

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

API/UWI 42-461-39019-0000		Property Sub 927711-031		Operator PIONEER NATURAL RESRC USA INC		State TEXAS		County UPTON	
Field Name SPRABERRY (TREND AREA)				Surface Legal Location 10593' FNL / 1187' FWL, SEC: 18, BLK: 3, SVY: UNIVERSITY LANDS					
Spud Date 1/5/2014		TD Date 3/12/2014		Drilling Rig Release Date 3/18/2014		Frac Date 5/17/2014		On Production Date	
Ground Elevation (ft) 2,717.00		Original KB Elevation (ft) 2,743.00		PBDT (All) (ftKB) Lateral - 20,278.8		Total Depth (All) (ftKB) Original Hole - 10,400.0; Lateral - 20,484.0		Total Depth All (TVD) (ftKB) Original Hole - 10,396.2; Lateral - 10,057.1	
<b>Report #: 1 Daily Operation: 1/5/2014 06:00 - 1/6/2014 06:00</b>									
Job Category ORIG DRILLING				Primary Job Type ODR				AFE Number 028762	
Days From Spud (days) 1		Days on Location (days) 1		End Depth (ftKB) 1,200.0		End Depth (TVD) (ftKB) 1,199.1		Dens Last Mud (lb/gal) 8.40	
Rig H & P, 604									
Operations Summary Preparing rig for Skid F/ 32H t/ 31H, Skid Rig t/ 31H, R/U for Drilling, P/U BHA, Drill 17 1/2" Surface Section t/ 1,200'									
Remarks H & P 604 Well (University 3-19 31H) Progress: 0.6 days since rig accepted, 0.5 days from spud  Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).  Completion percentage: Surface: 100 %, Intermediate: 00%, Curve: 00%, Lateral: 00%  20' Below & 17' Left of proposed directional plan #1  ( Called TRRC @ 12:15 Hrs 1/5/2014 Spoke to Shakia with notice to spud and run surface casing.)  ( Accepted Rig @ 15:30 1/5/2014 )  ( Spud Well @ 18:00 1/5/2014 )									
<b>Time Log Summary</b>									
Operation		Com							Dur (hr)
SKID		Prep. rig for skid to the 32H from the 30H. R/D handrails on flow line, power choke cables, air and water hoses. Dock TDS, R/U hydraulic pedestal prep rig floor & derrick for skid.							3
SKID		Skid rig to the 31H center, from 32H center. 30'							1
RIG UP / RIG DOWN		R/U flow line manifold and stand, stand pipe, air & water, power choke and PVT cables. Undock TDS, R/U pipe racks for casing delivery of 13 3/8". R/D hydraulic lines from skid pedestal. RU trash pumps in cellar & lines to reserve pit. installed grounding Rods for Draw works, Move Stair ways in place around rig., installed flow line on manifold side. set up Gull wings. Lay out Directional BHA, performed Crown Test. OK  ( Called TRRC @ 12:15 Hrs 1/5/2014 Spoke to Shakia with notice to spud and run surface casing.)  ( Accept Rig at 15:30 hrs 1-5-2014 )							5.5
BHA		PU Hunting Bohemoth motor 9 7/8" 7/8 lobe 3.9 stage fixed 1.5° bend. Rev./ gal=0.07 flow range 650-1300 gpm Max torque 22,500 ft-lbs Max diff of 590 psi. Bit to survey=70' Bit to Gamma=61'. installed Directional tools, MU 17 1/2" PDC bit. scribe. TIH PU 8" DC tag at 147							2.5
DRL		Test MWD, Spud Surface hole section 18:00 1/5/2014 , Drill 17 1/2" Surface Section 260' - 74.2 fph 722 gpm, 188 spm, 21 wob, 75 rpm, 990 psi, Drop 1 soap stick and 1 poly stick each connection, Pump 30 bbls Hi-Vis sweep with 10 lb/bbl nut plug each stand.							3.5
BHA		Rack back 3 stands HWDP and Tih with 3 stands Dc's.							0.5
DRL		Slide Drill 21'- 44 fph WOB: 15', ROP: 30', WOB: 15k, Gpm: 722, Diff 280 psi, TFO: 230							0.5
DRL		Drill 17 1/2" Surface Section 77' - 144 fph 722 gpm, 188 spm, 35 wob, 80 rpm, 1,398 psi, Diff 437, Drop 1 soap stick and 1 poly stick each connection, Pump 30 bbls Hi-Vis sweep with 10 lb/bbl nut plug each stand.							0.5
DRL		Slide Drill 21' 44 fph WOB: 37 K, Gpm: 722, Diff 280 psi, TFO: 230							0.5
DRL		Drill 17 1/2" Surface Section 163' - 163 fph 722 gpm, 188 spm, 35 wob, 80 rpm, 1,398 psi, Diff 437, Torque 20, K Drop 1 soap stick and 1 poly stick each connection, Pump 30 bbls Hi-Vis sweep with 10 lb/bbl nut plug each stand.							1
DRL		Slide Drill 15' 60 fph WOB: 37 K, Gpm: 722, Diff 280 psi, TFO: 360							0.25
DRL		Drill 17 1/2" Surface Section 78' - 312 fph 722 gpm, 188 spm, 35 wob, 80 rpm, 1,398 psi, Diff 437, Torque 20, K Drop 1 soap stick and 1 poly stick each connection, Pump 30 bbls Hi-Vis sweep with 10 lb/bbl nut plug each stand.							0.25
DRL		Slide Drill 15' 60 fph WOB: 37 K, Gpm: 722, Diff 280 psi, TFO: 10							0.5
DRL		Drill 17 1/2" Surface Section 77' - 308 fph 722 gpm, 188 spm, 35 wob, 80 rpm, 1,398 psi, Diff 437, Torque 20, K Drop 1 soap stick and 1 poly stick each connection, Pump 30 bbls Hi-Vis sweep with 10 lb/bbl nut plug each stand.							0.25
DRL		Slide Drill 25' 100 fph WOB: 23 K, Gpm: 722, Diff 280 psi, TFO: 10							0.25
DRL		Drill 17 1/2" Surface Section 161' - 161 fph 722 gpm, 188 spm, 35 wob, 80 rpm, 1,398 psi, Diff 437, Torque 20, K Drop 1 soap stick and 1 poly stick each connection, Pump 30 bbls Hi-Vis sweep with 10 lb/bbl nut plug each stand.							1
DRL		Slide Drill 30' 100 fph WOB: 37 K, Gpm: 722, Diff 280 psi, TFO: 10							0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL	Drill 17 1/2" Surface Section 116' - 116 fph 722 gpm, 188 spm, 35 wob, 80 rpm, 1,398 psi, Diff 437, Torque 20,K Drop 1 soap stick and 1 poly stick each connection, Pump 30 bbls Hi-Vis sweep with 10 lb/bbl nut plug each stand.	1
CIRC	Mix & pump 2 x 50 bbl hi-vis sweeps with 10 ppb nut plug. While working & rotating pipe.	1.5

Report #: 2 Daily Operation: 1/6/2014 06:00 - 1/7/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
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Days From Spud (days) 2	Days on Location (days) 2	End Depth (ftKB) 1,200.0	End Depth (TVD) (ftKB) 1,199.1	Dens Last Mud (lb/gal) 9.00	Rig H & P, 604
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#### Operations Summary

Circ hole clean, Make wiper trip to Cond shoe.Circ 2nd clean up cycle, Pooh , R/U csg equip, run 13 3/8" csg, Circ, Cement 13 3/8" csg

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 1.6 days since rig accepted, 1.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

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

20' Below & 17' Left of proposed directional plan #1

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Finish clean up cycle.	1
TOOH	Flow check (ok)	0.25
TOOH	POOH from 1200' hole became tight @ 405' work thru tight spot max over pull 35K. Ream back thru. continue POOH to shoe @ 147'	2.75
TIH	TIH F/147' to 1200' average drag RIH.	1
CIRC	Preform clean up cycle pump first sweep around not much on bottom up, set stand back in derrick pump second sweep around.	2.25
TOOH	Flow check (ok) pump slug.	0.5
BHA	TOOH from 1107' to BHA average drag, L/D NMDC, MWD, Bit, Mud motor	3.25
RIG UP / RIG DOWN	PJSM, Clean off rig floor after laying down Dir. tools & removed Trip hazards.	1
RIG UP / RIG DOWN	RD Drill pipe elevators RU B & L 13 3/8" csg . handling Tools	2.5
CASE	PJSM w/ Rig Crew and B & L csg crew on RU & running 13 3/8" csg.MU TEXAS style guide shoe to Weatherford 13 3/8"PDC drillable single valve Float collar, to 1 jt. 13 3/8", 48 ppf J-55, STC, MU Float Collar ( thread lock all threads in shoe track including jt. on top of top float collar ) torque to opt: 3220 ft-lbs. Circulate thru float equipment ok.Continue TIH with 13 joints to 558'. Fill pipe and circulate. Continue TIH w/ 13 3/8" Surface csg 27 joints to 1,190'.  Casing swedge & lo-torque valve on rig floor and function tested  Shoe @ 1196' Float Collar @ 1,149' Shoe Track 46.33'	3.5
RIG UP / RIG DOWN	R/D Casing tongs, Slips & R/U Casing swedge.	0.5
CIRC	Circ 2 X casing volumes prior to cement job. Full returns while Circ.	1.5
CMT	R/D Circ. swedge and R/U Schlumberger cementing head and lines.  ( Co. Man witnessed loading of Top plug in head. )	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
CMT	<p>Held PJSM w/ Rig crew &amp; Schlumbergers cement crew, Test lines to 3,500 psi. pump 20 bbl's fresh water, mix and pump 1023 sks, 310 bbl's of Class "C" neat cement blend 4.0% D20 bentonite, 2.0 % S1 calcium chloride @ 13.6 ppg, yield 1.7 mix water 8.87 gal/sk. Pumped @ 6.5 bpm, slowed to 2.5 bpm for last 10 bbl's, @ 490 psi bumped plug with 530 over circulating rate. Pressure held 5 min, bleed off, pressure bled back 1. bbl's, float holding Monitor 15 minutes. Cement in place @ 05:00 hrs</p> <p>Lift Pressures: 10 bbl's - 6.5 bpm @ 260 psi, 20 bbl's- 6.5 bpm @ 265 psi, 50 bbl's- 6.5 bpm @ 357 psi, 80 bbl's, 6.5 bpm @ 395 psi, 100 bbl's- 6.5 bpm @ 424 psi, 140 bbl's, 6.5 bpm @ 487 psi. 150 bbl's, 6.5 bpm, @ 505 psi. 160 bbl's - 4.5 bpm @ 420 psi, 180 bbl's - 2.5 bpm @ 490 psi.</p> <p>Full returns thru entire cement job, got 120 bbl's cement back to surface.</p> <p>Texas Guide shoe: 1196' Shoe Track: 46.33' Float Collar: 1149'</p>	3
CMT	Rig Down Schlumberger Cement lines & head.	0.5

Report #: 3 Daily Operation: 1/7/2014 06:00 - 1/8/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
3	3	1,200.0
	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)
	1,199.1	9.00
		Rig H & P, 604

### Operations Summary

R/d Schlumberger, Cut csg & Install 133/8" X 13 5/8" SOW, N/U Bop's, Test Bop's. & Accumulator test, Run WB, TEst casing.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 2.6 days since rig accepted, 2.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

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

20' Below & 17' Left of proposed directional plan #1

### Time Log Summary

Operation	Com	Dur (hr)
CMT	Continue to Rig Down Schlumberger Cement head and lines	0.5
CMT	Drain 13 3/8" casing, make rough cut and lay out stick up of 13 3/8". Cut 20" 52" BGL. Then making final cut on casing. Set well head 18" below ground, tested to 370 psi 15 minutes good test. Confirmed by welder & seaboard ok.	4
NU/TEST	Held PJSM on N/U BOP's and r/u choke manifold and line. Rig up bell nipple, install mouse hole. safety break w/ crew on man lift operation	8.5
NU/TEST	Review JSA on testing BOP's. 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 3500 psi high. TIW & inside BOP safety valves, Attempt to test Choke Manifold, valves not closing properly not allowing proper seal due to ice build up, thaw out choke manifold while testing Top Drive Hydraulic & manual safety valve 250 psi. low 3500 psi. high. Choke & Kill line 250 psi low 3500 psi high. Choke s & choke manifold & valves 250 psi. low 3500 psi. high. Tested stand pipe back to rig pumps 250 psi. low 4500 psi. high. all test held for 5min. and charted.	7.5
RIG UP / RIG DOWN	Rig Down Testers.	0.5
NU/TEST	Perform BOP Accumulator test. OK. Functioned power choke OK	1.5
WLHEAD	Run long wear Bushing. Witness setting by Company man	1
TEST CSG/DRILL OUT/FIT	Test 13 3/8" surface csg 1500 psi 30 min with fresh water. Charted.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 4 Daily Operation: 1/8/2014 06:00 - 1/9/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
4	4	2,663.0	2,660.1	8.90	H & P, 604	

### Operations Summary

Test csg, P/u Bha, Tih & drill cmt & shoe track, Drill 12 1/4" Intermediate Sec. f/ 1200' t/ 2,663

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 3.6 days since rig accepted, 3.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 21%, Curve: 00%, Lateral: 00%

36' Below & 23' Left of proposed directional plan #2

### Time Log Summary

Operation	Com	Dur (hr)
TEST CSG/DRILL OUT/FIT	Test 13 3/8" surface casing to 1500 PSI and hold for 30 min lost 41 PSI from 1635 PSI to 1594 PSI. (Test OK)	1.5
BHA	PU/MU 12 1/4" bit Smith, MSI619 PDC & Cobra 8"motor stabilized 7/8 lobe 4.0 stage adjustable set 1.5° Bend Directional BHA. bit to Survey 70', bit to Gamma 61' Rev/gal= 0.17 flow range 400-900 gpm max Tq=5-9 K max Diff=900 psi., Shallow test mud motor and MWD	4
NU/TEST	Fix leak on flow line and bell nipple while pour cement to bottom of wellhead flange.	1
TIH	TIH F/480' TO 1072' tag cement to cement @ 1072' set 10K down. 71' of cement to drill.	2
TEST CSG/DRILL OUT/FIT	Drill 71' cement, Drill out Float collar @1149' Shoe Track, Float collar w/ Texas guide shoe @1196' Wob=2-15k, gpm =500, Rot. 25-30 rpm, motor =85 rpm	2
DRL-ROT	Drilling 12 1/4" intermediate hole section 80' -80 fph avg. Wob= 35k Rot.= 80 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 4000 ft-lbs pump press=1250 psi.Diff=250. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	1
DRL-SLIDE	Slide drilling 18' ft.- 72 ' hr avg TF=60° on bottom pump press 2324 psi. Diff=127, 170 spm 650 GPM, Motor rpm=123	0.25
DRL-ROT	Drilling 12 1/4" intermediate hole section 90' - 180 fph avg. Wob= 35k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 5,000 ft-lbs pump press=1350 psi.Diff=250. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	0.75
DRL-SLIDE	Slide drilling 18' ft.- 36 ' hr avg TF=60° Wob 15 K on bottom pump press 2,324 psi. Diff=127, 170 spm 650 GPM, Motor rpm=123	0.5
DRL-ROT	Drilling 12 1/4" intermediate hole section 77' - 144 fph avg. Wob= 16 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 5,000 ft-lbs pump press=1550 psi.Diff=210. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	0.5
DRL-SLIDE	Slide drilling 12' ft.- 48 ' hr avg TF=60° Wob 16 K on bottom pump press 2,324 psi. Diff=127, 170 spm 650 GPM, Motor rpm=123	0.25
DRL-ROT	Drilling 12 1/4" intermediate hole section 335' - 95.7 fph avg. Wob= 18 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 6300 ft-lbs pump press=1635 psi.Diff= 140. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	3.5
DRL-SLIDE	Slide drilling 15' ft.- 60 ' hr avg TF=60° Wob 17 K on bottom pump press 2,093 psi. Diff=149, 170 spm 722 GPM, Motor rpm=123	0.25
DRL-ROT	Drilling 12 1/4" intermediate hole section 269' - 179.3 fph avg. Wob= 18 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 6300 ft-lbs pump press=2,450 psi.Diff= 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	1.5
DRL-SLIDE	Slide drilling 15' ft.- 60 ' hr avg TF=60° Wob 29 K on bottom pump press 2,432 psi. Diff= 396, 170 spm 722 GPM, Motor rpm=123	0.5
DRL-ROT	Drilling 12 1/4" intermediate hole section 364' - 145.6 fph avg. Wob= 18 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 6300 ft-lbs pump press=2,450 psi.Diff= 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	2.5
DRL-SLIDE	Slide drilling 17' ft.- 34 ' hr avg TF= 350° Wob 29 K on bottom pump press 2,432 psi. Diff= 368, 170 spm 722 GPM, Motor rpm=123	0.5
DRL-ROT	Drilling 12 1/4" intermediate hole section 153' - 102 fph avg. Wob= 18 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 6300 ft-lbs pump press=2,450 psi.Diff= 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 5 Daily Operation: 1/9/2014 06:00 - 1/10/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
5	5	4,450.0	4,446.7	8.60	H & P, 604

### Operations Summary

Drill 12 1/4" Intermediate Sec. F/2663' T/ 4,450'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 4.6 days since rig accepted, 4.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 46%, Curve: 00%, Lateral: 00%

