with MP #1 while replacing 2- blown swabs in MP#2. 100 spm, 384 gpm, 870 psi, 50 rpm	1.25
U_LC	Dropped MP#1 spm down to 50 to line up MP #2 after changing swabs lost total returns. Line up and fill backside with trip tank took 27 bbls to fill annulus, mud fell 203'. Bring 1 pump online @ 20 spm and regained partial circulation.	0.5
U_LC	Pumped 25 bbl sweep, once at bit staged pumps up to 40 spm, 153 gpm with full circulation. LCM sweeps consisting of 10 lbs/bbl LCF Blend, 10 lbs/bbl tiger bullets, 5 lbs/bbl cotton seed hulls. Pumped 3 - 30 bbl sweeps back to back. Stage pumps up to 120 spm, 450 gpm.	1
DRL-ROT	Drill 59' @ 30 ft/hr with reduced drilling parameters. 15k wob, 120 spm, 450 gpm, 55 rpm, 75 mrpm, 1,250 psi, 350 diff, 10k torque on bottom. Full returns.	2
CIRC	Relog Gamma.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

**Report #: 10 Daily Operation: 6/2/2014 06:00 - 6/3/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 029904	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
9	10	7,720.0	7,712.9	9.08	H & P, 604	

**Operations Summary**

Rot / Sld Drig f/ 7,552' t/ 7,720', Circ, TOO, L/D Bha, Function test Bop's Pull WB, Wash Well head. R/U casing R/Tools

**Remarks**

H & P 604 Well (University 3-19 47H) Progress: 9.80 days since rig accepted, 8.89 days from spud

Rig NPT: 1.0 hours for previous 24 hours, 1.0 hours for the month of June.

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

PTB: 7650 5.01° Inc 264.76° Azi 30.13' Center to center 12.02' left 2.14 Below

Estimated Pad Completion 6/30/14

\*\* Contacted TRRC for upcoming cement job ( Amy ) \*\*

**Time Log Summary**

Operation	Com	Dur (hr)
DRL-ROT	Drill 109' @ 28 ft/hr with reduced drilling parameters. 15k wob, 120 spm, 450-550 gpm, 55-75 rpm, 75-90 mrpm, 1,250-1,600 psi, 350 diff, 10k torque on bottom. Full returns.  ** TD intermediate @ 7,720' @ 10:00 on 6-2-2014. **	4
CIRC	Circulate 2 - 40bbl 75 vis LCM sweeps out of hole. 1st sweep had 50% increase in cuttings. 2nd sweep brought back 10% increase.  ** Contacted TRRC for upcoming cement job ( Amy ) **	5
TOOH	Flow check, well static Pump slug & Tooh F/ 7720' T/ 1,060'	6.5
BHA	Tooh laying Down HWDP.	0.5
RIGSER	Service Rig	0.5
U_RIG	Change Belts on PDS ( Pipe Wrangler )	1
BHA	Tooh laying Down HWDP, 8" DC's & Drilling Jars.	1
BHA	Lay Down Directional Tools.	1.75
BHA	Clear and clean rig floor.	0.5
NU/TEST	Function Test Bop's	0.25
WEARBUS HING	Pull Wear bushing and wash Well Head.	0.75
RIG UP / RIG DOWN	Hold PJSM & Rig up Express CRT and Casing tools	2.25

**Report #: 11 Daily Operation: 6/3/2014 06:00 - 6/4/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 029904	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
10	11	7,720.0	7,712.9	9.19	H & P, 604	

**Operations Summary**

Run 9 5/8" casing f/ 0' t/ 7,710', R/d Csg equipmt, Circ prior to Cmt job, Cmt 9 5/8" csg.

**Remarks**

H & P 604 Well (University 3-19 47H) Progress: 10.80 days since rig accepted, 9.89 days from spud

Rig NPT: 0.0 hours for previous 24 hours, 1.0 hours for the month of June.

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

PTB: 7650 5.01° Inc 264.76° Azi 30.13' Center to center 12.02' left 2.14 Below

Estimated Pad Completion 6/30/14

**Time Log Summary**

Operation	Com	Dur (hr)
SAFETY	PJSM & JSA w/ Express casing crews, H&P, & Pioneer.	0.5
CASE	MU 9 5/8" 43.5 ppf L-80 IC PDC drillable down jet single valve float shoe (2) Jt. shoe track 9 5/8" 43.5 ppf. L-80 IC LTC csg, (1) 9 5/8" 43.5 ppf L-80 IC LTC PDC Drillable Float collar, Pump thru float equip - good.	1.5
CASE	When making up 4th joint it keep cross threading. moved spider to different positions, determined the top drive was not shimmed properly.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
U_RIG	Shim top drive, CRT center with stump @ rig floor. Code error coming up on draw work could operate draw works properly. Trouble shoot same. H&P determined it was a (tension link fault). H&P by passed fault, electrician on the way. There is three of these sensors, said that it will run properly on two. If another one was to go down it would shutdown draw works completely.	1
CMT	Attempt to run casing. When CRT is stabbed into a joint of casing the joint hanging is a full joint off from the stump toward drillers side. Casing is level Toward drillers cabin & V-door. Issue has to be from rig off center. Rig up power tonges.	1
CASE	Run 9 5/8" casing f/ 136' t/ 7,711'. Check torque to diamond on casing 8,000 ft/lbs average. Installing centralizers every 3rd joint per drilling procedure. Monitor well through trip tank, hole giving proper displacement. The 10 joint caliper ID average was 8.74 on 43.5# & 8.84 f/ 40#. Circulate bottoms up every 3,000'. Full returns during circulations. 36 centralizers run. P/U mandrel hanger & landing joint. Land casing in wellhead - Seaboard & Pioneer Rep verified landing of hanger. Marked pipe for proper landing point. P/U off wellhead.  Bottom Float shoe - 7,711' / Top - 7,709.8' Shoe track - 93.4' Bottom Float collar - 7,619.8' / Top - 7,617.6' Bottom Wrap pipe - 5,956.1' / Top - 3,449.7'	14.5
CASE	Rig Down CRT and Casing tools.	0.5
CMT	Rig Up Cement head and lines to MP's.	0.25
CIRC	Circulate 1 casing volume staggering MP's up to 80 spm, 304 gpm, 625 psi. With full returns until 5200 stks pumped lost all returns. Shut down pumps turn over to cementers.	1.25
CMT	Cement Intermediate casing. After pumping 30 bbls of cement job regained full returns. Adding CemNet to the lead cement slurry. Dropped top plug @ 0530. Currently displacing with fresh water.  ** Rigging down backyard in preparation for solids control equipment w/ OBM. Jet pits to reserve while cementing. **	3

Report #: 12 Daily Operation: 6/4/2014 06:00 - 6/5/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
11	12	7,720.0
		End Depth (TVD) (ftKB)
		7,712.9
		Dens Last Mud (lb/gal)
		9.70
		Rig
		H & P, 604

### Operations Summary

Cmt 9 5/8" csg, R/D cementers, RU & run wireline temp log, PU directional BHA, TIH, work on top drive, TIH & tag float collar, displace w/ OBM

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 11.80 days since rig accepted, 10.89 days from spud

Rig NPT: 2.5 hours for previous 24 hours, 3.5 hours for the month of June.

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

PTB: 7650 5.01° Inc 264.76° Azi 30.13' Center to center 12.02' left 2.14' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CMT	Hold PJSM with Schlumberger and Pumped 5 bbls fresh water, Tested lines to 3500 psi, Pumped 25 bbls to reserve pit, before job. Drop bottom plug and pumped 50 bbl's of Mud push Express @ 10.0lb/gal, MUDPUSH Express B389 @ 1.0. lb/bbl BW/V. Spacer, antifoam 0.2 gal/bbl of Space, Weighting agent 2062.7 lb/mgal, Mica medium 3.0 lb/bbl, Mica coarse 3.0 lb/bbl.  Lead cement 912 sks 363 bbl's @ 11.5 lb/gal, yield 2.24 ft 3/sk, mix water 12.737 gal/sk, Mix fluid 12.737 gal/sk, pumped @ 6 bbls/min. With 0.4% D167, 7.0% D020, 0.1% D065, 0.2% D046, 0.5% D013, 5.0 lb/sk D0420.1 lb/sk D130, and 0.1% D208  Tail cement 188 sks, 36 bbl's @ 16.40 lb/gal, yield 1.07 ft 3/sk, mix water 4.364 gal/sk, mix fluid 4.36 gal/sk, pumped @ 6.0 bbls/min with 0.2% D046, 0.3% D013 and 0.1% D065  Release Top plug witness by company man pumped 371 bbl's of water with biocide @ 8.32 lb/gal @ 6.5 bpm. Slowed pump down to 1.5 bpm 1526 psi. prior to bumping plug to 2,026 psi. held for 5 min's floats holding, released psi flowed back 4 bbl's. Monitor 15 minutes static.  Lift pressures - 100 bbls @ 190 Psi, 200 bbls @ 181 Psi, 300 bbls @ 503 Psi , 400 bbl's 832 Psi, 450 bbl's @ 1,004 Psi, 500 bbl's @ 1,170 Psi, 560 bbls @ 1,490 Psi  Regained full returns 25 bbls into cement job, Lost returns @ 100 into displacement, regained partial returns @ 145 into displacement, full returns @ 200 bbls into displacement & through out remainder of cement job.  **Note** Bumped plug @ 07:15. No cement seen at surface	1.25
CMT	R/D cementers.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
WLHEAD	Back out landing, wash casing hanger seal off, install running tool & packoff, Install and lock down pack off with set screws. Test pack off to 5,000 psi. - Good. Co. Rep & Seaboard Rep. present during all aspects. Install wear bushing.  ** Begin cleaning pits to reserve. **	2
SAFETY	PJSM w/ VES wireline, H&P, & Pioneer.	0.25
LOG	Wireline temprature log. Est. TOC @ 2,525'.	3.25
LOG	R/D wireline.	0.25
CASE	R/D casing bails & elevators, R/U rig bails & elev.  ** Continue rigging up backyard, while waiting on orders after temp log. **	1
RIGSER	Service rig.	0.5
TEST CSG/DRILL OUT/FIT	Test casing while waiting on TRRC to proceed with operations. (Tested to 2,500 psi)	0.5
BHA	Gather & strap directional BHA. TRRC gave permission to move forward with drilling operations.  ** Continue rigging up backyard. **	0.75
BHA	M/U Smith MDSI 516 8 1/2" PDC bit with Schlumberger 6 5/8" Archer RSS, Stabilized, UBHO, 6 3/4" NMDC, Fliter sub, 6 3/4" PF Mtr 7/8 5.0 -0.0 fixed, Float sub, install & test MWD.	5
BHA	TIH picking up 21 joints of HWDP f/104' t/ 760'	1.25
TIH	TIH filling every 15 stds per RSS requirements f/ 760' t/ 7305'	3
U_RIG	H&P downtime - Top drive would not turn, blower motor issue - trouble shoot same. Change out faulty breaker and plug on J-Box.	2.5
CIRC	Test and set up RSS.	0.5
TIH	TIH & tag float collar @ 7613'	0.5
CIRC	Circ / displace with OBM	0.5

**Report #: 13 Daily Operation: 6/5/2014 06:00 - 6/6/2014 06:00**

Job Category ORIG DRILLING		Primary Job Type ODR		AFE Number 029904	
Days From Spud (days)	12	Days on Location (days)	13	End Depth (ftKB)	8,486.0
		End Depth (TVD) (ftKB)	8,430.9	Dens Last Mud (lb/gal)	9.70
				Rig	H & P, 604

Operations Summary

Displace w/ OBM, drill out float equip & shoe track, FIT test, drill 8 1/2" Production f/ 7720' t/ 8486'

Remarks

H & P 604 Well (University 3-19 47H) Progress: 12.80 days since rig accepted, 11.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 46%, Lateral: 0%

PTB: 8486' 33.69° Inc 195.06° Azi 39' Left 30' Ahead

Estimated Pad Completion 6/30/14

Time Log Summary		
Operation	Com	Dur (hr)
CIRC	Displace 8.6 fresh water w/ 9.7 OBM	2.25
DRL_FLT	Drill shoe track & 10' of new formation f/ 7,613' t/ 7,730'. 5-10 wob, 40 rpm, 150 diff, 114 spm, 438 gpm, 2,250 spp, 6k trq,	3.75
FIT	After drilling 10' of new formation, circ for 15 min, get accurate mud check. OBM 9.7 in/out. Kill pumps, shut pipe rams, closed super choke, Performed FIT t/ 12.0 EMW @ 925 psi, FIT - good. Open super choke to possum belly, opened 2" on standpipe back to flow line, open rams, close HCR.	0.5
CIRC	Downlink to rotary steerable, to "hold"	0.5
DRL-ROT	Rotate 235' @ 67 ft/hr, 20-25k wob, 134 spm, 515 gpm, 60 rpm, 148 mrpm, 3,000 psi, 450 diff, 10k torque on bottom.	3.5
CIRC	Downlink Archer RSS to "build"	0.75
DRL CURVE- ROT	Rotate 110' @ 44'/hr  **Note** Limit ROP f/ 45-65'/hr per Pathfinder. The inclination @ bit updates every 9 minutes. @ 100 ft/hr they only get one update to see what the tool is doing. By reducing ROP it gives them more control while building the curve.	2.5
CIRC	Downlink Archer RSS - swap from Magnetics to Gravity	1
DRL CURVE- ROT	Rotate 158' @ 63'/hr  **Note** Limit ROP @ 45-65'/hr per Pathfinder	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary						
Operation	Com					Dur (hr)
DRL CURVE- SLIDE	Slide 95' @ 48/hr, 10-15k wob, 134 spm, 515 gpm, 148 mrpm, 3,000 psi, 450 diff. **Note** Had to downlink tool into slide mode due to 14.8° DLS. Cannot rotate through high DLS w/ Archer per Pathfinder.					2
DRL CURVE- ROT	Rotate 158' @ 34/hr **Note** Limit ROP @ 30-45/ hr per Pathfinder					4.75
<b>Report #: 14 Daily Operation: 6/6/2014 06:00 - 6/7/2014 06:00</b>						
Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
13	14	10,191.0	8,631.2	9.70	H & P, 604	
Operations Summary Drill 8 1/2" Production f/ 8,486' t/ 10,191', Rig service.						
Remarks H & P 604 Well (University 3-19 47H) Progress: 13.80 days since rig accepted, 12.89 days from spud  Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.  Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 12%  Line Proximity: 7' Right 3.3' Below  Estimated Pad Completion 6/30/14						
Time Log Summary						
Operation	Com					Dur (hr)
DRL CURVE- ROT	Rotate 31' @ 62 ft/hr, 15-25k wob, 136 spm, 522 gpm, 60 rpm, 148 mrpm, 3,000 psi, 550 diff, 10k torque on bottom.					0.5
RIGSER	Service rig.					0.5
DRL_SURV EY	Survey @ 8,473', 41.42 inc, 187.68 azm.					0.5
DRL CURVE- ROT	Rotate 95' @ 76 ft/hr ** Making all toolface / downlink adjustments on bottom while drilling unless otherwise noted. **					1.25
DRL_SURV EY	Survey @ 8,568', 51.42 inc, 185.87 azm.					0.5
DRL CURVE- ROT	Rotate 95' @ 76 ft/hr					1.25
DRL_SURV EY	Survey @ 8,663', 60.55 inc, 187.48 azm.					0.5
DRL CURVE- ROT	Rotate 94' @ 94 ft/hr					1
DRL_SURV EY	Survey @ 8,757', 69.45 inc, 187.08 azm.					0.5
DRL CURVE- ROT	Rotate 95' @ 63.3 ft/hr					1.5
DRL_SURV EY	Survey @ 8,852', 75.75 inc, 187.7 azm. ** 20' left, 20' above. **					0.5
CIRC	Downlink tool					0.25
DRL CURVE- ROT	Rotate 95' @ 76 ft/hr					1.25
DRL_SURV EY	Survey @ 8,947', 81.51 inc, 185.54 azm.					0.5
DRL-ROT	Rotate 54' @ 108 ft/hr					0.5
CIRC	Downlink tool					0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotate 135' @ 54'/hr  **Note** Control drilling @ 45-60'/hr as per Pathfinder  **Landed curve @ 9045' MD / 8634' TVD 2.2' Above Line**	2.5
DRL_SURVEY	Survey @ 9041' / 92.27° Inc / 181.84° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9231' / 88.83° Inc / 182.10° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9326' / 90.69° Inc / 181.27° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9420' / 88.35° Inc / 184.52° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 190'/hr	0.5
DRL_SURVEY	Survey @ 9515' / 88.73° Inc / 181.98° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9610' / 91.72° Inc / 182.40° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 190'/hr	0.5
DRL_SURVEY	Survey @ 9705' / 90.10° Inc / 183.76° Azi	0.25
DRL LAT-ROT	Rotate 94' @ 191'/hr	0.5
DRL_SURVEY	Survey @ 9799' / 90.24° Inc / 182.76° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 190'/hr	0.75
DRL_SURVEY	Survey @ 9894' / 91.38° Inc / 182.52° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9989' / 88.62° Inc / 179.16° Azi	0.25
DRL LAT-ROT	Rotate 158' @ 125'/hr	1.25



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 15 Daily Operation: 6/7/2014 06:00 - 6/8/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
14	15	12,109.0	8,628.2	9.70	H & P, 604	

### Operations Summary

Drill 8 1/2" Production f/ 10,191' t/ 12,109', Rig service, lost SPP & drilling torque, TOOH to inspect BHA.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 14.80 days since rig accepted, 13.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotate 126' @ 168 ft/hr, 30k wob, 136 spm, 522 gpm, 60 rpm, 148 mrpm, 3,400 psi, 550 diff, 16k torque on bottom.	0.75
DRL_SURVEY	Survey @ 10,273' / 89.38° Inc / 174.36° Azi	0.25
DRL LAT-ROT	Rotate 189' @ 151 ft/hr, 15k wob, 130 spm, 500 gpm, 100 rpm, 144 mrpm, 3,260 psi, 550 diff, 16k torque on bottom.	1.25
DRL_SURVEY	Survey @ 10,462' / 90.52° Inc / 179.88° Azi	0.25
DRL LAT-ROT	Rotate 190' @ 127 ft/hr ** Pump weighted sweeps every 300'. Sweeps bringing back 40% increase in fines & drill cuttings. **	1.5
DRL_SURVEY	Survey @ 10,652' / 91.44° Inc / 182.77° Azi	0.25
DRL LAT-ROT	Rotate 126' @ 151 ft/hr ** Limit ROP - 125 ft/hr. Seeing high doglegs, attempt to control better with lower ROP. **	1.5
DRL_SURVEY	Survey @ 10,841' / 90.89° Inc / 181.04° Azi	0.25
DRL LAT-ROT	Rotate 190' @ 127 ft/hr ** Lower ROP is controlling the inclination correctly. Still having issue with azimuth walk. **	1.5
DRL_SURVEY	Survey @ 11,031' / 90.14° Inc / 183.11° Azi	0.25
DRL LAT-ROT	Rotate 189' @ 108 ft/hr ** Held conference call w/ Pathfinder, Engineer, & Superintendent. Discussing further action plan for drastic azimuth changes. Will take RSS out of Inc/azm hold and program into Inc hold only & manually steer azimuth. **	1.75
DRL_SURVEY	Survey @ 11,220' / 90.48° Inc / 184.8° Azi	0.25
DRL LAT-ROT	Rotate 189' @ 109 ft/hr	1.75
RIGSER	Rig Service	0.5
DRL_SURVEY	Survey @ 11,410' / 87.80° Inc / 181.49° Azi	0.25
DRL LAT-ROT	Rotate 189' @ 109 ft/hr, 20k wob, 128 spm, 495 gpm, 100 rpm, 148 mrpm, 3,800 psi, 450 diff, 16k torque on bottom.	1.75
DRL_SURVEY	Survey @ 11,599' / 90.96° Inc / 187.29° Azi	0.25
DRL LAT-ROT	Rotate 190' @ 76 ft/hr	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 11,789' / 91.00° Inc / 182.97° Azi	0.25
DRL LAT- ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURV EY	Survey @ 11,978' / 89.17° Inc / 181.31° Azi	0.25
DRL LAT- ROT	Rotate 87' @ 116'/hr  **While drilling @ 12,109', a sudden pressure loss of 1,200 psi & 5k torque loss was noticed. Driller notified PNR rep & DD. Went to rig floor and compared current SPP vs. SPR and noticed that current SPP was 100-150 psi lower than SPR's. Brought pumps back up to drilling rates and pressure was still approx 1200 psi lower. Pumped for approx 5 mins @ drilling rate to see if MWD tool would give signal. No signal was received from MWD. Notified PNR field supt, and decision was made to TOH to inspect BHA.**	0.75
U_MTR	PJSM w/ H&P, PNR, & Pathfinder, prepare rig floor f/ trip, & flow check (well static)	0.75
U_MTR	TOOH wet f/ 12,109' - 10,200'.  **Note** Pumped out first 3 stands due to high drag. Pulling 50-75k over P/U weight. Would not pull with out pumping. Encountered tight spots & pulled 360-375k @ 11925', 11765', & 10980'	3.5

Report #: 16 Daily Operation: 6/8/2014 06:00 - 6/9/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
Days From Spud (days) 15	Days on Location (days) 16	End Depth (ftKB) 12,109.0
	End Depth (TVD) (ftKB) 8,628.2	Dens Last Mud (lb/gal) 9.80
		Rig H & P, 604

#### Operations Summary

TOOH, LD Dir Tools, P/U collars and reamers, TIH to circ hole clean before fishing ops

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 15.80 days since rig accepted, 14.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	TOOH f/ pressure loss f/ 10,003' t/ 7,602'. (inside casing shoe) Monitor well through trip tank, hole taking proper displacement.	3.5
RIGSER	Service Rig	0.5
U_MTR	TOOH f/ pressure loss f/ 7,602' t/ 751'. Monitor well through trip tank, hole taking proper displacement.  ** Once out of hole it was discovered that the drive shaft just above the bit box snapped. Est top of fish is 12,032' Left 77.65' of fish in the hole. Bit, RSS, UBHO, Pony Flex, NMDC, Filter sub, Pony Flex, 1' of bit box. **	5
U_MTR	Clean rig floor, & gather & strap BHA for clean out run. Bit, bit sub, 1 - 6.5" D.C, stabilizer, 1 - 6.5" D.C, stabilizer, 1 - 6.5" D.C., X/O sub.	1.5
U_MTR	MU BHA for clean out run.	1.5
U_MTR	TIH f/ BHA t/ 7200' filling every 30 stands & monitoring displacement into trip tank.	3
CUTDL	Cut and slip drill line	2.5
U_MTR	TIH f/ 7200' t/ 9900' filling every 30 stands & monitoring displacement into trip tank.  **Encountered tight spots @ approx 9,900'. Screwed into stand and reamed down. Bottoms up brought back large quarter size shards and flakes of shale w/ normal drill cutting from not cleaning the hole before TOOH. This is the first time we have seen the flaking shale. **	3
U_MTR	Circ 20 bbls weighted sweep around. Sweep brought back normal drill cuttings along with 20% of that being larger shards and flakes of shale. Bringing mud weight up from 9.8+ to 10.0 ppg.	1
U_MTR	TIH f/ 9,900 t/ 10,450' on elevators. Monitor well through trip tank, hole giving proper displacement. Tagged up @ 10,450'.	0.5
U_MTR	Wash & Ream f/ 10,450' t/ 10,835'. 150 spm, 575 gpm, 90 rpm, 2,020 spp, 12-15k trq.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

**Report #: 17 Daily Operation: 6/9/2014 06:00 - 6/10/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days) 16	Days on Location (days) 17	End Depth (ftKB) 12,109.0	End Depth (TVD) (ftKB) 8,628.2	Dens Last Mud (lb/gal) 9.80	Rig H & P, 604	

Operations Summary  
Wash & Ream f/ 10,835' t/ 12,032', Circ, Ream 5 stds out of hole, Ream back to btm, Circ & raise MW to 10.4 ppg, TOO H f/ 12029' t 113', L/D BHA, clean rig floor, gather and strap fishing tools

Remarks  
H & P 604 Well (University 3-19 47H) Progress: 16.80 days since rig accepted, 15.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	Wash & Ream f/ 10,835' t/ 11,005'. 150 spm, 575 gpm, 90 rpm, 2,020 spp, 12-15k trq.	1.5
U_MTR	@ 11,065' Hole packing off, torqueing up. Pump 40 bbl high vis weighted sweep. Sweep unloaded hole, 50% fines, 30% sloughing shale, 20% cutting sized pieces.	1.5
U_MTR	Wash & Ream f/ 11,005' t/ 11,500'. 130 spm, 500 gpm, 70 rpm, 1,550 spp, 6-21k trq.	1.5
U_MTR	@ 11,541' Hole packing off, torqueing up. Pump 40 bbl low vis weighted sweep. Sweep unloaded hole, 30% fines, 10% sloughing shale, 20% cutting sized pieces.	1.5
U_MTR	Wash & Ream f/ 11,541' t/ 12,032'. 130 spm, 500 gpm, 90 rpm, 1,550 spp, 6-21k trq. Shakers are clean currently while reaming. Minium torque & hole not packing off.	3
U_MTR	Tagged @ 12,032', While reciprocating string circulate 40 bbl low vis weighted sweep out of hole 90 rpm, 130 spm, 1,550 spp, 8-15k trq. Sweep brought back 15% in fine cuttings. Pump a second sweep high vis weighted sweep, 120 rpm, 144 spm, 550 gpm, 2,050 spp. Sweep brought back 10% in fines. Shakers clean.	2
U_MTR	Attempt to TOO H on elevators, unable to pull without pumping. Ream 5 stands out and decision was made to ream back to bottom and increase MW from 10.0 to 10.4 ppg.	3
U_MTR	Circulate and raise MW from 10.0 to 10.4 ppg, 150 spm, 575 gpm, 2100 spp, 90 rpm	2.5
U_MTR	TOOH f/ 12,032' t/ 113' on elevators, hole taking proper fill.	6
U_MTR	Function test BOP's, LD XO, 2-stabilizers, bit sub & bit. Rack collars back.	1
U_MTR	Clean rig floor, gather and strap fishing tools.	0.5

**Report #: 18 Daily Operation: 6/10/2014 06:00 - 6/11/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days) 17	Days on Location (days) 18	End Depth (ftKB) 12,109.0	End Depth (TVD) (ftKB) 8,628.2	Dens Last Mud (lb/gal) 10.40	Rig H & P, 604	

Operations Summary  
MU fishing tools, TIH, tag and engage fish, TOO H, 100% of fish recovered, LD fishing tools, break off bit & LD Archer RSS

Remarks  
H & P 604 Well (University 3-19 47H) Progress: 17.80 days since rig accepted, 16.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	MU Overshot, circulating sub, XO & tack weld overshot guide.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	TIH f/ surface t/ 3989', PU jars, energizer sub, & LBS. Monitor displacement through trip tank, hole giving proper displacement	4
U_MTR	TIH f/ 4684' t/ 12,032'. Slack off Wt was 205k from top of curve to fish. Monitor displacement through trip tank, hole giving proper displacement	4.5
U_MTR	Circ @ 50 spm, 320 spp & wash down to top of fish. Set down on top of fish 2 times w/ 50k wob, pressure went up to 500 psi. Pull up on fish, engage jars 2 times and TOOHH with fish.	0.75
U_MTR	TOOH f/ 12,032' t/ BHA. Retireved 100% of fish.	9.25
U_MTR	Break off overshot, LD fishing tools, and flex collar from fish	1.75
U_MTR	Break off bit, LD Archer RSS, MWD, UBHO, & MWD Collar	1.75