2' Above & 2' Right of proposed directional plan #2

### Time Log Summary

Operation	Com	Dur (hr)
DRL-SLIDE	Slide drilling 40' ft.- ROP: 160 TF = 350° Wob 15 K on bottom pump press 2,432 psi. Diff= 368, 170 spm 722 GPM, Motor rpm=123	0.25
DRL-ROT	Drilling 12 1/4" intermediate hole section 350' @ 95.5 ROP. Wob: 27 k, Rot: 100 rpm. gpm: 722, motor rpm: 123 rev. Off bottmTq:1,000 ft-lbs, On bottom Tq: 6300 ft-lbs, SPP: 2,450 psi, Diff press: 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	3.5
DRL-SLIDE	Slide drilling 20' ft.- ROP:40 TF = 360° Wob 29 K on bottom pump press 2,432 psi. Diff press: 368, 170 Spm, 722 GPM, Motor rpm:123	0.75
DRL-ROT	Drilling 12 1/4" intermediate hole section 170' @ 113' ROP. Wob: 27 k Rot.= 100 rpm. 722 Gpm, motor rpm: 123 revs, Off bottmTq:1,000, On bottom Tq: 6300 ft-lbs, pump press:2,450 psi, Diff Press: 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	1.75
DRL-SLIDE	Slide drilling 26' ft.- ROP:35, TF: 320°, Wo: 30 K, On bottom pump press 2,432 psi. Diff press: 368, Spm:188, GPM: 722, Motor rpm=123	0.75
DRL-ROT	Drilling 12 1/4" intermediate hole section 211' @ 93.7' ROP. Wob= 27 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 6300 ft-lbs pump press=2,450 psi.Diff= 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.  SPR Taken @ 3345' with 8.9 ppg MW.	2.5
DRL-SLIDE	Slide drilling 18' ft.- ROP:27, TF: 270°, Wo: 30 K, On bottom pump press 2,432 psi. Diff press: 368, Spm:188, GPM: 722, Motor rpm=123	0.75
DRL-ROT	Drilling 12 1/4" intermediate hole section 77' @ 102.66' ROP. Wob= 27 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 6300 ft-lbs pump press=2,450 psi.Diff= 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	0.75
RIGSER	Service Rig.	0.5
DRL-SLIDE	Slide drilling 18' ft.- ROP:27, TF: 250°, Wo: 30 K, On bottom pump press 2,432 psi. Diff press: 368, Spm:188, GPM: 722, Motor rpm=123	0.5
DRL-ROT	Drilling 12 1/4" intermediate hole section 492' @ 65.6' ROP. Wob= 27 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 6300 ft-lbs pump press=2,450 psi.Diff= 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.  ( Displace to Dispersed Bentonite Mud @ 4,000' Displaced 12,512 strokes = 57% hole washout )	7.5
U_RIG_OT R	Circ with MP # 2 , while going through Mp # 1 due to 400 psi loss of pump pressure. Changed out 2 swabs.	0.5
DRL-ROT	Drilling 12 1/4" intermediate hole section 310' @ 77.25' ROP. Wob= 27 k Rot.= 100 rpm. gpm.= 722 motor rpm= 123 off bottmTq=1,000 on bottom Tq= 6300 ft-lbs pump press=2,450 psi.Diff= 280. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.  SPR Taken @ 4,410' with 8.6 ppg MW	4

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 6 Daily Operation: 1/10/2014 06:00 - 1/11/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
6	6	6,120.0	6,116.6	8.90	H & P, 604		

### Operations Summary

Drill 12 1/4" Intermediate Sec. F/ 4,450' t/ 6,120'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 5.6 days since rig accepted, 5.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 70%, Curve: 00%, Lateral: 00%

6' Below & 11' Right of proposed directional plan #2

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Drilling 12 1/4" intermediate hole section 505' @ 84' ROP. Wob: 27 k, Rot: 100 rpm, Gpm: 722, Motor rpm:123, Off bottmTq=1,000, On bottom Tq= 6300 ft-lbs, Pump press:2,450, Diff: 280 psi, Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	6
RIGSER	Service top drive and drawworks.	0.5
DRL-ROT	Drilling 12 1/4" intermediate hole section 379' @ 79.7' ROP. Wob: 27 k, Rot: 100 rpm, Gpm: 722, Motor rpm:123, Off bottmTq=1,000, On bottom Tq= 6300 ft-lbs, Pump press:2,450, Diff: 280 psi, Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.  SPR Taken with 8.8 ppg MW	4.75
RIGSER	Service Rig. While making connection all 3 generators went off line, generator load was at 48% while coming up with top drive, surge fault alarm came up, start generators back and reset breaker.	0.5
DRL-ROT	Drilling 12 1/4" intermediate hole section 284' @ 66.8' ROP. Wob: 27 k, Rot: 100 rpm, Gpm: 722, Motor rpm:123, Off bottmTq=1,000, On bottom Tq= 6300 ft-lbs, Pump press:2,450, Diff: 280 psi, Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	4.25
DRL-SLIDE	Slide drilling 18' ft.- ROP:72, TF: 310°, Wo: 22 K, On bottom pump press 2,648 psi. Diff press: 185, Spm:188, GPM: 722, Motor rpm=123	0.5
DRL-ROT	Drilling 12 1/4" intermediate hole section 178' @71' ROP. Wob: 27 k, Rot: 100 rpm, Gpm: 722, Motor rpm:123, Off bottmTq=1,000, On bottom Tq= 11,500 ft-lbs, Pump press:2,450, Diff: 280 psi, Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.  SPR Taken with 8.9 ppg MW @ 5,644'	2.5
DRL-SLIDE	Slide drilling 15' ft.- ROP:72, TF: 270°, Wo: 20 K, On bottom pump press 2,551 psi. Diff press: 199, Spm:188, GPM: 722, Motor rpm=123	0.75
DRL-ROT	Drilling 12 1/4" intermediate hole section 364' @ 85.6' ROP. Wob: 27 k, Rot: 100 rpm, Gpm: 722, Motor rpm:123, Off bottmTq=1,000, On bottom Tq= 14,500 ft-lbs, Pump press: 3,095, Diff: 420 psi, Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb. Drop 1 Poly stick & Soap stick every connection.	4.25

Report #: 7 Daily Operation: 1/11/2014 06:00 - 1/12/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
7	7	6,458.0	6,454.6	8.80	H & P. 604		

### Operations Summary

Drill 12 1/4" Intermediate Sec. F/ 6,120' T/ 6,141' CIRC, Pooh, Pull WB & wash WH, Change Bit & Mtr, Tih. Drill 12 1/4" Intermediate Sec. F/ 6,141' T/ 6,458'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 6.6 days since rig accepted, 6.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 74%, Curve: 00%, Lateral: 00%

4' Below & 13' Right of proposed directional plan #2

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	ROP slowed to 23', unable to get differential, torque dropped. Tried different parameters thinking harder formation but no change. Decision made to pull bit.	1



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Built 80 bbls Hi-Vis sweep, consisting of 20 ppb graphite, 20 ppb nut plug, with 80 vis pumped 40 bbls sweep, 40 bbls mud then 40 bbls sweep circulated to clean hole for trip out for bit.	2.75
SAFETY	Flow check monitorinbg on trip tank. ( Static )	0.25
U_OTR	TOOH F/6130' - T/5710', 5 stands wet taking proper fill, No hole issues of overpull. Make up top drive and pump slug.	0.5
U_OTR	TOOH F/ 5616' -T/ 1042' with no hole issues.	3.5
BHA	POOH with HWDP racking back & 8" drill collar's.	2
RIGSER	Service Rig.	0.5
WLHEAD	Pull wear bushing & inspect found minimum wear, Wash well head, rotate wear bushing 180°, install & lock in place.  ( All witnessed by Co. Man )	1
BHA	PU/MU 12 1/4" bit Smith, MSI719 PDC & Cobra 8"motor stabilized 7/8 lobe 4.0 stage adjustable set 1.5° Bend Directional BHA. bit to Survey 65', bit to Gamma 57' Rev/gal= 0.17 flow range 400-900 gpm, max Tq= 14,930 K max Diff=900 psi., Shallow test mud motor and MWD, and TIH with BHA.	2
TIH	TIH F/ 1,042' T/ 6,141' break & Circulate Btm's up at 1196' and 3,035'. Wash down last 2 stands. Got back proper dispalce to trip tank. No hole issues, no fill on bottom.	4
DRL-ROT	Drilling 12 1/4" intermediate hole section 204' @ 58 ' ROP. Wob: 27 k, Rot: 100 rpm, Gpm: 722, Motor rpm:122, Off bottmTq=1,000, On bottom Tq= 14,500 ft-lbs, Pump press: 2,868, Diff: 515 psi, Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb, 20 ppb graphite, Drop 1 Poly stick & Soap stick every connection.  Take SPR @ 6,141' with 8.8 PPG mud	3.5
DRL-SLIDE	Slide drilling 12' ft.- ROP:24, TF: 270°, Wo: 16 K, On bottom pump press 2,586 psi. Diff press: 140, Spm:188, GPM: 722, Motor rpm=123	0.75
DRL-ROT	Drilling 12 1/4" intermediate hole section 82' @ 82 ' ROP. Wob: 31 k, Rot: 100 rpm, Gpm: 722, Motor rpm:122, Off bottmTq=1,000, On bottom Tq= 14,500 ft-lbs, Pump press: 2,868, Diff: 515 psi, Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb.20 ppb graphite Drop 1 Poly stick & Soap stick every connection.	1
DRL-SLIDE	Slide drilling 19' ft.- ROP:16, TF: 270°, Wo: 16 K, On bottom pump press 2,586 psi. Diff press: 140, Spm:188, GPM: 722, Motor rpm=123	1.25

### Report #: 8 Daily Operation: 1/12/2014 06:00 - 1/13/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
8	8	6,766.0
		End Depth (TVD) (ftKB)
		6,762.6
		Dens Last Mud (lb/gal)
		9.00
		Rig
		H & P, 604

#### Operations Summary

Drill 12 1/4" Intermediate Sec. F/ 6,458' T/ 6,766', Lost MP Press & 42K String Wt. Spot sweep, Pooh, M/u Fishing tools, TIH t/5910'

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 7.6 days since rig accepted, 7.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 78%, Curve: 00%, Lateral: 00%

2.37' Below & 12.5' Right of proposed directional plan #2

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Drilling 12 1/4" intermediate hole section 266' @ 44.3 ' ROP. Wob: 25 k, Rot: 100 rpm, Gpm: 722, Motor rpm:122, Off bottmTq=6,000, On bottom Tq= 14,000 ft-lbs, Pump press: 2581 on bottom, Diff: 430 psi, Off bottom pressure: 2346. Pumped 10 bbls HI 60 vis sweeps w/ Nut plug Med 10 ppb.20 ppb graphite Drop 1 Poly stick & Soap stick every connection. At 6534' Slow pump rates were taken with 8.9 ppg MW. At 11:20 hrs lost about 200 psi, picked up off bottom. Isolated pumps and pressure tested each to 1200 psi held solid.	6
DRL-ROT	Drilling F/6724' - T/6766', 100 SPM, 760 Gpm, Rpm: 60, Wob: 18-25, off bottom SPP:2010 on bottom pressure: 2230, off bottom torq: 6k, on bottom torq: 14k. P/U wt: 249, S/Off wt: 220, Rot: 230.	1
U_LPP	Lost 600 psi on pump pressure and 42k on string weight. Picked up from bottom. Mix 80 bbl sweep consisting of 10 ppb nut plug, 10 ppb graphite. Pump 40 bbl of sweep, 20 bbl of 8.9 ppg mud, then 40 bbl sweep, circulated around until shakers cleaned up minimal cuttings brought up for TOOH. Pump and spot 60 bbl Hi-vis with a 93 vis on top fish for coverage of 497'	3
SAFETY	Flow checked monitor on trip tank well static.	0.25
U_FSH	Pull first 5 stand wet taking proper fill, pump slug and TOOH racking back and SLM. TOF @ 6365.05'. Fish in hole 401.40', fish top is 14" long 6 9/16" HWDP box, between 1st and 2nd joints of HWDP.	4.5
RIGSER	Rig service lubricate rig, clean and prep rig floor.	1
U_FSH	Lay out and strap Fishing Tools & 6 1/2" DC's	1.5
U_FSH	M/U 10 5/8" overshot, dressed with 6 5/8" Mill Control and 6 5/8" Basket grapple, Bumper jars, and fishing jars.P/u 6 - 6 1/2" DC's. 15-HWDP Accelerator	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	TIH with Fishing Assembly F/ 699' T/ 5,914'	4.75

Report #: 9 Daily Operation: 1/13/2014 06:00 - 1/14/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762

Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
9	9	6,766.0	6,762.6	9.00	H & P, 604

#### Operations Summary

Latch on Fish, Tooh with Fish, L/d Fish & fishing tools, M/u New Direc. Bha TIH & Inspect BHA.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 8.6 days since rig accepted, 8.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 78%, Curve: 00%, Lateral: 00%

2.37' Below & 12.5' Right of proposed directional plan #2

### Time Log Summary

Operation	Com	Dur (hr)
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U_FSH	Tagged fish, staged one pump from 5 t/ 35 spm, 133 gpm, pressured up to 650 psi set 30K wob on fish. Pulled up to 269K, Pump psi decreased to 250 psi.	1
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U_FSH	TOOH f/ 6,766' t/ 700'. TOOH @ 4 min a stand. Monitor well on trip tank, hole taking proper displacement.  ** Tight spot @ 1,361'. Pumped through string 35 spm, pressure would not stall when pulling into tight spot, indicating the stabilizer was hanging up. Had to pull 35K over to pull through. **	10.5
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U_FSH	Rack back 5 stds HWDP & 2 stands of 6.5" D.C.'s. Didn't lay out 6.5" D.C.'s in case the entire fish wasn't present.	2
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U_FSH	Fish in overshot. Break out & L/D fishing tools. Could not break overshot, L/D overshot with one joint of HWDP.	1.5
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U_FSH	Rack back 9 - 8" D.C.'s, L/D entire directional BHA & bit.	1
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U_FSH	Clean & clear rig floor of excess equipment.	0.5
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RIGSER	Service Rig.	0.5
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WLHEAD	Pull wear bushing & jet well head, Renstall wear bushing.	1
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( Witnessed by Co. Man )

U_FSH	PU/MU 12 1/4" bit Smith, MSI719 PDC Rerun# 3 & Cobra 8"motor stabilized 7/8 lobe 4.0 stage adjustable set 1.5° Bend Directional BHA. bit to Survey 69', bit to Gamma 61' Rev/gal= 0.17 flow range 400-900 gpm, max Tq= 14,930 K max Diff=900 psi., Shallow test mud motor and MWD.	2
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U_FSH	TIH with BHA , Drilco inspecting each connection of BHA for damage. Found crack in XO NC56 to NC50	3
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U_FSH	L/D 6 - 6.5" D.C.'s. from mouse hole.	1
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Report #: 10 Daily Operation: 1/14/2014 06:00 - 1/15/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762

Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
10	10	7,586.0	7,582.6	8.80	H & P, 604

#### Operations Summary

TIH while inspecting BHA, TIH f/ 957' t/ 6,372', Rig Service, Precautionary wash f/ 6,372' t/ 6,766', Rot / Sld drlg f/ 6,766' t/ 7,586

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 9.6 days since rig accepted, 9.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 90%, Curve: 0%, Lateral: 0%

1.7' Above & 11' Right of proposed directional plan #2

129' from 30H & 104' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
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U_FSH	TIH with HWDP. Inspecting all breaks going in. Found 1 cracked crossover between 8" & HWDP, two HWDP with damaged shoulders.	4.5
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U_FSH	TIH f/ 957' t/ 6,372'. Monitor well through trip tank, hole giving proper displacement.	4.5
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RIGSER	Service rig.	0.5
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U_FSH	Precautionary wash f/ 6,372' t/ 6,766'. 600 gpm, 145 spm, 50 rpm - Relog last 90' for gamma correlation.	1.5
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DRL-ROT	Rot Drill 441' @ 77 ft/hr, 720 gpm, 190 spm, 60 rpm, 30 wob, 18k trq, 750 diff, 2,140 psi off bottom.	5.75
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	Take SPR @ 7,000' with 8.8 ppg	
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## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL-SLIDE	Slide drilling 12 ft.- ROP 12', p/hr TF: 260°, Wob: 19 K, Off bottom pump press 2,363 psi. Diff press: 257, Spm:188, GPM: 722, Motor rpm=122	1.25
DRL-ROT	<p>Rot Drill 371' @ 62 ft/hr, 720 gpm, 190 spm, 60 rpm, 30 wob, 18k trq, 750 diff, 2,140 psi off bottom.</p> <p>@ 7,490' 03:30 Started showing loss - lost 10 Bbls, flow rate dropped from 32% to 29 % slowed MP's to 500 gpm, mixed and pumped 50 bbl lcm sweep with 5 ppb tiger bullets coarse 5 ppb lcf blend &amp; 10 ppb nut plug.</p> <p>@ 7,531' 04:30 Mix 2nd and pump sweep containing 10 ppb tiger bullets coarse, 5 ppb oil seal, 5 ppb lcf blend, 10 ppb nut plug.</p> <p>Losses stabile as of report time</p> <p>Take SPR @ 7,000' with 8.8 ppg</p>	6

Report #: 11 Daily Operation: 1/15/2014 06:00 - 1/16/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
Days From Spud (days) 11	Days on Location (days) 11	End Depth (ftKB) 8,340.0
	End Depth (TVD) (ftKB) 8,336.6	Dens Last Mud (lb/gal) 8.90
	Rig H & P, 604	

### Operations Summary

Rot f/ 7,586' t/ 8,059', Service Rig, Rot f/ 8,059' t/ 8,340' Circ hole clean, Wiper trip to 13 3/8" shoe.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 10.6 days since rig accepted, 10.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

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

5.5' Above & 11.9' Right of proposed directional plan #2

620' from 30H & 111' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	<p>Rot Drill 189' @ 47 ft/hr, 500 gpm, 130 spm, 70 rpm, 10 - 30 wob, 18k trq, 700 diff, 1,350 psi off bottom.</p> <p>** Losing 25 bbls hr. Pump sweeps containing, 5 ppb oil seal, 10 ppb lcf blend, 5 ppb cotton seed hulls. **</p>	4
DRL-ROT	<p>Rot Drill 175' @ 44 ft/hr, 500 gpm, 130 spm, 70 rpm, 10 - 30 wob, 18k trq, 300 - 700 diff, 1,350 psi off bottom.</p> <p>** Losing 23 bbls hr. Pump sweeps containing, 5 ppb oil seal, 10 ppb lcf blend, 10 ppb cotton seed hulls. Adding 10 sxs of cedar fiber to suction pit every hour for background LCM. **</p>	4
DRL-ROT	<p>Rot Drill 106 ' @ 42.4 ft/hr, 538 gpm, 140 spm, 70 rpm, 10 - 30 wob, 18k trq, 300 - 700 diff, 1,750 psi off bottom.</p> <p>** Losses stopped @ 7,950', Pump Hi Vis sweep every stand containing, 10 ppb tiger bullets , 5 ppb lcf blend, 10 ppb cotton seed hull. Adding 10 sxs of cedar fiber to suction pit every hour for background LCM. **</p>	2.5
RIGSER	Servive Rig.	0.5
DRL-ROT	<p>Rot Drill 281 ' @ 43 ft/hr, 538 gpm, 140 spm, 70 rpm, 10 - 30 wob, 18k trq, 300 - 700 diff, 1,750 psi off bottom.</p> <p>Take SPR @ 8,059' with 8.8 ppg mud</p> <p>** No Losses ', Pump Hi Vis sweep every stand containing, 10 ppb tiger bullets , 5 ppb lcf blend, 10 ppb cotton seed hull. Adding 10 sxs of cedar fiber to suction pit every hour for background LCM. **</p> <p>Started adding Soltex at 8,130'</p>	6.5
CIRC	Circ around 2 X 50 Hi-Vis sweeps until shakers clean.	4
TOOH	Make wiper trip, Pulled 1st 5 stands wet, Pump slug continue Tooh, Pulled 40K @ 7,475' worked through, Continue Tooh.Hole t/ 5,500' Taking proper displacement.	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 12 Daily Operation: 1/16/2014 06:00 - 1/17/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days) 12	Days on Location (days) 12	End Depth (ftKB) 8,340.0	End Depth (TVD) (ftKB) 8,336.6	Dens Last Mud (lb/gal) 8.90	Rig H & P, 604	

Operations Summary  
TOOH f/ 5,550' t/ 957', Rig service, TIH f/ 957' t/ 8,340', Circ, TOOH f/ 8,340' t/ 741' LD Drlg jars TOOH t/ 398', LD (9) 8" DC, TOOH LD directional tools, & Bit. Function BOPs, Run 9 5/8" intermediate csg.

Remarks  
H & P 604 Well (University 3-19 31H) Progress: 11.6 days since rig accepted, 11.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

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

5.5' Above & 11.9' Right of proposed directional plan #2

620' from 30H & 111' From 32H ( Notified TRRC 1600 hrs 1-16-2014 Job #41 cement 9 5/8" intermediate csg)

### Time Log Summary

Operation	Com	Dur (hr)
TOOH	TOOH f/ 5,550' t/ 957'. Monitor hole through trip tank, hole taking proper displacement.  ** SLM showed + 1.26 difference in pipe tally. **	2.5
RIGSER	Service rig.	0.5
TIH	TIH f/ 957' t/ 8,340'. Fill pipe & break circulation every 30 stands. Monitor hole through trip tank, hole taking proper displacement.	3.25
CIRC	Circulate 2 high 90 vis sweeps w/ 10 ppb Tiger Bullets coarse & 10 ppb nut plug med. out of hole while reciprocating pipe. 1st sweep brought back minimal cuttings. 2nd sweep was no change on shakers. Shakers clean.  ** Flow check - No flow. **	3.25
TOOH	TOOH f/ 8,340' t/ 957'. Monitor hole through trip tank, hole taking proper displacement.	4.5
BHA	TOOH f/ 957' t/ 741' to HWTDP rack back HWDP & Cont. TOOH LD jars, LD (9) 8" D.C's f/ 957' t/ 116'. Hole taking proper displacement.	1.5
BHA	Drain motor, break bit. L/D directional tools. Motor drained properly, bearings looked good.  ** Bit graded 1-1-NO-A-X-I-TD **	1
SAFETY	Clean Rig floor of Trip Hazards,	0.5
CASE	PU Wear bushing pulling tool, latch wear bushing, Functioned Annular preventer, Pipe rams Upper & Lower, Pulled Wear Bushing. Functioned Blind rams.	1
CASE	PJSM RU H&P CRT tool	0.5
CASE	RU H&P CRT tool. H&P CRT tool Tech on location. Test engaging pressure @ 1850 psi. Release pressure 1000 psi. brought up Float equip. Centralizers to Rig floor.	1.5
SAFETY	PJSM on runing of 9 5/8" csg.	0.5
CASE	MU 9 5/8" 43.5ppf L-80 IC PDC drillable Down jet Single Valve Float shoe (3) 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. o.k. Run (20) jts. 9 5/8" 43.5 ppf L-80) IC LTC Torque to opt. 8130 ft-lbs. Installing Bow spring type centralizers as per prog.	3.5

Report #: 13 Daily Operation: 1/17/2014 06:00 - 1/18/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days) 13	Days on Location (days) 13	End Depth (ftKB) 8,340.0	End Depth (TVD) (ftKB) 8,336.6	Dens Last Mud (lb/gal) 8.90	Rig H & P, 604	

Operations Summary  
Running intermediate casing f/ 504' t/ 8,327', Circ, Cementing, Drop DV Tool bomb, Circ.

Remarks  
H & P 604 Well (University 3-19 31H) Progress: 12.6 days since rig accepted, 12.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0. hours for the month of (January).

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

5.5' Above & 11.9' Right of proposed directional plan #2

620' from 30H & 111' From 32H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
CASE	Run 9 5/8" casing f/ 504' t/ 8,327'. Opt trq - 8,130 ft/lbs f/ 43.5# & 7,250 f/ 40#. Taking returns to trip tank. Hole giving proper displacement. The 10 joint caliper ID average was 8.755 on 43.5# & 8.835 f/ 40#. Circulate bottoms up every 40 joints. Full returns during circulations. 40 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 - 8,327' / Top - 8325.5' Shoe track - 140.78' Bottom Float collar - 8,183.2' / Top - 8,184.7' Bottom Wrap pipe - 6,071.9' / Top - 5,703.7' Bottom csg packer - 5,703.7' / Top - 5,680' Bottom DV tool - 5,680' / Top - 5,677.4' Bottom Wrap pipe - 5,677.4' / Top - 3,509.8'	13
CIRC	Circulate 1 casing volume 631 bbls, 6,900 strokes total. 85 spm, 8 bpm, 330 gpm, 130 psi. Recipracating casing while circulating. Full returns during circulation.  ** Schlumberger arrived @ 1700, did not have any 2" wash up hoses. Schlumberger yard sent out 2" water hoses (wrong connections), Schlumberger hot shooting wash up hoses (with correct connections). **	1.5
CASE	L/D H&P CRT tool. R/D top drive bails & link tilts. R/U 16' bails & spider slips. Attach bails & spider for recipracating string during 1st stage cement job.  ** Correct Schlumberger hoses arrived @ 2200. **	2.5
SAFETY	PJSM w/ Schlumberger, H&P, Pioneer	0.75
CMT	Pumped 5 bbls fresh water, Tested lines to 3500 psi, 31 bbls of Mud push Express @ 10.0lb/gal, MUDPUSH Express B389 @ 1.0 lb/bbl BW/V.Spacer, D206 0.2 gal/bbl of Space, D031 91.18 lb/bbl, D289 3 lb/bbl, B288 3 lb/bbl  Lead cement 417 sks 166 bbls @ 11.5 lb/gal, yield 2.24, ft3/sk, mix water 12.737 gal/sk, Mix fluid 12.737 gal/sk, pumped @ 6 bbls/min.  Release top plug witness by company man pumped 615 bbls of WBM @ 6 bpm. Slowed pump down to 2.5 bpm 680 psi. prior to bumping plug to 1,300 psi. held for 3 min, released psi flowed back 2.5 bbls. Monitor 15 minutes - Verified floats Holding  Lift pressures - 100 bbls @ 450 Psi, 200 bbls @ 316 Psi, 300 bbls @ 310 Psi, 400 bbls @ 312 Psi, 500 bbls @ 440 Psi, 550 bbls @ 631 Psi, 600 bbl @ 700 Psi  Full returns throughout cement job.	3.5
CMT	Attempted to set the Weatherford ACP inflatable packer. Pump 4.9 bbls pressured up to 2,365, increased psi to 2,762, pressure decreased to 2,333 which is what the pressure should have done indicating that the packer was open. Increased psi to 3,829 which should have set packer, and pressured should have stabilized. Pressure dropped. Pressured up to 3,829 psi, pressure still not holding. Attempted max pressure allowable for 80% of casing burst @ 4,200 psi. Pressure still not holding. Indicating possible packer element damage.  ** After discussing with Drilling Engineer & Drilling Superintendent, the decision was made to release the pressure on the packer, by doing so it would close and should never re-open. Then drop DV Tool bomb.**	1
CMT	Dropped bomb for Weatherford DV Tool waited 30 minutes for bomb to hit tool.	0.5
CMT	Roll pump truck @ 1 bbl/min pressured up to 720 psi. Pressure dropped to 260 psi, indicating DV Tool opened. Circulate 30 bbls with pump truck @ 5.5 bbl/min w/ 500 psi.	0.25
CIRC	Swapped to rig pump, Pump 85 spm, 330 gpm, 8 bbl/min, 200 psi. Full returns during entire circulation.	1

Report #: 14 Daily Operation: 1/18/2014 06:00 - 1/19/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
14	14	8,340.0
		End Depth (TVD) (ftKB)
		8,336.6
		Dens Last Mud (lb/gal)
		8.90
		Rig
		H & P, 604

#### Operations Summary

Circ, PJSM, Cement 2nd stage, R/D cementers, Set packoff & wear bushing, R/D casing spider & bails, P/U Directional tools, BHA. TIH f/ 1050' t/ 5100. Slip cut drill line. H & P downtime, Tested csg. Tag & Drill out DV tool.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 13.6 days since rig accepted, 13.5 days from spud

Rig NPT: 2 hours for previous 24 hours, 2. hours for the month of (January).

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

5.5' Above & 11.9' Right of proposed directional plan #2

620' from 30H & 111' From 32H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Circulate through DV tool, Make ready for 2nd stage cement. 85 spm, 150 psi, 8 bpm. Full returns during circulation.  ** Received no cement to surface from 1st stage. **	2.5
SAFETY	PJSM w/ Schlumberger, H&P, & Pioneer.  ** Continue circulating during safety meeting. Staging tools for pilot hole run during cement job. **	0.5
CMT	Pumped 5 bbls fresh water, Tested lines to 4,600 psi, 37 bbls of Mud push Express @ 10.0 lb/gal, MUDPUSH Express B389 @ 1.0 lb/bbl BW/V. Spacer, D206 0.2 gal/bbl of Space, D031 91.18 lb/bbl.  Lead cement TXI 609 sks 243 bbls @ 11.5 lb/gal, yield 2.24, ft3/sk, mix water 12.73 gal/sk, D208 - 0.1% BWOB, D049 0.2%-, 75 lb/sk WTSK, D167 - 0.4% BWOB, D020 - 7% BWOB, D065 - 0.1% BWOB, D046 - 0.2% BWOB, D013 - 0.5% BWOB, D042 - 5 lb/sk WTSK, D130 - 0.125 lb/sk WTSK.  Tail cement Class"H" 188 sks, 36 bbls @ 16.4 lb/gal, yield 1.07 ft3/sk, mix water 12.73 gal/sk, D909 - 94 lb/sk WTSK, D046 - 0.2% BWOC, D013 - 0.2% BWOC, D065 - 0.25% BWOC.  Release top plug witness by company man & Weatherford pumped 431 bbls of WBM @ 7 bpm. Slowed pump down to 2.5 bpm 811 psi. prior to bumping plug @ 2,212 psi. held for 10 min, released psi flowed back 3.5 bbls. Monitor 15 minutes - Verified DV Tool pins sheered and closed.  Lift pressures - 100 bbls - 7 bpm @ 346 psi, 200 bbls - 7 bpm @ 360 psi, 260 bbls - 7 bpm @ 413 psi, 300 bbls - 7 bpm @ 495 psi , 400 bbls - 5 bpm @ 667 psi, 410 bbls - 4 bpm @ 790 psi, 430 bbls - 2.5 bpm @ 811 psi, 631 bbls @ 2,212 psi  Bumped plug @ 1215 on 1-18-2014 w/ 2,212 psi.  Full returns throughout cement job, no cement returned to surface. Calculated with 10% washout TOC @ 1,758'.	3.25
CMT	R/D Schlumberger cementers. Wash up BOP while rigging down cement lines & cement head.	1.25
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.	2
WLHEAD	P/U D.P. & bushing puller. Install wear bushing & lock down two set pins. L/D D.P.	0.5
CASE	C/O bails. L/D 16' bails, P/U 12' bails, re-attach link tilts, & P/U elevators.	1
BHA	P/U TIH 6 3/4" stabilized motor 7/8; 5.0 Adj. set @ 0°, Stabilized, UBHO, 2 - NMDC - Install MWD & test - Good. P/U 8 1/2" PDC Bit, Security MMD55DM TFA 2.226  ** Motor Rev / gal 0.29, Flow range 300-600 gpm, Max torque 10400 ft-lbs @ Max Diff of 1130 psi. Bit to Survey 55' Bit to Gama 47***	1.5
BHA	P/U TIH (9) - 6 1/2" D.C.'s & TIH w/ (13 ) HWDP, P/U Jars, (7) HWDP	1
TIH	TIH f/ 1,040' t/ 5,145'	3
RIGSER	Slip & Cut 100' Drill line.	2.5
U_RIG	Break cir. prior to casing test. attempted to close upper pipe rams for the 2500 psi test. upper pipe rams failed to function, functioned Lower pipe rams o.k. functioned annular preventer o.k attempts in closing upper rams still no function. indications at accumulator handle is functioning with no closure of upper rams no pressure loss. checked connections for tightness ok. bleed off accumulator pressure. switch hydraulic control line off of bottom pipe ram with top pipe rams to trouble shoot. functioned upper pipe rams o.k. switch back line. functioned upper rams ok. E Choke not operating hydraulic choke. having signal of communication error trouble shoot E choke cables unable to find problem. Notified MI SWACO will send man to RIG in mean time Will use Manual choke.	2
TEST CSG/DRILL OUT/FIT	Tested csg to 2500 psi. w/ 8.9 ppg mud wt. for 10 min. Good Test.	0.5
TIH	Continue TIH tagged DV tool @ 5,667'. with 50k 2 times to ensure DV stage tool closed.	1
TEST CSG/DRILL OUT/FIT	Drill out DV stage tool, start with 2k WOB increase to 4k RPM 20-30 pumping 400 gpm w/ 116 motor rpm.	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 15 Daily Operation: 1/19/2014 06:00 - 1/20/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
15	15	9,230.0	9,226.5	9.50	H & P, 604

Operations Summary  
Drill DV Tool, TIH f/ 5,725' t/ 8,170', Test casing - good, Drill shoe track f/ 8,170' t/ 8,340', Drill 10' & FIT - good, Rot drlg f/ 8,350' t/ 9,230'. TOOH to PU Coring BHA.Rack back Directional BHA.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 14.6 days since rig accepted, 14.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 43%, Curve: 0%, Lateral: 0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9230' )

1377' from 30H & 722' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
TEST CSG/DRILL OUT/FIT	Finish drilling out DV Tool.	0.75
TRIP	TIH f/ 5,725' t/ 8,170', tagged cement @ 8,170'. Hole giving proper displacement.	1.25
TEST CSG/DRILL OUT/FIT	Fill pipe, Test casing 2,500 psi f/ 30 minutes. Test good.	1.25
TEST CSG/DRILL OUT/FIT	Drill float collar, float shoe, & cement 8,170' t/ 8,340'. 30 rpm, 90 spm, 350 gpm, 1,050 psi. ** Tagged float collar @ 8,375' & Float shoe @ 8,321'. **	1.5
TEST CSG/DRILL OUT/FIT	Drill 10' new formation, Circ 5,000 strokes for bottoms up (get cement out of hole). FIT t/ 13.5 EMW. Current mud weight - 9.0, Vis - 35. 13.5-9.0 x 0.052 x 8,345' = 1,952 psi. Close upper pipe rams, open HCR, Close hydraulic choke. Roll pump 5 spm, Pressure up to 1,740 = 13# EMW - good. Roll pump 5 spm pressure up to 1,955 psi, pressure dropped to 1,924 psi. FIT - Good. Open choke to trip tank, bleed off psi, open pipe rams.	1.25
DRL	Rot drlg 35' @ 47 ft/hr, 400 gpm, 105 spm, 60 rpm, 20 wob, 16k trq, 350 diff, 1,200 psi off bottom.	0.75
DRL	Rot drlg 697" @ 111.5 ft/hr, 150 spm, 576 gpm, 70 rpm, 30 - 40 wob, 10k trq, 550 - 750 diff, 2,600 psi off bottom.	6.25
DRL	Rot drlg 58' @ 58 ft/hr, 150 spm, 576 gpm, 80 rpm, 16-18 wob, 10k trq, 300 diff, 2,450 psi off bottom.  ****Survey @ 9037' had 1° inclination, changed drilling parameter to control inclination build.**	1
CIRC	Sent GR/Survey file to Geologist. Cir. cond.mud while decsion made for Coring point.  **** Geologist instructions drill ahead to 9230' ****	1
DRL	Rot drlg 80' @ 53.3 ft/hr, 109 spm, 418 gpm, 80 rpm, 18-20 wob, 10-21k trq, 300 diff, 2,450 psi off bottom.	1.5
CIRC	Cir (2) 40 bbls clean up sweeps w/ 10 ppb nut plug 90 vis. sweeps pumped 30 min apart. Cir. until shakers clean of sweep.  ***SPR # 2 @ 9230' w/ 9.5 ppg 20=320psi.30=380psi 40=410 psi****	2
TRIP	TOOH f/9,230' t/8,755' pulled 5 stds.Wet no tight hole issue.check for flow well static. Pumped slug.continue TOOH f/8,755' t/ 1,045' Strap out. Hole taking proper fill up.  *****MI Swaco swaped out E choke after having Malfunction Retested same with 3rd party testeeer 250 low 2500 high.*****	4
BHA	TOOH w/ BHA f/ 1,045' t/109' LD 2 stablizers,pulled to motor break off bit, Rack back motor and 2 monel DC.	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 16 Daily Operation: 1/20/2014 06:00 - 1/21/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
16	16	9,281.0	9,277.5	9.50	H & P, 604		

### Operations Summary

Rack back Motor, Rig service. P/U Coring BHA. Pioneer security random serch of rig.TIH f/104' t/9,230' Coring f/9,230' t/9,281' Core barrel Jammed. Cir.BU,TOOH f/ 9,281' t/ 8,674', Shut in well - well static, TOOH f/ 8,674' t/ 8,422'.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 15.6 days since rig accepted, 15.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

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

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

1377' from 30H & 722' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
BHA	Finish racking back directional tools. Derrick man had trouble setting it back.	0.5
RIGSER	Wash & clean rig floor in preparation for TIH.	0.75
SAFETY	PJSM w/ Baker coring, H&P, & Pioneer. Discussed the importance of coring run, proper trip speeds, & tool handling.	0.75
BHA	Picking up core barrel and components and all tools	1
U_OTR	Shut rig down Pioneer security arrived for a random search. Searched location, crew shacks, & trucks. Left one H&P hand on rig floor monitoring well while search was going on.	2.5
BHA	Finish picking up 90' coring tools.	1.5
TIH	TIH f/ 104' t/ 9,230' w/ coring tools. 150 ft/min max per BHI coring hand. Fill pipe every 25 stands, circ 10 minutes to insure no debris in coring tube. Monitor well through trip tank, hole giving proper displacement.	8
CORE	Wash down last jt f/9,200' t/9,230' space out. Coring f/ 9,230' t/9,280.88' @ 10.76' ftf/hr. 64 spm, 247 gpm, 51 rpm, 3 k t/12 k wob Lost ROP, lost Torque. stacked weight.Indicators of Jammed barrel. 30k break off.(BHI on rig floor.)	5
CIRC	Cir. bottoms up. 4,700 stks. Pumped slug.	1.5
TOOH	TOOH as per tripping schedule. 9 min. slip to slip 2 stands 180'. f/9,281' t/9,092'. 4 min slip to slip f/9,092' t/ 8,674' (BHI on Rig Floor.)	1
U_WC	Pulled 5 stands D.P. Driller kicked in trip tank showed lost 17 bbls to hole, he killed trip tank, then he started gaining and flow increased f/ 19 t/ 51%. Trip tank volume f/ 60 t/ 68 bbls. Driller stopped at tool joint shut well in with annular @ 04:36. Both casing gauges read 0 psi. After checking all valves on pits and choke open choke @ 05:07 to trip tank. No flow. Monitored 5 minutes. Opened annular @ 05:17. After pulling stripping rubber no flow inside BOP. Well static. Kick in trip circulate top of hole 10 minutes. Lost 7 bbls from turning on trip tank. Shut trip tank off gained back all 7 bbls. Resume TOOH.	1.25
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/8,674' t/ 8,422' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	0.25