Report #: 19 Daily Operation: 6/11/2014 06:00 - 6/12/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
18	19	12,109.0
		End Depth (TVD) (ftKB)
		8,628.2
		Dens Last Mud (lb/gal)
		10.40
		Rig
		H & P, 604

#### Operations Summary

LD Dir BHA, LD 6.5" DC's, Rig down and skid rig to re-center, gather directional tools, pull and inspect wear bushing (good), PU RSS assembly, TIH, rig service, TIH, Ream last 5 stds to bottom

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 18.80 days since rig accepted, 17.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	Continue laying down directional BHA.	2
U_MTR	L/D 1 stand of 6.5" D.C.'s out of derrick from clean out run.	1
U_RIG	JSA w/ H&P, & Pioneer for skid rig back over center.	0.5
	** Precautionary shut in, monitoring pressure on choke. **	
U_OTR	Rig down turn buckles, suck out & remove drip pan, dock top drive, remove gull wings on wrangler, run Hydraulic hoses - connect same.	3.5
U_OTR	Re-center rig over hole. It was moved off center to run surface casing. Had issues running 9 5/8" casing. D.P. pulling bushings out of rotary.	1
U_OTR	Rig back up after rig centered.	3
U_MTR	Gather directional tools to rig floor	0.5
U_MTR	Clean rig floor	0.5
U_MTR	Pull & inspect wear bushing (good), PU wash sub and wash wellhead, Install wear bushing.	1.5
U_MTR	MU bit, MWD, RSS assembly & test	3.25
U_MTR	TIH f/ BHA t/ 7385', motnitor displacement through trip tank, hole giving proper displacement.	3.25
RIGSER	Rig Service	0.5
U_MTR	TIH f/7385' t/ 11,647', motnitor displacement through trip tank, hole giving proper displacement.	2.5
U_MTR	Ream f/ 11,647' t/ 12,109', 110 spm, 415 gpm, 2575 spp, 35 rpm, 9500 trq.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 20 Daily Operation: 6/12/2014 06:00 - 6/13/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
19	20	13,920.0	8,598.1	10.40	H & P, 604	

### Operations Summary

Ream f/ 12,000' t/ 12,109', Drill 8 1/2" Production lateral f/ 12,109' t/ 13,920'

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 19.80 days since rig accepted, 18.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 47%

Line Proximity: 0.7' Right 2.3' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
WASH_RE AM	Continue washing and reaming to bottom F/ 12,000' to 12,109' 40 RPM's 420 GPM,	1
DRL LAT- ROT	Rotate 12' @ 16 ft/hr, 30k wob, 136 spm, 420 gpm, 60 rpm, 148 mrpm, 3,460 psi, 126 diff, 13k torque on bottom.	0.75
DRL_SURV EY	Survey @ 12081' / 87.97° Inc / 181.672° Azi	0.25
DRL LAT- ROT	Rotate 95' @ 63 ft/hr, 30k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,150 psi, 190 diff, 13k torque on bottom.	1.5
DRL_SURV EY	Survey @ 12,175' / 91.27° Inc / 181.29° Azi Right 26.7' Below 18.5	0.25
DRL LAT- ROT	Rotate 95' @ 76' ft/hr, 30k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,150 psi, 180 diff, 13k torque on bottom.	1.25
DRL_SURV EY	Survey @ 12,270' / 91.45° Inc / 180.92° Azi Right 26' Below 17' DLS 0.43°	0.25
DRL LAT- ROT	Rotate 95' @ 54.3' ft/hr, 34k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,500 psi, 190 diff, 13k torque on bottom.	1.75
DRL_SURV EY	Survey @ 12,365' / 91.27° Inc., 180.38° Azi, 25.5', Right, 15.7' Below, 0.60° DLS	0.25
DRL LAT- ROT	Rotate 95' @ 95' ft/hr, 35 k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,500 psi, 302 diff, 17k torque on bottom.	1
DRL_SURV EY	Survey @ 12,460' / 91.27° Inc., 91.51° Azi, 24.1', Right, 14.2' Below, 0.26° DLS	0.25
DRL LAT- ROT	Rotate 94' @ 125' ft/hr, 40 k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,540 psi, 354 diff, 18k torque on bottom.	0.75
DRL_SURV EY	Survey @ 12,554' / 91.17° Inc / 179.3° Azi / 19.1' Right / 12.8' Below / 1.24° DLS	0.25
DRL LAT- ROT	Rotate 190' @ 85/hr	2.25
DRL_SURV EY	Survey @ 12,744' / 90.76° Inc / 178.60° Azi / 11.56' Right / 10.35' Below / 1.48° DLS	0.25
DRL LAT- ROT	Rotate 189' @ 108/hr	1.75
DRL_SURV EY	Survey @ 12,933' / 91.03° Inc / 178.64° Azi / 7.1' Right / 7.4' Below / 0.51° DLS	0.25
DRL LAT- ROT	Rotate 189' @ 95/hr	2
DRL LAT- ROT	Survey @ 13,123' / 90.79° Inc / 179.38° Azi / 0.5' Right / 5.9' Below / 0.72° DLS	0.25
DRL LAT- ROT	Rotate 190' @ 108/hr	1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 13,312' / 90.86° Inc / 181.7° Azi / 0.2' Left / 3.6' Below / 0.76° DLS	0.25
DRL LAT- ROT	Rotate 189' @ 94'/hr	2
DRL LAT- ROT	Survey @ 13,501' / 90.55° Inc / 180.88° Azi / 0.5' Left / 3.6' Below / 0.29° DLS	0.25
DRL LAT- ROT	Rotate 189' @ 126'/hr	1.5
DRL_SURV EY	Survey @ 13,691' / 91.03° Inc / 182.14° Azi / 0.7' Right / 2.3' Below / 0.54° DLS	0.25
DRL LAT- ROT	Rotate 190' @ 126'/hr	1.75

Report #: 21 Daily Operation: 6/13/2014 06:00 - 6/14/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days) 20	Days on Location (days) 21	End Depth (ftKB) 16,098.0	End Depth (TVD) (ftKB) 8,553.9	Dens Last Mud (lb/gal) 10.40	Rig H & P, 604	

#### Operations Summary

Drill 8 1/2" Production lateral f/13,920' t/ 16,098'

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 20.80 days since rig accepted, 19.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 78%

Line Proximity: 2' Left, 10.8' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 13,880' / 89.45° Inc / 182.50° Azi / 5.4' Right / 3' Below / 1.05° DLS	0.25
DRL LAT- ROT	Rotate 94' @ 94' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,620 psi, 477 diff, 18k torque on bottom.	1
DRL_SURV EY	Survey @ 13,975' / 89.76° Inc / 182.62° Azi / 7.6' Right / 4.5' Below / 0.35° DLS	0.25
RIGSER	Rig Service	0.5
DRL LAT- ROT	Rotate 95' @ 126.6' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURV EY	Survey @ 14,069' / 90.00° Inc / 182.49° Azi / 9.8' Right / 5.5' Below / 0.29° DLS	0.25
DRL LAT- ROT	Rotate 95' @ 126.6' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURV EY	Survey @ 14,164' / 89.59° Inc / 180.73° Azi / 10.4' Right / 6.7' Below / 1.91° DLS	0.25
DRL LAT- ROT	Rotate 95' @ 126.6' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURV EY	Survey @ 14,259' / 89.62° Inc / 179.95° Azi / 9' Right / 8' Below / .82° DLS	0.25
DRL LAT- ROT	Rotate 93' @ 93' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	1
DRL LAT- ROT	Survey @ 14,354' / 90.52° Inc / 180.76° Azi / 7.5' Right / 9' Below / .82° DLS	0.25
DRL LAT- ROT	Rotate 94' @ 125' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURV EY	Survey @ 14,448' / 90.93° Inc / 181.26° Azi / 7' Right / 8.5' Below / .69° DLS	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
DRL LAT-ROT	Rotate 95' @ 95' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	1
DRL_SURVEY	Survey @ 14,543' / 90.48° Inc / 181.43° Azi / 7.3.' Right / 8.2' Below / .69° DLS	0.25
DRL LAT-ROT	Rotate 97' @ 129' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURVEY	Survey @ 14,638' / 91.69° Inc / 181.69° Azi / 7.8.' Right / 7.3' Below / 1.3° DLS	0.25
DRL LAT-ROT	Rotate 64' @ 85' ft/hr, 36 k wob, 124 spm, 475 gpm, 65 rpm, 138 mrpm, 3,700 psi, 545 diff, 19k torque on bottom.	0.75
DRL_SURVEY	Survey @ 14,732' / 91.62° Inc / 181.66° Azi / 8.5.' Right / 5.4' Below / 0.08° DLS	0.25
DRL LAT-ROT	Rotate 93' @ 186' ft/hr, 36 k wob, 124 spm, 475 gpm, 65 rpm, 138 mrpm, 3,700 psi, 565 diff, 19k torque on bottom.	0.5
DRL_SURVEY	Survey @ 14,827' / 91.17° Inc / 179.09° Azi / 7.16.' Right / 3.89' Below / 2.75° DLS	0.25
DRL LAT-ROT	Rotate 126' @ 126' ft/hr, 36 k wob, 124 spm, 475 gpm, 65 rpm, 138 mrpm, 3,700 psi, 565 diff, 19k torque on bottom.	0.75
DRL_SURVEY	Survey @ 14,922' / 91.58° Inc / 178° Azi / 7.16.' Right / 3.89' Below / 1.22° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 15,111' / 91.89° Inc / 179.49° Azi / 1.58.' Right / 15.69' Below / 1.28° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 15,300' / 91.75° Inc / 181.16° Azi / 0.5' Left / 13.2' Below / 0.92° DLS	0.25
DRL LAT-ROT	Rotate 190' @ 108' ft/hr, 24k wob, 124 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 19.5k torque on bottom.	1.75
DRL_SURVEY	Survey @ 15,490' / 92.41° Inc / 182.09° Azi / 1.9' Right / 10.8' Below / 0.75° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 15,679' / 90.21° Inc / 179.80° Azi / 2.0' Right / 10.9' Below / 1.61° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 126'/hr	1.5
DRL_SURVEY	Survey @ 15,868' / 92.03° Inc / 179.65° Azi / 2.0' Left / 10.8' Below / 0.6° DLS	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 15,963' / 91.75° Inc / 179.85° Azi / 4.0' Left / 9.7' Below / 0.36° DLS	0.25
DRL LAT-ROT	Rotate 95' @ 95'/hr	1



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 22 Daily Operation: 6/14/2014 06:00 - 6/15/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 029904
Days From Spud (days) 21	Days on Location (days) 22	End Depth (ftKB) 18,080.0	End Depth (TVD) (ftKB) 8,506.0	Dens Last Mud (lb/gal) 10.40	Rig H & P, 604

### Operations Summary

Drill 8 1/2" Production lateral f/16,098' t/ 18,080', Pump 2 80 bbl weighted sweeps & Circ 2 BU.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 21.80 days since rig accepted, 20.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Lateral drill time: 84 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotate 95 ' @ 95' ft/hr, 24k wob, 124 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 19.5k torque on bottom.	0.75
DRL_SURVEY	Survey @ 16,153' / 91.89° Inc / 180.76° Azi / 6.6 Left / 7.8' Below / 0.77° DLS	0.25
DRL LAT-ROT	Rotate 95 ' @ 128' ft/hr, 24k wob, 124 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.	0.75
RIGSER	Service Rig.	0.5
DRL_SURVEY	Survey @ 16247' / 90.41° Inc / 178.97° Azi / 8 Left / 8' Below / 2.48° DLS	0.25
DRL LAT-ROT	Rotate 94 ' @ 125' ft/hr, 24k wob, 124 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.	0.75
DRL_SURVEY	Survey @ 16342' / 91.82° Inc / 180.16° Azi / 10.7 Left / 8' Below / 1.95° DLS	0.25
DRL LAT-ROT	Rotate 95 ' @ 95' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.	1
DRL_SURVEY	Survey @ 16437' / 91.72° Inc / 181.29° Azi / 11 Left / 7.3' Below / 1.19° DLS	0.25
DRL LAT-ROT	Rotate 94 ' @ 125' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.	0.75
DRL_SURVEY	Survey @ 16,531' / 91.62° Inc / 182.64° Azi / 9.4 Left / 6.6' Below / 1.43° DLS	0.25
DRL LAT-ROT	Rotate 95 ' @ 190' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.	0.5
DRL_SURVEY	Survey @ 16,626' / 91.38° Inc / 182.99° Azi / 6.4 Left / 6.3' Below / 0.36° DLS	0.25
DRL LAT-ROT	Rotate 94 ' @ 94' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.	1
DRL_SURVEY	Survey @ 16,720' / 91.65° Inc / 183.38° Azi / 2.8 Left / 5.8' Below / 0.60° DLS	0.25
DRL LAT-ROT	Rotate 95 ' @ 126' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.	0.75
DRL_SURVEY	Survey @ 16,815' / 90.96° Inc / 181.57° Azi / 0.3 Left / 5.8' Below / 2.05° DLS	0.25
DRL LAT-ROT	Rotate 95 ' @ 195' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.	0.5
DRL_SURVEY	Survey @ 16910' / 91.27° Inc / 180.78° Azi / 0.1Right / 6' Below / 0.89° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108/hr	1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
DRL_SURVEY	Survey @ 17099' / 91.55° Inc / 180.37° Azi / 1.1 Left / 5.3' Below / 0.28° DLS	0.25
DRL LAT-ROT	Rotate 190' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 17,289' / 91.24° Inc / 180.43° Azi / 3.13 Left / 5' Below / 0.18° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 17,383' / 91.17° Inc / 180.02° Azi / 4.3 Left / 5.8' Below / 0.44° DLS	0.25
DRL LAT-ROT	Rotate 95' @ 76' ft/hr, 27k wob, 110 spm, 422 gpm, 85 rpm, 122 mrpm, 3,350 psi, 350 diff, 20k torque on bottom.  ** NOTE** Drilling with 1 pump on hole while changing swabs & liner on #2 pump.	1.25
DRL_SURVEY	Survey @ 17,573' / 91.79° Inc / 180.86° Azi / 5.1 Left / 4.5' Below / 0.42° DLS	0.25
DRL LAT-ROT	Rotate 187' @ 93.5' ft/hr, 17k wob, 110 spm, 422 gpm, 85 rpm, 122 mrpm, 3,350 psi, 350 diff, 17k torque on bottom.  ** NOTE** Drilling with 1 pump on hole while changing swabs & liner on #2 pump.	2
DRL_SURVEY	Survey @ 17,762' / 91.41° Inc / 179.68° Azi / 7.6 Left / 3.9' Below / 0.51° DLS	0.25
DRL LAT-ROT	Rotate 191' @ 95'/hr  ** NOTE** Drilling with 1 pump on hole while changing swabs & liner on #2 pump.	2
DRL_SURVEY	Survey @ 17,951' / 91.07° Inc / 179.87° Azi / 13.1 Left / 3.8' Below / 0.24° DLS	0.25
DRL LAT-ROT	Rotate 89' @ 89'/hr  *TD Lateral section of well 18,080' @ 4:30.*  ** NOTE** Drilling with 1 pump on hole while changing swabs & liner on #2 pump.	1
DRL_SURVEY	Survey @ 18,040' / 91.31° Inc / 179.99° Azi / 11.3' Left / 1' Below / 0.30° DLS	0.25
CIRC	Pump 2 80 bbl weighted sweeps, Circ 2 BU, Back ream t/ 14,000', ream f/ 14,000' t/18,080', Circ 2 BU, TOOH	1.25

Report #: 23 Daily Operation: 6/15/2014 06:00 - 6/16/2014 06:00

Job Category		Primary Job Type		AFE Number	
ORIG DRILLING		ODR		029904	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
22	23	18,080.0	8,506.0	10.50	H & P, 604

### Operations Summary

Pump 2-80 bbl weighted sweeps, Circ 2 BU, Back ream t/ 11,458', TOOH f/ 11,458' t/ 9,090' Pump 40 bbl weighted sweep, Circ BU.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 22.80 days since rig accepted, 21.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Lateral drill time: 84 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

Time Log Summary		
Operation	Com	Dur (hr)
CIRC	Pump 2-80 bbl weighted sweeps, Circ 2 BU,	3.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
WASH_RE AM	Backream f/18,080' t/11,458' (70 stds) Rot wt 195k, PU wt 205k, 50 rpm, 120 spm, 3400 psi and 11,200 trq.  **Note** Attempted to pull without rotary & pumps every stand from 12,500' up. Was not able to pull without pumps until we reached 11,458' due to pick up weight being 100k+ over string weight.  **Note** Pulling 15'/min as per Pathfinder.	16.5
TOOH	TOOH f/ 11,458' t/ 9090' on elevators, hole taking proper fill.	2.5
CIRC	Pump 1-40 bbl weighted sweep, Circ until sweep clears and shakers are clean, 120 spm, 2650 psi, 50 rpm and reciprocate pipe.	1.5

Report #: 24 Daily Operation: 6/16/2014 06:00 - 6/17/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
23	24	18,080.0
		End Depth (TVD) (ftKB)
		8,506.0
		Dens Last Mud (lb/gal)
		10.70
		Rig
		H & P, 604

### Operations Summary

Lost 1000 psi while circ. @ base of curve. TOOH to inspect. Left all tools below mandrel in hole. Test BOP and accum. . Pick up fishing tools TIH.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 23.80 days since rig accepted, 22.89 days from spud

Rig NPT: 16 hours for previous 24 hours, 19.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Pump 2-40 bbl weighted sweep, Circ until sweep clears and shakers are clean, 120 spm, 2650 psi, 50 rpm and reciprocate pipe.	0.75
U_LPP	While Circ. second sweep out of hole and working pipe, pump pressure fell from 2750 psi to 1610 psi. Test all surface lines and trouble shoot problem. Came down on string to 9061' and regained pump psi. Finish Circ sweep out of hole and TOOH.	1.25
U_OTR	TOOH f/ 9090' t/ 1892' surface on elevators, hole taking proper fill.	5
U_OTR	Lay down 19 stands DP that no room to rack in derrick F/ 1892' to 187', lay down all associated directional tools. Motors sperated from lower BHA @ mandrel. Clean and clear rig floor after pulling entire string wet.  *Fish in hole DBL pin pony sub, Filter sub, Stabalizer, Flow sleeve, NMDC, CLPS sub, UBHO, Power drive and Bit. Fish length 63.64'. Expected top of fish @ 8998'.	3.5
RIGSER	Rig Service	0.5
U_OTR	Remove wear bushing and inspect, PU wash out tool and clean stack to prepare for BOP test.	2
NU/TEST	Review JSA on testing BOPs, RU testing equipment, M/U test plug, open csg valve, set 13 5/8" test plug, RU test BOP's Pipe rams, Annular, & blind rams 250 psi low and 3,500 psi high. TIW & inside BOP safety valves, Choke & Kill line 250 psi low 3,500 psi high. Choke & choke manifold & valves 250 psi. low 3500 psi. high. Tested stand pipe back to rig pumps 250 psi. low 4,500 psi. high. all test held for 5min. and charted. Rig down testing equipment. and Preform Accumulator bleed down test. Final Accumulator bottle pressure 1200 psi.	6.75
U_OTR	Install wear bushing..	0.5
U_FSH	Stage and PU Fishing BHA, 8 1/8" overshot, 8 1/8" extension, 4 1/2 IF box to 4 1/2 FH XO, 1 Stnd of 5" DP, and 6 1/2' float sub. Total length 104'.	1.75
U_FSH	TIH w/ 94 stand of 5" DP to top of fish 8998'.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 25 Daily Operation: 6/17/2014 06:00 - 6/18/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
24	25	18,080.0	8,506.0	10.70	H & P, 604	

### Operations Summary

TIH to 7708', cut and slip drill line. TIH to top fish, tag @ 8927'. Catch Fish, TOH. Lay down fishing tools and break down directional BHA. Pull wear bushing, rig up CRT and Run 5.5" casing

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 24.80 days since rig accepted, 23.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	TIH w/ Fishing BHA T/7539.	1.5
CUTDL	Slip and Cut Drilling Line. Recalibrate Drawworks.	3
RIGSER	Service rig and clean floor	0.5
U_FSH	Continue TIH with fishing assembly F/ 7711' to 8927' Top of fish	1
U_FSH	Circulate on top of fish Slack down onto fish with 90 K down. Incess in pump pressure from 400 PSI to 700 PSI, Pick up before latching onto fish 220 K after 230 K.	0.5
U_FSH	POOH with Fish. Normal drag and hole taking proper fill.	7.5
BHA	Break down and lay out fishing BHA and fish ( lower directional BHA ).	2
WEARBUS HING	Clear rig floor and remove wear bushing. Verified by PNR rep.	0.5
RU/RD EQUIPT	Safety meeting w/ Franks CRT, PNR rep. on floor. Stage and rig up all CRT equipment and prepare for casing run.	4.5
CASE	Make up shoe track, Run 5.5" production casing f/ RKB to 350'. Torque values and track assmb. verified by PNR rep. Recommended optimal torque of 11,000 lbs being applied. Run casing in hole @ 100' per min while in casing. Slow speed to 60' per min in curve.	3

Report #: 26 Daily Operation: 6/18/2014 06:00 - 6/19/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
25	26	18,080.0	8,506.0	10.80	H & P, 604	

### Operations Summary

Run 5.5" Prod. casing f/ 1,200' to 11,733'.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 25.80 days since rig accepted, 24.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CASE	Run Production Casing 5 1/2" P-110 20# BTC casing F/ 1200' to 3290'	4
U_OTR	Frank's Working on mud Valve on CRT Tool could not get valve broke out layed down CRT tool and Picked up Back up tool.	4
CASE	Continue Running in hole with 5 1/2" P-110 20# BTC casing f/ 3290' to 7678'.	8
CIRC	Circ. BU @ base of shoe 7678'. 3700 STK @ 75 SPM.	1
CASE	Continue Running in hole with 5 1/2" P-110 20# BTC casing f/ 7678' to 11,733'. SO speed trough curve 60'/ min. PU speed to 100'/ min after entering lateral section.	6
CIRC	Circ. BU @ 11,733'. 5,500 STK @ 75 SPM.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 27 Daily Operation: 6/19/2014 06:00 - 6/20/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 029904	
Days From Spud (days) 26	Days on Location (days) 27	End Depth (ftKB) 18,080.0	End Depth (TVD) (ftKB) 8,506.0	Dens Last Mud (lb/gal) 10.80	Rig H & P, 604	

### Operations Summary

Run 5.5" P 110 20# BTC casing f/ 11,765'-18,068'. Cement Production string. Nipple down BOP

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 26.80 days since rig accepted, 25.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Circ. BU @ 11,733'. 5,500 STK @ 75 SPM.	1
CASE	Continue Running in hole with 5 1/2" P-110 20# BTC Production casing f/ 11,761' to 15,761'.	5.5
CIRC	Circulate bottom up @ 15761' @ 7 BBLS MIN. 1062 PSI	1.5
CASE	Continue Running in hole with 5 1/2" P-110 20# BTC Production casing f/ 15,761' to 18,068'. Wash down through tight hole 17,340' - 17,365' @ 287 GPM.	4
CIRC	Circ minimum of 1 casing volume prior to cement job. 401 bbls @ 288 GPM w/ full returns.	1.5
RIG UP / RIG DOWN	Rig down casing equipment and install long bails.	0.5
RIG UP / RIG DOWN	Rig up cement head and steel lines.	0.75
CMT	<p>Pump 20 bbls water to reserve pit</p> <p>Pressure test cement lines @ 5000 psi Cement 5-1/2" 20 ppf P-110 Tenaris BTC. Mix and Pump @ 6 bpm</p> <p>Mud Push Express: 50 bbls @ 10.8 ppg, 1.0 lb/bbl of MUD PUSH Express B389, 2.0 gal/bbl of B220 Surfactant, 0.2 gal/bbl of D206 Antifoam, D031 Barite 135.46 lb/bbls.</p> <p>Mix and Pump @ 6.2 bpm Scavenger Slurry (Lead): 244 bbls @ 11.5 ppg. yield 2.19 cu.ft/sk w/12.84 gal/sk H2O. Cement, 626 sks 75 lb/sk blend D049, Additives: 0.6% fluid loss D207 BWOB, 7% extender D020 BWOB, 0.2 % anti foam D046 BWOB, 0.6% retarder D013 BWOB, and, 0.1% Dispersant D065 BWOB. .</p> <p>Mix and Pump @ 6.2 bpm Tail Slurry: 510 bbls @ 12.5 ppg TXI Liteweight Cement. 1724 sks 75 lb/sk.Blend D049. w/ Mix Fluid 8.92 gal/sk.Yield 1.66 cu.ft/sk Additives: 7 % extender D020 BWOB, 0.6 % FluidLoss D207 BWOB, 0.2 % D046 BWOB Anti Foam, 0.6% D013 BWOB Retarder, 0.1% D065 BWOB Dispersant.</p> <p>Load &amp; Drop Bottom Plug, pump 10bbls of sugar water. Load Top Plug. Mix and Pump @ 6.2 bpm Biocide Displacement, 399 bbls fresh water @ 8.33 lb/gal. Fresh Water.</p> <p>Lift Pressures: 10 bbls - 6.2 bpm - 195 psi, 100 bbls - 6.2 bpm - 1,279 psi, 150 bbls- 6.2 bpm- 1,830 psi, 200 bbls- 6.2 bpm- 2,184 psi, 220 bbls 6.2 bpm - 2,195 psi, 300 bbls- 6.2 bpm- 2,321 psi. Ruptured bottom plug @ 390 bbls with 2,600 psi. 400 bbls - 2.3 bpm - 1,940 psi. Bumped plug after 400 bbls pumped w/ 2,463 psi</p> <p>Held pressure 5 min released pressure 3.5 bbl returned. Floats Held.</p> <p>Plug down @ 01:15 6/20/14. Bumped Plug @ 500 psi over final lift psi to 2,463 psi. Full returns throughout cementing operations.</p> <p>** 8 bbls of cement back to surface. **</p>	4.75
RIG UP / RIG DOWN	Flush through stack, rig down cement head and associated lines.	1
NU/ND BOP	Nipple down BOP, install and set 5.5" casing slips. Set slips @ 270 k- 50 k over 220 k string wt.	3.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 28 Daily Operation: 6/20/2014 06:00 - 6/20/2014 10:30

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days) 26	Days on Location (days) 27	End Depth (ftKB) 18,080.0	End Depth (TVD) (ftKB) 8,506.0	Dens Last Mud (lb/gal) 10.70	Rig H & P, 604	

Operations Summary  
Run 5.5" P 110 20# BTC casing f/ 11,765'-18,068'. Cement Production string. Nipple down BOP, Set emergency slips, Rough & final cut 5.5" casing, Install abandonment cap, Clean pits,

Remarks  
H & P 604 Well (University 3-19 47H) Progress: 27.80 days since rig accepted, 26.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
WLHEAD	Set 5 1/2" casing slips with 270K set on slips	1
WLHEAD	Make rough cut on production casing and lay down Excess casing and one Joint.	0.75
NU/ND BOP	Nipple down Flow line, Choke line, Kill Line, Bell Nipple, BOP spacer spool, and set Bop's Back	0.75
HOT OIL/WATER	Make findal cut on 5 1/2" casing and install Dry Hole Cap,	2
R	Note Last report on This well.	