Report #: 17 Daily Operation: 1/21/2014 06:00 - 1/22/2014 06:00

Job Category			Primary Job Type			AFE Number	
ORIG DRILLING			ODR			028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
17	17	9,286.0	9,282.5	9.70	H & P. 604		

### Operations Summary

TOOH f/ 8,422' t/ 270', Wait 60 min - per BHI coring, TOOH f/ 270' t/ 104', L/D core - recovered 50.6', P/U new core barrel BHA, TIH f/104' t/ 9,231' Wash & Ream f/9,231' t/ 9,281' SPR, Coring f/ 9,281' t/ 9,286'.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 16.6 days since rig accepted, 16.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 47%, Curve: 0%, Lateral: 0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

1377' from 30H & 722' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
TRIP	TOOH as per tripping schedule. 4 min slip to slip f/8,422' t/ 4,660' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	3
TRIP	TOOH as per tripping schedule. 6 min slip to slip f/4,660' t/ 1,000' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	4.25
TRIP	TOOH as per tripping schedule. 9 min slip to slip f/ 1,000' t/ 270' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
TRIP	Begin one hour wait to allow gas to escape core without it fracturing, per trip schedule.  ** Perform rig service while waiting. **	1
TRIP	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.25
BHA	L/D inner tube w/ core. Unscrew top 30' inner tube. No core inside it. P/U and cut second core barrel, place in core shuttle in mouse hole and lock down set pins to insure no movement of core. Cautiously L/D core in core shuttle onto catwalk. After picking up with forklift used strapped on core shuttle to insure no movement. Off load core barrel on stands for Core Lab. Repeat steps for third core barrel. Recovered 50.6' of core. The core had fracturing in it. BHI thinks that was the cause of the jam, fractured formation.	1.5
BHA	P/U new 90' inner tube.	1
TIH	TIH f/ 104' t/ 9,251' w/ coring tools. 150 ft/min max per BHI coring hand. Fill pipe every 25 stands, circ 10 minutes to insure no debris in coring tube. Monitor well through trip tank, hole giving proper displacement.	7.5
WASH_REAM	Space out Wash & Ream thru cored interval f/9,230' t 9,281' drop ball 465 psi off bottom, ball on seat pressure increase to 675 psi. Mud. wt. 9.7 ppg #2 SPR 20= 310 psi. 30=375 psi. 40= 475 psi. ( BHI on rig floor )	0.75
CORE	Coring f/ 9,281' t/ 9,286' @ 2.22' ftf/hr. 64 spm, 247 gpm, 746 spp. 66 rpm, 2.5 k t/12 k wob, 10k trq. (BHI on rig floor)	2.25

Report #: 18 Daily Operation: 1/22/2014 06:00 - 1/23/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
18	18	9,286.0
		End Depth (TVD) (ftKB)
		9,282.5
	Dens Last Mud (lb/gal)	Rig
	9.50	H & P, 604

#### Operations Summary

Coring f/ 9,286' t/ 9,371' ( 85' ) Cir.BU. TOOH f/ 9,371' t/ 270'

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 17.6 days since rig accepted, 17.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 50%, Curve: 0%, Lateral: 0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

1377' from 30H & 722' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
CORE	Coring 85' @ 8.09 ftf/hr. 67 spm, 256 gpm, 807 spp. 45-65 rpm, 5-16k wob, 8-13k trq. (BHI on rig floor)	10.5
CIRC	Pull 62k over string weight to break core. Circulate bottoms up in preparation for TOOH. Building slug while circulating.	2
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 9,371' t/ 9,181' wet (BHI on Rig Floor). Pump slug	1.5
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/9,181' t/ 4,660' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	4
TOOH	TOOH as per tripping schedule. 6 min slip to slip f/4,660' t/ 1,000' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	4.5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 1,000' t/ 270' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.  TOOH as per tripping schedule. 9 min slip to slip f/ 9,371' t/ 9,181' wet (BHI on Rig Floor). Pump slug  TOOH as per tripping schedule. 4 min slip to slip f/9,181' t/ 4,660' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.  TOOH as per tripping schedule. 6 min slip to slip f/4,660' t/ 1,000' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 19 Daily Operation: 1/23/2014 06:00 - 1/24/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days) 19	Days on Location (days) 19	End Depth (ftKB) 9,460.0	End Depth (TVD) (ftKB) 9,456.4	Dens Last Mud (lb/gal) 9.60	Rig H & P, 604	

### Operations Summary

Wait 60 min - per BHI coring, TOOH f/ 270' t/ 104', L/D core - recovered 93', P/U new core barrel BHA added 30' barrel (120' barrel), TIH f/131' t/ 9,280' Wash & Ream f/ 9,280' t/ 9,374' SPR, Coring f/ 9,374' t/ 9,460'.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 18.6 days since rig accepted, 18.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 54%, Curve: 0%, Lateral: 0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

1377' from 30H & 722' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
CORE	One hour wait period per trip schedule. to allow gas to escape core without it fracturing,  ** Cir,w/ rental pumps prepare for freezing weather conditions, Rig service while waiting. **	1
CORE	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1
CORE	Held pre-job safety meeting on laying down & transporting core.	0.5
CORE	Lay down 93' of core. (After measuring core and addition to 1st core recovered, change cored depth to 9374' ) Core Handling Procedure: L/D inner tube w/ core. Unscrew top 30' inner tube. Core inside it. Placed in core shuttle, moved into mouse hole, lock down set pins to insure no movement of core. "Cautiously" L/D core in core shuttle onto catwalk. After picking up with forklift, used strapped on core shuttle to insure no movement. Off loaded core barrel on stands for Core Lab. Repeated steps for second & third core barrel. Recovered 93' of core. The core barrel was full, No visible fractures.	1.5
RIGSER	Blow down stand pipe pumping line on rig due to freezing weather. Function BOPs	0.5
CORE	PU added 30' exterior section of core bbl. P/U new 120' inner tube core bbl.	1.5
TIH	TIH f/ 131' t/ 9,280' w/ coring tools. 150 ft/min max per BHI coring hand. Fill pipe every 25 stands, circ. 10 minutes to insure no debris in coring tube. Monitor well through trip tank, hole giving proper displacement.	6.5
WASH_REAM	Wash & Ream thru cored interval f/9,280' t 9,374' . Space out. Drop ball 370 psi off bottom, ball on seat pressure increase to 650 psi. Mud. wt. 9.6 ppg. #2 SPR 20= 190 psi. 30=280 psi. 40= 420 psi.( BHI on rig floor )	1
CORE	Coring f/ 9,374' t/ 9,460' @ 8.19' ftf/hr. spm, 249 gpm, 700 spp. 45 rpm, 2.5 k t/12 k wob, 10k trq. (BHI on rig floor)	10.5

Report #: 20 Daily Operation: 1/24/2014 06:00 - 1/25/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days) 20	Days on Location (days) 20	End Depth (ftKB) 9,491.0	End Depth (TVD) (ftKB) 9,487.4	Dens Last Mud (lb/gal) 9.60	Rig H & P, 604	

### Operations Summary

Coring t/ 9,491' CBU. TOOH f/ 9,491' t/ 270', Wait 60 min - per Tripping per schedule. TOOH f/ 270' t/ 131', L/D core & Bit - recovered 120', pulled External core barrel to bit. break off & M/U new 8 1/2" Coring bit'.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 19.6 days since rig accepted, 19.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

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

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

1377' from 30H & 722' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
CORE	Coring 31' @ 5.6 ftf/hr. 67 spm, 256 gpm, 857 spp. 45-65 rpm, 5-16k wob, 8-11k trq. (BHI on rig floor)	5.5
CIRC	Pull 40k over string weight to break core. Circulate bottoms up in preparation for TOOH. Building slug while circulating	2.5
TOOH	Flow Check hole, static.Pump slug, Blow down Stand pipe line for freezing weather conditions.	0.5
TOOH	TOOH as per tripping schedule. 9 min. slip to slip 2 stands 180' f/9,491' t/9,303'. 4 min slip to slip f/9,303' t/ 9019' ( Company man & BHI on Rig Floor.)	0.5
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/9,303' t/ 4,600' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	4
TOOH	TOOH as per tripping schedule. 6 min slip to slip f/4,600' t/ 1,000' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	4.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 1,000' t/ 270' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5
TOOH	One hour wait to allow gas to escape core without it fracturing, per trip schedule.  ** Perform rig service while waiting. **	1
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1
SAFETY	Held pre-job safety meeting on laying down & transporting core.	0.5
BHA	Lay down 117.6' of core. Core Handling Procedure: L/D inner tube w/ core. Unscrew top 30' inner tube. Core inside it. Placed in core shuttle, moved into mouse hole, lock down set pins to insure no movement of core. "Cautiously" L/D core in core shuttle onto catwalk. After picking up with forklift, used strapped on core shuttle to insure no movement. Off loaded core barrel on stands for Core Lab. Repeated steps for second, third, & fourth core barrel. Recovered 120' of core. The core barrel's were full, No visible fractures.	1.5
BHA	TOOH w/ exterior core barrel. Break out coring bit 8 1/2" SN: 7143001. MU 8 1/2" coring bit SN: 7146400	1

### Report #: 21 Daily Operation: 1/25/2014 06:00 - 1/26/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
21	21	9,612.0
		End Depth (TVD) (ftKB)
		9,608.3
		Dens Last Mud (lb/gal)
		9.50
		Rig
		H & P, 604

#### Operations Summary

TIH Coring BHA f/131' t/ 9,398', Wash & ream, Coring 120' t/ 9,612', CBU. TOOH f/ 9,612' t/ 5,500' as per Trip schedule.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 20.6 days since rig accepted, 20.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 62%, Curve: 0%, Lateral: 0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

1377' from 30H & 722' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
BHA	TIH w/new 8 1/2" HTC-TC406 PDC coring bit, 120' exterior barrel, PU 120' new inner tube core barrel BHA.	2
TIH	TIH f/ 131' t/ 9,398' w/ coring tools. 150 ft/min max per BHI coring hand. Monitor well through trip tank, hole giving proper displacement, Fill pipe every 25 stands, break circ. 10 minutes to insure no debris in coring tube.	6
WASH_REAM	Wash & Ream thru cored interval f/9,398' t/ 9,492' . Space out. Drop ball 370 psi off bottom, ball on seat pressure increase to 650 psi. Mud wt. 9.5 ppg. #2 SPR 20= 180 psi. 30=275 psi. 40= 370 psi. ( BHI on rig floor )	0.5
CORE	Coring f/ 9,492' t/ 9,612' 120' @ 12.97" ft- hr. 67 spm, 257 gpm, 716 spp. 40-71 rpm, 2.5 k t/12 k wob, 10k -19,300 trq. ( Co.man & BHI on rig floor )	9.25
CIRC	Pull 35k over string weight to break core. Circulate bottoms up in preparation for TOOH. Building slug while circulating.	2
CIRC	Flow check, Hole static Pump slug.	0.5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 9,612' t/ 9,430' (BHI on Rig Floor).	0.5
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/9,430' t/ 5,500' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	3.25

### Report #: 22 Daily Operation: 1/26/2014 06:00 - 1/27/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
22	22	9,755.0
		End Depth (TVD) (ftKB)
		9,751.3
		Dens Last Mud (lb/gal)
		9.60
		Rig
		H & P, 604

#### Operations Summary

TOOH t/270', Wait 1hr per Trip schedule, TOOH f/270' t/131' L/D inner barrel, recover 121' core, Rack back External barrel w/bit. TIH Dir. BHA, t/9,612' Wash ream, Log, Survey, t/9,612' Drig 143' t/ 9,755' toward 2nd Core point.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 21.6 days since rig accepted, 21.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 68%, Curve: 0%, Lateral: 0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

1377' from 30H & 722' From 32H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/5500' t/ 4,600' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5
TOOH	TOOH as per tripping schedule. 6 min slip to slip f/4,600' t/ 1,000' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	3.5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 1,000' t/ 270' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5
TOOH	One hour wait to allow gas to escape core without it fracturing, per trip schedule.  ** Perform rig service while waiting. **	1
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5
SAFETY	Held pre-job safety meeting on laying down & transporting core.	0.5
BHA	Lay down 121' of core. Core Handling Procedure: L/D inner tube w/ core. Unscrew top 30' inner tube. Core inside it. Placed in core shuttle, moved into mouse hole, lock down set pins to insure no movement of core. "Cautiously" L/D core in core shuttle onto catwalk. After picking up with forklift, used strapped on core shuttle to insure no movement. Off loaded core barrel on stands for Core Lab. Repeated steps for second, third, & fourth core barrel. Recovered 121' of core. The core barrel's were full, No visible fractures.	1.5
BHA	TOOH w/ Outer core barrel. Rack back 94' w/ 8 1/2" HTC-TC406 PDC coring bit SN: 7146400.	0.5
BHA	MU 8 1/2" PDC bit # 7 RR 1 to Directional BHA out of derrick MU (2) Stabilizers, TIH t/109.75' TIH w/( 9 ) 8" DC & HWTDP w/ jars t/1,042.61'	2.5
TIH	TIH w/ drill pipe filling & break cir. every 25 stds t/ 9,200'	4
WASH_RE AM	Wash & ream began f/ 9,200'. thru cored interval. Cored interval f/9,230' t/ 9,416' GR logging f/ 9,230 t/9,565' ( GR sensor 45' from bit. MWD Survey sensor 55' from bit.)	3.75
DRL	Rot drlg Pilot hole 143' @ 63.55 ft/hr, 154 spm, 591 gpm, 81 rpm, 10 k wob, 7 -8 k trq, 262 diff, 2,850 psi off bottom. ( Survey @ 9,605' Incl. 1.50° Azi. 27.70°)	2.25

Report #: 23 Daily Operation: 1/27/2014 06:00 - 1/28/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
Days From Spud (days) 23	Days on Location (days) 23	End Depth (ftKB) 9,930.0
	End Depth (TVD) (ftKB) 9,926.3	Dens Last Mud (lb/gal) 9.80
		Rig H & P, 604

### Operations Summary

Rot.drlg to Core point #2 f/9,755' t/9,930' 175' Cir.sweeps, Geologist evaluated GR log. TOOH Dir.BHA. Test BOPs

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 22.6 days since rig accepted, 22.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 77%, Curve: 0%, Lateral: 0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
DRL	Rot drlg 68' @ 68 ft/hr, 150 spm, 600 gpm, 80 rpm, 20K wob, 8k to 19K trq, 600 - 750 diff, 2,800 psi off bottom.	1
CIRC	Circulate (2) sweeps around to clean hole Due to increase in torque no increase in cuttings when sweep returns over shakers, Torque still high. increased Mud wt. 9.6 ppg to 9.8 ppg. Lithology 70% shale 30% limestone.	3.5
DRL	Rot drlg 32' @ 64 ft/hr, 150 spm, 600 gpm, 80 rpm, 20K wob, 8 k trq, 600 - 750 diff, 2,800 psi off bottom. Torque drop to 8k.	0.5
CIRC	Pump sweep, circulate, work pipe while Geologist evaluating GR log for Core Point #2	0.5
DRL	Rot drlg as per Geologist to 9,920' 32' @ 46.6 ft/hr, 150 spm, 600 gpm, 80 rpm, 20K wob, 8 to 14 k trq, 600 - 750 diff, 2,800 psi off bottom.	1.5
CIRC	Pump sweep, circulate, work pipe while Geologist evaluating GR log for Core Point #2	1
DRL	Geologist determined Core point #2 @ 9,930' MD. 9,926.30 TVD. Rot. drlg 10' @ 20 ft/hr, 150 spm, 600 gpm, 80 rpm, 20K wob, 8 to 14 k trq, 600 - 750 diff, 2,800 psi off bottom. Lithology 70% Limestone 30% shale	0.5
CIRC	Circulate Hi-Vis sweep around 80 Vis. Flow Check, Hole static. Blow down stand pipe line. prepare for freezing conditions	1.5
TOOH	TOOH f/9,930 t/8,327'. Flow check hole static. TOOH f/8,327' t/1,042'. @ BHA Monitor hole fill on trip tank had proper fill.	4.75
BHA	TOOH w/ BHA f/1,042' t/109'. LD (1) stabilizer, TOOH t/ 37', pulled MWD GR tool, TOOH, LD Stabilizer pulled to motor, break off bit, flush thru motor w/ water. Rack back motor and 2 monel DC.	1.75
U_OTR	Drain stack. Trouble pulling Wear bushing w/ 15 k. pull. Night Co. Man inspected with measure tape all lock down pins for proper back out o.k. Worked link tilt while pulling & worked wear bushing free. Pulled wear bushing. No sever visible signs of damage to wear bushing. (file down scratches on bottom of wear bushing until smooth after setting test plug.)	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	PJSM Testing BOPs.Set BOP test plug w/ csg valve open position.	0.5
NU/TEST	Set BOP test plug w/ csg valve open position.Test as required all BOPE to 250 psi. low 3,500 psi. high.HCR & manual valve Choke - Kill line, Chokes & valves manifold lines.Blind rams.Upper -Lower Pipe Rams, Annular preventer, TIW safety valve, Inside BOP safety valve.Top Drive IBOP & manual. All test held 5 min.& charted (testers using water w/ 70% Glycol for testing)	5

Report #: 24 Daily Operation: 1/28/2014 06:00 - 1/29/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
24	24	9,948.0
		End Depth (TVD) (ftKB)
		9,944.3
	Dens Last Mud (lb/gal)	Rig
	9.80	H & P, 604

#### Operations Summary

Finished BOPE test.Accumulator test.MU/TIH 120' Core barrel BHA. w/8 1/2" bit #7RR2. Wash ream f/9,780' t/ 9,930' CBU, Coring from 2nd core point 18' 7.2' ft./ hr

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 23.6 days since rig accepted, 23.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 78%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
NU/TEST	PJSM Testing Top Drive & Stand pipe back to pump.Testing as required all BOPE,Top Drive IBOP & Manual safety valve to 250 psi low 3,500 psi High,Tested stand pipe back to pumps 250 psi low-4,500 psi. High. All test held 5 min.& charted (testers using water w/ 70% Glycol for testing)	1.5
NU/TEST	Pulled Test plug. Closed csg valve,Rig down BOP testing equipment Closed Blind Rams.	0.5
RIGSER	PJSM on Slip and cut drilling line. Dock Top Drive.Slip 95' & cut drill line, Put 10 wraps on drum. Undocked Top drive,Calibrated to Crown & Rig floor.Tested Crown saver. o.k.	4
U_OTR	Unable to drain stack, ran single jt. Dp down to csg valve cir. with csg valve in open position until water and Ice coming out, Thawed out casing valve & drain stack & set Wear bushing.	3.5
NU/TEST	BOP Accumulator Test, with air & electric pumps turned off, document starting Accumulator pressure 2900 psi. & document time it took to function close/open each component & ending Accumulator pressure after each component on BOP stack functioned, final Accumulator pressure of 1190 psi.Turned on air & electric pumps, time to recharge 4 min.10 sec.with 2900psi. accumulator pressure. ( Pioneer Co.Rep H-PTool pusher witness test)	1
SAFETY	PJSM on PU/MU Coring tools BHA, Clean Rig floor ofTrip hazards. Blow down stand pipe line.	0.5
BHA	( BHI & Co.Man on floor) TIH w/ 8 1/2" HTC-TC406 #7RR2 PDC coring bit,120' exterior barrel, t/ 121' PU/MU 120' new inner tube core barrel. MU LDA extension sub, stabilizer.Top sub.TIH w/ DC & HWTDP out of derrick.f/ 131.55 't/1067'	3.5
TIH	TIH f/131' t/ 9,780' w/ coring tools.100 ft/min. Monitor well through trip tank, hole giving proper displacement, Fill pipe every 25 stands, break circ.10 minutes to insure no debris in coring tube ( Blow down Top Drive & Stand pipe line after each cir.due to freezing temp.)	5.5
WASH_REAM	Wash & Ream f/9,780' t/9,930' 77 spm. 295 gpm.430 psi. rot 40 rpm Connection @9,900'. Drop ball 500 psi off bottom, ball on seat pressure increase to 650 psi. Mud. wt.in 9.8 ppg 58 vis. Out 9.7 75 vis.. #1 SPR 20= 230 psi. 30=315 psi. 40= 430 psi.( BHI on rig floor )	1.5
CORE	Coring 18' @ 7.2" ft- hr. 69 spm, 265 gpm, 895 spp. 51-71 rpm, 2.5 k t/7 k wob, 6-12k TQ 12,242 -13,000. ( Co.man & BHI on rig floor )	2.5

Report #: 25 Daily Operation: 1/29/2014 06:00 - 1/30/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
25	25	10,018.0
		End Depth (TVD) (ftKB)
		10,014.2
	Dens Last Mud (lb/gal)	Rig
	9.90	H & P, 604

#### Operations Summary

Cored 70' t/10,018' CBU.TOOH f/10,018' t/9.834' 184' 9 min.slip to slip.TOOH f/9,834' t/5,296' 4 min.slip to slip  
( perTrip schedule)

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 24.6 days since rig accepted, 24.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 81%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
CORE	Coring 60' f/12 hrs @ 5.33' ft-hr. 69 spm, 265 gpm, 895 spp. 51-71 rpm, 2.5 k t/7 k wob, 6-18k TQ 12 k -20 k. Coring 10' f/5 hrs @ 2' ft./hr. 69-73 spm 265- 280 gpm.spp 830-895 psi. 51-73 rpm 6-21k wob TQ 9-20k. Changing coring parameters & pumping sweeps attempting to increase slowed ROP.(@10,008' Lithology 85% shale 15% Limestone. (@ 10,018' 70% Shale 30% Limestone.) Consulted w. Drlg Engineer decision made to break core CBU & TIH. ( Co.man & BHI on rig floor ) Pulled 20k over string wt. break core.	17
CIRC	Cir.bottoms up 5016 stks. Flow check hole static,Pumped slug.	1.25
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/10,018' t/ 9,838' (BHI on Rig Floor). Monitor hole fill onTripTank had prper fill	0.5
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/9,838' t/5,296' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper fill. (Attempted to strap out of hole, unsuccessful due to windy condiitons)	5.25

Report #: 26 Daily Operation: 1/30/2014 06:00 - 1/31/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
26	26	10,023.0
		End Depth (TVD) (ftKB)
		10,019.2
	Dens Last Mud (lb/gal)	Rig
	9.80	H & P, 604

### Operations Summary

TOH with core, M/u new core Bit & TIH with coring Assembly.W & R to Btm @10,018', Drop ball on seat & core at 10,023'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 25.6 days since rig accepted, 25.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 81%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
TOOH	Continue TOOH as per tripping schedule. 4 min slip to slip f/5,296' t/4,600' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper fill. (Attempted to strap out of hole, unsuccessful due to windy condiitons)	2
TOOH	Continue TOOH as per tripping schedule. 6 min slip to slip f/4,600' t/1,000' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper fill. (Attempted to strap out of hole, unsuccessful due to windy condiitons)	4
CORE	TOOH as per tripping schedule. 9 min slip to slip f/ 1,000' t/ 270' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5
TOOH	One hour wait to allow gas to escape core without it fracturing, per trip schedule.  ** Perform rig service while waiting. **	1
CORE	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1
CORE	Held pre-job safety meeting on laying down & transporting core.	0.5
CORE	Lay down 87.7' of core. Core Handling Procedure: L/D inner tube w/ core. Placed in core shuttle, moved into mouse hole, lock down set pins to insure no movement of core. "Cautiously" L/D core in core shuttle onto catwalk. After picking up with forklift, used strapped on core shuttle to insure no movement. Off loaded core barrel on stands for Core Lab. Repeated steps for second & third core barrel. Recovered 87.7' of core. Found Core bbl jammed between 2nd and 3rd Inner Core Blls.	2
CORE	Break out core bit and P/U New core bit - 8 1/2" BHC 406 C and TIH with 12' core bbl assembly t/ 131'	2
TIH	TIH f/ 131' t/ 9,930' w/ coring tools. 150 ft/min max per BHI coring hand. Fill pipe every 25 stands, circ. 10 minutes to insure no debris in coring tube. Monitor well through trip tank, hole giving proper displacement.	7
U_EL	Preparing to wash and ream from 9,930' could not locate 2nd Drill Pipe screen, TOH to point of last fill up @ 8,184' and remove screen.	0.5
U_WOP	TIH f/ 8,184' t/ 9,930'.	0.5
WASH_RE AM	Wash & Ream f/ 9,930' to 10,018', 77 spm. 295 gpm.664 psi. rot 40 rpm, space for full stand to start coring, Tag bottom @ 10,018'. Drop ball and pump down ball @ 200 gpm 307 psi. Ball land on set with 155 psi increase in pressure. Take SPR's with ball on seat.	1.25
CORE	Coring 5' @ 7 ft-hr. 66 spm, 253 gpm, 701 spp. 50 rpm, 3 k wob, TQ 10,000 -12,000.	0.75



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 27 Daily Operation: 1/31/2014 06:00 - 2/1/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
27	27	10,039.0	10,035.2	9.90	H & P, 604	

### Operations Summary

Core t/ 10,039'. Circ. TOH, L/D Core

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 26.6 days since rig accepted, 26.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 2 hours for the month of (January).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 81%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
CORE	Coring 16' @ 2.3' ft- hr. 66 spm, 253 gpm, 758 spp. 45 - 70 rpm, 9 to 18 k wob, 6-114k TQ ( Co.man & BHI on rig floor )	7
CIRC	Pick up no overpull to break core, Circulate and mix slug	1
TOOH	Flow check (ok) Pump slug	0.25
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/10039 to' t/ 9,851' ( BHI on Rig Floor).	0.5
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/9,851 to' t/ 4600'	5.5
TOOH	TOOH as per tripping schedule. 6 min slip to slip f/ 4,600' t/ 1,000'.	5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/1,000' t/270'.	1.75
CORE	One hour wait to allow gas to escape core without it fracturing, per trip schedule.  ** Perform rig service while waiting. **	1
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	0.5
CORE	Held pre-job safety meeting on laying down & transporting core.	0.5
CORE	Lay down core. Core Handling Procedure: L/D inner tube w/ core. Unscrew top 30' inner tube. Core inside it. Placed in core shuttle, moved into mouse hole, lock down set pins to insure no movement of core. "Cautiously" L/D core in core shuttle onto catwalk. After picking up with forklift, used strapped on core shuttle to insure no movement. Off loaded core barrel on stands for Core Lab. Repeated steps for second, third,& fourth core barrel.	1

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

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
28	28	10,090.0	10,086.2	9.90	H & P, 604	

### Operations Summary

L/D Core, M/u 90' core bbl, TIH, W & R 100' to Btm, core f/ 10039' t/ 10,090'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 27.6 days since rig accepted, 27.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 82%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
CORE	Recovered 20.7' of core.( Core bbl was Jam.)	0.5
CORE	Lay down one 30' section of outer core bbl. and break off Core head .	1
CORE	PJSM on PU/MU Coring head HTC 308 & tools BHA, Clean Rig floor of Trip hazards.	1
TIH	( BHI & Co.Man on floor) TIH w/ 8 1/2" HTC-308 #8 PDC coring bit,90' exterior barrel, t/ 91' PU/MU 90' new inner tube core barrel. MU LDA extension sub, stabilizer.Top sub.TIH w/ DC & HWTDP out of derrick.f/ 101.55 't/1037'	0.5
TIH	TIH f/121' t/ 9,938' w/ coring tools.150 ft/min. Monitor well through trip tank, hole giving proper displacement, Fill pipe every 25 stands, break circ.10 minutes to insure no debris in coring tube	7.5
CORE	Wash & Ream f/9,938' t/ 10,039' 73 spm. 280 gpm.790 psi. rot 40 rpm . Drop ball 500 psi off bottom, ball on seat pressure increase to 650 psi. Mud. wt.in 9.8 ppg 58 vis. Out 9.9 75 vis.. #1 SPR 20= 220 psi. 30=305 psi. 40= 400 psi.( BHI on rig floor )	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
CORE	Coring 51' f/ 13 hrs @ 3.9' ft- hr. 72 spm, 277 gpm, 895 spp. 50 - 80 rpm, 2.5 k t/ 12 wob, 6- 20k TQ 12 k -20 k. (@10,048' Litho Logy 40% shale 60% Limestone. ( @ 10,018' 70% Shale 30% Limestone. @ 10,058' 80% Shale 20% Limestone, @ 10,067' 60% Shale 40% Limestone) ( BHI on rig floor )	13

Report #: 29 Daily Operation: 2/2/2014 06:00 - 2/3/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days On Location (days)	End Depth (ftKB)
29	29	10,129.0
		End Depth (TVD) (ftKB)
		10,125.2
	Dens Last Mud (lb/gal)	Rig
	9.80	H & P, 604

#### Operations Summary

Core t/ 10,129', CBU, TOH, L/d 91.55' core, M/u new inner bbls, Pull WB, Wash wellhead reset WB.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 28.6 days since rig accepted, 28.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 84%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
CORE	Coring 39' f/ 9.75 FPH @ 3.9' ft- hr. 72 spm, 277 gpm, 895 spp. 50 rpm, wob, 6- 14 k TQ 12 k -20 k. (@10,129' Litho Logy 40% shale 60% Limestone. ( @ 10,018' 70% Shale 30% Limestone. @ 10,110' 90% Shale 10% Limestone, @ 10,129' 60% Shale 40% Limestone) ( BHI on rig floor )	3.5
CORE	( Co.man & BHI on rig floor ) Pulled 40k over string wt. break core.	0.25
CIRC	Pump Hi-Vis sweep #1 when it started out bit pump Hi vis pill (80 Vis) circulate around.	2.25
TOOH	Flow Check (OK) Pump slug	0.5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/10129 to' t/ 9,941' ( Company man, Toolpusherr and BHI on Rig Floor).	0.5
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/9.941 to' t/ 4600' (Strapping out hole)	5
TOOH	TOOH as per tripping schedule. 6 min slip to slip f/ 4,600' t/ 1,000'.	5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/1,000' t/270'.	1.5
CORE	One hour wait to allow gas to escape core without it fracturing, per trip schedule.  ** Perform rig service while waiting. **	1
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	0.5
CORE	Held pre-job safety meeting on laying down & transporting core.	0.5
CORE	Lay down core.91.55' of core recovered Core Handling Procedure: L/D inner tube w/ core. Unscrew top 30' inner tube. Core inside it. Placed in core shuttle, moved into mouse hole, lock down set pins to insure no movement of core. "Cautiously" L/D core in core shuttle onto catwalk. After picking up with forklift, used strapped on core shuttle to insure no movement. Off loaded core barrel on stands for Core Lab. Repeated steps for second, third,& fourth core barrel.	1.5
CORE	( BHI & Co.Man & TP on floor) TIH w/ 8 1/2" HTC-308 #9 RR 1 PDC coring bit,90' exterior barrel, t/ 91' PU/MU 90' new inner tube core barrel. MU LDA extension sub, stabilizer. Top sub	0.5
WLHEAD	M/U wear bushing reteiving tool and pull wear bushing, Run jetting tool and wash wellhead and reset wear bushing.	1.5

Report #: 30 Daily Operation: 2/3/2014 06:00 - 2/4/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days On Location (days)	End Depth (ftKB)
30	30	10,219.0
		End Depth (TVD) (ftKB)
		10,215.2
	Dens Last Mud (lb/gal)	Rig
	9.80	H & P, 604

#### Operations Summary

TIH, Core t/ 10,219' Circ. TOH t/ 8,139'

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 29.6 days since rig accepted, 29.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 90%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
TIH	( BHI & Co.Man & Rig Manager on floor) TIH w/ 8 1/2" HTC-308 #8 PDC coring bit,90' exterior barrel, t/ 91' 90' new inner tube core barrel. MU LDA extension sub, stabilizer.Top sub.TIH w/ DC & HWTDP out of derrick. 't/1037'	0.5
TIH	TIH f/1037' t/ 10,035' w/ coring tools.150 ft/min. Monitor well through trip tank, hole giving proper displacement, Fill pipe every 25 stands, break circ.10 minutes to insure no debris in coring tube	7
WASH_REAM	Wash & Ream f/10.035' t/ 10,129' 73 spm. 280 gpm.790 psi. rot 40 rpm . Drop ball 500 psi off bottom, ball on seat pressure increase to 650 psi. Mud. wt.in 9.8 ppg 58 vis. Out 9.9 75 vis.. #1 SPR 20= 220 psi. 30=305 psi. 40= 400 psi.( BHI on rig floor )	0.5
CORE	Drop ball take slow pump rates	0.5
CORE	Coring 90' ft @ 10' FPH 70 spm, 265 gpm, 1085 spp. 51 rpm, 14 k wob, TQ 14 k (@10,219' Litho Logy 90% shale 10% Limestone. ( BHI on rig floor )	10.5
CORE	Pulled 50k over string wt. break core. ( Co.man & BHI on rig floor )	0.25
CIRC	Pump Hi-Vis sweep #1 when it started out bit pump Hi vis pill (80 Vis) circulate around.	2.25
TOOH	Flow Check (OK) Pump slug	0.5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/10,219 to' t/ 10,031' ( Company man, Toolpusherr and BHI on Rig Floor).	0.5
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/10,031' to' t/ 8,139' ( SLM )	1.5

Report #: 31 Daily Operation: 2/4/2014 06:00 - 2/5/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days On Location (days)	End Depth (ftKB)
31	31	10,219.0
		End Depth (TVD) (ftKB)
		10,215.2
		Dens Last Mud (lb/gal)
		9.80
		Rig
		H & P, 604

### Operations Summary

TOH, L/D core TIH, W & R 100' to btm and Coring f/ 10,219'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 30.6 days since rig accepted, 30.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 90%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
TOOH	Continue to TOOH as per tripping schedule. 4 min slip to slip f/8,139 to/ 4600' (Strapping out hole)	3.5
TOOH	TOOH as per tripping schedule. 6 min slip to slip f/ 4,600' t/ 1,000'.	5.5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/1,000' t/270'.	1.5
CORE	One hour wait to allow gas to escape core without it fracturing, per trip schedule.  ** Perform rig service while waiting. **	1
CORE	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	0.5
CORE	Held pre-job safety meeting on laying down & transporting core.	0.5
CORE	Lay down core.90.4' of core recovered Core Handling Procedure: L/D inner tube w/ core. Unscrew top 30' inner tube. Core inside it. Placed in core shuttle, moved into mouse hole, lock down set pins to insure no movement of core. "Cautiously" L/D core in core shuttle onto catwalk. After picking up with forklift, used strapped on core shuttle to insure no movement. Off loaded core barrel on stands for Core Lab. Repeated steps for second, third,& fourth core barrel.	1.5
CORE	( BHI & Co.Man & TP on floor) M/U8 1/2" HTC-308 #9 RR 1 PDC coring bit,60' exterior barrel, t/ 91' PU/MU 60' new inner tube core barrel. MU LDA extension sub, stabilizer.Top sub ( Set Core Assembly in mouse hole while changing out swivel packing. )	1.5
U_RIG_OTR	Change out swivel packing on top drive.	1
TIH	TIH f/ Surface ' t/ 10,120" w/ coring tools.150 ft/min. Monitor well through trip tank, hole giving proper displacement, Fill pipe every 25 stands, break circ.10 minutes to insure no debris in coring tube  Function Test BOP's once on Drill Pipe )	6.5
WASH_REAM	Wash & Ream f/10,129' t/ 10,219' 73 spm. 280 gpm.790 psi. rot 40 rpm . Drop ball 500 psi off bottom, ball on seat pressure increase to 650 psi. Mud. wt.in 9.8 ppg 58 vis. Out 9.9 75 vis. Take SPR's ( BHI on rig floor )	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

**Report #: 32 Daily Operation: 2/5/2014 06:00 - 2/6/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
32	32	10,279.0	10,275.2	9.80	H & P, 604	

**Operations Summary**

Coring f/ 10,219' t/ 10,279', TOOH f/ 10,219' t/ 270'

**Remarks**

H & P 604 Well (University 3-19 31H) Progress: 31.6 days since rig accepted, 31.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 94%, Curve:0% Lateral:0%

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

**Time Log Summary**

Operation	Com	Dur (hr)
CORE	Coring 58' @ 6.49 ftf/hr. 70 spm, 269 gpm, 740 spp. 45-50 rpm, 5-16k wob, 8-15k trq. (BHI on rig floor)	9.25
U_OTR	Attempt to break core would not break after pulling 40k over 280 string weight. Set back on bottom, staged rotary up 50 rpm, wait 10 minutes. Attempt to break core w/ 50k over - failed to break, repeat steps 3 times until finally broke @ 62k over string weight.	1.5
RIGSER	Flow check t/ trip tank - well static.	0.25
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 10,279' t/ 10,098' wet (BHI on Rig Floor). Pump slug.	0.5
TOOH	TOOH as per tripping schedule. 4 min slip to slip f/ 10,098' t/ 4,660' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	6.5
TOOH	TOOH as per tripping schedule. 6 min slip to slip f/4,660' t/ 1,000' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	4.5
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 1,000' t/ 270' (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5

**Report #: 33 Daily Operation: 2/6/2014 06:00 - 2/7/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
33	33	10,400.0	10,396.2	9.80	H & P, 604	

**Operations Summary**

TIH f/ Surface t/ 8,300', Cut & slip DL. TIH t/ 9,805', Log down with MWD f/ 9,805' t/ 10,279'. Drill f/ 10,279' t/ 10,400', Pump sweep & circ hole clean.