Report #: 1 Daily Operation: 7/13/2014 06:00 - 7/14/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234
Days From Spud (days) 50	Days on Location (days) 1	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	

Operations Summary  
NU 'B' section  
Plumb in surface and casing  
Fill cellar  
NU frac valve and flow cross  
RU wire line.  
Make Ga. ring and junk basket run. rom 8,947'  
RIH Gamma ray and CBL  
Log from 8,947' to surface top of cement @ surface  
RDMO  
WSI

Remarks

### Time Log Summary

Operation	Com	Dur (hr)
WSI	WSI	2
WLHEAD	Install "B" section and test void	2
WLHEAD	Plumb in surface and casing	2
WLHEAD	Fill in cellar	1
WLHEAD	NU 7-1/16 , 10 K Frac valve Shut well in SDFN	1
WIRELN	RU wire line. Make Ga. ring and junk basket run. RIH Gamma ray and CBL From 8,947' Tot of cement @ surface POOH RDMO	4
WSI	WSI	12

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Report #: 2 Daily Operation: 7/14/2014 06:00 - 7/15/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 51	Days on Location (days) 2	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig

Operations Summary  
 MIRU PPS Coil Unit  
 Spot frac tanks spotted  
 Lay flow line  
 Filltanks with Treated Fresh water  
 SDFN  
 Remarks

### Time Log Summary

Operation	Com	Dur (hr)
WSI	WSI	1
MIRU	MIRU PPS Coil Unit and spot	4.5
RURD	RU Flow line	2
MIRU	Spot Frac Tanks and fill with treated f/water	4.5
WSI	WSI	12

### Report #: 3 Daily Operation: 7/15/2014 06:00 - 7/16/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 52	Days on Location (days) 3	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig

Operations Summary  
 Install BHA  
 Test lines and tools  
 RIH Tag @17,952 pull up 6'  
 Circulate 16 BBLS of limeonene and 5 BBLS water and displace with Treated fresh water  
 POOH / Purged coil out at 500' from surface  
 RDMO  
 WSI  
 Remarks

### Time Log Summary

Operation	Com	Dur (hr)
WSI	WSI	1
RU/RD EQUIPT	Rig up PPS Coil unit Install clean out BHA  C/T conn. OD 3.12 ID 1.37 L 1.38  Dual BPV 2.88 1 1.21  CTT 2.88 1 5.35  Hyd Released 2.88 0.75 2.13 3/4 ball  Circ Sub 2.88 0.625 1.38 5/8 ball  Tempress 2.88 0 2.69 Screen  Tempress 2.88 0 2.69 Hydrapull  X-Over 3.08 1.38 0.53  4-5/8 JZ Bit 4.65 3 Hole 0.50	4.5
RIH	Tag @ 17,952' pull up 6'	3
CIRC	Circulate 16 BBLS of limeonene and 5 BBLS water and displace with Treated fresh water.	2
POOH	POOH	5.5
RDMO	RDMO	2
WSI	WSI	6



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Report #: 4 Daily Operation: 7/16/2014 06:00 - 7/17/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
53	4	0.0					

#### Operations Summary

W.S.I. waited on Schlumberger wireline for 17.5 hr.s

MIRU schlumberger wireline & tractor

Started in hole & tested tools

#### Remarks

Jim Bradshaw on Days

#### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI .Waiting on Schlumberger to arrive on location to tractor geophone to setting depth ( they had to replace spool on wireline truck )	17.5
RURD	M.I.R.U. Schlumberger wireline and tractor	4.5
WLOTHR	Picked up and tested geophones & tractor / started in hole	2

### Report #: 5 Daily Operation: 7/17/2014 06:00 - 7/18/2014 06:00

Job Category			Primary Job Type			AFE Number	
ORIG COMPLETION			OCM			030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
54	5	0.0					

#### Operations Summary

Jim Bradshaw on days

Finished tractorring geophones to set depths

Hung wireline off / well is ready to be used as monitor well for frac. op.s

#### Remarks

#### Time Log Summary

Operation	Com	Dur (hr)
Saftey meeting		0.5
WLOTHR	Finished tractorring geophones to T.D at 17,897' / pulled up 50' to 17,847' ( bottom of tools ) VSI Sensors depths are as follows 1) 17,846' 2) 17,746' 3) 17,646' 4) 17,546' 5) 17,446' 6) 17,346' 7) 17,246' 8) 17,146'	12.5
WLOTHR	Hung wireline off on top of well head ( well ready to be used as monitor well for frac. op.s )	2.5
WSI	W.S.I. ( Ready to be used as monitor well )	8.5

### Report #: 6 Daily Operation: 7/18/2014 06:00 - 7/19/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
55	6	0.0				

#### Operations Summary

Jim Bradshaw on days

Well being used as monitor well for frac. op.s

#### Remarks

#### Time Log Summary

Operation	Com	Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H	24

### Report #: 7 Daily Operation: 7/19/2014 06:00 - 7/20/2014 06:00

Job Category			Primary Job Type			AFE Number		
ORIG COMPLETION			OCM			030234		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
56	7	0.0						

#### Operations Summary

Jim Bradshaw on days

Well being used as monitor well for frac. op.s

#### Remarks

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H	24

**Report #: 8 Daily Operation: 7/20/2014 06:00 - 7/21/2014 06:00**

Job Category		Primary Job Type		AFE Number	
ORIG COMPLETION		OCM		030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
57	8	0.0			

#### Operations Summary

Jim Bradshaw on days

Well being used as monitor well for frac. op.s

#### Remarks

At 19:30 pulled geophones up 1500'

### Time Log Summary

Operation	Com	Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H 19:30 pulled geophones up 1500' / new VSI sensors depths are as follows 1) 16,346' 2) 16,246' 3) 16,146' 4) 16,046' 5) 15,946' 6) 15,846' 7) 15,746' 8) 15,646'	24

**Report #: 9 Daily Operation: 7/21/2014 06:00 - 7/22/2014 06:00**

Job Category		Primary Job Type		AFE Number	
ORIG COMPLETION		OCM		030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
58	9	0.0			

#### Operations Summary

Well being used as monitor well for frac. ops

#### Remarks

Jim Bradshaw-Days/ Fabian Sotelo-Nights

Well being used as monitor well for frac. ops

### Time Log Summary

Operation	Com	Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H	24

**Report #: 10 Daily Operation: 7/22/2014 06:00 - 7/23/2014 06:00**

Job Category		Primary Job Type		AFE Number	
ORIG COMPLETION		OCM		030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
59	10	0.0			

#### Operations Summary

Well being used as monitor well for frac. ops

#### Remarks

Jim Bradshaw-Days/ Fabian Sotelo-Nights

Well being used as monitor well for frac. ops

### Time Log Summary

Operation	Com	Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H	24

**Report #: 11 Daily Operation: 7/23/2014 06:00 - 7/24/2014 06:00**

Job Category		Primary Job Type		AFE Number	
ORIG COMPLETION		OCM		030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
60	11	0.0			

#### Operations Summary

Well being used as monitor well for frac. ops

#### Remarks

Jim Bradshaw-Nights/ Fabian Sotelo-Days

Well being used as monitor well for frac. ops

### Time Log Summary

Operation	Com	Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H	24

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

<b>Report #: 12 Daily Operation: 7/24/2014 06:00 - 7/25/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 61	Days on Location (days) 12	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary Well being used as monitor well for frac. ops					
Remarks Jim Bradshaw-Nights/ Fabian Sotelo-Days Well being used as monitor well for frac. ops					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H				24
<b>Report #: 13 Daily Operation: 7/25/2014 06:00 - 7/26/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 62	Days on Location (days) 13	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary Well being used as monitor well for frac. ops					
Remarks Jim Bradshaw-Nights/ Fabian Sotelo-Days Well being used as monitor well for frac. ops					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H				24
<b>Report #: 14 Daily Operation: 7/26/2014 06:00 - 7/27/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 63	Days on Location (days) 14	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary Well being used as monitor well for frac. ops					
Remarks Jim Bradshaw-Nights/ Fabian Sotelo-Days Well being used as monitor well for frac. ops					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WLOTHR	Well being used as monitor well for frac.s on 44-45-46H				18
RURD	Schlumberger done monitoring frac.s / pulled geophones out of hole & layed down				6
<b>Report #: 15 Daily Operation: 7/27/2014 06:00 - 7/28/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 64	Days on Location (days) 15	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary WSI, Awaiting Frac Ops on the #49H					
Remarks Jim Bradshaw-Nights/ Fabian Sotelo-Days WSI, Awaiting Frac Ops on the #49H					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H				24
<b>Report #: 16 Daily Operation: 7/28/2014 06:00 - 7/29/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 65	Days on Location (days) 16	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary WSI, Awaiting Frac Ops on the #49H					
Remarks Jim Bradshaw-Nights/ Fabian Sotelo-Days WSI, Awaiting Frac Ops on the #49H					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H				24

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

<b>Report #: 17 Daily Operation: 7/29/2014 06:00 - 7/30/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 66	Days on Location (days) 17	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary WSI, Awaiting Frac Ops on the #49H					
Remarks Jim Bradshaw-Nights/ Fabian Sotelo-Days WSI, Awaiting Frac Ops on the #49H					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H				24
<b>Report #: 18 Daily Operation: 7/30/2014 06:00 - 7/31/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 67	Days on Location (days) 18	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary WSI, Awaiting Frac Ops on the #49H					
Remarks Shane Snider - Days / Donnie Wilson - Nights WSI, Awaiting Frac Ops on the #49H					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H				24
<b>Report #: 19 Daily Operation: 7/31/2014 06:00 - 8/1/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 68	Days on Location (days) 19	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary WSI, Awaiting Frac Ops on the #49H					
Remarks Shane Snider - Days / Donnie Wilson - Nights WSI, Awaiting Frac Ops on the #49H					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H				24
<b>Report #: 20 Daily Operation: 8/1/2014 06:00 - 8/2/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 69	Days on Location (days) 20	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary WSI, Awaiting Frac Ops on the #49H					
Remarks Shane Snider - Days / Donnie Wilson - Nights WSI, Awaiting Frac Ops on the #49H					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H				24
<b>Report #: 21 Daily Operation: 8/2/2014 06:00 - 8/3/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 70	Days on Location (days) 21	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
Operations Summary WSI, Awaiting Frac Ops on the #49H					
Remarks Shane Snider - Days / Donnie Wilson - Nights WSI, Awaiting Frac Ops on the #49H					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H				24

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

**Report #: 22 Daily Operation: 8/3/2014 06:00 - 8/4/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
71	22	0.0				

**Operations Summary**

WSI, Awaiting Frac Ops on the #49H

**Remarks**

Shane Snider - Days / Donnie Wilson - Nights

WSI, Awaiting Frac Ops on the #49H

**Time Log Summary**

Operation	Com	Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H	24

**Report #: 23 Daily Operation: 8/4/2014 06:00 - 8/5/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
72	23	0.0			PIONEER PUMPING SERVICES, FLEET #4	

**Operations Summary**

RU PPS

RU API WL

RU API Lubricator

Open Toe Sleeve

Frac Stage 1 @ Report Time

Held 1,500 psi on the intermediate casing

**Remarks**

Shane Snider - Days / Donnie Wilson - Nights

PPS Downtime: 0.0 Hrs Cum: 0.0 Hrs  
 Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
 API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
 API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
 Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs

FTR: 0 bbls

RT: 0 bbls

CR: 0 bbls

LTR: 0 bbls

TSIF: 0 lbs

**Time Log Summary**

Operation	Com	Dur (hr)
WOF	WSI, Awaiting Frac Ops on the #49H	5
RURD	NU Priority Frac Stac RU PPS Frac RU API WL RU API Lubricator	11
U_PEPXD	d-limonene was ordered 8-3-2014, has yet to be delivered to location.	6
OPEN_SLE EVE	Open well 04:17. Test the intermediate casing to 1,500 psi. Open bottom Frac valve. Pressure up on 5.5 casing to 6,500 psi , Monitor pressure , 5 min 6,584 psi , 10 min 6,574 psi , 15 min 6,555 psi , Intermediate pressure stayed at 1,500 psi , Brought pressure up to 9,500 psi. Sleeve opened in 25 min , Pressure was at 9,400 psi when it opened , Pressure came down to 4,200 psi in 3 min.	1
STIM	Frac Stage 1 @ Report Time	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 24 Daily Operation: 8/5/2014 06:00 - 8/6/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
73	24	0.0			PIONEER PUMPING SERVICES, FLEET #4		

Operations Summary

Frac Stage 1, 2.  
P/P Stage 2, 3.

Held 1,500 psi on the intermediate casing

Remarks

Shane Snider - Days / Donnie Wilson - Nights

PPS Downtime: 11.0 Hrs Cum: 17.0 Hrs  
 Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
 API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
 API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
 Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs

FTR: 11,895 bbls

RT: 0 bbls

CR: 0 bbls

LTR: 11,895 bbls

TSIF: 403,645 lbs

Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>Frac Stage # 1 of 30. Test stack to 9,500 psi , Held 1,500 psi on the intermediate casing.            Frac perms as proposed W/ 37 bbls. 15% HCL,            66,533 lbs 30/50 2,429 BBLs Hybrid fluid, down 5.5' CSG</p> <p>Started Stage w/ 15# gel Equivalent gel loading,            Held 9 @ 73 *F thru all 40/70 brown sand from 0.5 ppg thru 3.0 ppg.            Placed 100% sand in formation</p> <p>Avg rate: 30 BPM      Avg PSI: 3,701            Max rate: 33 BPM      Max PSI: 9,685            ISIP: 2,784 PSI      FG: 0.76</p> <p>FTR Total: 2,428 BBLs            LTR Total: 2,428 BBLs            Total SIF: 66,533 LBS</p>	2
PERF	<p>RU API WL for stage #2 of 32. RIH &amp; pumped down w/Schlumberger CFP &amp; 5 – 3-1/8" guns, set CFP @ 17,942' Perforated            Intervals: 17,932-17,930 / 17,872-17,870 / 17,812-17,810 / 17,752-17,750 / 17,692 -17,690 w/ 60 deg phased, 21.5 gram charge,            0.42" Owen perf guns. 40 holes total. POOH, RD WL</p> <p>Pump Down @ 14 bpm / 3,033 psi. Line Speed 225 ft/min</p> <p>Used 633 bbls            LTR Total 3,061 bbls</p>	3
U_PEPXD	Downtime due to leaks on pumps. Replace D ring and iron on back of pump. Working on getting pop-offs set.	1.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
STIM	<p>Frac Stage # 2 of 32. Test stack to 9,500 psi , Held 1,500 psi on the intermediate casing. Frac perms as proposed W/ 56 bbls. 15% HCL, 337,112 lbs 30/50 8,271 BBLS Hybrid fluid, down 5.5' CSG</p> <p>Formation broke @ 20 BPM/ 3,255 PSI</p> <p>Step Down: 80 bpm @ 6,137 psi 60 bpm @ 4,885 psi 40 bpm @ 3,941 psi 20 bpm @ 3,105 psi</p> <p>Pad ISIP: 2,799 psi / Pad F.G 0.76 / 5 min - 2,585 psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, Held 10 @ 86 °F thru all 30/50 brown sand from 0.5 ppg thru 3.0 ppg. Placed 100% sand in formation</p> <p>Avg rate: 71 BPM      Avg PSI: 6,222 Max rate: 80 BPM      Max PSI: 7,502 ISIP: 3,263 PSI      FG: 0.81</p> <p>FTR Total: 11,332 BBLS LTR Total: 11,332 BBLS Total SIF: 403,645 LBS</p>	2
PERF	<p>RU API WL for stage #3 of 32. RIH &amp; pumped down w/Schlumberger CFP &amp; 5 – 3-1/8" guns, set CFP @ 17,661' Perforated Intervals: 17,632-17,630 / 17,572-17,570 / 17,512-17,510 / 17,452-17,450 / 17,392 -17,390 w/ 60 deg phased, 21.5 gram charge, 0.42" Owen perf guns. 40 holes total. POOH, RD WL</p> <p>Pump Down @ 14 bpm / 3,100 psi. Line Speed 225 ft/min</p> <p>Used 563 bbls LTR Total 11,895 bbls</p>	3
STIM	<p>Blender went down when we started 2# sand. Flush well bore and will replace Blender</p> <p>Frac Stage # 3 of 32. Test stack to 9,500 psi , Held 1,500 psi on the intermediate casing. Frac perms as proposed W/ 43 bbls. 15% HCL, xxxxxx lbs 30/50 xxxxx BBLS Hybrid fluid, down 5.5' CSG</p> <p>Formation broke @ 20 BPM/ 4,538 PSI</p> <p>Step Down: 80 bpm @ 5,522 psi 60 bpm @ 4,452 psi 40 bpm @ 3,716 psi 20 bpm @ 3,230 psi</p> <p>Pad ISIP: 2,280 psi / Pad F.G .76 / 5 min - 2,950 psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, Held 10 @ 86 °F thru all 30/50 brown sand from 0.5 ppg thru 3.0 ppg. Placed 100% sand in formation</p> <p>Avg rate: xx BPM      Avg PSI: xxxxx Max rate: 80 BPM      Max PSI: xxxxx ISIP: xxxxx PSI      FG: xxxxx</p> <p>FTR Total: 11,332 BBLS LTR Total: 11,332 BBLS Total SIF: 403,645 LBS</p>	3
U_PEPXD	Bender Down	9.75



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 25 Daily Operation: 8/6/2014 06:00 - 8/7/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 74	Days on Location (days) 25	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig PIONEER PUMPING SERVICES, FLEET #4

### Operations Summary

Frac Stage 3, 4. Frac Stage 5 @ Report Time.  
Perf Stage 4, 5.

### Remarks

Shane Snider - Nights  
Justin Locklar/Bobby Stephens - Days

PPS Downtime: 11.00 Hrs Cum: 28.00 Hrs  
Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs

FTR: 32,847 bbls

RT: 0 bbls

CR: 0 bbls

LTR: 32,847 bbls

TSIF: 1,163,407 lbs

### Time Log Summary

Operation	Com	Dur (hr)
U_PEPXD	Down changing out Blenders.	3.5
STIM	<p>FRAC STG # 3 of 32: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 43 bbls 15% HCL, 423,446 lbs. 30/50 brown sand &amp; 11,684 bbls of Hybrid fluid down 5.5"/20 lbs. csg.</p> <p>Step test: 80 @ 5522 Psi 60 @ 4452 Psi 40 @ 3716 Psi 20 @ 3230 Psi</p> <p>Formation broke @ 20 bpm @ 4738 psi. Acid on form @ 20 bpm @ 4800 psi. Acid cleared @ 40 bpm @ 4400 psi. Pad ISIP: 2820 psi FG: 0.76 psi/ft 5 Min.SIP: 2950 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 10 cp.@ 85 *F Pumped 3941 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3 ppg. Flushed well with 486 bbls. Ending rate 80 bpm @ 5513 psi. Placed 100% prop in formation</p> <p>NOTE: During stage at start of 2#, lost blender tub. Down till blender is replaced. Advised engineer of situation and he advised us to re-start stage with 1000bbl pad and proceed as schedule for all sand stages.</p> <p>Avg rate: 64 bpm Avg psi: 5812 psi Max rate: 83 bpm Max psi: 8672 psi</p> <p>Ending ISIP: 3205 psi FG: 0.80 psi/ft</p> <p>LTR= 23,579 bbls. TSIF= 827,091 lbs.</p>	1.5
PERF	<p>RU API WL for Stage # 4. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 17,361' perforate intervals 17,328-30', 17,270-72', 17,212-14', 17,150-52', 17,090-92', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 14 Bpm at 3009 PSI and 250 Ft/Min. Line Speed</p> <p>TBP: 602 BBLS FTR: 24,181 BBLS</p>	3
WLHEAD	Wait on Priority to grease frac stack	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 4 of 32: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perms per schedule w/ 43 bbls 15% HCL, 336,316 lbs. 30/50 brown sand &amp; 8133 bbls of Hybrid fluid down 5.5"/20 lbs. csg.</p> <p>Step test: 80 @ 6814 Psi 60 @ 5991 Psi 40 @ 4605 Psi 20 @ 3519Psi</p> <p>Formation broke: @ 20 bpm @ 3663 psi. Acid on formation: @ 50 bpm @ 4796 psi. Acid cleared : @ 73 bpm @ 5671 psl.</p> <p>Pad ISIP: 2956 psi FG: 0.78 psi/ft 5 Min.SIP: 2731 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 18 # gel Equivalent gel loading, 9 cp.@ 89°F Pumped 3238 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3 ppg. Flushed well with 487 bbls. Ending rate 40 bpm @ 4138 psi. Placed 100% prop in formation.</p> <p>Avg rate: 64.6 bpm Avg psi: 6084 psi Max rate: 80.0 bpm Max psi: 8004 ps</p> <p>Ending ISIP: 3422 psi FG: 0.83 psi/ft</p> <p>LTR= 32,314 bbls. TSIF= 1,163,407 lbs.</p>	2.25
PERF	<p>RU API WL for Stage # 5. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 17,061' perforate intervals 17,030-32', 16,970-72', 16,910-12', 16,850-52', 16,790-92', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 14 Bpm at 2,850 PSI and 225 Ft/Min. Line Speed</p> <p>TBP: 533 BBLs FTR: 32,847 BBLs</p>	3.5
U_PEPXD	Downtime due to loss of suction pump on blender.	7.75
STIM	Frac Stage 5 @ Report time.	1.5

### Report #: 26 Daily Operation: 8/7/2014 06:00 - 8/8/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
75	26	0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
		PIONEER PUMPING SERVICES, FLEET #4

#### Operations Summary

Frac stage 5, 6, 7, 8. Frac Stage 9 @ Report Time.  
Perf stage 6, 7, 8, 9.

Held 1,500 psi on the intermediate casing

#### Remarks

Shane Snider - Nights  
Justin Locklar/Bobby Stephens - Days

PPS Downtime: 4.25 Hrs Cum: 32.25 Hrs  
Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs

FTR: 67,810 bbls

RT: 0 bbls

CR: 0 bbls

LTR: 67,810 bbls

TSIF: 2,507,004 lbs

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	During stage 5 at end of 1# sand, motor belt broke on our only 30/50 silo. SD @ 0600hrs	0
U_PEPXD	Wait for broken motor belt to be fixed. Night mechanic left location already, have to wait for day mechanic to arrive	3.5
STIM	<p>FRAC STG # 5 of 32: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perms per schedule w/ 78 bbls 15% HCL, 336,058lbs. 30/50 brown sand &amp; 9,788 bbls of Hybrid fluid down 5.5"/20 lbs. csg.</p> <p>Step test: 80 @ 7,795 Psi 60 @ 5,654 Psi 40 @ 4,279 Psi 20 @ 3,417 Psi</p> <p>Formation broke @ 20 bpm @ 3,744 psi. Acid on form @ 30 bpm @ 4,654 psi. Acid cleared @ 80 bpm @ 7,891 psi.</p> <p>Pad ISIP: 3,074 psi FG: 0.79 psi/ft 5 Min.SIP: 2,264 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 10 cp.@ 80 *F Pumped 4110 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 3 ppg. Flushed well with 480 bbls. Ending rate 80 bpm @ 5604 psi. Placed 100% prop in formation.</p> <p>NOTE: At end of 1# sand stage, motor belt broke on our only 30/50 silo. Night mechanic left location, will have to wait for day mechanic to arrive.</p> <p>Avg rate: 78 bpm Avg psi: 6,949 psi Max rate: 80 bpm Max psi: 7,395 ps Ending ISIP: 3,274 psi FG: 0.81 psi/ft</p> <p>LTR= 42,635 bbls. TSIF= 1,499,465 lbs.</p>	2
PERF	<p>RU API WL for Stage # 6 . RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 16,761' perforate intervals: 16,730-32', 16,672-74', 16,610-12', 16,550-52', 16,490-92', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 14 Bpm at 3200 PSI and 250 Ft/Min.</p> <p>Bbls pumped: 537</p> <p>FTR: 43,172 BBLS</p>	2.75
STIM	<p>FRAC STG # 6 of 32: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perms per schedule w/ 42 bbls 15% HCL, 166,153 lbs. 30/50 brown sand, 169,996 lbs 20/40 brown sand for a Total of 336,149 lbs in formation &amp; 7,795 bbls of Hybrid fluid down 5.5"/20 lbs. csg.</p> <p>Step test: 80 @ 5,976 Psi 60 @ 4,822 Psi 40 @ 4,125 Psi 20 @ 3,485 Ps6</p> <p>Formation broke @ 20 bpm @ 4,269 psi. Acid on form @ 50 bpm @ 5,270 psi. Acid cleared @ 70 bpm @ 5,745 psi.</p> <p>Pad ISIP: 2,954 psi FG: 0.78 psi/ft 5 Min.SIP: 2,733 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 16 # gel Equivalent gel loading, 8 cp.@ 89 *F Pumped 2941 bbl pad. Ramped 30/50 brown sand from 0.5 ppg to 2.5 ppg. Ramped 20/40 brown from 2.5 ppg to 3.0 ppg. Flushed well with 467 bbls. Ending rate 40 bpm @ 4588 psi. Placed 100% prop in formation.</p> <p>Avg rate: 79.9 bpm Avg psi: 6,787 psi Max rate: 80.6 bpm Max psi: 7,292 ps</p> <p>Ending ISIP: 3,481 psi FG: 0.83 psi/ft</p> <p>LTR= 50,967 bbls. TSIF= 1,835,614 lbs</p>	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
PERF	<p>RU API WL for Stage # 7 . RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 16,465 ' perforate intervals: 16,430-32', 16,368-70', 16,310-12', 16,250-52', 16,190-92',, w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 14 Bpm at 3300 PSI and 243 Ft/Min.</p> <p>Bbls pumped: 500</p> <p>FTR: 51,467 BBLs</p>	2.5
U_PEPXD	Wait on PPS crew change. Prime up and pressure test.	0.75
STIM	<p>FRAC STG # 7 of 32: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perms per schedule w/ 35 bbls 15% HCL, 335,589 lbs. 20/40 brown sand &amp; 7,737 bbls of Hybrid fluid down 5.5"/20 lbs. csg.</p> <p>Step test: 80 @ 6,732 Psi 60 @ 5,438 Psi 40 @ 4,521 Psi 20 @ 3,657 Psi</p> <p>Formation broke @ 15 bpm @ 3,985 psi. Acid on form @ 23 bpm @ 4,784 psi. Acid cleared @ 58 bpm @ 5,846 psl.</p> <p>Pad ISIP: 3,026 psi FG: 0.79 psi/ft 5 Min.SIP: 2,739 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 8 cp. @ 88 *F Pumped 2,925 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 461 bbls. Ending rate 80 bpm @ 7,291 psi. Placed 100% prop in formation.</p> <p>Avg rate: 78 bpm Avg psi: 6,912 psi Max rate: 80 bpm Max psi: 7,504 ps</p> <p>Ending ISIP: 3,892 psi FG: 0.89 psi/ft</p> <p>LTR= 59,204 bbls. TSIF= 2,171,203 lbs.</p>	2
PERF	<p>RU API WL for Stage # 8 . RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 16,161 ' perforate intervals: 16,130-32', 16,070-72', 16,010-12', 15,950-52', 15,890-92',, w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 14 Bpm at 3,435 PSI and 250 Ft/Min.</p> <p>Bbls pumped: 449</p> <p>FTR: 59,653 BBLs</p>	2.5
U_PEPXD	Removed two pumps due to bad fluid ends. Replaced with two new pumps. Prime and pressure test.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary						
Operation	Com					Dur (hr)
STIM	FRAC STG # 8 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ 40 bbls 15% HCL, 335,801 lbs. 20/40 brown sand & 7,697 bbls of Hybrid fluid down 5.5"/20 lbs. csg.  Step test: 80 @ 6,458 Psi 60 @ 5,310 Psi 40 @ 4,486 Psi 20 @ 3,532 Psi  Formation broke @ 15 bpm @ 3,930 psi. Acid on form @ 44 bpm @ 5,635 psi. Acid cleared @ 60 bpm @ 6,939 psi.  Pad ISIP: 3,167 psi FG: 0.80 psi/ft 5 Min.SIP: 2,956 Psi  Increased rate to 80 bpm. Started Stage w/ 18 # gel Equivalent gel loading, 10 cp.@ 80 *F Pumped 2,876 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 451 bbls. Ending rate 80 bpm @ 7,296 psi. Placed 100% prop in formation.  Avg rate: 78 bpm Avg psi: 6,932 psi Max rate: 80 bpm Max psi: 7,482 ps  Ending ISIP: 3,660 psi FG: 0.86 psi/ft  LTR= 67,350 bbls. TSIF= 2,507,004 lbs.					2
PERF	RU API WL for Stage # 9 . RIH & pump down Schlumberger CFP & 5 each 3.125" guns. Set CFP @ 15,861 ' perforate intervals: 15,830-32', 15,770-72', 15,710-12', 15,650-52', 15,590-92',, w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 14 Bpm at 3,271 PSI and 250 Ft/Min.  Bbls pumped: 460  FTR: 67,810 BBLS					2.25
STIM	Frac Stage 9 @ Report Time					0.75
Report #: 27 Daily Operation: 8/8/2014 06:00 - 8/9/2014 06:00						
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig PIONEER PUMPING SERVICES, FLEET #4	
76	27	0.0				
Operations Summary Frac stage 9, 10. Perf stage 10, 11. Set SLB bridge plug @ 8,220'. Seaboard replaced 2" valve on surface casing. RD PPS risers RD API WL and Lubricator/Grease Unit WSI waiting on Pioneer CTU to drillout SLB bridge plug.  Held 1,500 psi on the intermediate casing						
Remarks Shane Snider - Nights Justin Locklar/Bobby Stephens - Days  PPS Downtime: 0.50 Hrs Cum: 32.75 Hrs Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs Seaboard Wellhead 7.0 Hrs Cum: 7.0 Hrs  FTR: 84,316 bbls  RT: 0 bbls  CR: 0 bbls  LTR: 84,316 bbls  TSIF: 3,178,771 lbs						

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 9 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perms per schedule w/ 44 bbls 15% HCL, 336,609 lbs. 20/40 brown sand &amp; 7657 bbls of Hybrid fluid down 5.5"/20 lbs. csg.</p> <p>Step test: 80 @ 6679 Psi 60 @ 5550 Psi 40 @ 4570 Psi 20 @ 3800 Psi</p> <p>Formation broke @ 15 bpm @ 3894 psi. Acid on form @ 40 bpm @ 5680 psi. Acid cleared @ 80 bpm @ 6881 psi.</p> <p>Pad ISIP: 3225 psi FG: 80 psi/ft 5 Min.SIP: 2930 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 10 cp.@ 80 *F Pumped 2857 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 444 bbls. Ending rate 73 bpm @ 5620 psi. Placed 100% prop in formation.</p> <p>Avg rate: 78 bpm Avg psi: 7061 psi Max rate: 80 bpm Max psi: 8994 ps</p> <p>Ending ISIP: 3507 psi FG: 84 psi/ft</p> <p>LTR= 75,467 bbls. TSIF= 2,843,613 lbs.</p>	2
PERF	<p>RU API WL for Stage # 10 . RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 15,561 ' perforate intervals 15,530-32', 15,470-72', 15,410-12', 15,350-52', 15,296-98', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; . Pump down at 14 Bpm at 3400 PSI and 250 Ft/Min</p> <p>Used: 610 BBLS</p> <p>FTR: 76,077 BBLS</p>	2.75
WLHEAD	Wait on Priority to grease frac stack	1
STIM	<p>FRAC STG # 10 of 32: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perms per schedule w/ 45 bbls 15% HCL, 335,158 lbs. 20/40 brown sand &amp; 7713 bbls of Hybrid fluid down 5.5"/20 lbs. csg.</p> <p>Step test: 80 @ 6555 Psi 60 @ 5387 Psi 40 @ 4518 Psi 20 @ 3717 Psi</p> <p>Formation broke @ 21 bpm @ 4085 psi. Acid on form @ 50 bpm @ 5598 psi. Acid cleared @ 70 bpm @ 6148 psi.</p> <p>Pad ISIP: 3254 psi FG: 0.81 psi/ft 5 Min.SIP: 2975 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 8 cp.@ 83 *F Pumped 2882 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 442 bbls. Ending rate 40 bpm @ 3440 psi. Placed 100% prop in formation.</p> <p>Avg rate: 78.3 bpm Avg psi: 6778 psi Max rate: 83.6 bpm Max psi: 7293 ps</p> <p>Ending ISIP: 3322 psi FG: 0.82 psi/ft</p> <p>LTR= 83,790 bbls. TSIF= 3,178,771 lbs.</p>	2
PERF	<p>RU API WL for Stage # 11 . RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 15,261 ' perforate intervals 15,230-32', 15,170-72', 15,110-12', 15,050-52', 14,994-96', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 14 Bpm at 3457 PSI and 250 Ft/Min</p> <p>Used: 526 BBLS</p> <p>FTR: 84,316 BBLS</p>	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
WOF	Priming pumps and pressure testing	0.75
U_PEPXD	Fixing high psi iron leak	0.5
STIM	Began to frac Stage 11 a leak was detected and appeared to be on the B Section of wellhead. Acid was displaced and shutdown.	1
PERF	RU API WL to set bridge plug. . RIH Schlumberger bridge plug. Set bridge plug @ 8,220'	2.5
U_OTHR	Discovered that leak was on the ball valve for the surface casing. Cellar was cleared and Seaboard and Renegade replaced 2" surface casing valve.	7
RURD	RD PPS RD API WL RD API Lubricator and grease unit	2

Report #: 28 Daily Operation: 8/9/2014 06:00 - 8/10/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
77	28	0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
		PIONEER PUMPING SERVICES, FLEET #4

#### Operations Summary

WSI waiting on Pioneer CTU to drillout SLB bridge plug.  
Pioneer CTU arrived, spotted and PTO would not engage and cannot be fixed on location  
Wait on CTS CTU  
MIRU CTS CTU  
Break circulation, begin RIH  
Tag CFP @ 8,222' (CT measurement)  
Washed down to CFP # 10 @ 15,261'  
Circulate 3, 10 bbl sweeps  
RD CTS CTU, Emerald Surf  
RU PPS, API WL, API Lubricator/grease unit

#### Remarks

Shane Snider - Nights  
Justin Locklar/Bobby Stephens - Days

PPS Downtime: 4.25 Hrs Cum: 37.0 Hrs  
Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Seaboard Wellhead 0.0 Hrs Cum: 7.0 Hrs

FTR: 85,786 bbls

RT: 0 bbls

CR: 1,790 bbls

LTR: 83,996 bbls

TSIF: 3,178,771 lbs

#### Oil States BHA

ITEM	SER. #	DESCRIPTION	O.D.	I.D.	LENGTH	CONNECTIONS
1	73278	C/T conn	3.12	1.04	0.85	2 3/8" pipe slips 2.375 pac pin
2	74647	Dual BPV	2.88	1.04	1.21	2.375" pac box 2.375 pac pin
3	287344	CTT Bi-Dir Hyd Jars	2.88	1.04	5.40	2.375 pac box 2.375 pac pin
4	141106	Hydraulic Disconnect	2.88	0.668	2.13	2.375 pac box 2.375 pac pin
5	635	Tempress Hydropull	2.88		2.70	2.375 pac box 2.375 pac pin
6	846	Tempress Screen	2.88		2.70	2.375 pac box 2.375 pac pin
7	81477	Crossover	3.12		0.52	2.375 pac box 2.825 pac pin
8	72927	SRT Hi-Torq Motor	3.12		11.33	2.825 pac box 2.375 reg box
	42687	Stator				
9	81481	Crossover	3.75		0.52	2.375 reg pin 2.825 reg box
10	K4806	JZ Rockbit	4.625		0.50	2.825 reg pin 3 cones

Disconnect Drop Ball: 0.75

TOTAL LENGTH 27.86 FEET

### Time Log Summary

Operation	Com	Dur (hr)
WSI	WSI waiting on Pioneer CTU to drillout SLB bridge plug.	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary																																																												
Operation	Com					Dur (hr)																																																						
SAFETY	Safety Meeting on Location with PPS CTU.					0.5																																																						
U_CT	MIRU Pioneer CTU After coil spotted eq, PTO would not engage on unit. Mechanic checked it out and could not fix on location. Will have to wait for another coil unit					4.25																																																						
RURD	Held PJSM, MIRU CTS CTU, function test BOP MIRU Emerald Surf MU Oil States BHA as follows: <table><tr><td></td><td>O.D.</td><td>I.D.</td><td>LENGTH</td></tr><tr><td>C/T conn</td><td>3.12</td><td>1.04</td><td>0.85</td></tr><tr><td>Dual BPV</td><td>2.88</td><td>1.04</td><td>1.21</td></tr><tr><td>CTT Bi-Dir Hyd Jars</td><td>2.88</td><td>1.04</td><td>5.40</td></tr><tr><td>Hydraulic Disconnect</td><td>2.88</td><td>0.668</td><td>2.13</td></tr><tr><td>Tempress Hydropull</td><td>2.88</td><td></td><td>2.70</td></tr><tr><td>Tempress Screen</td><td>2.88</td><td></td><td>2.70</td></tr><tr><td>Crossover</td><td>3.12</td><td></td><td>0.52</td></tr><tr><td>SRT Hi-Torq Motor</td><td>3.12</td><td></td><td>11.33</td></tr><tr><td>Stator</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Crossover</td><td>3.75</td><td></td><td>0.52</td><td></td><td></td></tr><tr><td>JZ Rockbit</td><td>4.625</td><td>0.50</td><td></td><td></td><td></td></tr></table>						O.D.	I.D.	LENGTH	C/T conn	3.12	1.04	0.85	Dual BPV	2.88	1.04	1.21	CTT Bi-Dir Hyd Jars	2.88	1.04	5.40	Hydraulic Disconnect	2.88	0.668	2.13	Tempress Hydropull	2.88		2.70	Tempress Screen	2.88		2.70	Crossover	3.12		0.52	SRT Hi-Torq Motor	3.12		11.33	Stator						Crossover	3.75		0.52			JZ Rockbit	4.625	0.50				2
	O.D.	I.D.	LENGTH																																																									
C/T conn	3.12	1.04	0.85																																																									
Dual BPV	2.88	1.04	1.21																																																									
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Stator																																																												
Crossover	3.75		0.52																																																									
JZ Rockbit	4.625	0.50																																																										
WLHEAD	Load reel, test motor on surface, psi test to 5k (good test)					1.5																																																						
TIH	Break circulation, begin RIH Tag CFP @ 8,222' (CT measurement) Washed down to CFP # 10 @ 15,261' Circulate 3, 10 bbl sweeps					2.75																																																						
POOH	Begin POOH. 35' ft/min.					7																																																						
RURD	RD BHA. CTS blow down reel. Begin RD CTS CTU RD Emerald Surf					3.5																																																						
RURD	Begin RU PPS risers Begin RU API WL Begin RU API lubricator/grease unit					1																																																						
Report #: 29 Daily Operation: 8/10/2014 06:00 - 8/11/2014 06:00																																																												
Job Category			Primary Job Type			AFE Number																																																						
ORIG COMPLETION			OCM			030234																																																						
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig																																																							
78	29	0.0			PIONEER PUMPING SERVICES, FLEET #4																																																							
Operations Summary																																																												
Complete RU PPS, API WL, API lubricator/grease unit																																																												
Frac Stage 11, 12, 13, 14 P/P Stage 12, 13, 14. P/P Stage 15 @ Report Time																																																												
Held 1,500 psi on the intermediate casing																																																												
Remarks																																																												
Shane Snider - Nights Justin Locklar/Bobby Stephens - Days																																																												
PPS Downtime: 5.25 Hrs Cum: 38.0 Hrs Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs Seaboard Wellhead 0.0 Hrs Cum: 7.0 Hrs																																																												
FTR: 118,255 bbls																																																												
RT: 0 bbls																																																												
CR: 1,790 bbls																																																												
LTR: 116,465 bbls																																																												
TSIF: 4,522,653 lbs																																																												



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
RURD	Complete RU PPS risers Complete RU API WL Complete RU API lubricator/grease unit	1.5
WOF	Priming and testing, fixing leaks	1
U_PEPXD	Found multiple leaks on pressure pumping side and 1 on frac stack. Called priority to re-torque WL flange due to coil not tightening back up. While waiting on priority, PPS shut in ground manifold valves to find their leaks and to re-test. Continued on fixing leaks on PPS pumps, valves, backside iron, N2 pop off and setting pop offs. All down time charged to PPS due to not waiting on priority.	5.25
STIM	<p>FRAC STG # 11 of 32: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 84 bbls 15% HCL, 336,355 lbs.20/40 brown sand &amp; 8359 bbls of hybrid fluid linear/X-link down 5.5"- 5.0" csg.</p> <p>Step test: 80 @ 5870 Psi 60 @ 4720 Psi 40 @ 4149 Psi 20 @ 3600 Psi</p> <p>Formation broke @ 20 bpm @ 4064 psi. Acid on form @ 40 bpm @ 6432 psi. Acid cleared @ 80 bpm @ 5977 psl.</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 84 °F Pumped 3268 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 433 bbls. Ending rate 80 bpm @ 5878 psi. Placed 100% prop in formation.</p> <p>Avg rate: 80 bpm Avg psi: 6497 psi Max rate: 83 bpm Max psi: 7222 psi</p> <p>Pad ISIP: 3104 psi FG: 0.79 psi/ft 5 Min.SIP: 2742 Psi</p> <p>Ending ISIP: 3658 psi FG: 0.85 psi/ft</p> <p>LTR= 92,355 bbls. FTR= 94,145 bbls TSIF= 3,515,126 lbs.</p>	2
PERF	<p>RU API WL for Stage # 12. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 14,961 ' perforate intervals 14,930-32', 14,870-72', 14,810-12', 14,750-52', 14,690-92', w/ 8 shots, 4 SPF, 60°, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 16 Bpm at 3600 PSI and 300 Ft/Min. Line Speed</p> <p>Used: 438 BBLS FTR: 94,583 BBLS LTR: 92,793 BBLS</p>	1.75
WOF	Priming/testing lines	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 12 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perms per schedule w/ 70 bbls 15% HCL, 337,777 lbs.20/40 brown sand &amp; 7,761 bbls of hybrid fluid linear/X-link down 5.5"- 5.0" csg.</p> <p>Step test: 80 @ 6,949 Psi 60 @ 5,635 Psi 40 @ 4,572 Psi 20 @ 3,812 Psi</p> <p>Formation broke @ 20 bpm @ 3,741 psi. Acid on form @ 22 bpm @ 4,361 psi. Acid cleared @ 60 bpm @ 6,394 psi.</p> <p>Pad ISIP: 3,243 psi FG: 0.81 psi/ft 5 Min.SIP: 3,036 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 83 °F Pumped 2,978 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 428 bbls. Ending rate 80 bpm @ 7,045 psi. Placed 100% prop in formation.</p> <p>Avg rate: 78 bpm Avg psi: 6,732 psi Max rate: 80 bpm Max psi: 7,309 psi</p> <p>Ending ISIP: 3,695 psi FG: 0.86 psi/ft</p> <p>LTR= 102,344 bbls. TSIF= 3,850,903 lbs.</p>	2
PERF	<p>RU API WL for Stage # 13. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 14,661' perforate intervals 14,630-32', 14,570-72', 14,510-12', 14,450-52', 14,390-92', w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 14 Bpm at 3,600 PSI and 275 Ft/Min. Line Speed</p> <p>Used: 349 BBLS FTR: 102,693 BBLS LTR: 100,903 BBLS</p>	2
WOF	Priming/testing lines	0.5
STIM	<p>FRAC STG # 13 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perms per schedule w/ 42 bbls 15% HCL, 335,869 lbs.20/40 brown sand &amp; 7,609 bbls of hybrid fluid linear/X-link down 5.5"- 5.0" csg.</p> <p>Step test: 80 @ 7,099 Psi 60 @ 5,711 Psi 40 @ 4,655 Psi 20 @ 3,822 Psi</p> <p>Formation broke @ 20 bpm @ 4,040 psi. Acid on form @ 38 bpm @ 5,295 psi. Acid cleared @ 74 bpm @ 7,165 psi.</p> <p>Pad ISIP: 3,450 psi FG: 0.83 psi/ft 5 Min.SIP: 3,157 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 79 °F Pumped 2,832 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 421 bbls. Ending rate 80 bpm @ 7,034 psi. Placed 100% prop in formation.</p> <p>Avg rate: 78 bpm Avg psi: 6,798 psi Max rate: 80 bpm Max psi: 7,254 psi</p> <p>Ending ISIP: 3,807 psi FG: 0.88 psi/ft</p> <p>FTR: 110,302 BBLS LTR: 108,512 BBLS</p> <p>TSIF= 4,186,772 lbs.</p>	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
PERF	<p>RU API WL for Stage # 14. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 14,361 ' perforate intervals 14,330-32', 14,270-72', 14,210-12', 14,150-52', 14,090-92', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 16 Bpm at 3,397 PSI and 300 Ft/Min. Line Speed</p> <p>Used: 356 BBLS FTR: 110,658 BBLS LTR: 108,868 BBLS</p>	2
WOF	<p>Putting 4 pumps back in line after maintenance Priming/testing lines</p>	0.5
STIM	<p>FRAC STG # 14 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ 44 bbls 15% HCL, 335,881 lbs.20/40 brown sand &amp; 7,597 bbls of hybrid fluid linear/X-link down 5.5"- 5.0" csg.</p> <p>Step test: 80 @ 6,069 Psi 60 @ 5,202 Psi 40 @ 4,432 Psi 20 @ 3,795 Psi</p> <p>Formation broke @ 20 bpm @ 3,950 psi. Acid on form @ 45 bpm @ 5,423 psi. Acid cleared @ 66 bpm @ 6,051 psi.</p> <p>Pad ISIP: 3,326 psi FG: 0.82 psi/ft 5 Min.SIP: 3,008 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 78 *F Pumped 2,803 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 438 bbls. Ending rate 80 bpm @ 6,938 psi. Placed 100% prop in formation.</p> <p>Avg rate: 78 bpm Avg psi: 6,667 psi Max rate: 80 bpm Max psi: 7,254 psi</p> <p>Ending ISIP: 3,773 psi FG: 0.87 psi/ft</p> <p>FTR: 118,255 BBLS LTR: 116,465 BBLS</p> <p>TSIF= 4,522,653 lbs.</p>	2
PERF	P/P Stage 15 @ Report Time	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 30 Daily Operation: 8/11/2014 06:00 - 8/12/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 79	Days on Location (days) 30	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig PIONEER PUMPING SERVICES, FLEET #4

### Operations Summary

Frac Stage 15, 16, 17, 18, 19.  
P/P Stage 15, 16, 17, 18, 19.

P/P Stage 20 @ Report Time

Held 1,500 psi on the intermediate casing

### Remarks

Shane Snider - Nights  
Justin Locklar/Bobby Stephens - Days

PPS Downtime:	1.5 Hrs	Cum: 39.5 Hrs
Select Water Transf Down Time:	0.0 Hrs	Cum: 0.0 Hrs
API Wireline Down Time:	0.0 Hrs	Cum: 0.0 Hrs
API 10K Lubricator Downtime:	0.0 Hrs	Cum: 0.0 Hrs
Priority Energy Service Downtime:	0.0 Hrs	Cum: 0.0 Hrs
Seaboard Wellhead	0.0 Hrs	Cum: 7.0 Hrs

FTR: 158,096 bbls

RT: 0 bbls

CR: 1,790 bbls

LTR: 156,306 bbls

TSIF: 6,186,474 lbs

### Time Log Summary

Operation	Com	Dur (hr)
PERF	RU API WL for Stage # 15. RIH & pump down Schlumberger CFP & 5 each 3.125" guns. Set CFP @ 14,061' perforate intervals 14,030-32', 13,970-72', 13,910-12', 13,850-52', 13,790-92', w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 14 Bpm at 3,387 PSI and 270 Ft/Min. Line Speed  Used: 328 BBLS FTR: 118,583 BBLS LTR: 116,793 BBLS	1.5
STIM	FRAC STG # 15 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ 65 bbls 15% HCL, 334,693 lbs.20/40 brown sand & 7,599 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.  Step test: 80 @ 6,633 Psi 60 @ 5,423 Psi 40 @ 4,534 Psi 20 @ 3,818 Psi  Formation broke @ 21.5 bpm @ 4,259 psi. Acid on form @ 60 bpm @ 6,095 psi. Acid cleared @ 73 bpm @ 6,290 psi.  Pad ISIP: 3,333 psi FG: 0.82 psi/ft 5 Min.SIP: 3,044 Psi  Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 8 cp.@ 77 °F Pumped 2,790 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 404 bbls. Ending rate 40 bpm @ 4782 psi. Placed 100% prop in formation.  Avg rate: 80 bpm Avg psi: 6,600 psi Max rate: 82 bpm Max psi: 7,122 psi  Ending ISIP: 3,576 psi FG: 0.85 psi/ft  FTR: 126,182 BBLS LTR: 124,392 BBLS  TSIF= 4,857,345 lbs.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
PERF	<p>RU API WL for Stage # 16. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 13,761 ' perforate intervals 13,730-32', 13,670-72', 13,610-12', 13,550-52', 13,490-92', w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 15 Bpm at 3,508 PSI and 300 Ft/Min. Line Speed</p> <p>Used: 353 BBLS FTR: 126,535 BBLS LTR: 124,745 BBLS</p>	1.5
WOF	Priming/testing lines	1
U_PEPXD	Repairing leaks	0.5
U_WOW	Waiting on lightning to pass	0.5
STIM	<p>FRAC STG # 16 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ 30 bbls 15% HCL, 320,565lbs.20/40 brown sand &amp; 7,547 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 6,450 Psi 60 @ 5,420 Psi 40 @ 4,430 Psi 20 @ 3,780 Psi</p> <p>Formation broke @ 20 bpm @ 3,988 psi. Acid on form @60 bpm @ 5,866 psi. Acid cleared @80 bpm @ 6,458 psi.</p> <p>Pad ISIP: 3,438 psi FG: 83 psi/ft 5 Min.SIP: 3,126 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 79 *F Pumped 2,881 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 399 bbls. Ending rate 80 bpm @ 5,215 psi. Placed 95% prop in formation.</p> <p>NOTE: During 3#, belt sanded off and could not get another silo going. Decided to go to flush.</p> <p>Avg rate: 79 bpm Avg psi: 6,669 psi Max rate: 80 bpm Max psi: 9,123 psi</p> <p>Ending ISIP: 3,692 psi FG: .86 psi/ft</p> <p>FTR: 134,082 BBLS LTR: 132,292 BBLS</p> <p>TSIF= 5,177,910 lbs.</p>	2
PERF	<p>RU API WL for Stage # 17. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 13,461 ' perforate intervals 13,430-32', 13,370-72', 13,310-12', 13,250-52', 13,190-92', w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 15 Bpm at 3,564 PSI and 250 Ft/Min. Line Speed</p> <p>Used: 345 BBLS FTR: 134,427 BBLS LTR: 132,637 BBLS</p>	2
WOF	Priming/Testing lines	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 17 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perms per schedule w/ 39 bbls 15% HCL, 336,186 lbs.20/40 brown sand &amp; 7,751 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 6,241 Psi 60 @ 5,189 Psi 40 @ 4,389 Psi 20 @ 3,780 Psi</p> <p>Formation broke @ 20.8 bpm @ 4,094 psi. Acid on form @ 50 bpm @ 5,605 psi. Acid cleared @ 70 bpm @ 6,077 psi.</p> <p>Pad ISIP: 3,342 psi FG: 0.82 psi/ft 5 Min.SIP: 3,080 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 81 °F Pumped 3,030 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 392 bbls. Ending rate 80 bpm @ 6,732 psi. Placed 100% prop in formation.</p> <p>Avg rate: 80 bpm Avg psi: 6,509 psi Max rate: 81 bpm Max psi: 7,865 psi</p> <p>Ending ISIP: 3,528 psi FG: 0.84 psi/ft</p> <p>FTR: 142,178 BBLS LTR: 140,388 BBLS</p> <p>TSIF= 5,514,096 lbs.</p>	2
PERF	<p>RU API WL for Stage # 18. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 13,161 ' perforate intervals 13,130-32', 13,070-72', 13,010-12', 12,950-52', 12,890-92', w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 14 Bpm at 3,529 PSI and 250 Ft/Min. Line Speed</p> <p>Used: 246 BBLS FTR: 142,424 BBLS LTR: 140,634 BBLS</p>	1.5
WOF	Priming/Testing lines. Setting pop-offs	0.75
STIM	<p>FRAC STG # 18 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perms per schedule w/ 40 bbls 15% HCL, 336,575 lbs.20/40 brown sand &amp; 7,834 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 5,943 Psi 60 @ 5,047 Psi 40 @ 4,330 Psi 20 @ 3,806 Psi</p> <p>Formation broke @ 20 bpm @ 4,013 psi. Acid on form @ 20 bpm @ 4,001 psi. Acid cleared @ 50 bpm @ 5,692 psi.</p> <p>Pad ISIP: 3,403 psi FG: 0.83 psi/ft 5 Min.SIP: 3,050 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 78 °F Pumped 3,072 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 391 bbls. Ending rate 80 bpm @ 6,590 psi. Placed 100% prop in formation.</p> <p>Avg rate: 72 bpm Avg psi: 6,023 psi Max rate: 83 bpm Max psi: 7,224 psi</p> <p>Ending ISIP: 3,736 psi FG: 0.87 psi/ft</p> <p>FTR: 150,258 BBLS LTR: 148,468 BBLS</p> <p>TSIF= 5,850,671 lbs.</p> <p>NOTE: Shutdown during pad to reset backside pop-off.</p>	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
PERF	<p>RU API WL for Stage # 19. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 12,861 ' perforate intervals 12,830-32', 12,770-72', 12,710-12', 12,650-52', 12,590-92', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 14 Bpm at 3,600 PSI and 250 Ft/Min. Line Speed</p> <p>Used: 237 BBLS FTR: 150,495 BBLS LTR: 148,705 BBLS</p>	1.5
U_PEPXD	Priming/Testing lines. Setting pop-offs. Repairing leaks	1
STIM	<p>FRAC STG # 19 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ 55 bbls 15% HCL, 335,803 lbs.20/40 brown sand &amp; 7,601 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 5,748 Psi 60 @ 4,939 Psi 40 @ 4,305 Psi 20 @ 3,809 Psi</p> <p>Formation broke @ 20 bpm @ 4,271 psi. Acid on form @ 20 bpm @ 4,237 psi. Acid cleared @ 45 bpm @ 5,127 psi.</p> <p>Pad ISIP: 3,388 psi FG: 0.83 psi/ft 5 Min.SIP: 3,216 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 10 cp.@ 76 *F Pumped 2,772 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 387 bbls. Ending rate 80 bpm @ 6,646 psi. Placed 100% prop in formation.</p> <p>Avg rate: 79 bpm Avg psi: 6,327 psi Max rate: 83 bpm Max psi: 6,756 psi</p> <p>Ending ISIP: 3,748 psi FG: 0.87 psi/ft</p> <p>FTR: 158,096 BBLS LTR: 156,306 BBLS</p> <p>TSIF= 6,186,474 lbs.</p>	2
PERF	P/P Stage 20 @ Report Time	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 31 Daily Operation: 8/12/2014 06:00 - 8/13/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 80	Days on Location (days) 31	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig PIONEER PUMPING SERVICES, FLEET #4

### Operations Summary

Frac Stage 20, 21, 22, 23.  
P/P Stage 20, 21, 22, 23, 24.