**Remarks**

H & P 604 Well (University 3-19 31H) Progress: 32.6 days since rig accepted, 32.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 0 hours for the month of ( February ).

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

15.9' Above & 16.4' Right of proposed directional plan #2 ( Projection at bit depth 9,230' )

2215' from 30H & 1557' From 32H

**Time Log Summary**

Operation	Com	Dur (hr)
CORE	One hour wait to allow gas to escape core without it fracturing, per trip schedule.  ** Perform rig service while waiting. **	1
TOOH	TOOH as per tripping schedule. 9 min slip to slip f/ 270' t/ BHA (BHI on Rig Floor.) Monitor well through trip tank, hole taking proper displacement.	1.5
SAFETY	Held pre-job safety meeting on laying down & transporting core.	0.25
BHA	Lay down core. 59.7' of core recovered Core Handling Procedure: L/D inner tube w/ core. Unscrew top 30' inner tube. Core inside it. Placed in core shuttle, moved into mouse hole, lock down set pins to insure no movement of core. "Cautiously" L/D core in core shuttle onto catwalk. After picking up with forklift, used strapped on core shuttle to insure no movement. Off loaded core barrel on stands for Core Lab. Repeated steps for second core barrel.  ** Taking extra time due to part freezing. Tongs, rotary table, chain tongs etc. **	1.5
BHA	L/D remainder of BHI tools.  ** Taking extra time due to part freezing. Tongs, rotary table, chain tongs etc. **	1.5
NU/TEST	Function test BOP - good.	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
BHA	P/U Directional assembly, install MWD - test same / good. M/U bit.  ** Taking extra time due to parts freezing. Tongs, rotary table, chain tongs etc. Blow air through top drive & 4" to keep from freezing up after testing tools. **	2
TIH	TIH f/ 97' t/ 8,300'. Fill Drill pipe every 25 stands, getting back proper displacement.	6
CUTDL	Slip & cut drill line.	1.5
TIH	TIH f/ 8,300' t/ 9,805'. getting back proper displacement.	1.5
LOG	Log down @ 250 ft/hr With MWD F/ 9,805' t/ 10,279', 500 gpm, 2,300 psi, RPM 25 Torque 4,700	3.5
DRL	Rot drlg 121' @ 48 ft/hr, 158 spm, 606 gpm, 80 rpm, 25 -30K wob, 10 k trq, 350 diff, 3,091 psi off bottom.	2.5
CIRC	Pump 1st sweep when sweep @ shoe follow with 2nd sweep & circ hole clean.	1

Report #: 34 Daily Operation: 2/7/2014 06:00 - 2/8/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
34	34	10,400.0
		End Depth (TVD) (ftKB)
		10,396.2
	Dens Last Mud (lb/gal)	Rig
	9.90	H & P, 604

#### Operations Summary

Circ, TOOH f/ 10,400' t/ 1,029', L/D HWDP, L/D D.C.'s, L/D directional BHA, R/U Schl wireline & log with triple combo. R/d 1st logging tools, R/U & run Sonic, Imager log

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 33.6 days since rig accepted, 33.5 days from spud

Rig NPT: 1.5 hours for previous 24 hours, 1.5 hours for the month of ( February ).

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

15.9' Above & 16.4' Right of proposed directional plan #2

2215' from 30H & 1557' From 32H

Nick Mesec received verbal approval from Bill Spraggins with TRRC @ ~3:30p 2/7/2014 – ok with plan forward with setting cement plugs and had no issues.

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Circ sweep out of hole. 160 spm, 614 gpm, 2,980 spp. No change on shakers with second sweep. Shakers clean.	0.75
SAFETY	Flow check - Well static.  ** Blow through top drive and standpipe with air. **	0.5
TOOH	TOOH f/ 10,400' t/ 10,026'.	0.25
U_RIG	Thaw out frozen 2" lines to fill hole while TOOH.	1.5
TOOH	TOOH f/ 10,026' t/ 1,029'. Hole taking proper displacement.	4.5
BHA	L/D HWDP f/ 1,029' t/ 376'. Hole taking proper displacement.	1.5
BHA	L/D 6 1/2" D.C.'s f/ 1,029' t/ 127'. Hole taking proper displacement.	1.5
BHA	L/D directional BHA.	0.5
RIGSER	Service Rig.	0.5
SAFETY	Clean rig floor PJSM w/ Schlumberger W/L, H&P, & Pioneer.	1
LOG	R/U wireline & tools - test same - good.	1
LOG	Shchlumberger RIH & Log with Triple Combo, Neutron, Resistivity, Density, Gamma Ray, Log f/ 8,324' t/ 10,413' ( WLM ). Run Temp Log f/ 200' t/ 10,413' ( WLM ) Monitor well on trip tank, well static.	6
LOG	L/D logging tools from 1st run. Monitor well on trip tank, well static.	1
LOG	Schlumberger M/U Sonic and Formation imager logs. Monitor well on trip tank, well static.	1.5
LOG	Schlumberger RIH with Sonic and Formation imager logs. F/8,324 t/ 10,413' ( WLM ) Monitor well on trip tank, well static.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

**Report #: 35 Daily Operation: 2/8/2014 06:00 - 2/9/2014 06:00**

Job Category ORIG DRILLING				Primary Job Type ODR			AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
35	35	10,400.0	10,396.2	9.90	H & P, 604			

Operations Summary  
POOH w/ Sonic, Imager log, R/D wireline, P/U tubing tools, PJSM, TIH w/ tubing f/ 0' t/ 1,037', TIH w/ D.P, f/ 1,037' t/ 10,390', Circ, Wait on cementers, Circ W.O. Schl chemicals

**Remarks**

H & P 604 Well (University 3-19 31H) Progress: 34.6 days since rig accepted, 34.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 1.5 hours for the month of ( February ).

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

15.9' Above & 16.4' Right of proposed directional plan #2

2215' from 30H & 1557' From 32H

**Time Log Summary**

Operation	Com	Dur (hr)
LOG	POOH w/ Sonic & Imager wire line tools.	1.5
LOG	R/D wireline tools & equipment.  ** Stage tubing & handling tools while logging. **	1.5
SAFETY	PJSM w/ H&P, & Pioneer about picking up & running 2 7/8" tubing.	0.5
BHA	P/U tubing handling tools, change elevators.  ** ID of elevators 2.75 - OD of tool joint 3.0625. **	0.5
BHA	P/U mule shoe, tubing, 2 - X/O's, f/ 0' t/ 1,045'. Monitor well through trip tank, hole giving proper displacement.  ** Called Cementers @ 1200 for 1800 arrival. **	2
TIH	TIH f/ 1,045' t/ 10,326'. Monitor well through trip tank, hole giving proper displacement.  ** Rigging up BOS OBM recovery system while TIH. **	5.5
CIRC	Circulate @ 247 gpm 605 psi while reciprocating pipe	1
U_CMT	Waiting on Schlumberger Cementers. Arrived @ 20:30 on location, was informed that they did not have enough cement for 1st plug, truck with cement was 1 hour behind the pump truck. It was then discovered they had no chemicals for cement job. Wait on chemicals to arrive from Midland. Chemicals arrived at 23:55. Start mixing chemicals @ 00:00 hrs. After the start of mixing the chemicals it was found that there was only 25 gallons of retardant. Needed 35 gal for the first plug. Schlumberger contacted Midland office no retardant available in Midland, nearest available was in Hobbs NM, will arrive at location Approx 6:00 am. After several hours it was then discovered Hobbs did not have any D177 either. Schlumberger decided to swap retardant to D177. By doing so they had to run new lab tests on the new chemical. We are now waiting on lab results from the D177. Schlumberger delivered 65 gallons of D177 @ 0515. When asked if that would be enough, they said they did not know because lab tests were not complete. Estimated time of completed lab test is 0730.  ** Continue to Circ @ 247 gpm, 605 psi, while reciprocating pipe, while waiting on lab results. **	11.5

**Report #: 36 Daily Operation: 2/9/2014 06:00 - 2/10/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
36	36	10,400.0	10,396.2	9.90	H & P, 604	

Operations Summary  
Waiting on Schlumberger lab test, Pump Cmmt plug, R/D cmnt head, TOO H f/ 10,390' t/ 9,631', Circ, TIH f/ 9,631' t/ 9,726', Circ, Pump Cmmt plug, R/D cmnt head, TOO H f/ 9,631' t/ 8,367', Circ, TOO H f/ 8,367' t/ 1,045', L/D tubing, Pull wear bushing.

**Remarks**

H & P 604 Well (University 3-19 31H) Progress: 35.6 days since rig accepted, 35.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 1.5 hours for the month of ( February ).

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

15.9' Above & 16.4' Right of proposed directional plan #2

2215' from 30H & 1557' From 32H

**Time Log Summary**

Operation	Com	Dur (hr)
U_CMT	Waiting on lab test from Schlumberger. Test done @ 0800. After test was completed cement volumes changed to correspond with washouts from wireline logs. added more volume to plugs. Had to re run numbers with new volumes. Cementers only had enough chemicals to pump one plug, we were told more were headed to location for second plug.	3



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_CMT	Began batch mixing cement @ 0900 after mixing for 45 minutes, was informed that the cement was wet in silo and would not mix. After they had already put chemicals into cement. So that cement & chemicals were no good. Did not have enough chemicals to start another plug. Also now need more cement for second plug. More chemicals arrived @ 1245. Was informed @ 1300 another hot shot was bringing more chemicals & an ABT with more cement.  ** Continue circulating while waiting on cement. **	4.5
CMT	Pumped 5 bbls fresh water, Tested lines to 4,600 psi, 22 bbls of Mud push Express @ 12.0 lb/gal, MUDPUSH Express B389 @ .08 lb/bbl BW/V.Spacer, D206 0.2 gal/bbl of Space, D031 200.34 lb/bbl BW/V.Spacer.  KOP cement 331 sks 55 bbls @ 17.5 lb/gal, yield 0.94, ft3/sk, mix water 3.237 gal/sk, D206 - 0.10 gal/sk VBWOB, D080 - 0.05 gal/sk VBWOB, D177 - 0.10 gal/sk VBWOB.  Lift pressures - 40 bbls - 4.3 bpm @ 152 psi, 80 bbls - 6.0 bpm @ 415 psi, 100 bbls - 6 bpm @ 480 psi, 120 bbls - 6 bpm @ 418 psi, 140 bbls - 2.4 bpm @ 102 psi, 152 bbls - 2.4 bpm @ 110 psi.  Full returns throughout cement job, no cement returned to surface. Calculated with 9.245 hole size TOC @ 9,738'.  ** Cement for second plug arrived @ 1430. **	1.25
TOOH	TOOH f/ 10,390' t/ 9,536' @ 2 min stand.	0.5
CIRC	Circ 9,000 strokes, 106 spm, 409 gpm, 1,400 spp. No cement noticed on surface.	1.75
TOOH	P/U one stand out of derrick wash f/ 9,536' t/ 9,631'.	0.25
CIRC	Circ 5,000 strokes, 65 spm, 250 gpm, 606 spp.	1.25
CMT	Pumped 5 bbls fresh water, Tested lines to 4,600 psi, 22 bbls of Mud push Express @ 12.0 lb/gal, MUDPUSH Express B389 @ .08 lb/bbl BW/V.Spacer, D206 0.2 gal/bbl of Space, D031 200.34 lb/bbl BW/V.Spacer.  KOP cement 331 sks 55 bbls @ 17.5 lb/gal, yield 0.94, ft3/sk, mix water 3.237 gal/sk, D206 - 0.10 gal/sk VBWOB, D080 - 0.05 gal/sk VBWOB, D177 - 0.10 gal/sk VBWOB.  Lift pressures - 40 bbls - 6.8 bpm @ 420 psi, 80 bbls - 6.6 bpm @ 432 psi, 100 bbls - 6.6 bpm @ 481 psi, 120 bbls - 6.6 bpm @ 483 psi, 140 bbls - 2.8 bpm @ 128 psi, 147 bbls - 2.4 bpm @ 119 psi.  Full returns throughout cement job, no cement returned to surface. Calculated with 9.245 hole size TOC @ 8,969'.	1.5
TOOH	R/D Schlumberger lines & TOOH f/ 9,631' t/ 8,367' @ 2 min stand.	1
CIRC	Circ 9,000 strokes, 106 spm, 409 gpm, 1,400 spp. No cement noticed on surface.	1.5
TOOH	Tooh f/ 8,367' t/ 1045', fill hole with trip tank, hole taking proper displacement.	3
TOOH	Change out elevators and Slips from 5" to 2 7/8".	0.5
TOOH	TOOH f/ 1,045' to surface L/D 2 7/8" tubing, fill hole with trip tank, hole taking proper displacement.	2.5
TOOH	Change out elevators and Slips from 2 7/8" to 5".	0.5
TOOH	Clean and clear rig floor.	0.5
WLHEAD	Pull wear bushing and jet well head and reset wear bushing. ( Co Man on rig floor. )	0.5

Report #: 37 Daily Operation: 2/10/2014 06:00 - 2/11/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
37	37	9,452.0
		End Depth (TVD) (ftKB)
		9,448.4
		Dens Last Mud (lb/gal)
		10.60
		Rig
		H & P, 604

#### Operations Summary

Wash out well head & re-install bushing, P/U directional tools, TIH f/ 97' t/ 9,180', Wash f/ 9,180' t/ 9,267', Circ, Wash t/ 9427' W & R t/ 94,37', Time Drill ( Slide ) f/ 9,437' t/ 9,452'.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 36.6 days since rig accepted, 36.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 1.5 hours for the month of ( February ).

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

15.9' Above & 16.4' Right of proposed directional plan #2

2215' from 30H & 1557' From 32H

### Time Log Summary

Operation	Com	Dur (hr)
WLHEAD	P/U jet sub wash inside of BOP & well head, Re-install wear bushings - lock down same. Co rep verified locking down of set screws.	1
RIGSER	Service rig.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
BHA	P/U 7" 7/8; 5.7 2.12° fix, UBHO, NMDC, NM Flex joint, scribe, install MWD - test same good. Install Security MMD55DM - S/N# 12372142 - 5x22's	1.5
RIGSER	Blow down lines & top drive to keep from freezing.	0.5
TIH	TIH f/ 97' t/ 8,715', monitor well through trip tank, well giving proper displacement.	6.25
WASH_RE AM	Wash f/ 8,715' t/ 9,180' 60 spm, 230 gpm, 950 psi.  ** Tagged cement @ 9,180'. Calculated TOC was @ 8,970'. **	1.25
WASH_RE AM	Reamed 9' f/ 9,180' t/ 9,189' @ 300 gpm 21 rpm 0-2 wob, weight fell off able to wash down f/ 9,189' t/ 9,267' @ 250 ft/hr 0 weight, 230 gpm no rotation.	1
CIRC	Circulate out green cement.	2
WASH_RE AM	Continue to wash down f/ 9,267' t/ 9,360' @ 115 gpm 150 ft/hr no rotation 85-110 diff. Started taking weight @ f/ 9,360' t/ 9,427' ratty cement would take weight 5/10K wob, 1 to 3' then fall off, with 95 to 150 diff. 250 ft/hr, 300 gpm. taking firm weight f/ 9,427' t/ 9,437' 410 gpm 10-12 K wob, rotating @ 20 rpm 6-7K torque, 300 diff, 101- 105 Rop,	2
DRL CURVE-SLIDE	Slide/ Time Drill 15' @ 1.75 ft/hr 7K WOB, 410 gpm, 106 spm 1425 psi off btm, diff 95-120 psi. TF 350°.  ( Latest sample showed 90% cement 10% shale )	8

Report #: 38 Daily Operation: 2/11/2014 06:00 - 2/12/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
38	38	9,568.0
		End Depth (TVD) (ftKB)
		9,562.6
		Dens Last Mud (lb/gal)
		9.90
		Rig
		H & P, 604

### Operations Summary

Time Drill (slide) f/ 9,452' t/ 9,478', Slide drlg f/ 9,478' t/ 9,568', Circ, TOO H t/ 8,325', Clean pits & R/U slides, drip pan, and BOS equipment for OBM.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 37.6 days since rig accepted, 37.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 1.5 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 10% Lateral 0%

6.6' Above & 0.7' Right of proposed directional plan #2

2215' from 30H & 1557' From 32

### Time Log Summary

Operation	Com	Dur (hr)
DRL CURVE-SLIDE	Time drill @ 1 ft/hr f/ 9,452' t/ 9,453', 0-2 wob, 106 spm, 410 gpm, 1240 spp, 120 diff, 350 mtf.  ** @ 0700 had 80% cement, 20% shale. **	1
DRL CURVE-SLIDE	Time drill @ 2 ft/hr f/ 9,453' t/ 9,457', 2-5 wob, 106 spm, 410 gpm, 1240 spp, 170 diff, 350 mtf.  ** @ 0700 had 40% cement, 60% shale. **	3
DRL CURVE-SLIDE	Time drill @ 3 ft/hr f/ 9,457' t/ 9,473', 4-7 wob, 106 spm, 410 gpm, 1240 spp, 230 diff, 350 mtf.	6
DRL CURVE-SLIDE	Time drill @ 3 ft/hr f/ 9,473' t/ 9,478', 6-8 wob, 91 spm, 350 gpm, 1240 spp, 230 diff, 350 mtf.  ** 100% formation @ 1700. 60 shale / 40 limestone. **	1
DRL CURVE-SLIDE	Slide 90' @ 12.8 ft/hr, 25 wob, 158 spm, 600 gpm, 1,680 spp, 383 diff, 350 mtf.	7
CIRC	Pump sweep & Circ hole clean.	1.5
TOOH	TOOH f/ 9,568' t/ 8,325', hole taking proper Displacement.	1
RIG UP / RIG DOWN	Monitor well on trip tank, while empty and cleaning mud pits & rigging up cuttings slides, BOS equipment, set open top container, and rotary drip pan in preparation for Displacement to OBM.	3.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 39 Daily Operation: 2/12/2014 06:00 - 2/13/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
39	39	9,673.0	9,666.3	10.00	H & P, 604		

### Operations Summary

Clean pits, Rig up solids control, TIH, Displace to OBM, Drill Curve Section f/ 9,568' t/ 9,673', Circ, TOO H f/ 9,673' t/ 3,612'.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 38.6 days since rig accepted, 38.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 1.5 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 20% Lateral 0%

15.8' Above & 8.7' Left of proposed directional plan #2

Full crew, plus three new hands training for new rigs coming out.

### Time Log Summary

Operation	Com	Dur (hr)
RIG UP / RIG DOWN	Monitor well on trip tank, while emptying and cleaning mud pits & rigging up cuttings slides, BOS equipment, set open top container in preparation for Displacement to OBM.	3
RIG UP / RIG DOWN	Finish rigging up BOS solids control equipment in backyard. During rig up work on thawing 4" lines to pump OBM with.	2.5
RIG UP / RIG DOWN	Transfer OBM into active, running across shakers.	2.5
TIH	TIH f/ 8,325' t/ 9,568'	1
CIRC	Displace hole to 10.1 ppg OBM.	3
DRL CURVE- ROT	Rot drlg 10' @ 14 ft/hr, 120 spm, 460 gpm, 25 rpm, 25 K wob, 6 k trq, 300 diff, 2,650 psi off bottom.	0.75
CIRC	Started slide @ 9,578' staging up weight on bit Mud pump pressure spiked up to 5,200 psi blowing pop off on MP. No over pull on string no extra torque. Reset pop off. Off btm pressure prior to pressure increase was at 2,650 psi @ 120 spm, now @ 74 spm pressure @ 3,450 psi. Shut down Mp's and restart pressure down 200 psi, bring MP's to 325 gpm, 84 spm, pressure 3,500 psi off btm, Slack off to bottom and check motor for diff. pressure showed 200 psi with 7-8K WOB, and drilling off. Break out stand and check drill pipe screen, found 1/4 cup of trash. Re-sync MWD @ 104 spm off btm pressure now @ 3,450 psi. MWD synced. Pressure spike appears to be a plugging problem.	1.25
DRL-SLIDE	Slide drilling 95 ft.- ROP 19', p/hr TF: 22°, Wob: 25 K, Off bottom pump press 2,850 psi. Diff press: 257, Spm:128, GPM: 492, Motor rpm= 118  **( Hole angle dropped from 13.9° @ 9,581' survey depth to 9.70° @ 9,613' survey depth slide 10' made check shot @ 9,623' survey depth dropped to 6.9° )**  ** 90% shale 10% Limestone. **	5
U_DIR	Pump sweep and circulate hole clean.	2
TOOH	TOOH f/ 9,673' t/ 3,612' Pull 1st 5 stands wet then pump slug, hole taking proper displacement.	3

Report #: 40 Daily Operation: 2/13/2014 06:00 - 2/14/2014 06:00

Job Category			Primary Job Type			AFE Number		
ORIG DRILLING			ODR			028762		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
40	40	9,784.0	9,776.2	10.10	H & P, 604			

### Operations Summary

TOOH f/ 9,673' t/ 98', L/D BHA, Rig service, Clean floor, P/U BHA, TIH f/ 98' t/ 9,673', Rot & Slide drlg f/ 9,673' to 9,784' building curve.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 39.6 days since rig accepted, 39.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 1.5 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 43% Lateral 0%

9.3' Below & 0.2' Left of proposed directional plan #2

Full crew, plus three new hands training for new rigs coming out.

Cenergy rig inspection 100% complete.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_DIR	TOOH f/ 3,612' t/ 98' for motor failure. Monitor well on trip tank, hole taking proper displacement.	2
U_DIR	Pulling through rotary table with directional BHA, it was discovered that the motor had completely backed off at the bearing assembly. Set slips immediately, install collar clamp, shut lower pipe rams. Pulled remainder of assembly out of the hole, retrieved entire BHA, recovered all components.	0.5
U_DIR	L/D directional BHA out of mouse hole.	1.5
RIGSER	Service rig. Function BOPs.  ** Waiting on orders after discovering motor failure. **	1
U_DIR	Clean rig floor & sub of OBM after TOOH.  ** Waiting on orders after discovering motor failure. **	1.5
U_DIR	P/U 6 3/4" 7/8;5.0, 2.38° Adj. 0.29 RPG motor, UBHO, NMDC, Flex NMDC. Adjust motor to 2.38°, scribe, install MWD - test same - good. P/U Security EQH30R S/N# 12366935.	1.75
U_DIR	TIH f/ 98' t/ 9,673' monitor well through trip tank, hole giving proper displacement. Survey @ 9,626' ( Check shot Incl. 6° Azi.16°)	5.25
DRL CURVE-ROT	Rot drlg 5' @ 5 ft/hr, 140 spm, 530 gpm, 5/25 rpm, 40 k wob, 3/5 k trq, 100 diff, 2650 psi off bottom. Survey @ 9,674' Incl.1.60° Azi. 88.10° survey from last motor run.	1
DRL CURVE-SLIDE	Slide 11' @ 11 ft/hr, 40 wob, 140 spm, 530 gpm, 2650 spp, 100 diff, 0 tfo.	1
DRL CURVE-ROT	Rot drlg 6' @ 6 ft/hr, 140 spm, 530 gpm, 25 rpm, 240 k wob, 5 k trq, 100 diff, 2640 psi off bottom.	1
DRL CURVE-SLIDE	Slide 26' @ 13 ft/hr, 40 wob, 140 spm, 530 gpm, 2700 spp, 100 diff, 20L tfo. Survey @ 9,706' Incl. 4.20° Azi.36.80°	2
DRL CURVE-ROT	Rot drlg 5' @ 10 ft/hr, 140 spm, 530 gpm, 20 rpm, 24 K wob, 6 k trq, 94 diff, 2700 psi off bottom.	0.5
DRL CURVE-SLIDE	Slide 27' @ 18 ft/hr, 40 wob, 140 spm, 530 gpm, 2700 spp, 100 diff, 0 tfo. Survey @ 9,706' Incl. 4.20° Azi.36.80°	1.5
DRL CURVE-ROT	Rot drlg 5' @ 10 ft/hr, 140 spm, 530 gpm, 20 rpm, 24 K wob, 5 k trq, 100 diff, 2650 psi off bottom.	0.5
DRL CURVE-SLIDE	Slide 30' @ 10 ft/hr, 40 wob, 140 spm, 530 gpm, 2700 spp, 100 diff, 0 tfo. Survey @ 9,737' Incl. 8.30° Azi. 17.90°  ** BRN 30' low is 11.06, on the line need 11.9. **	3

### Report #: 41 Daily Operation: 2/14/2014 06:00 - 2/15/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
Days From Spud (days) 41	Days on Location (days) 41	End Depth (ftKB) 9,961.0
	End Depth (TVD) (ftKB) 9,935.1	Dens Last Mud (lb/gal) 11.50
		Rig H & P, 604

#### Operations Summary

Rot & Slide drlg f/ 9,784' t/ 9,961' building curve. Mud Pump #1 mechanical problem. CBU. TOOH to shoe @ 8,327'. Wait on Mud Pump #1 Gear end replacement.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 40.6 days since rig accepted, 40.5 days from spud

Rig NPT: 8.5 hours for previous 24 hours, 10 hours for the month of ( February ).

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 47% Lateral 0%

36.7' Below & 3.5' Right of proposed directional plan #2 \*\* BRN to land 30' below line10.2°, on line11.6° \*\*

Full crew, plus three new hands training for new rigs coming out.

### Time Log Summary

Operation	Com	Dur (hr)
DRL CURVE-ROT	Rotate 8' @ 16 ft/hr, 140 spm, 537 gpm, 25 rpm, 35k wob, 5.5k trq, 200 diff, 2950 psi off bottom.	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Time Log Summary						
Operation		Com				Dur (hr)
DRL CURVE- SLIDE	Slide 24' @ 13.71 ft/hr, 50 wob, 140 spm, 537 gpm, 2950 spp, 150 diff, 0° tfo.					1.75
CIRC	Survey @ 9,769' - 11.90° inc - 8.50° azm - 12.34° DL - 12.4° BRN					0.25
DRL CURVE- ROT	Rot drlg 6' @ 24 ft/hr					0.25
DRL CURVE- SLIDE	Slide 25' @ 12.5 ft/hr, 0° tfo.					2
CIRC	Survey @ 9,800' - 15.30° inc - 8.40° azm - 10.97° DL - 12.5° BRN					0.25
DRL CURVE- ROT	Rot drlg 3' @ 12 ft/hr					0.25
DRL CURVE- SLIDE	Slide 29' @ 11.6 ft/hr, 0° tfo.					2.5
CIRC	Survey @ 9,832' - 19.60° inc - 8.80° azm - 13.44° DL - 11.7° BRN					0.25
DRL CURVE- ROT	Rot drlg 3' @ 12 ft/hr					0.25
DRL CURVE- SLIDE	Slide 29' @ 14.5 ft/hr, 0° tfo.					2
CIRC	Survey @ 9,864' - 24.60° inc - 6.10° azm - 15.94° DL - 11.2° BRN					0.25
DRL CURVE- ROT	Rot drlg 8' @ 16 ft/hr					0.5
DRL CURVE- SLIDE	Slide 23 ' @ 11.5 ft/hr, 0° tfo.					2
CIRC	Survey @ 9,895' - 28.60° inc - 1.50° azm - 14.50° DL - 11.6° BRN					0.25
DRL CURVE- ROT	Rot drlg 7' @ 7 ft/hr					1
DRL CURVE- SLIDE	Slide 12 ' @ 8 ft/hr, 0° tfo. Lithology 90% limestone 10% shale @ 9,961'					1.5
U_RIG	H & P Down time w/Pump #1 initial visual inspection by Tool pusher inside Gear box, saw rolled, cracked,missing teeth of spline on main shaft with possible main bearing damage. mechanics from Odessa on the way, checking yard for pump replacement. PU off bottom, circulate bottoms up f/ 9,961' w/ Pump #2. mixing slug while circulating.					2
U_RIG	TOOH 5 stds wet f/ 9,961' to 9,491' No tight hole issues. Pumped slug. Continue TOOH to csg shoe @ 8,327' had proper hole fill check for flow, static.					1.5
U_RIG	Wait on Mud Pump #1 gear end replacement. Monitor hole on trip tank, well static. Rig crew working on disassembling Mud Pump #1 Gear end.  *** BRN 30' below line 10.2° on the line 11.6°. ***					5
Report #: 42 Daily Operation: 2/15/2014 06:00 - 2/16/2014 06:00						
Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days) 42	Days on Location (days) 42	End Depth (ftKB) 9,971.0	End Depth (TVD) (ftKB) 9,943.0	Dens Last Mud (lb/gal) 11.50	Rig H & P, 604	
Operations Summary H&P Downtime - replace #1 mud pump, Tested mud line, TIH, CBU @ 8,613', TIH f/ 8,613' t/ 9,753', Wash f/ 9,753' to 9,961', Sld drlg f/ 9,961' t/ 9,971'.						
Remarks H & P 604 Well (University 3-19 31H) Progress: 41.6 days since rig accepted, 41.5 days from spud  Rig NPT: 23.5 hours for previous 24 hours, 33.5 hours for the month of ( February )  Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 48% Lateral 0%  36.7' Below & 3.5' Right of proposed directional plan #2 ** BRN to land 30' below line10.2°, on line11.6° **  Full crew, plus three new hands training for new rigs coming out.						

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_RIG	H&P downtime - Rig hands began rigging down mud pump. Decision was made to replace entire mud pump, not just gear end.  ** New mud pump coming out of San Antonio, TX. **	1.5
U_RIG	H&P Downtime - Continue rigging down mud pump and lines.  ** TIH 1 stand & 1 single t/ 8,360'. Circulate 30' below casing shoe to ensure no mud settles out on top of MWD. 50 spm, 190 gpm, 705 spp. **	2.5
U_RIG	H&P Downtime - TOO H t/ 8,233', set slips, install TIW, hard shut in - close upper pipe rams, open HCR, close choke. Monitor well on choke pressure gauge. Dock Top drive Hang off blocks in preparation to power down rig. Grasshopper runs over mud pumps can't remove pump with crane because electrical lines run over pump. Begin power down - unplug electrical lines from VFD.	2
U_RIG	H&P downtime - Rig up crane and move grasshopper back with crane, tie onto mud pump attempt to remove.  ** New mud pump arrived @ 1315. **	1.5
U_RIG	H&P Downtime - One bolt was left in flange that was not visible - remove same. A 2" steel drain line under skid for gear oil that was not removed it is about a foot and a half long. Rig up a peanut pump to mechanics air compressor to suck out gear oil. Once the 2" is removed no way to stop oil from spilling onto ground. Valve for line is at the end - remove drain line. Remove mud pump.	1.5
U_RIG	H&P Downtime - Begin redressing new mud pump. Disassemble old mud pump and install new parts.	2
U_RIG	H&P Downtime - Re-install new mud pump onto skid. Had a lot of trouble stabbing back into original holes, & aligning old bolt holes on 2" & 4" lines. Reinstall belt shroud & bull wheel.	1
U_RIG	H&P Downtime - Reinstall grasshopper begin rigging up all electrical lines. Reinstall pulsation dampener. Continue rigging up new pump. N/U pump lines to pulsation dampners. Torque bolts on all flanges. Power up rig.	2
U_RIG	H & P Down time - Undock top drive. Installed Totco pump stroke counters. Fill gear end with diesel to flush oil sump, use vacuum to pull diesel out of oil sump. Fill sump with gear oil. Plug in power cables to pump. With lock out tag out still in place.	2.5
U_RIG	H & P Down time - With lock out tag out still in place. "Check for SICP at choke "0"psi. open choke, well static, open pipe rams, hole static. Made 2 point calibration on Top Drive. Checking crown saver o.k. While filling mud pump #1 w/ gear oil. TIH to 8,357' 30' below shoe.	2
U_RIG	H & P Down time - Fill mud line with Mud pump #2, break circulation & check MWD for pulse make sure no settle out of barite on Dir. tools, check Totco instrumentation OK & Had Good MWD pulse. Remove lock out tag out on Mud pump #1. Test mud line back to mud pumps against 4" valve on standpipe to 4,500 psi. 1st test failed had (2) leaks, block on pump in front of pulsation dampener, retighten nuts on flange & discharge cap on mud pump. Retest held 5 min. charted on Totco recording chart.	2.5
U_RIG	TIH f/ 8,356' t/ 8,613'. Monitor well on trip tank, hole giving proper displacement.	0.25
U_RIG	Circulate bottoms up. 140 spm, 530 gpm, 3,100 spp.	0.5
U_RIG	TIH 8,613' to 9,753', Monitor well on trip tank, hole giving proper displacement.	1
U_RIG	Precautionary wash f/ 9,753' t/ 9,961' take SPR w/ 11.5 ppg. mud wt.	0.75
DRL CURVE- SLIDE	Slide 10' @ 20 ft/hr, 50 wob, 140 spm, 537 gpm, 3950 spp, 150 diff, 0° tfo.	0.5

### Report #: 43 Daily Operation: 2/16/2014 06:00 - 2/17/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
43	43	10,100.0
		End Depth (TVD) (ftKB)
		10,030.8
		Dens Last Mud (lb/gal)
		11.50
		Rig
		H & P, 604

#### Operations Summary

Sld drlg f/ 9,971' t/ 9,980', changePump swabs#1 & #2, replace(2) "O"ring in mud line, Rot / Sld drlg f/ 9,980' t/10,100'

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 42.6 days since rig accepted, 42.5 days from spud

Rig NPT: 1 hours for previous 24 hours, 34.5 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 62% Lateral 0%

43.8' Below & 7.3' Right of proposed directional plan #2 \*\* BRN to land 8° 30' below line 10°, on line \*\*

Full crew, plus three new hands training for new rigs coming out.

### Time Log Summary

Operation	Com	Dur (hr)
DRL CURVE- SLIDE	Slide 3' @ 3 ft/hr, 50 k wob, 156 spm, 600 gpm, 3750 spp, 125 diff, 0° tfo.	1
CIRC	Survey @ 9,927' - 32.50° inc - 0.10° azm - 12.39° DL - 11.3° BRN	0.5
DRL CURVE- SLIDE	Slide 6' @ 4.5 ft/hr, 50 k wob, 156 spm, 600 gpm, 3750 spp, 125 diff 0 tfo.	0.75



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_RIG_OT R	Change out swab in #2 mud pump, pod #1. Tool pusher checked liner no visible wear on liner. Circulate with #1 pump 70 spm, 275 gpm, spp 1,170, reciprocating pipe.	1.25
DRL CURVE-SLIDE	Slide 22' @ 6.3 ft/hr, 50 k wob, 152 spm, 584 gpm, 3950 spp, 150 diff 0 tfo.	3.5
CIRC	Survey @ 9,958' - 36.50° inc - 2.30° azm - 13.51° DL - 10.9° BRN	0.25
DRL CURVE-ROT	Rotate 7' @ 9.33 ft/hr, 35 k wob, Tq. 7 k, 146 spm, 522 gpm, 2,600 spp, 145 diff, 25 rpm.	0.75
DRL CURVE-SLIDE	Slide 25' @ 9.1 ft/hr, 50 k wob, 156 spm, 600 gpm, 2,850 spp, 150 diff, 0° tfo.	2.75
U_RIG_OT R	Change out swabs in #1 mud pump. Circulate with #2 pump 70 spm, 275 gpm, spp 1,170, reciprocating pipe.	1.5
CIRC	Survey @ 9,990' - 40.70° inc - 3.20° azm - 13.24° DL - 10.8° BRN	0.25
DRL CURVE-ROT	Rotate 7' @ 14 ft/hr, 45 k wob, Tq. 8 k 124 spm, 476 gpm, 3,980 spp, 225 diff, 20 rpm.	0.5
RIGSER	Rig service.	0.5
U_RIG	Rechecked mud line off Pump #1 saw leak@ hammer union, replaced cut "O" ring. Test mud line 4,000 psi. check mud line to stand pipe for leaks, No leaks.	1
DRL CURVE-SLIDE	Slide 14' @ 9.3 ft/hr, 45 k wob, 156 spm, 550 gpm, 2750 spp, 125 diff, 0° tfo.	1.5
U_RIG	Change out swab pump #2 on pod #2, checked liner no visible wear.	1
U_RIG_OT R	Started pump up & derrickman saw leak on different union on Mud line running on top of MCC house. Changed out cut "O" ring. retested mud line 4,500 psi. o.k. checked mud line, No leaks.	1
DRL CURVE-SLIDE	Slide 12' @ 6.9 ft/hr, 45 k wob, 130 spm, 500 gpm, 2750 spp, 125 diff, 0° tfo.	1.75
CIRC	Survey @ 10,022' - 45.20° inc - 3.30° azm - 14.06° DL - 10.0° BRN	0.25
DRL CURVE-ROT	Rotate 7' @ 9.3 ft/hr, 45 k wob, Tq. 8 k, 130 spm, 500 gpm, 3,980 spp, 225 diff, 20 rpm.	0.75
DRL CURVE-SLIDE	Slide 23' @ 7 ft/hr, 45 k wob, 130 spm, 500 gpm, 2750 spp, 185 diff, 0° tfo.	3.25

### Report #: 44 Daily Operation: 2/17/2014 06:00 - 2/18/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
44	44	10,206.0
		End Depth (TVD) (ftKB)
		10,080.2
		Dens Last Mud (lb/gal)
		11.50
		Rig
		H & P, 604

#### Operations Summary

Rot./ Slide drlg. building curve f/10,100' to 10,206'. Pressure spike,CBU, TOOH f/ 10,206' to 92.89' pulled out BHA #2 cone left in hole.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 44.6 days since rig accepted, 44.5 days from spud

Rig NPT: 3.5 hours for previous 24 hours, 37 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 71.6%, Lateral 0%

37.7" Below & 13' Right of proposed directional plan #2 \*\* BRN to land 30' below line 4.92°, 7.5° on line. \*\*

2215' from 30H & 1557 to 32H

Full crew, plus three new hands training for new rigs coming out.