P/P Stage 24 @ Report Time.

Held 1,500 psi on the intermediate casing

### Remarks

Shane Snider - Nights  
Justin Locklar/Bobby Stephens - Days

PPS Downtime: 5.25 Hrs Cum: 44.75 Hrs  
Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Seaboard Wellhead 0.0 Hrs Cum: 7.0 Hrs

FTR: 189,700 bbls

RT: 0 bbls

CR: 1,790 bbls

LTR: 187,910 bbls

TSIF: 7,193,604 lbs

### Time Log Summary

Operation	Com	Dur (hr)
PERF	RU API WL for Stage # 20. RIH & pump down Schlumberger CFP & 5 each 3.125" guns. Set CFP @ 12,561' perforate intervals 12,530-32', 12,470-72', 12,410-12', 12,350-52', 12,290-92', w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .  Pump down at 14 Bpm at 3,702 PSI and 250 Ft/Min. Line Speed  Used: 243 BBLS FTR: 158,339 BBLS LTR: 156,549 BBLS	1



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 20 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perms per schedule w/ 38 bbls 15% HCL, 336,322 lbs.20/40 brown sand &amp; 7,666 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 5,764 Psi 60 @ 4,946 Psi 40 @ 4,290 Psi 20 @ 3,671 Psi</p> <p>Formation broke @ 20 bpm @ 4,247 psi. Acid on form @ 80 bpm @ 6,212 psi. Acid cleared @ 80 bpm @ 5,912 psi.</p> <p>Pad ISIP: 3,420 psi FG: 0.83 psi/ft 5 Min.SIP: 3,147 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 77 °F Pumped 2,944 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 373 bbls. Ending rate 80 bpm @ 5,445 psi. Placed 100% prop in formation.</p> <p>Avg rate: 80 bpm Avg psi: 6,174 psi Max rate: 84 bpm Max psi: 7,033 psi</p> <p>Ending ISIP: 3,629 psi FG: 0.85 psi/ft</p> <p>FTR: 166,005 BBLS LTR: 164,215 BBLS</p> <p>TSIF= 6,522,796 lbs.</p>	2
PERF	<p>RU API WL for Stage # 21. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 12,261 ' perforate intervals 12,230-32', 12,170-72', 12,110-12', 12,050-52', 11,990-92', w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 15 Bpm at 3558 PSI and 300 Ft/Min. Line Speed</p> <p>Used: 347 BBLS FTR: 166,352 BBLS LTR: 164,562 BBLS</p>	2
WOF	Priming testing lines	0.5
STIM	<p>FRAC STG # 21 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perms per schedule w/ 34 bbls 15% HCL, 334,362 lbs.20/40 brown sand &amp; 7,444 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 6,079 Psi 60 @ 4,797 Psi 40 @ 4,399 Psi 20 @ 3,861 Psi</p> <p>Formation broke @ 21.2 bpm @ 4,151 psi. Acid on form @ 50 bpm @ 5,621 psi. Acid cleared @ 71 bpm @ 6,053 psi.</p> <p>Pad ISIP: 3,487 psi FG: 0.84 psi/ft 5 Min.SIP: 3,091 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 78 °F Pumped 2711 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 365 bbls. Ending rate 40 bpm @ 3,671 psi. Placed 100% prop in formation.</p> <p>Avg rate: 79.7 bpm Avg psi: 6,195 psi Max rate: 84 bpm Max psi: 8,135 psi</p> <p>Ending ISIP: 3,561 psi FG: 0.85 psi/ft</p> <p>FTR: 173,796 BBLS LTR: 172,006 BBLS</p> <p>TSIF= 6,857,158 lbs.</p>	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
PERF	<p>RU API WL for Stage # 22. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 11,961 ' perforate intervals 11,930-32', 11,870-72', 11,810-12', 11,750-52', 11,690-92', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 15 Bpm at 3500 PSI and 250 Ft/Min. Line Speed</p> <p>Used: 298 BBLS FTR: 174,094 BBLS LTR: 172,304 BBLS</p>	1.75
WOF	Priming testing lines	0.25
STIM	<p>FRAC STG # 22 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ 55 bbls 15% HCL, 336,446 lbs.20/40 brown sand &amp; 7,686 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 5716 Psi 60 @ 4,864 Psi 40 @ 4,283 Psi 20 @ 3,788 Psi</p> <p>Formation broke @ 20 bpm @ 4,392 psi. Acid on form @ 40 bpm @ 6,345 psi. Acid cleared @ 80 bpm @ 5,698 psi.</p> <p>Pad ISIP: 3,450 psi FG: 0.83 psi/ft 5 Min.SIP: 3,187 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 83 *F Pumped 2954 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 360 bbls. Ending rate 80 bpm @ 5,267 psi. Placed 100% prop in formation.</p> <p>Avg rate: 80 bpm Avg psi: 6,147 psi Max rate: 84 bpm Max psi: 8,323 psi</p> <p>Ending ISIP: 3,669 psi FG: 0.86 psi/ft</p> <p>FTR: 181,780 BBLS LTR: 179,990 BBLS TSIF= 7,193,604 lbs.</p>	2
PERF	<p>RU API WL for Stage # 23. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 11,661 ' perforate intervals 11,630-32', 11,570-72', 11,510-12', 11,450-52', 11,390-92', w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 14 Bpm at 3,423 PSI and 250 Ft/Min. Line Speed</p> <p>Used: 232 BBLS FTR: 182,012 BBLS LTR: 180,222 BBLS</p>	1.75
WOF	Priming testing lines. Crew change out.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 23 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perms per schedule w/ 45 bbls 15% HCL, 336,310 lbs.20/40 brown sand &amp; 7,518 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 5,719 Psi 60 @ 4,843 Psi 40 @ 4,276 Psi 20 @ 3,718 Psi</p> <p>Formation broke @ 20 bpm @ 4,338 psi. Acid on form @ 20 bpm @ 4,542 psi. Acid cleared @ 50 bpm @ 5,127 psi.</p> <p>Pad ISIP: 3,614 psi FG: 0.85 psi/ft 5 Min.SIP: 3,242 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 84 *F Pumped 2,775 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 355 bbls. Ending rate 80 bpm @ 6,333 psi. Placed 100% prop in formation.</p> <p>Avg rate: 80 bpm Avg psi: 6,096 psi Max rate: 84 bpm Max psi: 6,542 psi</p> <p>Ending ISIP: 3,760 psi FG: 0.87 psi/ft</p> <p>FTR: 189,530 BBLS LTR: 187,740 BBLS TSIF= 7,529,914 lbs.</p>	2
PERF	<p>RU API WL for Stage # 24. RIH &amp; pump down Schlumberger CFP &amp; 5 each 3.125" guns. Set CFP @ 11,361 ' perforate intervals 11,330-32', 11,270-72', 11,210-12', 11,150-52', 11,090-92', w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .</p> <p>Pump down at 14 Bpm at 3,479 PSI and 250 Ft/Min. Line Speed</p> <p>Used: 170 BBLS FTR: 189,700 BBLS LTR: 187,910 BBLS</p>	1.5
U_PEPXD	While priming and testing lines, PPS could not get pop-off to set after several attempts. Another pop-off is being delivered to location. Will install and test upon arrival. Pop off installed and tested. Repaired leaks on iron.	5.25
STIM	Frac Stage 24 @ Report Time	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 32 Daily Operation: 8/13/2014 06:00 - 8/14/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 81	Days on Location (days) 32	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig PIONEER PUMPING SERVICES, FLEET #4

### Operations Summary

Frac Stage 24 -.29

P/P Stage 25-.30

Frac'n stg 30 @ report time

Held 1,500 psi on the intermediate casing

### Remarks

Mike Drennan / Jimmy lake - Days

Justin Locklar/Bobby Stephens - Nights

PPS Downtime: 0.0 Hrs Cum: 44.75 Hrs  
 Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
 API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
 API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
 Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs  
 Seaboard Wellhead 0.0 Hrs Cum: 7.0 Hrs

FTR: 235,161 bbls

RT: 0 bbls

CR: 1,790 bbls

LTR: 233,371 bbls

TSIF: 9,545,580 lbs

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>Frac Stage 24 of 32 Test stack to 9500 psi. Hold 1500 psi on backside. PPS frac'd per schedule w/ 55 bbls 15% HCL, 336371 lbs 20/40 Brown sand &amp; 7447 bbls of hybrid fluid down 5.5" 17#csg.            Formation broke @ 4488 psi @ 20 bpm            Step Test 80 bpm @ 5526 psi                60 bpm 4742 psi                40 bpm @ 4198 psi                20 bpm @ 3712 psi            Pad ISIP: 3477 psi. FG: 0.84#. 5 min SIP: 3201 psi.            Acid on form @ 20 bpm 4488 psi            Acid clear @ 75 bpm 6048psi</p> <p>Increased rate to 80 bpm. Started stage w/ 17# gel equivalent loading, 10 cp. @ 76 *F. Pumped 2786 bbl pad. Ramped 20/40 Brown sand from 0.5 ppg to 3 ppg. Flushed well with 357 bbls. Ending rate 80 bpm @ 5290 psi. Placed 100% prop iin formation.            Avg. rate: 79 bpm Avg. psi: 5880 psi            Max. rate: 79.7 bpm Max. psi: 6404 psi            End of job ISIP 3890 FG: 0.88            FTR: 197147            LTR: 195357            TSIF: 7866285</p>	0.5
PERF	<p>RU API WL for Stage# 25 of 32 . RIH &amp; pump down Schlumberger CFP &amp; (5) 3-1/8 perforating guns W/ 21.5 gram, 4 SPF. 60 degree phasing, 0.42 EHD. Position and set composite frac plug at 11061. Perforate at intervals: 10790-10792, 10850-10852, 10910-10912, 10970-10972, 11030-11032, Total of 40 shots. POOH. Stand wireline back. Confirmed all guns fired. Pump down @ 15 bpm /3400psi, 320 ft/min, 1180 Line Ten.</p> <p>TBP: 131 BBL            FTR: 197278 BBL            LTR: 195488 BBL</p>	1.5
WOF	Prime up & pressure test	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>Frac Stage 25 of 32. Test stack to 9500 psi. Held 1500 psi on backside. PPS frac'd per schedule w/ 36 bbls 15% HCL, 336,772 lbs 20/40 Brown sand &amp; 7,417 bbls of hybrid fluid down 5.5" 17# csg.</p> <p>Formation broke @ 4777 psi @ 20 bpm</p> <p>Step Test 80 bpm @ 5998 psi. 60 bpm 5114 psi. 40 bpm @ 4381 psi. 20 bpm @ 3802 psi</p> <p>Pad ISIP: 3490 psi. FG: 0.84. 5 min SIP: 3196 psi.</p> <p>Acid on form @ 20 bpm @ 4713 psi. Acid clear @ 65 bpm 5882 psi.</p> <p>Increased rate to 80 bpm. Started stage w/ 18# gel equivalent loading, 9 cp. @ 77 °F. Pumped 2,736 bbl pad. Ramped 20/40 Brown sand from 0.5 ppg to 3 ppg. Flushed well with 339 bbls. Ending rate 80 bpm @ 5232 psi. Placed 100% prop iin formation.</p> <p>Avg. rate: 79 bpm Avg. psi: 5955 psi</p> <p>Max. rate: 81 bpm Max. psi: 7927 psi</p> <p>End of job ISIP 3662 FG: 0.86</p> <p>FTR: 204,695</p> <p>LTR: 202,905</p> <p>TSIF: 8,203,057</p>	1.75
PERF	<p>RU API WL for Stage# 26 of 32. RIH &amp; pump down Schlumberger CFP &amp; (5) 3-1/8 perforating guns W/ 21.5 gram, 4 SPF. 60 degree phasing, 0.42 EHD. Position and set composite frac plug at 10,761. Perforate at intervals: 10,730'-10,732', 10,670'-10,672', 10,610'-10,612', 10,550'-10,552', 10,490'-10,492', Total of 40 shots. POOH. Stand wireline back. Confirmed all guns fired. Pump down @ 12 bpm /3580 psi, 330 ft/min, 1275 Line Ten. Used 168 bbls.</p> <p>FTR: 204,863 BBL</p> <p>LTR: 203,073 BBL</p>	1.5
WLHEAD	Greasing frac valves.	0.5
WOF	Prime up & pressure test	0.5
STIM	<p>Frac Stage 26 of 32 Test stack to 8500 psi. Hold 1500 psi on backside. PPS frac'd per schedule w/ 42 bbls 15% HCL, 336203 lbs 20/40 Brown sand &amp; 0.85 bbls of hybrid fluid down 5.5" 17#csg.</p> <p>Formation broke @ 4482 psi @ 20 bpm</p> <p>Step Test 80 bpm @ 5417 psi</p> <p>60 bpm 4691 psi</p> <p>40 bpm @ 4156 psi</p> <p>20 bpm @ 3695 psi</p> <p>Pad ISIP: 3368 psi. FG: 0.82#. 5 min SIP: 3136 psi.</p> <p>Acid on form @ 20 bpm 5281 psi</p> <p>Acid clear @ 65 bpm 5595psi</p> <p>Increased rate to 80 bpm. Started stage w/ 17# gel equivalent loading, 9 cp. @ 87 °F. Pumped 2904 bbl pad. Ramped 20/40 Brown sand from 0.5 ppg to 3 ppg. Flushed well with 332 bbls. Ending rate 80 bpm @ 5273 psi. Placed 100% prop iin formation.</p> <p>Avg. rate: 80 bpm Avg. psi: 5826 psi</p> <p>Max. rate: 86 bpm Max. psi: 7057 psi</p> <p>End of job ISIP 3584 FG: 0.85</p> <p>FTR: 212430</p> <p>LTR: 195357</p> <p>TSIF: 8539260</p>	2
PERF	<p>RU API WL for Stage# 25 of 32. RIH &amp; pump down toy CFP (Schlumberger) &amp; 3-1/8 perforating guns W/ 21.5 gram, 4 SPF. 60 degree phasing, 0.42 EHD. Position and set composite frac plug at 10461. Perforate at intervals: 10430-10432, 10370-10372, 10310-10312, 10250-10252, 10190-10192, Total of 40 shots. POOH. Stand wireline back. Confirmed all guns fired. Pump down @ 15 bpm /3300psi, 328 ft/min, 1276 Line Ten.</p> <p>TBP: 160 BBL</p> <p>FTR: 212,590 BBL</p> <p>LTR: 210,800 BBL</p>	1.5
WOF	Prime up & pressure test	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
STIM	<p>Frac Stage 27 of 32. Test stack to 9500 psi. Held 1500 psi on backside. PPS frac'd per schedule w/ 41 bbls 15% HCL, 336,476 lbs 20/40 Brown sand &amp; 7432 bbls of hybrid fluid down 5.5" 20# csg.</p> <p>STEP TEST: 80-5891 60-5061 40-4265 20-3691</p> <p>Formation broke @ 5045 psi @ 20 bpm Step Test 80 bpm @ 5891 psi. 60 bpm 5061 psi. 40 bpm @ 4265 psi. 20 bpm @ 3691 psi Pad ISIP: 3302 psi. FG: 0.82. 5 min SIP: 3018 psi.</p> <p>Acid on form @ 20 bpm @ 4857 psi. Acid clear @ 60 bpm 5685 psi.</p> <p>Increased rate to 80 bpm. Started stage w/ 16# gel equivalent loading, 9 cp. @ 85 °F. Pumped 2721 bbl pad. Ramped 20/40 Brown sand from 0.5 ppg to 3 ppg. Flushed well with 327 bbls. Ending rate 40 bpm @ 4083 psi. Placed 100% prop in formation.</p> <p>Avg. rate: 80 bpm      Avg. psi: 6081 psi Max. rate: 81 bpm      Max. psi: 7520 psi End of job ISIP 3611      FG: 0.85</p> <p>FTR: 220,022 BBL LTR: 218,232 BBL TSIF: 8,875,736 LBS</p>	1.75
PERF	<p>RU API WL for Stage# 28 of 32. RIH &amp; pump down Schlumberger CFP &amp; (5) 3-1/8 perforating guns W/ 21.5 gram, 4 SPF. 60 degree phasing, 0.42 EHD. Position and set composite frac plug at 10,161. Perforate at intervals: 10,130'-10,132', 10,070'-10,072', 10,010'-10,012', 9,950'-9,952', 9,890'-9,892', Total of 40 shots. POOH. Stand wireline back. Confirmed all guns fired.</p> <p>Pump down @ 14 bpm /3430 psi, 250 ft/min, 1250 Line Ten.</p> <p>Used 99 bbls.</p> <p>FTR: 220,121 BBL LTR: 218,331 BBL</p>	1.25
WOF	Prime up & pressure test	0.5
STIM	<p>FRAC STG # 28 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ 41 bbls 15% HCL, 336,077 lbs. 20/40 brown sand &amp; 7462 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 5405 Psi 60 @ 4625 Psi 40 @ 4050 Psi 20 @ 3600 Psi</p> <p>Formation broke @ 20 bpm @ 4022 psi. Acid on form @ 40 bpm @ 5495 psi. Acid cleared @ 80 bpm @ 6843 psi.</p> <p>Pad ISIP: 3512 psi      FG: 0.84 psi/ft      5 Min.SIP: 3165 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 10 cp. @ 84 °F Pumped 2760 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 321 bbls. Ending rate 80 bpm @ 5252 psi. Placed 100% prop in formation.</p> <p>Avg rate: 80 bpm      Avg psi: 5639 psi Max rate: 80 bpm      Max psi: 6098 psi</p> <p>Ending ISIP: 3960 psi      FG: 0.89 psi/ft</p> <p>FTR: 227,583 BBLS LTR: 225,793 BBLS TSIF= 9,211,813 lbs.</p>	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
PERF	<p>RU API WL for Stage# 29 of 32 . RIH &amp; pump down toy CFP (Schlumberger) &amp; 3-1/8 perforating guns W/ 21.5 gram, 4 SPF. 60 degree phasing, 0.42 EHD. Position and set composite frac plug at 9861. Perforate at intervals: 9830-9832, 9770-9772, 9710-9712, 9650-9652, 9590-9592, Total of 40 shots. POOH. Stand wireline back. Confirmed all guns fired.</p> <p>Pump down @ 14 bpm /3613 psi, 300 ft/min</p> <p>TBP: 102 BBL FTR: 227,685 BBL LTR: 225,895 BBL</p>	1.25
WOF	Prime up & pressure test	0.5
STIM	<p>FRAC STG # 29 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ bbls 15% HCL, 333,767 lbs.20/40 brown sand &amp; 7414 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 5187 Psi 60 @ 4590 Psi 40 @ 4099 Psi 20 @ 3643 Psi</p> <p>Formation broke @ 18.2 bpm @ 3951 psi. Acid on form @ 70 bpm @ 5950 psi. Acid cleared @ 80 bpm @ 5448 psi.</p> <p>Pad ISIP: 3459 psi FG: 0.84 psi/ft 5 Min.SIP: 3197 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 17# gel Equivalent gel loading, 9 cp.@ 81 *F Pumped 2715 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with 314 bbls. Ending rate 40 bpm @ 4258 psi. Placed 100% prop in formation.</p> <p>Avg rate: 79.6 bpm Avg psi: 5645 psi Max rate: 81.7 bpm Max psi: 6219 psi</p> <p>Ending ISIP: 3771 psi FG: 0.87 psi/ft</p> <p>FTR: 235,099 BBLS LTR: 233,309 BBLS TSIF= 9,545,580 lbs.</p>	2
PERF	<p>RU API WL for Stage# 30 of 32 . RIH &amp; pump down toy CFP (Schlumberger) &amp; 3-1/8 perforating guns W/ 21.5 gram, 4 SPF. 60 degree phasing, 0.42 EHD. Position and set composite frac plug at 9561. Perforate at intervals: 9530-32', 9470-72', 9410-12', 9350-52', 9290-92', Total of 40 shots. POOH. Stand wireline back. Confirmed all guns fired.</p> <p>Pump down @ 12 bpm /3281 psi, 300 ft/min</p> <p>TBP: 62 BBL FTR: 235,161 BBL LTR: 233,371 BBL</p>	1.25
WOF	Prime up & pressure test	0.5
STIM	Frac'n stg 30 @ report time	1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 33 Daily Operation: 8/14/2014 06:00 - 8/15/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
82	33	0.0			PIONEER PUMPING SERVICES, FLEET #4		

### Operations Summary

Frac Stage 30 - 32  
P/P Stage 31 - 32

SET KILL PLUG @ 8,590'  
Rig down move off location

Held 1,500 psi on the intermediate casing

### Remarks

Mike Drennan / Jimmy lake - Days  
Justin Locklar/Bobby Stephens - Nights

PPS Downtime: 1.25 Hrs Cum: 46.0 Hrs  
Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Seaboard Wellhead 0.0 Hrs Cum: 7.0 Hrs

FTR: 257,443 bbls

RT: 0 bbls

CR: 1,790 bbls

LTR: 255,653 bbls

TSIF: 10,514,198 lbs

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 30 of 32: Test stack to 9,500 psi. Hold 1,500 psi on backside. PPS frac'd perfs per schedule w/ 34 bbls 15% HCL, 336,407 lbs.20/40 brown sand &amp; 7,372 bbls of hybrid fluid linear/X-link down 5.5"- 20# csg.</p> <p>Step test: 80 @ 5330 Psi 60 @ 4665 Psi 40 @ 4130 Psi 20 @ 3645 Psi</p> <p>Formation broke @ 20 bpm @ 4400 psi. Acid on form @ 40 bpm @ 6200 psi. Acid cleared @ 80 bpm @ 5786 psi.</p> <p>Pad ISIP: 3384 psi FG: 0.82 psi/ft 5 Min.SIP: 3172 Psi</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 10 cp.@ 77 °F Pumped 2697 bbl pad. Ramped 20/40 brown sand from 0.5 ppg to 3 ppg. Flushed well with bbls. Ending rate 80 bpm @ 5546 psi. Placed 100% prop in formation.</p> <p>Avg rate: 80 bpm Avg psi: 5516 psi Max rate: 83.5 bpm Max psi: 5985 psi</p> <p>Ending ISIP: 3736 psi FG: 0.87 psi/ft</p> <p>FTR: 242,533 BBLS LTR: 240,743 BBLS TSIF= 9,881,987 lbs.</p>	0.25



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Time Log Summary		
Operation	Com	Dur (hr)
PERF	<p>RU API WL for Stage# 31 of 32 . RIH &amp; pump down toy CFP (Schlumberger) &amp; 3-1/8 perforating guns W/ 21.5 gram, 4 SPF. 60 degree phasing, 0.42 EHD. Position and set composite frac plug at 9261. Perforate at intervals: 9230-9232, 9170-9172, 9110-9112, 9050-9052, 8990-8992, Total of 40 shots. POOH. Stand wireline back. Confirmed all guns fired.</p> <p>Pump down @ 12 bpm /3250 psi, 315 ft/min, 1167 Line Ten. Used 51 bbls</p> <p>FTR: 242,584 BBL LTR: 240,794 BBL</p>	1.25
WOF	Prime up & pressure test	0.75
STIM	<p>Frac Stage 31 of 32. Test stack to 9500 psi. Held 1500 psi on backside. PPS frac'd per schedule w/ 82 bbls 15% HCL, 335,756 lbs 20/40 Brown sand &amp; 7,394 bbls of hybrid fluid down 5.5" 20# csg.</p> <p>Formation broke @ 3809 psi @ 15 bpm</p> <p>Step Test 80 bpm @ 5340 psi. 60 bpm 4476 psi. 40 bpm @ 4039 psi. 20 bpm @ 3601 psi</p> <p>Pad ISIP: 3370 psi. FG: 0.83 5 min SIP: 3165 psi.</p> <p>Acid on form @ 15 bpm @ 3800 psi. Acid clear @ 60 bpm 5745 psi.</p> <p>Increased rate to 80 bpm. Started stage w/15 # gel equivalent loading, 10 cp. @ 77 *F. Pumped 2,681 bbl pad. Ramped 20/40 Brown sand from 0.5 ppg to 3 ppg. Flushed well with 300 bbls. Ending rate 80 bpm @ 5142 psi. Placed 100% prop iin formation.</p> <p>Avg. rate: 79 bpm Avg. psi: 5435 psi Max. rate: 80 bpm Max. psi: 5824 psi End of job ISIP 3740 FG: 0.87</p> <p>FTR: 249,978 LTR: 248,188 TSIF: 10,217,743</p>	2
PERF	<p>RU API WL for Stage# 32 of 32 . RIH &amp; pump down toy CFP (Schlumberger) &amp; 3-1/8 perforating guns W/ 21.5 gram, 4 SPF. 60 degree phasing, 0.42 EHD. Position and set composite frac plug at 8,961'. Perforate at intervals: 8,930'-8,932', 8,870'-8,872', 8,810'-8,812', 8,750'-8,752', 8,690'-8,692', Total of 40 shots. POOH. Stand wireline back. Confirmed all guns fired.</p> <p>Pump down @ 9 bpm /3115 psi, 213 ft/min, 1297 Line Ten. Used 21 bbls</p> <p>FTR: 249,999 BBL LTR: 248,209 BBL</p>	1
U_WOP	Waiting on one load of sand for finial stage.	1.25
STIM	<p>Frac Stage 32 of 32. Test stack to 9500 psi. Held 1500 psi on backside. PPS frac'd per schedule w/ 102 bbls 15% HCL, 296455 lbs 20/40 Brown sand &amp; 4712 bbls of hybrid fluid down 5.5" 20# csg.</p> <p>Formation broke @ 3956 psi @ 20 bpm</p> <p>Step Test 80 bpm @ 5100 psi. 60 bpm 4490 psi. 40 bpm @ 4000 psi. 20 bpm @ 3572 psi</p> <p>Pad ISIP: 3361 psi. FG: 0.82. 5 min SIP: 3109 psi.</p> <p>Acid on form @ 20 bpm @ 2870 psi. Acid clear @ 80 bpm 6583 psi.</p> <p>Increased rate to 80 bpm. Started stage w/ 17# gel equivalent loading, 9 cp. @ 83 *F. Pumped 2838 bbl pad. Ramped 20/40 Brown sand from 0.5 ppg to 3 ppg. Flushed well with 294 bbls. Ending rate 80 bpm @ 5217 psi. Placed 89% prop iin formation.</p> <p>Avg. rate: 78 bpm Avg. psi: 5441psi Max. rate: 80 bpm Max. psi: 5878 psi End of job ISIP 5217 FG: 0.86</p> <p>FTR: 257,443 LTR: 255,653 TSIF: 10,514,198</p> <p>Ran out of sand early. pumped 296,455 out of 335,000# of prop</p>	2
PERF	<p>RU API WL . RIH w/ CBP(Schlumberger). Set kill plug @8590'. POOH. Bled well down to 0 psi. RDMOL API wireline.</p> <p>FTR: 257,443 LTR: 255,653</p>	1
RDMO	RDMO PPS Frac crew , Priority Upper Frac Stack and API Wireline.	14.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

**Report #: 34 Daily Operation: 8/15/2014 06:00 - 8/16/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
83	34	0.0			Mason , 227	

**Operations Summary**

WSI Waiting on drill out ops

Continue rigging down PPS frac equipment and support equipment.  
Emptied and moved frac tanks for drill out ops.  
MIRU Mason rig #227.

**Remarks**

Mike Drennan / Jimmy lake - Days  
Justin Locklar/Bobby Stephens - Nights

PPS Downtime: 0.0 Hrs Cum: 46.0 Hrs  
Select Water Transf Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API Wireline Down Time: 0.0 Hrs Cum: 0.0 Hrs  
API 10K Lubricator Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Priority Energy Service Downtime: 0.0 Hrs Cum: 0.0 Hrs  
Seaboard Wellhead 0.0 Hrs Cum: 7.0 Hrs

FTR: 257,443 bbls

RT: 0 bbls

CR: 1,790 bbls

LTR: 255,653 bbls

TSIF: 10,514,198 lbs

**Time Log Summary**

Operation	Com	Dur (hr)
RURD	Continue rigging down PPS frac equipment and support equipment. Emptied and moved frac tanks for drill out ops. MIRU Mason rig #227.	24

**Report #: 35 Daily Operation: 8/16/2014 06:00 - 8/17/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
84	35	0.0			Mason , 227	

**Operations Summary**

WSI Waiting on drill out ops  
Rigging up equipment for drill out ops.

**Remarks**

Mike Drennan / Jimmy lake - Days  
Justin Locklar/Bobby Stephens - Nights

Mason Down time: 0 hrs Cum 0 hrs  
Vision Down time: 0 hrs Cum 0 hrs  
Voyager Down time: 0 hrs Cum 0 hrs  
Emerald Down time: 0 hrs Cum 0 hrs

FTR: 257,443 bbls

RT: 0 bbls

CR: 1,790 bbls

LTR: 255,653 bbls

TSIF: 10,514,198 lbs

**Time Log Summary**

Operation	Com	Dur (hr)
RURD	WSI. Continue to rig up all support equipment. Built containment barriers for flowback tanks,sand-x,super loop and mixing plant. Unloaded workstring. Nu Bop's, annular and bird bath.	24

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

<b>Report #: 36 Daily Operation: 8/17/2014 06:00 - 8/18/2014 06:00</b>						
Job Category ORIG COMPLETION				Primary Job Type OCM		AFE Number 030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
85	36	0.0			Mason , 227	
<b>Operations Summary</b> WSI Waiting on drill out ops Rigging up equipment for drill out ops. MU BHA, TIH w/ 2 3/8" workstring with 275 jts (8,529') Test rams, annular and flow back iron to 3k (good test) Preparing to test 2 7/8" rams @ report time						
<b>Remarks</b> Mike Drennan / Jimmy lake - Days Justin Locklar/Bobby Stephens - Nights  Mason Down time: 0 hrs Cum 0 hrs Vision Down time: 0 hrs Cum 0 hrs Voyager Down time: 0 hrs Cum 0 hrs Emerald Down time: 0 hrs Cum 0 hrs  FTR: 257,443 bbls  RT: 0 bbls  CR: 1,790 bbls  LTR: 255,653 bbls  TSIF: 10,514,198 lbs						
<b>Time Log Summary</b>						
Operation	Com					Dur (hr)
SAFETY	Held PJSM					0.25
RURD	Continue rigging up Tank containments, Emerald service mixing plant, Archer flow back & Sandex/Superloop.					11.75
SAFETY	Held PJSM					0.25
BOPTST	Test Blind Rams to 3000 psi test was good. Rig Up BHA, Bit 4 5/8", Bit Sub, Dual Back pressure valve and 1 Jt of 2 3/8" tubing and Profile Nipple.					0.5
TIH	TIH with 2 3/8" workstring with 275 jts @ 8529'. Install TIW valve, test 2 3/8" pipe rams, annular and flow back iron to 3k (good test). Changing slips to 2 7/8" to test 2 7/8" pipe rams @ report time.					11.25
<b>Report #: 37 Daily Operation: 8/18/2014 06:00 - 8/19/2014 06:00</b>						
Job Category ORIG COMPLETION				Primary Job Type OCM		AFE Number 030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
86	37	0.0			Mason , 227	
<b>Operations Summary</b> Held PJSM  Waiting on repairs on #49 well						
<b>Remarks</b> Mike Drennan / Jimmy lake - Days Justin Locklar/Bobby Stephens - Nights  Mason Down time: 0 hrs Cum 0 hrs Vision Down time: 0 hrs Cum 0 hrs Voyager Down time: 0 hrs Cum 0 hrs Emerald Down time: 0 hrs Cum 0 hrs  FTR: 257,443 bbls  RT: 0 bbls  CR: 1,790 bbls  LTR: 255,653 bbls  TSIF: 10,514,198 lbs						
<b>Time Log Summary</b>						
Operation	Com					Dur (hr)
SAFETY	Held PJSM					0.25
BOPTST	Test 2-7/8 Rams and hold for 10 min. Tested Good. Pulled 2-7/8 joint, placed TIW valve on tubing and shut well in for operations on #49 well due to sunk well head.					0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
RURD	Moved out tubing and pipe racks and moved tubing laydown machine out of the way so work could begin on #49 Well.	2
WSI	Waiting on repairs on #49 well	21

Report #: 38 Daily Operation: 8/19/2014 06:00 - 8/20/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
87	38	0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
		Mason , 227

#### Operations Summary

Held PJSM  
Waiting on repairs on #49 well  
Rig back up pipe racks/catwalk  
Load remaining 2 3/8" workstring/re-tally  
Re-test surface iron (good test)  
Continue to TIH  
Drill CFP's - 32,31

#### Remarks

Mike Drennan / Jimmy lake - Days  
Justin Locklar/Bobby Stephens - Nights

Mason Down time: 0 hrs Cum 0 hrs  
Vision Down time: 0 hrs Cum 0 hrs  
Voyager Down time: 0 hrs Cum 0 hrs  
Emerald Down time: 0 hrs Cum 0 hrs

FTR: 257,443 bbls

RT: 221 bbls

CR: 2011 bbls

LTR: 255,432 bbls

TSIF: 10,514,198 lbs

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	Held PJSM, Jay Miller held a confined class for the rig hands. Before starting operations on the #49.	2
WSI	Waiting on repairs on #49 well	10
SAFETY	Held PJSM.	0.5
RURD	Rig back up pipe racks and tubing, laydown machine and load 2 3/8" tubing back on racks for drill out ops. Re-Test flow back iron to 3000 psi before starting drill out ops. Tie back and RU swivel	6.5
MILL_TUB	Continue TIH with 2 3/8" tubing. Break circulation, tag/drill CFP #32 at 8591' w/277 jts in hole. Pumping 2.5 bpm at 2500 psi, Returning 3.0 bpm at 1700 psi. Drill time 5 minutes. Wash down and tag/drill CFP #31 at 8994' w/290 jts in hole. Pumping 2.5 bpm at 2000 psi, Returning 3.1 bpm at 1350 psi. Drill time 36 minutes, send 5 bbl sweep.	3
MILL_TUB	TIH, tag CFP #30, pump 10 bbl sweep and circ bottoms up @ report time.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 39 Daily Operation: 8/20/2014 06:00 - 8/21/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234
Days From Spud (days) 88	Days on Location (days) 39	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig Mason , 227

### Operations Summary

Held PJSM  
Mill Schlumberger CFP # 30 thru 20  
Continue 24 hr drill out ops.

### Remarks

Mern Allison - Days  
Mike Drennan / Jimmy Lake - Nights

Mason Down time: 0 hrs Cum 0 hrs  
Vision Down time: 0 hrs Cum 0 hrs  
Voyager Down time: 0 hrs Cum 0 hrs  
Emerald Down time: 0 hrs Cum 0 hrs

FTR: 257,443 bbls

RT: 2,374 bbls

CR: 4,385 bbls

LTR: 253,058 bbls

TSIF: 10,514,198 lbs

2182 bbls pumped to disposal.

Roll off box RFR #279755

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	Conduct PJSM & JSA's. Areas of discussion; keep hydrated, hand placement, no pranks, watch your buddy. drilling plugs.	0.25
MILL_TUB	Continue to circulate bottoms up.	0.75
MILL_TUB	Wash and ream to plug # 30. Tagged Schlumberger CFP at 9,261' on Jt 299. D/O in 74 min. PR-2.5 bpm at 2500 psi. Torque-1300#. RR 3.5 bpm @ 1450 psi. Pump 5 bbl sweep.	2.25
MILL_TUB	Wash and ream to plug # 29. Tagged Schlumberger CFP at 9,551' on Jt 309. D/O in 39 min. PR-2.5 bpm at 2300 psi. Torque-1800#. RR 3.0 bpm @ 1250 psi. Pump 5 bbl sweep.	1.75
MILL_TUB	Wash and ream to plug #28. Tagged Schlumberger CFP #28 at 9,853' on Jt 319. D/O in 30 min. PR-2.5 bpm at 1900 psi. Torque-2100#. RR 3.1 bpm @ 1200 psi. Pump 10 bbl sweep.	1
MILL_TUB	Circulate 10 bbl sweep surface to surface.	1.25
MILL_TUB	Wash and ream to plug #27. Tagged Schlumberger CFP #27 at 10,161' on Jt 328. D/O in 32 min. PR-2.5 bpm at 1900 psi. Torque-1800#. RR 3.1 bpm @ 1200 psi. Pump 5 bbl sweep	0.75
MILL_TUB	.RIH with 2 jts of 2 3/8" WS, X-over to 2 7/8" WS M/U X-nipple on top of jt # 331 Wash and ream to plug #26. Tagged Schlumberger CFP #26 at 10,461' on Jt 338. D/O in 38 min. PR-2.5 bpm at 1900 psi. Torque-1800#. RR 3.1 bpm @ 1350 psi. Pump 5 bbl sweep.	2.25
MILL_TUB	Wash and ream to plug #25. Tagged Schlumberger CFP #25 at 10,761' on Jt 348. D/O in 30 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1250 psi. Pump 10 bbl sweep  **NOTE** At 1715 hrs, noticed the wellhead was leaning towards the WEST +/- .25". Called and informed Mr Owen Wampler. Was advised to drill ahead but keep an eye in it.	1.25
MILL_TUB	Circulate 10 bbl sweep surface to surface.	2
MILL_TUB	Wash and ream to plug #24. Tagged Schlumberger CFP #24 at 11,064' on Jt 357. D/O in 25 min. PR-2.5 bpm at 1900 psi. Torque-1800#. RR 3.1 bpm @ 1050 psi. Pump 5 bbl sweep	1.25
MILL_TUB	Wash and ream to plug #23. Tagged Schlumberger CFP #23 at 11,350' on Jt 367. D/O in 32 min. PR-2.5 bpm at 1800 psi. Torque-1900#. RR 3.1 bpm @ 1050 psi. Pump 5 bbl sweep	2.25
MILL_TUB	Wash and ream to plug #22. Tagged Schlumberger CFP #22 at 11,658' on Jt 377. D/O in 27 min. PR-2.5 bpm at 1800 psi. Torque-1900#. RR 3.1 bpm @ 1050 psi. Pump 10 bbl sweep & circulate bottom up.	3
MILL_TUB	Wash and ream to plug #21. Tagged Schlumberger CFP #21 at 11,951' on Jt 386. D/O in 58 min. PR-2.5 bpm at 1900 psi. Torque-1800#. RR 3.2 bpm @ 1000 psi. Pump 5 bbl sweep	1.5
MILL_TUB	Wash and ream to plug #20. Tagged Schlumberger CFP #20 at 12,243' on Jt 396. D/O in 38 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1050 psi. Pump 5 bbl sweep	1.5
MILL_TUB	ui	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 40 Daily Operation: 8/21/2014 06:00 - 8/22/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 030234	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig Mason , 227	
89	40	0.0				

### Operations Summary

Held PJSM  
Mill Schlumberger CFP # 19 thru 7.  
Continue 24 hr drill out ops.

### Remarks

Mern Allison - Days  
Mike Drennan / Jimmy Lake - Nights

Mason Down time: 0 hrs Cum 0 hrs  
Vision Down time: 0 hrs Cum 0 hrs  
Voyager Down time: 0 hrs Cum 0 hrs  
Emerald Down time: 0 hrs Cum 0 hrs

FTR: 257,443 bbls

RT: 1,596 bbls

CR: 5,981 bbls

LTR: 251,462 bbls

1607 bbls pumped to disposal.

TSIF: 10,514,198 lbs

Roll off box RFR #279755

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	PJSM & JSA's with crews. Areas of discussion; Watch for pipe coming up V door. Drink plenty of water, Watch for snakes. Hand placement.	0.25
MILL_TUB	Continue to circulate on top of plug #19	0.75
MILL_TUB	Wash and ream to plug #19. Tagged Schlumberger CFP #19 at 12,561' on Jt 406. D/O in 37 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1200 psi. Pump 5 bbl sweep. **Medium to Heavy sand **	0.75
MILL_TUB	Wash and ream to plug #18. Tagged Schlumberger CFP #18 at 12,861' on Jt 415. D/O in 33 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1200 psi. Pump 5 bbl sweep. **Medium sand **	1
MILL_TUB	Wash and ream to plug #17. Tagged Schlumberger CFP #17 at 13,152' on Jt 425. D/O in 31 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1100 psi. Pump 5 bbl sweep. **Medium to Heavy sand **	1.25
MILL_TUB	Wash and ream to plug #16. Tagged Schlumberger CFP #16 at 13,448' on Jt 434. D/O in 31 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.1 bpm @ 1100 psi. Pump 10 bbl sweep. **Medium to Heavy sand **	1.25
MILL_TUB	Circulate 10 bbl sweep surface to surface	1
MILL_TUB	Wash and ream to plug #15. Tagged Schlumberger CFP #15 at 13,745' on Jt 444. D/O in 25 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1100 psi. Pump 5 bbl sweep. **Medium to Heavy sand **	1.25
MILL_TUB	Wash and ream to plug #14. Tagged Schlumberger CFP #14 at 14,061' on Jt 454. D/O in 42 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1100 psi. Pump 5 bbl sweep **Heavy sand **	1.5
MILL_TUB	Wash and ream to plug #13. Tagged Schlumberger CFP #13 at 14,349' on Jt 463. D/O in 44 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1200 psi. Pump 10 bbl sweep **Heavy sand **	1.5
MILL_TUB	Circulate 10 bbl sweep surface to surface	2
MILL_TUB	Wash and ream to plug #12. Tagged Schlumberger CFP #12 at 14,634' on Jt 473. D/O in 36min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1100 psi. Pump 5 bbl sweep **Heavy sand **	1.5
MILL_TUB	Wash and ream to plug #11. Tagged Schlumberger CFP #12 at 14,938' on Jt 483. D/O in 40min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1100 psi. Pump 10 bbl sweep **Heavy sand **	1.5
MILL_TUB	Wash and ream to plug #10. Did not find plug @15,261'. Cih w/ ws & bit.	1.25
MILL_TUB	Wash and ream to plug #9. Tagged Schlumberger CFP #9 at 15,541' on Jt 502. D/O in 44 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1100 psi. Pump 10 bbl sweep. **Heavy sand **	1.5
MILL_TUB	Circulate 10 bbl sweep surface to surface	1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
MILL_TUB	Wash and ream to plug #8. Tagged Schlumberger CFP #8 at 15,845' on Jt 521. D/O in 30 min. PR-2.5 bpm at 1900 psi. Torque-1900#. RR 3.2 bpm @ 1050 psi. Pump 5 bbl sweep. **Medium sand **	1.5
MILL_TUB	Wash and ream to plug #7. Tagged Schlumberger CFP #7 at 16,134' on Jt 521. D/O in 40 min. PR-2.5 bpm at 2100 psi. Torque-2000#. RR 3.2 bpm @ 1100 psi. Pump 5 bbl sweep. **Medium sand **	1.5
MILL_TUB	Continue to wash and ream to plug #6.  Continue 24 hr drill out ops.	1

Report #: 41 Daily Operation: 8/22/2014 06:00 - 8/23/2014 06:00

Job Category ORIG COMPLETION	Primary Job Type OCM	AFE Number 030234
Days From Spud (days) 90	Days on Location (days) 41	End Depth (ftKB) 0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig Mason , 227

#### Operations Summary

Held PJSM  
Mill Schlumberger CFP # 6 to PBTD.  
Circulate hole clean.  
Pooh laying down WS.  
Continue pooh w/ ws.

#### Remarks

Mern Allison - Days  
Mike Drennan / Jimmy Lake - Nights

Mason Down time: 0 hrs Cum 0 hrs  
Vision Down time: 0 hrs Cum 0 hrs  
Voyager Down time: 0 hrs Cum 0 hrs  
Emerald Down time: 0 hrs Cum 0 hrs

FTR: 257,443 bbls

RT: 1,542 bbls

CR: 7,523 bbls

LTR: 249,920 bbls

1257 bbls pumped to disposal.

TSIF: 10,514,198 lbs

Roll off box RFR #279755

Roll off box Dragon #2093

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	PJSM & JSA's with crews. Areas of discussion; Keep hydrated, hand placement, housekeeping, trip hazards. Continue to wash and ream to plug #6	0.25
MILL_TUB	Wash and ream to plug #6. Tagged Schlumberger CFP #6 at 16,451' on Jt 531. D/O in 37 min. PR-2.5 bpm at 2000 psi. Torque-2000#. RR 3.2 bpm @ 1100 psi. Pump 10 bbl sweep. **Heavy sand **	0.5
MILL_TUB	Circulate 10 bbl sweep surface to surface	2
MILL_TUB	Wash and ream to plug #5. Tagged Schlumberger CFP #5 at 16,748' on Jt 531. D/O in 28 min. PR-2.5 bpm at 2300 psi. Torque-2300#. RR 3.2 bpm @ 1200 psi. Pump 5 bbl sweep. **Medium to Heavy sand **	1
MILL_TUB	Wash and ream to plug #4. Tagged Schlumberger CFP #4 at 17,040' on Jt 550. D/O in 24 min. PR-2.5 bpm at 2350 psi. Torque-2500#. RR 3.1 bpm @ 1100 psi. Pump 5 bbl sweep. **Medium sand **	1.25
MILL_TUB	Wash and ream to plug #3. Tagged Schlumberger CFP #3 at 17,340' on Jt 560. D/O in 35 min. PR-2.5 bpm at 2250 psi. Torque-2800#. RR 3.3 bpm @ 1100 psi. Pump 10 bbl sweep. **Medium to Heavy sand **	1.25
MILL_TUB	Circulate 10 bbl sweep surface to surface	2
MILL_TUB	Wash and ream to plug #2. Tagged Schlumberger CFP #2 at 17,630' on Jt 570. D/O in 21 min. PR-2.5 bpm at 2300 psi. Torque-2800#. RR 3.2 bpm @ 1000 psi. Pump 5 bbl sweep. ** Heavy sand **	1
MILL_TUB	Wash and ream to plug #1. Tagged Schlumberger CFP #1 at 17,910' on Jt 579. D/O in 42 min. PR-2.5 bpm at 2400 psi. Torque-2800#. RR 3.2 bpm @ 1050 psi. Pump 5 bbl sweep. **Heavy sand **	1.25
MILL_TUB	Wash and ream to PBTD at 17,985' on Jt 581. P/U 5', PR-2.5 bpm at 2400 psi. Torque-2800#. RR 3.2 bpm @ 1000 psi. Pump 10 bbl sweep, 10 bbl spacer, and 10 bbl sweep. **Heavy sand **	0.5
MILL_TUB	circulate 10 bbl sweep, 10 bbl spacer, and 10 bbl sweep surface to surface. Circulated until well cleaned up. Shut backside in. Stood back swivel.	5.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
POOH	POOH laying down ws.  Laid down 251 jts 2 7/8" PH-6 ws w/ 330 jts 2/38" PH-6 in hole. Eot @ 10,214'.  Swapping tools over from 2 7/8" to 2 3/8"  Continue pooh w/ ws.	7.5

Report #: 42 Daily Operation: 8/23/2014 06:00 - 8/24/2014 06:00

Job Category ORIG COMPLETION	Primary Job Type OCM	AFE Number 030234
Days From Spud (days) 91	Days on Location (days) 42	End Depth (ftKB) 0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig Mason , 227

Operations Summary  
Conduct PJSM / JSA's  
Continue to POOH and lay down workstring  
R/U Snubco and snub out 100 jts of W/S  
Rdmol snubbing unit.

Remarks  
Mern Allison - Days  
Mike Drennan / Jimmy Lake - Nights

Mason Down time: 0 hrs Cum 0 hrs  
Vision Down time: 0 hrs Cum 0 hrs  
Voyager Down time: 0 hrs Cum 0 hrs  
Emerald Down time: 0 hrs Cum 0 hrs

FTR: 257,443 bbls

RT: 0 bbls

CR: 7,523 bbls

LTR: 249,920 bbls

0 bbls pumped to disposal.

TSIF: 10,514,198 lbs

Roll off box RFR #279755  
Roll off box Dragon #2093

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	PJSM & JSA's with crews. Areas of discussion; Overhead lifts, laying down workstring, keep hydrated, hand placement.	0.25
MILL_TUB	Continue to POOH and laydown WS	7
RURD	R/D Vision swivel. Clean off rig floor. Prepare for snubbing operations	1
SAFETY	PJSM and JSA with rig and snubbing crew. Area of discussion; Rriging up snubbing unit, snubbing out, and handling workstring, laying down workstring. hand placement	0.25
RURD	Suck out cellar and birdbath tank. Land tubing. Remove bird bath. Rigged down flowback iron to get snubbing unit in. R/U Snubco snubbing unit and related equipment. Ru flowback iron.  Note: Had issues getting tbg landed in wellhead. Had to land on pipe rams.	10
POOH	Snub out of hole laying down 100 jts 2 3/8" PH-6 WS. Sicmp 1300 psi.	4
RURD	Rdmol snubco snubbing unit.	1.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 43 Daily Operation: 8/24/2014 06:00 - 8/25/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 030234
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
92	43	0.0			Mason , 227	

Operations Summary  
 Conduct PJSM & JSA's with crews  
 Completed R/D of Snubco  
 RIH w/ GR/JB, POOH. RIH & set Prod Packer at 8000' element depth WLM, Top of Packer at 7993.4' WLM. POOH. Rdmol API wireline.  
 Rih W/ prod tbg & ESP.

### Remarks

Mern Allison - Days  
 Mike Drennan / Jimmy Lake - Nights

Mason Down time: 0 hrs Cum 0 hrs  
 Vision Down time: 0 hrs Cum 0 hrs  
 Voyager Down time: 0 hrs Cum 0 hrs  
 Emerald Down time: 0 hrs Cum 0 hrs

FTR: 257,443 bbls

RT: 0 bbls

CR: 7,523 bbls

LTR: 249,920 bbls

0 bbls pumped to disposal.  
 2 loads hauled to disposal

TSIF: 10,514,198 lbs

Roll off box RFR #279755  
 Roll off box Dragon #2093

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	PJSM/JSA's with crews. Areas of discussion; Rigging down snubbing unit, Rigging wireline, hand placement, keep hydrated	0.25
RURD	Continue to R/D Snubco, Prepare to R/U API wireline.	1
RURD	MIRU API wireline and related equipment. M/U 4.625" GR/JB. (Mic R/S -1.469, CCL-3.13")	1.5
WLPAK	Equallize pressure and RIH with 4.625" GR/JB to 8099' WLM, POOH. M/U 5.5"x2 7/8" W.L. AS-1X Production Packer(20' 7.25" long ) (Pinned with 4 pins to bust at +/-3130 psi ), RIH and set at 8000' element depth. Top of Packer at 7993' WLM, POOH. Bleed off pressure.	4
RURD	R/D API wireline, R/D Frac valve and flowcross, Prepare to RIH with Schlumberger ESP pump. Rack 6 - 2 7/8" L-80 Bare tail pipe, Schlumberger ESP pump, 50- 2 7/8" L-80 IPC Prod tbg and remainder of 2 7/8" L-80 Bare production tubing. Talley same.	4.25
TUBING	M/U Bullplug on bottom of 6 jts of 2 7/8" L-80 Bare tail pipe, Schlumberger ESP pump, 1 jt of 2 7/8" L-80 IPC Prod tubing, 2 7/8" X-Nipple (I.D-2.31"), 49 jts 2 7/8" L-80 IPC Production tubing, 193 jts of 2 7/8" L-80 BareProduction tubing. X PN @ 7604.9'. Eot @ 7954.56'	13

### WELL DETAILS

Well Name UNIVERSITY 3-19 47H	API/UWI 42-461-39157-0000	Operator PIONEER NATURAL RESRC USA INC
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### Wellbore Hole Size

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date	End Date
Conductor	30	26.0	146.0	12/16/2013	12/16/2013
Surface	17 1/2	146.0	1,207.0	5/25/2014	5/26/2014
Intermediate	12 1/4	1,207.0	7,720.0	5/28/2014	6/2/2014
Production	8 1/2	7,720.0	18,080.0	6/5/2014	6/15/2014

### Conductor Casing

Run Date		Set Depth (ftKB) 120.0				Centralizers			
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		20				120.00	1	0.0	120.0
Run Date 12/17/2013		Set Depth (ftKB) 146.0				Centralizers			

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		20	19.000	106.50	J-55	120.00	3	26.0	146.0
Surface Casing									
Set Depth (ftKB)	Run Date	Centralizers							
1,100.0									
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		13 3/8	12.715	48.00	J-55	1,075.00	27	25.0	1,100.0
Set Depth (ftKB)	Run Date	Centralizers							
1,207.0	5/27/2014								
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Jnt		13 3/8	12.715	48.00	J-55	0.00	0	26.0	26.0
Cut Off		13 3/8	12.715	48.00	J-55	1.00	0	26.0	27.0
Casing Jnt		13 3/8	12.715	48.00	J-55	1,135.13	28	27.0	1,162.1
Float Collar		13 3/8	12.715	48.00	J-55	1.50	1	1,162.1	1,163.6
Casing Joints		13 3/8	12.715	48.00	J-55	41.91	1	1,163.6	1,205.5
Shoe Joint		13 3/8	12.715	48.00	H-40	1.50	1	1,205.5	1,207.0
Surface Casing Cement									
Type	String	Cementing Start Date	Cementing End Date	Cementing Company			Top (ftKB)	Btm (ftKB)	
Casing	Surface, 1,207.0ftKB	5/27/2014	5/27/2014	Crest			26.0	1,207.0	
Class	Amount (sacks)	Yield (ft³/sack)		Density (lb/gal)					
Class C	480	1.90		13.60					
Class	Amount (sacks)	Yield (ft³/sack)		Density (lb/gal)					
Class C	345	1.71		12.80					
Intermediate Casing									
Set Depth (ftKB)	Run Date	Centralizers							
7,711.0	6/3/2014	38							
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
cut off		9 5/8	8.835	40.00	L-80	4.10	0	26.0	30.1
Hanger		9 5/8	8.835	40.00	L-80	4.10	1	30.1	34.2
Marker Joints		9 5/8	8.835	40.00	L-80	39.91	2	34.2	74.1
Casing Jnts		9 5/8	8.835	40.00	L-80	3,375.59	74	74.1	3,449.7
Ryte Wrap		9 5/8	8.835	40.00	L-80	2,506.39	55	3,449.7	5,956.1
Casing Jnts		9 5/8	8.755	43.50	L-80	1,661.49	36	5,956.1	7,617.6
Float Collar		9 5/8	8.755	43.50	L-80	2.19	1	7,617.6	7,619.8
Casing Jnts		9 5/8	8.755	43.50	L-80	90.04	2	7,619.8	7,709.8
Float Collar		9 5/8	8.755	43.50	L-80	1.17	1	7,709.8	7,711.0
Set Depth (ftKB)	Run Date	Centralizers							
8,010.0									
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		9 5/8	8.755	43.50	L-80	7,984.00	200	26.0	8,010.0
Intermediate Casing Cement									
Type	String	Cementing Start Date	Cementing End Date	Cementing Company			Top (ftKB)	Btm (ftKB)	
Casing	Intermediate, 7,711.0ftKB	6/4/2014	6/4/2014	SCHLUMBERGER			2,525.0	7,720.0	
Class	Amount (sacks)	Yield (ft³/sack)		Density (lb/gal)					
MudPush	0	2.83		10.00					
Class	Amount (sacks)	Yield (ft³/sack)		Density (lb/gal)					
TXI LITEWEIGHT	912	2.23		11.50					
Class	Amount (sacks)	Yield (ft³/sack)		Density (lb/gal)					
Class H	188	1.07		16.40					
Class	Amount (sacks)	Yield (ft³/sack)		Density (lb/gal)					
Water	0			8.60					
Production Casing									
Set Depth (ftKB)	Run Date	Centralizers							
18,068.0	6/19/2014	40							
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
cut off		5 1/2	4.778	20.00	P-110	1.50	0	26.0	27.5
Casing Running Tool		5 1/2	4.778	20.00	P-110	0.00	0	27.5	27.5
Casing Hanger		5 1/2	4.778	20.00	P-110	1.00	1	27.5	28.5
Pup Joint		5 1/2	4.778	20.00	P-110	4.00	1	28.5	32.5
Casing Joints		5 1/2	4.778	20.00	P-110	7,762.93	190	32.5	7,795.4
Casing Marker Jnt		5 1/2	4.778	20.00	P-110	10.31	1	7,795.4	7,805.7
Casing Joints		5 1/2	4.778	20.00	P-110	209.69	5	7,805.7	8,015.4
Marker Joint		5 1/2	4.778	20.00	P-110	9.31	1	8,015.4	8,024.7
Casing Joints		5 1/2	4.778	20.00	P-110	9,919.61	244	8,024.7	17,944.3
Pup Joint		5 1/2	4.778	20.00	P-110	8.12	1	17,944.3	17,952.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Toe Sleeve		5 1/2	4.778	20.00	P-110	5.50	1	17,952.5	17,958.0
Pup Joints		5 1/2	4.778	20.00	P-110	8.55	1	17,958.0	17,966.5
Marker Joint		5 1/2	4.778	20.00	P-110	19.16	1	17,966.5	17,985.7
Latch In Double Float Collar		5 1/2	0.000	20.00	P-110	2.18	1	17,985.7	17,987.8
Casing Joints		5 1/2	4.778	20.00	P-110	79.00	2	17,987.8	18,066.8
Reaming Float Shoe		5 1/2	0.000	20.00	P-110	1.16	1	18,066.8	18,068.0
Production Casing Cement									
Type	String	Cementing Start Date		Cementing End Date		Cementing Company		Top (ftKB)	Btm (ftKB)
Casing	Production, 18,068.0ftKB	6/19/2014		6/20/2014		SCHLUMBERGER		26.0	18,068.0
Class		Amount (sacks)		Yield (ft³/sack)		Density (lb/gal)			
mud push						10.50			
Class		Amount (sacks)		Yield (ft³/sack)		Density (lb/gal)			
TXI LITEWEIGHT		626		2.19		11.50			
Class		Amount (sacks)		Yield (ft³/sack)		Density (lb/gal)			
TXI LITEWEIGHT		1,749		1.64		12.50			
Class		Amount (sacks)		Yield (ft³/sack)		Density (lb/gal)			
Biocide						8.33			
Cement Squeeze									
Description		Type		String		Cementing Start Date	Cementing End Date	Top (ftKB)	Btm (ftKB)
Amount (sacks)		Yield (ft³/sack)				Dens (lb/gal)			
Perforations									
Top (ftKB)	Btm (ftKB)	Zone		Shot Dens (shots/ft)	Entered Shot Total	Com			
8,690.0	8,692.0			4.0	8	Stage 32 Cluster 5			
8,750.0	8,752.0			4.0	8	Stage 32 Cluster 4			
8,810.0	8,812.0			4.0	8	Stage 32 Cluster 3			
8,870.0	8,872.0			4.0	8	Stage 32 Cluster 2			
8,930.0	8,932.0			4.0	8	Stage 32 Cluster 1			
8,990.0	8,992.0			4.0	8	Stage 31 Cluster 5			
9,050.0	9,052.0			4.0	8	Stage 31 Cluster 4			
9,110.0	9,112.0			4.0	8	Stage 31 Cluster 3			
9,170.0	9,172.0			4.0	8	Stage 31 Cluster 2			
9,230.0	9,232.0			4.0	8	Stage 31 Cluster 1			
9,290.0	9,292.0			4.0	8	Stage 30 Cluster 5			
9,350.0	9,352.0			4.0	8	Stage 30 Cluster 4			
9,410.0	9,412.0			4.0	8	Stage 30 Cluster 3			
9,470.0	9,472.0			4.0	8	Stage 30 Cluster 2			
9,530.0	9,532.0			4.0	8	Stage 30 Cluster 1			
9,590.0	9,592.0			4.0	8	Stage 29 Cluster 5			
9,650.0	9,652.0			4.0	8	Stage 29 Cluster 4			
9,710.0	9,712.0			4.0	8	Stage 29 Cluster 3			
9,770.0	9,772.0			4.0	8	Stage 29 Cluster 2			
9,830.0	9,832.0			4.0	8	Stage 29 Cluster 1			
9,890.0	9,892.0			4.0	8	Stage 28 Cluster 5			
9,950.0	9,952.0			4.0	8	Stage 28 Cluster 4			
10,010.0	10,012.0			4.0	8	Stage 28 Cluster 3			
10,070.0	10,072.0			4.0	8	Stage 28 Cluster 2			
10,130.0	10,132.0			4.0	8	Stage 28 Cluster 1			
10,190.0	10,192.0			4.0	8	Stage 27 Cluster 5			
10,250.0	10,252.0			4.0	8	Stage 27 Cluster 4			
10,310.0	10,312.0			4.0	8	Stage 27 Cluster 3			
10,370.0	10,372.0			4.0	8	Stage 27 Cluster 2			
10,430.0	10,432.0			4.0	8	Stage 27 Cluster 1			
10,490.0	10,492.0			4.0	8	Stage 26 Cluster 5			
10,550.0	10,552.0			4.0	8	Stage 26 Cluster 4			
10,610.0	10,612.0			4.0	8	Stage 26 Cluster 3			
10,670.0	10,672.0			4.0	8	Stage 26 Cluster 2			
10,730.0	10,732.0			4.0	8	Stage 26 Cluster 1			

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Perforations

Top (ftKB)	Btm (ftKB)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
10,790.0	10,792.0		4.0	8	Stage 25 Cluster 5
10,850.0	10,852.0		4.0	8	Stage 25 Cluster 4
10,910.0	10,912.0		4.0	8	Stage 25 Cluster 3
10,970.0	10,972.0		4.0	8	Stage 25 Cluster 2
11,030.0	11,032.0		4.0	8	Stage 25 Cluster 1
11,090.0	11,092.0		4.0	8	Stage 24 Cluster 5
11,150.0	11,152.0		4.0	8	Stage 24 Cluster 4
11,210.0	11,212.0		4.0	8	Stage 24 Cluster 3
11,270.0	11,272.0		4.0	8	Stage 24 Cluster 2
11,330.0	11,332.0		4.0	8	Stage 24 Cluster 1
11,390.0	11,392.0		4.0	8	Stage 23 Cluster 5
11,450.0	11,452.0		4.0	8	Stage 23 Cluster 4
11,510.0	11,512.0		4.0	8	Stage 23 Cluster 3
11,570.0	11,572.0		4.0	8	Stage 23 Cluster 2
11,630.0	11,632.0		4.0	8	Stage 23 Cluster 1
11,690.0	11,692.0		4.0	8	Stage 22 Cluster 5
11,750.0	11,752.0		4.0	8	Stage 22 Cluster 4
11,810.0	11,812.0		4.0	8	Stage 22 Cluster 3
11,870.0	11,872.0		4.0	8	Stage 22 Cluster 2
11,930.0	11,932.0		4.0	8	Stage 22 Cluster 1
11,990.0	11,992.0		4.0	8	Stage 21 Cluster 5
12,050.0	12,052.0		4.0	8	Stage 21 Cluster 4
12,110.0	12,112.0		4.0	8	Stage 21 Cluster 3
12,170.0	12,172.0		4.0	8	Stage 21 Cluster 2
12,230.0	12,232.0		4.0	8	Stage 21 Cluster 1
12,290.0	12,292.0		4.0	8	Stage 20 Cluster 5
12,350.0	12,352.0		4.0	8	Stage 20 Cluster 4
12,410.0	12,412.0		4.0	8	Stage 20 Cluster 3
12,470.0	12,472.0		4.0	8	Stage 20 Cluster 2
12,530.0	12,532.0		4.0	8	Stage 20 Cluster 1
12,590.0	12,592.0		4.0	8	Stage 19 Cluster 5
12,650.0	12,652.0		4.0	8	Stage 19 Cluster 4
12,710.0	12,712.0		4.0	8	Stage 19 Cluster 3
12,770.0	12,772.0		4.0	8	Stage 19 Cluster 2
12,830.0	12,832.0		4.0	8	Stage 19 Cluster 1
12,890.0	12,892.0		4.0	8	Stage 18 Cluster 5
12,950.0	12,952.0		4.0	8	Stage 18 Cluster 4
13,010.0	13,012.0		4.0	8	Stage 18 Cluster 3
13,070.0	13,072.0		4.0	8	Stage 18 Cluster 2
13,130.0	13,132.0		4.0	8	Stage 18 Cluster 1
13,190.0	13,192.0		4.0	8	Stage 17 Cluster 5
13,250.0	13,252.0		4.0	8	Stage 17 Cluster4
13,310.0	13,312.0		4.0	8	Stage 17 Cluster 3
13,370.0	13,372.0		4.0	8	Stage 17 Cluster 2
13,430.0	13,432.0		4.0	8	Stage 17 Cluster 1
13,490.0	13,492.0		4.0	8	Stage 16 Cluster 5
13,550.0	13,552.0		4.0	8	Stage 16 Cluster 4
13,610.0	13,612.0		4.0	8	Stage 16 Cluster 3
13,670.0	13,672.0		4.0	8	Stage 16 Cluster 2
13,730.0	13,732.0		4.0	8	Stage 16 Cluster 1
13,790.0	13,792.0		4.0	8	Stage 15 Cluster 5
13,850.0	13,852.0		4.0	8	Stage 15 Cluster 4
13,910.0	13,912.0		4.0	8	Stage 15 Cluster 3
13,970.0	13,972.0		4.0	8	Stage 15 Cluster 2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Perforations

Top (ftKB)	Btm (ftKB)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
14,030.0	14,032.0		4.0	8	Stage 15 Cluster 1
14,090.0	14,092.0		4.0	8	Stage 14 Cluster 5
14,150.0	14,152.0		4.0	8	Stage 14 Cluster 4
14,210.0	14,212.0		4.0	8	Stage 14 Cluster3
14,270.0	14,272.0		4.0	8	Stage 14 Cluster 2
14,330.0	14,332.0		4.0	8	Stage 14 Cluster 1
14,390.0	14,392.0		4.0	8	Stage 13 Cluster 5
14,450.0	14,452.0		4.0	8	Stage 13 Cluster 4
14,510.0	14,512.0		4.0	8	Stage 13 Cluster 3
14,570.0	14,572.0		4.0	8	Stage 13 Cluster 2
14,630.0	14,632.0		4.0	8	Stage 13 Cluster 1
14,690.0	14,692.0		4.0	8	Stage 12 Cluster 5
14,750.0	14,752.0		4.0	8	Stage 12 Cluster 4
14,810.0	14,812.0		4.0	8	Stage 12 Cluster 3
14,870.0	14,872.0		4.0	8	Stage 12 Cluster 2
14,930.0	14,932.0		4.0	8	Stage 12 Cluster 1
14,994.0	14,996.0		4.0	8	Stage 11 Cluster 5
15,050.0	15,052.0		4.0	8	Stage 11 Cluster 4
15,110.0	15,112.0		4.0	8	Stage 11 Cluster 3
15,170.0	15,172.0		4.0	8	Stage 11 Cluster 2
15,230.0	15,232.0		4.0	8	Stage 11 Cluster 1
15,296.0	15,298.0		4.0	8	Stage 10 Cluster 5
15,350.0	15,352.0		4.0	8	Stage 10 Cluster 4
15,410.0	15,412.0		4.0	8	Stage 10 Cluster 3
15,470.0	15,472.0		4.0	8	Stage 10 Cluster 2
15,530.0	15,532.0		4.0	8	Stage 10 Cluster 1
15,590.0	15,592.0		4.0	8	Stage 9 Cluster 5
15,650.0	15,652.0		4.0	8	Stage 9 Cluster 4
15,710.0	15,712.0		4.0	8	Stage 9 Cluster 3
15,770.0	15,772.0		4.0	8	Stage 9 Cluster 2
15,830.0	15,832.0		4.0	8	Stage 9 Cluster 1
15,890.0	15,892.0		4.0	8	Stage 8 Cluster 5
15,950.0	15,952.0		4.0	8	Stage 8 Cluster 4
16,010.0	16,012.0		4.0	8	Stage 8 Cluster 3
16,070.0	16,072.0		4.0	8	Stage 8 Cluster 2
16,130.0	16,132.0		4.0	8	Stage 8 Cluster 1
16,190.0	16,192.0		4.0	8	Stage 7 Cluster 5
16,250.0	16,252.0		4.0	8	Stage 7 Cluster 4
16,310.0	16,312.0		4.0	8	Stage 7 Cluster 3
16,368.0	16,370.0		4.0	8	Stage 7 Cluster 2
16,430.0	16,432.0		4.0	8	Stage 7 Cluster 1
16,490.0	16,492.0		4.0	8	Stage 6 Cluster 5
16,550.0	16,552.0		4.0	8	Stage 6 Cluster 4
16,610.0	16,612.0		4.0	8	Stage 6 Cluster 3
16,672.0	16,674.0		4.0	8	Stage 6 Cluster 2
16,730.0	16,732.0		4.0	8	Stage 6 Cluster 1
16,790.0	16,792.0		4.0	8	Stage 5 Cluster 5
16,850.0	16,852.0		4.0	8	Stage 5Cluster 4
16,910.0	16,912.0		4.0	8	Stage 5 Cluster 3
16,970.0	16,972.0		4.0	8	Stage 5 Cluster 2
17,030.0	17,032.0		4.0	8	Stage 5 Cluster 1
17,090.0	17,092.0		4.0	8	Stage 4 Cluster 5
17,150.0	17,152.0		4.0	8	Stage 4 Cluster 4
17,212.0	17,214.0		4.0	8	Stage 4 Cluster 3

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Perforations

Top (ftKB)	Btm (ftKB)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
17,270.0	17,272.0		4.0	8	Stage 4 Cluster 2
17,328.0	17,330.0		4.0	8	Stage 4 Cluster 1
17,390.0	17,392.0		4.0	8	Stage 3 Cluster 5
17,450.0	17,452.0		4.0	8	Stage 3 Cluster 4
17,510.0	17,512.0		4.0	8	Stage 3 Cluster 3
17,570.0	17,572.0		4.0	8	Stage 3 Cluster 2
17,630.0	17,632.0		4.0	8	Stage 3 Cluster 1
17,690.0	17,692.0		4.0	8	Stage 2 Cluster 5
17,750.0	17,752.0		4.0	8	Stage 2 Cluster 4
17,810.0	17,812.0		4.0	8	Stage 2 Cluster 3
17,870.0	17,872.0		4.0	8	Stage 2 Cluster 2
17,930.0	17,932.0		4.0	8	Stage 2 Cluster 1

### Completion (FRAC) Details

#### Stage 1 on 8/4/2014 05:00

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
8/4/2014	Stage 1	Wolfcamp B2, Original Hole	Pioneer Pumping Services	17,952.0	17,958.0

#### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 3,061.00
Fluid Name Slickwater	Total Clean Volume (bbl) 3,061.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 3,061.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 1	Bulk Sand	9,466.0	lb	40/70	0.50
Brown Sand 2	Bulk Sand	5,000.0	lb	40/70	1.00
Brown Sand 3	Bulk Sand	9,000.0	lb	40/70	1.50
Brown Sand 4	Bulk Sand	12,000.0	lb	40/70	2.00
Brown Sand 5	Bulk Sand	17,500.0	lb	40/70	2.50
Brown Sand 6	Bulk Sand	13,567.0	lb	40/70	3.00

#### STAGE 2 on 8/5/2014 11:30

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
8/5/2014	STAGE 2	Wolfcamp B2, Original Hole	Pioneer Pumping Services	17,690.0	17,932.0

#### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 8,835.00
Fluid Name Slickwater	Total Clean Volume (bbl) 8,835.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 8,835.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 1	Bulk Sand	12,500.0	lb	30/50	0.50
Brown Sand 2	Bulk Sand	25,000.0	lb	30/50	1.00
Brown Sand 3	Bulk Sand	45,000.0	lb	30/50	1.50
Brown Sand 4	Bulk Sand	60,000.0	lb	30/50	2.00
Brown Sand 5	Bulk Sand	87,500.0	lb	30/50	2.50
Brown Sand 6	Bulk Sand	107,112.0	lb	30/50	3.00

#### STAGE 3 on 8/6/2014 09:30

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
8/6/2014	STAGE 3	Wolfcamp B2, Original Hole	Pioneer Pumping Services	17,390.0	17,632.0

#### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 12,286.00
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## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

GEL					
Fluid Name Slickwater			Total Clean Volume (bbl) 12,286.00		
Fluid Name 15# XLink			Total Clean Volume (bbl) 12,286.00		
SAND & ACID					
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00
Additive Brown Sand 3	Type Bulk Sand	Amount 49,577.0	Units lb	Sand Size 30/50	Concentration... 1.50
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50
Additive Brown Sand 6	Type Bulk Sand	Amount 106,369.0	Units lb	Sand Size 30/50	Concentration... 3.00
STAGE 4 on 8/6/2014 14:30					
Date 8/6/2014	Type STAGE 4	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 17,090.0	Max Btm Depth (ftKB) 17,332.0
GEL					
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,666.00		
Fluid Name Slickwater			Total Clean Volume (bbl) 8,666.00		
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,666.00		
SAND & ACID					
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50
Additive Brown Sand 6	Type Bulk Sand	Amount 106,316.0	Units lb	Sand Size 30/50	Concentration... 3.00
STAGE 5 on 8/6/2014 20:45					
Date 8/6/2014	Type STAGE 5	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 16,790.0	Max Btm Depth (ftKB) 17,032.0
GEL					
Fluid Name 15% HCl			Total Clean Volume (bbl) 10,327.00		
Fluid Name Slickwater			Total Clean Volume (bbl) 10,327.00		
Fluid Name 15# XLink			Total Clean Volume (bbl) 10,327.00		
SAND & ACID					
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50
Additive Brown Sand 6	Type Bulk Sand	Amount 106,058.0	Units lb	Sand Size 30/50	Concentration... 3.00
STAGE 6 on 8/7/2014 14:00					
Date 8/7/2014	Type STAGE 6	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 16,490.0	Max Btm Depth (ftKB) 16,732.0



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,295.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 8,295.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,295.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 23,653.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 63,847.0	Units lb	Sand Size 20/40	Concentration... 2.50	
Additive Brown Sand 7	Type Bulk Sand	Amount 106,149.0	Units lb	Sand Size 20/40	Concentration... 3.00	
STAGE 7 on 8/7/2014 19:30						
Date 8/7/2014	Type STAGE 7	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 16,190.0	Max Btm Depth (ftKB) 16,432.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,185.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 8,185.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,185.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 105,589.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 8 on 8/8/2014 00:50						
Date 8/8/2014	Type STAGE 8	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 15,890.0	Max Btm Depth (ftKB) 16,132.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,156.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 8,156.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,156.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 105,801.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 9 on 8/8/2014 05:45						
Date 8/8/2014	Type STAGE 9	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 15,590.0	Max Btm Depth (ftKB) 15,832.0



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,265.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 8,265.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,265.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 106,609.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 10 on 8/8/2014 11:45						
Date 8/8/2014	Type STAGE 10	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 15,290.0	Max Btm Depth (ftKB) 15,532.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,239.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 8,239.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,239.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 105,158.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 11 on 8/10/2014 13:43						
Date 8/10/2014	Type STAGE 11	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 14,990.0	Max Btm Depth (ftKB) 15,230.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,795.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 8,795.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,795.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 106,355.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 12 on 8/10/2014 18:05						
Date 8/10/2014	Type STAGE 12	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 14,690.0	Max Btm Depth (ftKB) 14,932.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,110.00			

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

GEL						
Fluid Name Slickwater			Total Clean Volume (bbl) 8,110.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,110.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 105,777.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 13 on 8/10/2014 22:22						
Date 8/10/2014	Type STAGE 13	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 14,390.0	Max Btm Depth (ftKB) 14,632.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 7,608.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 7,608.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 7,608.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 105,869.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 14 on 8/11/2014 03:00						
Date 8/11/2014	Type STAGE 14	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 14,090.0	Max Btm Depth (ftKB) 14,332.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 7,925.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 7,925.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 7,925.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 105,881.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 15 on 8/11/2014 07:30						
Date 8/11/2014	Type STAGE 15	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 13,790.0	Max Btm Depth (ftKB) 14,032.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 7,952.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 7,952.00			

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 7,952.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 104,695.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 16 on 8/11/2014 12:54						
Date 8/11/2014	Type STAGE 16	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 13,490.0	Max Btm Depth (ftKB) 13,732.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 7,892.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 7,892.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 7,892.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 90,565.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 17 on 8/11/2014 17:15						
Date 8/11/2014	Type STAGE 17	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 13,190.0	Max Btm Depth (ftKB) 13,432.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 7,997.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 7,997.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 7,997.00			
SAND & ACID						
Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive Brown Sand 6	Type Bulk Sand	Amount 106,186.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 18 on 8/11/2014 21:00						
Date 8/11/2014	Type STAGE 18	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 12,890.0	Max Btm Depth (ftKB) 13,132.0
GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 7,834.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 7,834.00			
Fluid Name 15# XLink			Total Clean Volume (bbl) 7,834.00			

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 106,575.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 19 on 8/12/2014 02:00

Date 8/12/2014	Type STAGE 19	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 12,590.0	Max Btm Depth (ftKB) 12,832.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,600.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,600.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,600.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 105,803.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 20 on 8/12/2014 06:52

Date 8/12/2014	Type STAGE 20	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 12,290.0	Max Btm Depth (ftKB) 12,532.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 8,005.00
Fluid Name Slickwater	Total Clean Volume (bbl) 8,005.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 8,005.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 106,322.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 21 on 8/12/2014 11:30

Date 8/12/2014	Type STAGE 21	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 11,990.0	Max Btm Depth (ftKB) 12,232.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,742.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,742.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,742.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
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## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 2	Bulk Sand	25,000.0	lb	30/50	1.00
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 3	Bulk Sand	45,000.0	lb	30/50	1.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 4	Bulk Sand	60,000.0	lb	30/50	2.00
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 5	Bulk Sand	87,500.0	lb	30/50	2.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 6	Bulk Sand	104,362.0	lb	30/50	3.00

### STAGE 22 on 8/12/2014 15:25

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
8/12/2014	STAGE 22	Wolfcamp B2, Original Hole	Pioneer Pumping Services	11,690.0	11,932.0

### GEL

Fluid Name	Total Clean Volume (bbi)
15% HCl	7,687.00
Fluid Name	Total Clean Volume (bbi)
Slickwater	7,687.00
Fluid Name	Total Clean Volume (bbi)
15# XLink	7,687.00

### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 1	Bulk Sand	12,500.0	lb	30/50	0.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 2	Bulk Sand	25,000.0	lb	30/50	1.00
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 3	Bulk Sand	45,000.0	lb	30/50	1.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 4	Bulk Sand	60,000.0	lb	30/50	2.00
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 5	Bulk Sand	87,500.0	lb	30/50	2.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 6	Bulk Sand	106,446.0	lb	30/50	3.00

### STAGE 23 on 8/12/2014 19:42

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
8/12/2014	STAGE 23	Wolfcamp B2, Original Hole	Pioneer Pumping Services	11,390.0	11,632.0

### GEL

Fluid Name	Total Clean Volume (bbi)
15% HCl	7,688.00
Fluid Name	Total Clean Volume (bbi)
Slickwater	7,688.00
Fluid Name	Total Clean Volume (bbi)
15# XLink	7,688.00

### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 1	Bulk Sand	12,500.0	lb	30/50	0.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 2	Bulk Sand	25,000.0	lb	30/50	1.00
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 3	Bulk Sand	45,000.0	lb	30/50	1.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 4	Bulk Sand	60,000.0	lb	30/50	2.00
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 5	Bulk Sand	87,500.0	lb	30/50	2.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 6	Bulk Sand	106,310.0	lb	30/50	3.00

### STAGE 24 on 8/13/2014 04:40

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
8/13/2014	STAGE 24	Wolfcamp B2, Original Hole	Pioneer Pumping Services	11,090.0	11,332.0

### GEL

Fluid Name	Total Clean Volume (bbi)
15% HCl	7,578.00
Fluid Name	Total Clean Volume (bbi)
Slickwater	7,578.00
Fluid Name	Total Clean Volume (bbi)
15# XLink	7,578.00

### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 1	Bulk Sand	12,500.0	lb	20/40	0.50
Additive	Type	Amount	Units	Sand Size	Concentration...
Brown Sand 2	Bulk Sand	25,000.0	lb	20/40	1.00

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### SAND & ACID

Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 20/40	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 20/40	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 20/40	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 106,371.0	Units lb	Sand Size 20/40	Concentration...

### STAGE 25 on 8/13/2014 08:42

Date 8/13/2014	Type STAGE 25	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 10,790.0	Max Btm Depth (ftKB) 11,032.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,585.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,585.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,585.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,530.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,004.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,406.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,488.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,184.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 106,160.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 26 on 8/13/2014 12:45

Date 8/13/2014	Type STAGE 26	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 10,490.0	Max Btm Depth (ftKB) 10,732.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,727.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,727.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,727.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 106,203.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 27 on 8/13/2014 17:15

Date 8/13/2014	Type STAGE 27	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 10,190.0	Max Btm Depth (ftKB) 10,432.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,531.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,531.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,531.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### SAND & ACID

Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 106,476.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 28 on 8/13/2014 20:55

Date 8/13/2014	Type STAGE 28	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 9,890.0	Max Btm Depth (ftKB) 10,132.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,564.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,564.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,564.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 106,077.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 29 on 8/14/2014 00:15

Date 8/14/2014	Type STAGE 29	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 9,590.0	Max Btm Depth (ftKB) 9,832.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,476.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,476.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,476.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 103,767.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 30 on 8/14/2014 04:11

Date 8/14/2014	Type STAGE 30	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 9,290.0	Max Btm Depth (ftKB) 9,532.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,422.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,422.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,422.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### SAND & ACID

Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 106,407.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 31 on 8/14/2014 08:20

Date 8/14/2014	Type STAGE 31	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 8,990.0	Max Btm Depth (ftKB) 9,230.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,407.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,407.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,407.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,807.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 24,601.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,331.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 61,845.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 81,738.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 109,434.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 32 on 8/14/2014 12:30

Date 8/14/2014	Type STAGE 32	Zone Wolfcamp B2, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 8,690.0	Max Btm Depth (ftKB) 8,932.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 7,444.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,444.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 7,444.00

### SAND & ACID

Additive Brown Sand 1	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 2	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 3	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 4	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 5	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive Brown Sand 6	Type Bulk Sand	Amount 66,455.0	Units lb	Sand Size 30/50	Concentration...

### Zones

Zone Name	Top (ftKB)
Wolfcamp B2	

### Tubing Details

Tubing Description Tubing - Production	Set Depth (ftKB) 7,954.6	Run Date 8/25/2014
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### Tubing Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Tubing Hanger 2 7/8" EUE Thread	7 1/16			0.90	1	33.3	34.2
Tubing	2 7/8	6.50	L-80	6,013.31	192	34.2	6,047.5
IPC Tubing	2 7/8	6.50	L-80	1,557.35	50	6,047.5	7,604.9
X Profile	2 7/8			1.10	1	7,604.9	7,606.0
Tubing	2 7/8	6.50	L-80	31.18	1	7,606.0	7,637.2
BOH 2 7/8	4	6.50	L-80	0.60	1	7,637.2	7,637.8
ESP - Pump DN1750 CR-CT, ES	4			22.00	1	7,637.8	7,659.8
ESP - Pump DN1750 CR-CT, ES	4			22.00	1	7,659.8	7,681.8
ESP - Pump DN1750 CR-CT, ES	4			22.00	1	7,681.8	7,703.8
Intake : VGSA : D20-60	4			3.40	1	7,703.8	7,707.2



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Tubing Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Protector: MAX LSBSB-NTB/KTB, Slotted Base	4			8.00	1	7,707.2	7,715.2
Protector: ADAPTER: 400X375	4			0.30	1	7,715.2	7,715.5
ESP - Motor MAX 71.4 HP/2110V/49.6A	4			20.80	1	7,715.5	7,736.3
ESP - Motor MAX 71.4 HP/2110V/49.6A	4			21.00	1	7,736.3	7,757.3
XT150 Type 1 SLIM LINE	4			3.30	1	7,757.3	7,760.6
Desander 5 1/2 #20	5 1/2			4.70	1	7,760.6	7,765.3
Tubing-Tail Pipe	2 7/8	6.50	L-80	188.35	6	7,765.3	7,953.6
Collar & Bull Plug	2 7/8			1.00	1	7,953.6	7,954.6
Packer AS1X-8,925'	2 7/8					7,954.6	7,954.6

### Rod Strings

Rod Description	Set Depth (ftKB)	Run Date
ESP Electric Cable	7,760.6	8/25/2014

### Rod Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	Make	Model	SN
Electric Cable Flat						7,760.6	7,760.6			

### Other In Hole

Des	Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Com	String	Wellbore
Toe Sleeve						Production, 18,068.0ftKB	Original Hole
Composite Plug 1	17,942.0	17,944.0	4.89	8/5/2014		Production, 18,068.0ftKB	Original Hole
composite plug 2	17,661.0	17,663.0	4.89	8/5/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 3	17,361.0	17,363.0	4.89	8/6/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 4	17,061.0	17,063.0	4.89	8/6/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 5	16,761.0	16,763.0	4.89	8/7/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 6	16,465.0	16,467.0	4.89	8/7/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 7	16,161.0	16,163.0	4.89	8/7/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 8	15,861.0	15,863.0	4.89	8/8/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 9	15,561.0	15,563.0	4.89	8/8/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 10	15,261.0	15,263.0	4.89	8/8/2014		Production, 18,068.0ftKB	Original Hole
Bridge Plug - Temporary	8,220.0	8,222.0	4.89	8/8/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 11	14,961.0	14,963.0	4.89	8/10/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 12	14,661.0	14,663.0	4.89	8/10/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 13	14,361.0	14,363.0	4.89	8/11/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 14	14,061.0	14,063.0	4.89	8/11/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 15	13,761.0	13,763.0	4.89	8/11/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 16	13,461.0	13,463.0	4.89	8/11/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 17	13,161.0	13,163.0	4.89	8/11/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 18	12,861.0	12,863.0	4.89	8/12/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 19	12,561.0	12,563.0	4.89	8/12/2014		Production, 18,068.0ftKB	Original Hole

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Other In Hole

Des	Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Com	String	Wellbore
Composite Plug 20	12,261.0	12,263.0	4.89	8/12/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 21	11,961.0	11,963.0	4.89	8/12/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 22	11,661.0	11,663.0	4.89	8/12/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 23	11,361.0	11,363.0	4.89	8/12/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 24	11,061.0	11,063.0	4.89	8/13/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 25	10,761.0	10,763.0	4.89	8/13/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 26	10,461.0	10,463.0	4.89	8/13/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 27	10,161.0	10,163.0	4.89	8/13/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 28	9,861.0	9,863.0	4.89	8/13/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 29	9,561.0	9,563.0	4.89	8/14/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 30	9,261.0	9,263.0	4.89	8/14/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 31	8,961.0	8,963.0	4.89	8/14/2014		Production, 18,068.0ftKB	Original Hole
Composite Plug 32	8,661.0	8,663.0	4.89	8/14/2014		Production, 18,068.0ftKB	Original Hole

### Well Tests

Description					Volume Oil Total (bbl)	Volume Gas Total (MCF)	Volume Water Total (bbl)	
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)

### Directional Survey

Date		Description					
5/25/2014		MAIN HOLE SURVEY					
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company	
6/15/2014	0.00	0.00	0.00	0.00	0.00	Pathfinder	
6/2/2014	150.00	1.06	132.04	149.99	1.39	Pathfinder	
6/2/2014	243.00	1.06	133.97	242.98	3.11	Pathfinder	
6/2/2014	340.00	1.41	125.10	339.95	5.19	Pathfinder	
6/2/2014	432.00	1.14	118.68	431.93	7.24	Pathfinder	
6/2/2014	524.00	1.49	129.84	523.91	9.34	Pathfinder	
6/2/2014	616.00	0.62	158.14	615.89	10.99	Pathfinder	
6/2/2014	708.00	0.44	351.70	707.89	11.16	Pathfinder	
6/2/2014	800.00	0.79	333.84	799.88	12.14	Pathfinder	
6/2/2014	891.00	0.79	347.11	890.87	13.39	Pathfinder	
6/2/2014	986.00	0.88	347.37	985.86	14.77	Pathfinder	
6/2/2014	1,080.00	1.06	334.19	1,079.85	16.35	Pathfinder	
6/2/2014	1,137.00	0.88	344.82	1,136.84	17.31	Pathfinder	
6/2/2014	1,302.00	0.53	336.56	1,301.83	19.34	Pathfinder	
6/2/2014	1,397.00	0.62	332.43	1,396.83	20.29	Pathfinder	
6/2/2014	1,492.00	0.70	319.69	1,491.82	21.38	Pathfinder	
6/2/2014	1,586.00	0.88	313.89	1,585.81	22.67	Pathfinder	
6/2/2014	1,681.00	0.97	301.76	1,680.80	24.20	Pathfinder	
6/2/2014	1,776.00	0.88	285.94	1,775.79	25.72	Pathfinder	
6/2/2014	1,871.00	0.88	287.08	1,870.77	27.18	Pathfinder	
6/2/2014	1,966.00	0.79	299.47	1,965.76	28.55	Pathfinder	
6/2/2014	2,060.00	0.79	306.24	2,059.76	29.85	Pathfinder	
6/2/2014	2,155.00	0.62	303.52	2,154.75	31.01	Pathfinder	

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
6/2/2014	2,250.00	0.53	296.66	2,249.74	31.97	Pathfinder
6/2/2014	2,344.00	0.35	298.33	2,343.74	32.69	Pathfinder
6/2/2014	2,439.00	0.18	309.76	2,438.74	33.13	Pathfinder
6/2/2014	2,534.00	0.09	325.40	2,533.74	33.35	Pathfinder
6/2/2014	2,629.00	0.09	16.11	2,628.74	33.48	Pathfinder
6/2/2014	2,723.00	0.18	21.74	2,722.74	33.70	Pathfinder
6/2/2014	2,818.00	0.26	19.28	2,817.74	34.07	Pathfinder
6/2/2014	2,913.00	0.26	17.61	2,912.74	34.50	Pathfinder
6/2/2014	3,008.00	0.35	17.61	3,007.74	35.01	Pathfinder
6/2/2014	3,102.00	0.26	14.27	3,101.73	35.51	Pathfinder
6/2/2014	3,197.00	0.26	5.14	3,196.73	35.94	Pathfinder
6/2/2014	3,292.00	0.26	2.05	3,291.73	36.37	Pathfinder
6/2/2014	3,386.00	0.26	6.18	3,385.73	36.79	Pathfinder
6/2/2014	3,481.00	0.35	8.64	3,480.73	37.30	Pathfinder
6/2/2014	3,576.00	0.44	5.39	3,575.73	37.95	Pathfinder
6/2/2014	3,670.00	0.09	87.92	3,669.73	38.33	Pathfinder
6/2/2014	3,765.00	0.62	223.27	3,764.73	38.79	Pathfinder
6/2/2014	3,860.00	0.97	240.06	3,859.72	40.10	Pathfinder
6/2/2014	3,954.00	1.06	234.96	3,953.70	41.76	Pathfinder
6/2/2014	4,049.00	1.06	236.19	4,048.69	43.52	Pathfinder
6/2/2014	4,144.00	0.88	235.40	4,143.67	45.13	Pathfinder
6/2/2014	4,238.00	0.88	224.06	4,237.66	46.56	Pathfinder
6/2/2014	4,333.00	0.70	157.44	4,332.65	47.66	Pathfinder
6/2/2014	4,428.00	1.06	137.40	4,427.64	49.10	Pathfinder
6/2/2014	4,522.00	1.14	141.71	4,521.62	50.90	Pathfinder
6/2/2014	4,617.00	1.06	137.40	4,616.61	52.73	Pathfinder
6/2/2014	4,712.00	1.23	134.85	4,711.59	54.62	Pathfinder
6/2/2014	4,806.00	0.97	125.98	4,805.57	56.42	Pathfinder
6/2/2014	4,901.00	0.09	253.68	4,900.57	57.18	Pathfinder
6/2/2014	4,998.00	0.18	178.18	4,997.57	57.37	Pathfinder
6/2/2014	5,093.00	1.58	251.48	5,092.55	58.73	Pathfinder
6/2/2014	5,188.00	2.29	258.16	5,187.50	61.93	Pathfinder
6/2/2014	5,283.00	2.99	270.20	5,282.40	66.29	Pathfinder
6/2/2014	5,377.00	3.61	267.92	5,376.24	71.70	Pathfinder
6/2/2014	5,472.00	4.48	265.37	5,471.00	78.39	Pathfinder
6/2/2014	5,567.00	4.04	266.16	5,565.74	85.45	Pathfinder
6/2/2014	5,662.00	4.13	262.38	5,660.50	92.22	Pathfinder
6/2/2014	5,756.00	4.92	270.47	5,754.21	99.61	Pathfinder
6/2/2014	5,851.00	4.57	276.97	5,848.88	107.46	Pathfinder
6/2/2014	5,946.00	2.99	274.77	5,943.67	113.72	Pathfinder
6/2/2014	6,040.00	3.17	270.12	6,037.54	118.77	Pathfinder
6/2/2014	6,135.00	3.52	264.32	6,132.38	124.30	Pathfinder
6/2/2014	6,230.00	3.52	261.42	6,227.20	130.13	Pathfinder
6/2/2014	6,324.00	3.17	272.67	6,321.04	135.59	Pathfinder
6/2/2014	6,419.00	3.17	291.30	6,415.89	140.78	Pathfinder
6/2/2014	6,514.00	4.75	268.18	6,510.67	147.21	Pathfinder
6/2/2014	6,609.00	4.92	268.89	6,605.33	155.22	Pathfinder
6/2/2014	6,703.00	5.19	258.43	6,698.97	163.46	Pathfinder
6/2/2014	6,798.00	4.66	260.01	6,793.62	171.62	Pathfinder
6/2/2014	6,893.00	5.01	265.02	6,888.28	179.62	Pathfinder
6/2/2014	6,987.00	4.31	264.76	6,981.97	187.26	Pathfinder
6/2/2014	7,082.00	3.25	259.75	7,076.76	193.51	Pathfinder
6/2/2014	7,177.00	3.87	261.33	7,171.58	199.41	Pathfinder
6/2/2014	7,271.00	3.25	268.10	7,265.40	205.24	Pathfinder
6/2/2014	7,366.00	3.61	258.96	7,360.23	210.90	Pathfinder
6/2/2014	7,461.00	4.84	261.86	7,454.97	217.90	Pathfinder

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
6/2/2014	7,556.00	5.80	264.67	7,549.56	226.71	Pathfinder
6/5/2014	7,650.00	5.01	264.76	7,643.14	235.56	Pathfinder
6/5/2014	7,665.00	4.66	265.02	7,658.08	236.82	Pathfinder
6/5/2014	7,747.00	3.61	260.17	7,739.87	242.73	Pathfinder
6/5/2014	7,779.00	3.62	246.16	7,771.81	244.73	Pathfinder
6/5/2014	7,810.00	4.05	226.04	7,802.74	246.78	Pathfinder
6/5/2014	7,905.00	4.58	201.18	7,897.48	253.76	Pathfinder
6/5/2014	7,936.00	4.10	213.62	7,928.39	256.09	Pathfinder
6/5/2014	7,968.00	4.55	231.15	7,960.30	258.48	Pathfinder
6/5/2014	8,000.00	5.76	231.43	7,992.17	261.35	Pathfinder
6/5/2014	8,031.00	8.29	230.89	8,022.93	265.14	Pathfinder
6/5/2014	8,063.00	11.38	227.36	8,054.46	270.60	Pathfinder
6/5/2014	8,094.00	14.62	220.64	8,084.66	277.57	Pathfinder
6/6/2014	8,126.00	17.68	207.45	8,115.41	286.41	Pathfinder
6/6/2014	8,158.00	19.58	198.17	8,145.74	296.60	Pathfinder
6/6/2014	8,189.00	19.89	187.68	8,174.92	307.03	Pathfinder
6/6/2014	8,221.00	20.42	178.67	8,204.97	318.02	Pathfinder
6/6/2014	8,252.00	22.96	181.30	8,233.78	329.48	Pathfinder
6/6/2014	8,284.00	24.51	186.03	8,263.07	342.35	Pathfinder
6/6/2014	8,315.00	26.57	192.20	8,291.04	355.69	Pathfinder
6/6/2014	8,347.00	30.44	195.16	8,319.16	370.96	Pathfinder
6/6/2014	8,379.00	33.69	195.06	8,346.28	387.94	Pathfinder
6/6/2014	8,410.00	35.48	192.73	8,371.80	405.54	Pathfinder
6/6/2014	8,442.00	38.17	190.02	8,397.41	424.71	Pathfinder
6/6/2014	8,473.00	41.42	187.68	8,421.23	444.55	Pathfinder
6/6/2014	8,505.00	45.20	186.79	8,444.51	466.49	Pathfinder
6/6/2014	8,536.00	48.46	185.81	8,465.72	489.10	Pathfinder
6/6/2014	8,568.00	51.42	185.87	8,486.31	513.59	Pathfinder
6/6/2014	8,600.00	54.67	187.09	8,505.55	539.15	Pathfinder
6/6/2014	8,631.00	58.12	187.39	8,522.70	564.97	Pathfinder
6/6/2014	8,663.00	60.55	187.48	8,539.02	592.49	Pathfinder
6/6/2014	8,694.00	62.93	187.27	8,553.70	619.80	Pathfinder
6/6/2014	8,726.00	65.79	187.47	8,567.54	648.64	Pathfinder
6/6/2014	8,757.00	69.45	187.08	8,579.34	677.30	Pathfinder
6/6/2014	8,789.00	72.36	187.03	8,589.81	707.54	Pathfinder
6/6/2014	8,820.00	74.63	188.51	8,598.62	737.26	Pathfinder
6/6/2014	8,852.00	75.75	187.70	8,606.80	768.19	Pathfinder
6/6/2014	8,884.00	76.41	187.83	8,614.49	799.25	Pathfinder
6/6/2014	8,915.00	78.25	186.47	8,621.29	829.50	Pathfinder
6/6/2014	8,947.00	81.51	185.54	8,626.92	860.99	Pathfinder
6/6/2014	8,978.00	83.63	183.20	8,630.93	891.73	Pathfinder
6/6/2014	9,041.00	92.27	181.84	8,633.18	954.63	Pathfinder
6/6/2014	9,136.00	90.76	181.64	8,630.67	1,049.59	Pathfinder
6/6/2014	9,231.00	88.83	182.10	8,631.01	1,144.59	Pathfinder
6/6/2014	9,326.00	90.69	181.27	8,631.40	1,239.58	Pathfinder
6/6/2014	9,420.00	88.35	184.52	8,632.19	1,333.56	Pathfinder
6/6/2014	9,515.00	88.73	181.98	8,634.61	1,428.52	Pathfinder
6/6/2014	9,610.00	91.72	182.40	8,634.24	1,523.51	Pathfinder
6/6/2014	9,705.00	90.10	183.76	8,632.73	1,618.49	Pathfinder
6/6/2014	9,799.00	90.24	182.76	8,632.45	1,712.49	Pathfinder
6/6/2014	9,894.00	91.38	182.52	8,631.11	1,807.48	Pathfinder
6/6/2014	9,989.00	88.62	179.16	8,631.11	1,902.46	Pathfinder
6/6/2014	10,084.00	90.96	180.02	8,631.46	1,997.45	Pathfinder
6/6/2014	10,178.00	89.52	178.36	8,631.06	2,091.44	Pathfinder
6/6/2014	10,273.00	89.38	174.36	8,631.97	2,186.42	Pathfinder
6/6/2014	10,368.00	90.58	176.91	8,632.01	2,281.41	Pathfinder

### Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
6/6/2014	10,462.00	90.52	179.88	8,631.11	2,375.39	Pathfinder
6/6/2014	10,557.00	90.41	181.47	8,630.33	2,470.39	Pathfinder
6/6/2014	10,652.00	91.44	182.77	8,628.80	2,565.37	Pathfinder
6/6/2014	10,747.00	89.97	179.21	8,627.63	2,660.35	Pathfinder
6/6/2014	10,841.00	90.89	181.04	8,626.93	2,754.34	Pathfinder
6/6/2014	10,936.00	89.55	186.29	8,626.56	2,849.30	Pathfinder
6/6/2014	11,031.00	90.14	183.11	8,626.82	2,944.29	Pathfinder
6/6/2014	11,126.00	90.24	184.33	8,626.50	3,039.29	Pathfinder
6/6/2014	11,220.00	90.48	184.80	8,625.91	3,133.28	Pathfinder
6/6/2014	11,315.00	90.83	183.45	8,624.83	3,228.28	Pathfinder
6/6/2014	11,410.00	87.80	181.49	8,625.96	3,323.25	Pathfinder
6/6/2014	11,504.00	89.52	183.93	8,628.16	3,417.22	Pathfinder
6/6/2014	11,599.00	90.96	187.29	8,627.76	3,512.20	Pathfinder
6/6/2014	11,694.00	91.89	184.01	8,625.40	3,607.16	Pathfinder
6/6/2014	11,789.00	91.00	182.97	8,623.00	3,702.12	Pathfinder
6/6/2014	11,883.00	88.76	179.74	8,623.20	3,796.11	Pathfinder
6/6/2014	11,978.00	89.17	181.31	8,624.92	3,891.09	Pathfinder
6/6/2014	12,081.00	87.97	181.67	8,627.49	3,994.05	Pathfinder
6/6/2014	12,175.00	91.27	181.29	8,628.11	4,088.04	Pathfinder
6/6/2014	12,270.00	91.45	180.92	8,625.86	4,183.01	Pathfinder
6/6/2014	12,365.00	91.27	180.38	8,623.60	4,277.98	Pathfinder
6/6/2014	12,460.00	91.51	180.41	8,621.30	4,372.96	Pathfinder
6/6/2014	12,554.00	91.17	179.30	8,619.10	4,466.93	Pathfinder
6/6/2014	12,649.00	91.55	179.76	8,616.84	4,561.90	Pathfinder
6/6/2014	12,744.00	90.76	178.60	8,614.93	4,656.88	Pathfinder
6/6/2014	12,838.00	91.48	178.82	8,613.09	4,750.86	Pathfinder
6/6/2014	12,933.00	91.03	178.64	8,611.01	4,845.84	Pathfinder
6/6/2014	13,028.00	91.38	179.03	8,609.01	4,940.82	Pathfinder
6/6/2014	13,123.00	90.79	179.38	8,607.21	5,035.80	Pathfinder
6/6/2014	13,217.00	91.58	181.76	8,605.27	5,129.77	Pathfinder
6/6/2014	13,312.00	90.86	181.70	8,603.25	5,224.75	Pathfinder
6/6/2014	13,407.00	90.31	181.02	8,602.28	5,319.74	Pathfinder
6/6/2014	13,501.00	90.55	180.88	8,601.57	5,413.74	Pathfinder
6/6/2014	13,596.00	91.00	181.63	8,600.29	5,508.73	Pathfinder
6/13/2014	13,691.00	91.03	182.14	8,598.60	5,603.72	Pathfinder
6/13/2014	13,785.00	90.28	183.06	8,597.53	5,697.71	Pathfinder
6/13/2014	13,880.00	89.45	182.50	8,597.75	5,792.71	Pathfinder
6/13/2014	13,975.00	89.76	182.62	8,598.41	5,887.70	Pathfinder
6/13/2014	14,069.00	90.00	182.49	8,598.60	5,981.70	Pathfinder
6/13/2014	14,164.00	89.59	180.73	8,598.94	6,076.70	Pathfinder
6/13/2014	14,259.00	89.62	179.95	8,599.60	6,171.70	Pathfinder
6/13/2014	14,354.00	90.52	180.76	8,599.48	6,266.69	Pathfinder
6/13/2014	14,448.00	90.93	181.26	8,598.29	6,360.69	Pathfinder
6/13/2014	14,543.00	90.48	181.43	8,597.12	6,455.68	Pathfinder
6/13/2014	14,638.00	91.69	181.69	8,595.33	6,550.66	Pathfinder
6/13/2014	14,732.00	91.62	181.66	8,592.61	6,644.62	Pathfinder
6/13/2014	14,827.00	91.17	179.09	8,590.30	6,739.58	Pathfinder
6/13/2014	14,922.00	91.58	178.00	8,588.02	6,834.56	Pathfinder
6/13/2014	15,017.00	91.41	178.39	8,585.54	6,929.52	Pathfinder
6/13/2014	15,111.00	91.89	179.49	8,582.83	7,023.48	Pathfinder
6/13/2014	15,206.00	92.20	180.42	8,579.44	7,118.42	Pathfinder
6/13/2014	15,300.00	91.75	181.16	8,576.20	7,212.36	Pathfinder
6/13/2014	15,395.00	91.89	181.60	8,573.19	7,307.32	Pathfinder
6/14/2014	15,490.00	92.41	182.09	8,569.62	7,402.25	Pathfinder
6/14/2014	15,584.00	91.14	181.02	8,566.71	7,496.20	Pathfinder
6/14/2014	15,679.00	90.21	179.80	8,565.59	7,591.19	Pathfinder

## Drilling &amp; Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
6/14/2014	15,774.00	91.48	179.78	8,564.19	7,686.18	Pathfinder
6/14/2014	15,868.00	92.03	179.65	8,561.31	7,780.13	Pathfinder
6/14/2014	15,868.00	92.03	179.65	8,561.31	7,780.13	Pathfinder
6/14/2014	15,963.00	91.75	179.85	8,558.18	7,875.08	Pathfinder
6/14/2014	16,058.00	91.86	180.03	8,555.19	7,970.03	Pathfinder
6/14/2014	16,153.00	91.89	180.76	8,552.08	8,064.98	Pathfinder
6/14/2014	16,247.00	90.41	178.97	8,550.19	8,158.96	Pathfinder
6/14/2014	16,342.00	91.82	180.16	8,548.34	8,253.94	Pathfinder
6/14/2014	16,437.00	91.72	181.29	8,545.41	8,348.89	Pathfinder
6/14/2014	16,531.00	91.62	182.64	8,542.67	8,442.85	Pathfinder
6/14/2014	16,626.00	91.38	182.89	8,540.18	8,537.81	Pathfinder
6/14/2014	16,720.00	91.65	183.38	8,537.70	8,631.78	Pathfinder
6/14/2014	16,815.00	90.96	181.57	8,535.53	8,726.75	Pathfinder
6/14/2014	16,910.00	91.27	180.78	8,533.68	8,821.73	Pathfinder
6/14/2014	17,004.00	91.51	180.63	8,531.40	8,915.70	Pathfinder
6/14/2014	17,099.00	91.55	180.37	8,528.87	9,010.67	Pathfinder
6/14/2014	17,194.00	91.31	180.27	8,526.50	9,105.64	Pathfinder
6/14/2014	17,289.00	91.24	180.43	8,524.38	9,200.62	Pathfinder
6/14/2014	17,383.00	91.17	180.02	8,522.41	9,294.60	Pathfinder
6/14/2014	17,478.00	91.41	180.99	8,520.27	9,389.57	Pathfinder
6/14/2014	17,573.00	91.79	180.86	8,517.61	9,484.53	Pathfinder
6/15/2014	17,667.00	91.24	180.13	8,515.13	9,578.50	Pathfinder
6/15/2014	17,762.00	91.41	179.68	8,512.93	9,673.47	Pathfinder
6/15/2014	17,857.00	91.27	179.77	8,510.71	9,768.45	Pathfinder
6/15/2014	17,951.00	91.07	179.87	8,508.79	9,862.43	Pathfinder
6/15/2014	18,040.00	91.31	179.99	8,506.94	9,951.41	Pathfinder
6/15/2014	18,080.00	91.31	179.99	8,506.03	9,991.40	Pathfinder