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Rotate 8' @ 8 ft/hr, 45 k wob, Tq. 8 k, 130 spm, 500 gpm, 3,980 spp, 225 diff, 25 rpm. 158 MRPM	0.75
CIRC	Survey @ 10,053' - 49.40° inc - 3.0° azm - 13.57° DL - 9.5° BRN	0.25
DRL CURVE-SLIDE	Slide 24' @ 7.3 ft/hr, 50 k wob, 142 spm, 545 gpm, 158 MRPM 2750 spp, 285 diff, 0° tfo.	3.25
CIRC	Survey @ 10,085' - 53.5° inc - 3.30° azm - 12.81° DL - 8.71° BRN	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL CURVE- ROT	Rotate 8' @ 16 ft/hr, 45 k wob, Tq.8 k, 130 spm, 500 gpm, 3,980 spp, 225 diff, 25 rpm. 158 MRPM	0.5
DRL CURVE- SLIDE	Slide 23' @ 6.7 ft/hr, 50 k wob, 142 spm, 545 gpm, 158 MRPM 2750 spp, 285 diff, 0° tfo.	3.5
CIRC	Survey @ 10,116' - 57.8° inc - 3.6° azm - 13.89° DL - 7.71° BRN	0.25
DRL-ROT	Rotate 8' @ 10.6 ft/hr, 45 k wob, Tq.8 k, 130 spm, 500 gpm, 3,658 spp, 398 diff, 25 rpm. 158 MRPM	0.75
DRL CURVE- SLIDE	Slide 26' @ 6.5 ft/hr, 50 k wob, 142 spm, 545 gpm, 158 MRPM 2750 spp, 285 diff, 0° tfo.	4
CIRC	Survey @ 10,148' - 61.6° inc - 3.0° azm - 11.98° DL - 7.5° BRN (Projection @ Bit 10,206' Incl:67.7° Azm: 3.0° DL to land 7.5° motor yield 15.8°)	0.25
DRL CURVE- ROT	Rotate 4' @ 8.8 ft/hr, 46 k wob, Tq.11 k, 144 spm, 552 gpm, 3,350 spp, 225 diff, 25 rpm. 160 MRPM	0.75
DRL CURVE- SLIDE	Slide 5' @ 5 ft/hr, 52 k wob, 144 spm, 552 gpm, 160 MRPM 3,150 spp, 265 diff, 0° tfo. Lithology @10,206' 80% shale 20% Limestone. ( Bit @10,206' while sliding Pressure spike on bottom f/3,357 psi. to 4,994 psi. immediate response stop ( 1 ) pump. Pu off bottom 17 k over.Put ( 2 ) pumps back on line had correct off bottom pressure, touch bottom had pressure spike f/ 3,364 psi. to 4,904 psi. immediate response stop both pumps. Pu 300 k 45 k drag broke back to normal 245 k.while cir. ( Note: 57.3 hrs on bottom drilling hrs. 516 Krev on bit.)	1
CIRC	CBU f/10,190' reciprocate to 10,130' ** 30 min flow check, static** build slug	1.5
TOOH	High side bit,TOOH f/ 10,130' pull 30k drag broke back to 20k drag & 10,100' 30 k drag broke back to 20 k drag) pulled 5 Stds wet to 9,736', Hole static. Pumped slug. TOOH f/ 9,736' to 8,327' No tight hole issues up to KOP @shoe 30 min flow check Static. Continue TOOH f/ 8,327' to 92.89' filling hole from trip tank, had proper fill. (Note: Number 2 cone missing off Bit Change Breaks on Drill pipe trip on double.)	7

### Report #: 45 Daily Operation: 2/18/2014 06:00 - 2/19/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days On Location (days)	End Depth (ftKB)
45	45	10,206.0
		End Depth (TVD) (ftKB)
		10,080.2
		Dens Last Mud (lb/gal)
		11.60
		Rig
		H & P, 604

#### Operations Summary

Change BHA, Pull wear bushing & wash head, Rig service, Wait on fishing tools, TIH w/ Reverse cir.Junk Basket, Wash & Rotate f/ 9,455' to 10,057'

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 45.6 days since rig accepted, 45.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 37 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 71.6%, Lateral 0%

37.7' Below & 13' Right of proposed directional plan #2 \*\* BRN to land 30' below line 4.92°, 7.5° on line. \*\*

2215' from 30H & 1557 to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	Drain motor, break bit, L/D motor, P/U 6 3/4" 7/8;5.0 1.75° fix motor, Scribe, Align muleshoe sleeve - torque same, Rack back in derrick.  ** Fishing tools called for @ 0530. **	1
U_FSH	Clean rig floor of OBM, Drain cellar.	1
RIGSER	Service rig.	0.5
U_FSH	Pull wear bushing & jet well head, Reinstall wear bushing.	1
U_FSH	Misc. housekeeping while waiting on fishing tools.	1.5
U_FSH	Fishing tools arrived @ 1100. Gather & strap fishing tool BHA.	1
U_FSH	PJSM. P/U fishing tools. Reverse circulating junk basket, float sub, X/O.	1
U_FSH	TIH f/ 0' t/ 2,885'. Install jars @ 946'. Monitor well through trip tank.	1.75
U_OTR	After TIH 30 stands, driller kicked in pump to fill pipe. After pumping 70 strokes, blew a pop off on #1 pump. Checked all surface equipment everything on surface ok. Drill string full. Indicating float upside down. TOOH	0.75
U_OTR	TOOH f/ 2,885' t/ 0' wet.	2.25
U_OTR	Turn float right side up. Pump through drill dring - good. Clean up rig floor after pulling wet.	0.5
U_OTR	TIH f/ 0' t/ 2,885' Monitor well through tank, hole giving proper displacement	1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	TIH f/ 2,885' t/ 9,455' top of curve. Monitor well through tank, hole giving proper displacement	3.75
U_FSH	Attempt to TIH thru KOP @ 9,455' to 10,057' stacking wt. to 14k @ KOP Begin wash & rotate. Pumping staged up to 98 spm 380 gpm, spp 1,272 psi. rpm 56. Set torque limit 15k. Attempt to increase TIH speed more than 4'ft./ min. with Rotation & circulation same results unable to speed up more than 4' ft/min. starts stacking wt. increases torque to stall out. At 9,886' had stall out, Pu had 60k over to get free, continue to wash & rotate to 10,057' **** Note: At 10,057' unable to get deeper w/ 8k w no excess torque****	6.25

### Report #: 46 Daily Operation: 2/19/2014 06:00 - 2/20/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
Days From Spud (days) 46	Days on Location (days) 46	End Depth (ftKB) 10,206.0
	End Depth (TVD) (ftKB) 10,080.2	Dens Last Mud (lb/gal) 11.70
		Rig H & P, 604

#### Operations Summary

Wash & Rotate f/10,057' to 10,206', attempt to recover lost bit cone @10,206', TOO H, No recovery, Slip & cut Drill line, MU TIH cone buster mill. BHA f/ 103" to 8,400'

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 46.6 days since rig accepted, 46.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 37 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 71.6%, Lateral 0%

37.7' Below & 13' Right of proposed directional plan #2 \*\* BRN to land 30' below line 4.92°, 7.5° on line. \*\*

2215' from 30H & 1557 to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	Wash & ream f/ 10,057' t/ 10,206', taking weight & up to 15k torque entire way. Rotary stalled out @ 10,100' & 10,180' would not pull free. Cock jars @ 150k P/U to 300k pulled free. 100 spm, 380 gpm, 60 rpm, 1,225 spp.	5
U_FSH	Drill 2' new hole in an attempt to swallow cone inside globe basket. 120 spm, 455 gpm, 15-25 wob, 1,780 spp, 60 rpm.	3
U_FSH	Check flow - static. TOO H pulled tight f/ 10,206' t/ 10,130'. Set jars off several times. Minimal drag after 10,130'. Monitor well through trip tank, hole taking proper displacement. (Note: Changed break on DP)	1
U_FSH	TOO H f/ 10,130' t/ 10'. Monitor well through trip tank, hole taking proper fill. pulled BHA above rotary.	5
U_FSH	Inspected fishing BHA. Junk cut mark on jt. of drill pipe 67.52' above shoe. Junk cuts entire length of Reverse cir. Barrel, Lost Carbide cut rite.	0.5
U_FSH	Clean rig floor, Conference call on next BHA.	0.5
U_FSH	LD Reverse cir. junk basket. closed Blind rams.	1
RIGSER	Held PJSM Slip cut 80' drill line. Functioned BOP pipe rams.	2.5
U_FSH	Function annular BOP. Break & LD (2) bad jts of DP. Replace with (2) good jts. DP. MU Cone buster mill w/ boot junk basket BHA. recovered 5 pieces of carbide cut rite	0.5
U_FSH	Check SICP at choke "0" psi. open well to trip tank, hole static. Open blind rams. TIH BHA to 103' & pump thru float valve o.k. TIH. f/ 103' t/ 8,400" monitor returns in trip tank having proper displacement. fill up every 30 stds.	5

### Report #: 47 Daily Operation: 2/20/2014 06:00 - 2/21/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
Days From Spud (days) 47	Days on Location (days) 47	End Depth (ftKB) 10,206.0
	End Depth (TVD) (ftKB) 10,080.2	Dens Last Mud (lb/gal) 11.70
		Rig H & P, 604

#### Operations Summary

TIH Cone buster mill f/ 8,400' to 10,000', Wash & Rotate to 10,208', Milled to 10,213' to bust up lost cone, Cir 50 bbl hi vis sweep. TOO H, LD 21 jts. DP, Pu 21 jts. rack back 7 stds drill pipe.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 47.6 days since rig accepted, 47.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 37 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 71.6%, Lateral 0%

37.7' Below & 13' Right of proposed directional plan #2 \*\* BRN to land 30' below line 4.92°, 7.5° on line. \*\*

2215' from 30H & 1557 to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	TIH from 8400' to 10,000' (No drag, proper mud returns)	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	Wash and ream f/ 10,000' to bottom 10,208' (Clean didn't touch anything)	1
U_FSH	Attempting to break up cone with cone buster, Mill 5' @.30 FPH. W/ 529 GPM, 100 RPM, 30k B/W 2300 PSI, Torque level off to 4 k .	9.5
U_FSH	Flow Check 30 min, hole static. TOOH f/ 10,213' had 35k over pull @10,164' Rotate w/ cir. stalling rotary, work thru until normal off bottom torque & no excess drag, to 10,113' had 20k over pull stalled rotary torque to 12k at 10,113' worked thru w/ Circulation & Rotation to 10,088' until no over pull and normal drag. went back thru each tight area until able to pull thru without rotation & no over pull.	1.25
U_FSH	TOOH f 10,088' to 9,743' wet pipe. Pumped slug. cont. TOOH thru top of curve @ 9,755' w/ no hole issues. Fill hole on trip tank with proper fill. at 8,327' csg shoe, stop for flow check, hole static. Cont. TOOH 8,327' to 7.68'. (Note: changed break on dp)	5.75
U_FSH	TOOH w/ Cone buster mill, break out Cone buster mill.	0.5
U_FSH	Clean Rig floor. Pioneer Co. men & Weatherford fishing service man Conference on next BHA.	1
U_FSH	TIH & LD 21 jts. (7) stds that had grooves cut in drill pipe. Pu 21 jts. to replace the lay out jts.. made up in mouse hole and racking back to derrick (7) stands. ( NOTE: grooves cut on drill pipe indicate junk covers 631' 10,208' to 9,577' of curve. more severe grooving was on the bottom jts. covering 125' 10,208' to 10,083')	3.5

Report #: 48 Daily Operation: 2/21/2014 06:00 - 2/22/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
48	48	10,220.0
		End Depth (TVD) (ftKB)
		10,085.3
		Dens Last Mud (lb/gal)
		11.90
		Rig
		H & P, 604

### Operations Summary

Service rig, clean OBM off rig floor, pull Inspect Wear Bushing & reset, TIH 8 1/2" mill tooth bit, wash f/10,210' to 10,213' drill 7' to 10,220', TOOH, TIH w/ Motor & Dir. BHA w/ PDC Bit f/ 99.9' to 8,625'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 48.6 days since rig accepted, 48.5 days from spud

Rig NPT: 0 hours for previous 24 hours, 37 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 71.6%, Lateral 0%

37.7' Below & 13' Right of proposed directional plan #2 \*\* BRN to land 30' below line 4.92°, 7.5° on line. \*\*

2215' from 30H & 1557 to 32H, Full crews

(Note: After Clean out run Hughes GTC-1 bit condition ( 1 ) LT lost inner row ( 1 ) FC Heel row, NO dull, 0 use on bearing, In gauge bit pic will be up loaded to well drive. LD 5 more Jts of grooved DP for inspection found on 1st 3 stds above bit, LD anything questionable for inspection. 3 cut rite pieces recovered in boot baskets.)

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	Clean OBM off rig floor after trip.	0.5
RIGSER	Service Rig (Lubricant)	0.5
OTHR	Pull wear bushing inspect Note: wear on aft and off driller side, turn wear bushing 180 deg and re-run lock in tie down (2) pins.	2
U_FSH	Held PJSM, Strap new junk basket, Mu Clean out BHA, 8 1/2" bit Hughes GTC-1, (2) junk baskets, TIH 10 stds Drill pipe, Fishing jars, to 993' . Continue TIH to 10,210' filling pipe every 30 stands.. Monitor trip on trip tank with proper displacement. ( NOTE: No issues going thru Top of curve no issues in curve.)	7
U_FSH	Break cir, 10,210' w/ 300 GPM tag bottom 10,213' increased to 600 GPM, shut down pump worked Junk baskets. break cir. w/ 500 gpm. rotate off bottom TQ. 2 k. w/Rpm 100. Drill new hole 10,213' to 10,220' on bottom TQ.3500. No stalling of rotary. Reciprocate pipe 20' with no over pulls Pu 246-248 k	1
U_FSH	Circulated (2) High vis sweeps around while reciprocate drill pipe with rotation. tagging bottom. no over pull or stalled rotary or increase in torque. Worked junk baskets when pumping stopped.	2
U_FSH	TOOH 5 stds wet f/10,213' to 9,750' no over pulls normal drag 3-4k drag. flow check. static. Pumped slug. Continue TOOH 9,750' to 9,455' no over pulls thru Curve. Continue TOOH 9,455' to 8,327' @ csg shoe Flow check, hole static. TOOH f/ 8,327' to 993', LD fishing jars. TOOH to 8 1/2" bit. LD (2) junk baskets (3) pieces of cut rite recovered .LD bit.( changed break on trip out of hole.)	5
SAFETY	Clean rig floor of OBM. Held PJSM Pu Dir. assembly out of derrick.( 98' )	0.5
U_FSH	Pulled out of derrick, Hunting motor 6 3/4" 7/8 lobe 5.7 stage Fixed @1.75° NMDC Flex NMDC BHA, installed MWD & Gamma tool. surface tested o.k. Mu 8 1/2" Security MMD55DM PDC bit,	1.25
U_FSH	TIH f/ 98.90' to 8,625'. lay out 5 jts of questionable grooved drill pipe. replace with good jts. Monitor proper displacement on trip tank, filling drill pipe every 30 jts.	4.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 49 Daily Operation: 2/22/2014 06:00 - 2/23/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
49	49	11,157.0	10,119.9	11.60	H & P, 604	

Operations Summary  
TIH bit high side f/8,625' to 10,213' fan, slowly to 10,220', slide drlg 57' to 10,277', Rot & slide drlg MWD survey land curve 10,466' MD 10,126.88' TVD Rot/slide drlg lateral f/10,466' MD to 11,157" 691' lateral drilled. Trouble shoot Pump#1 for electrical problem.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 49.6 days since rig accepted, 49.5 days from spud

Rig NPT: 1 hours for previous 24 hours, 38 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 10%

Land Curve on line. 10,466' MD 10,126.88' TVD Incl: 88.6° Azim: 360°\*\*

Lateral line 6.9" Above & 2.92' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)

2215' from 30H & 1557 to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	Continue TIH F/ 8,625' to 10,220' proper returns, no drag.	2
U_FSH	Fan bottom with motor turn bit high side, circulating 152 spm, 590 GPM. motor rpm 146, SPR #1 20=565 30=650 40=800 #2 20=550 20=660 40=775 w/ mud wt. 11.4 ppg.	0.5
DRL CURVE-SLIDE	Slide drlg 44' @ 17.6 ft/hr, 25 k wob, 140 spm, 537 gpm, 129 motor rpm 4200 spp, 225 diff, 10° left tfo.	2.5
DRL_SURVEY	Survey @ 10,213' - Incl: 68.70° Azim: 2.20° 9.37° DL - 8.2° BRN to land after survey.	0.25
DRL CURVE-SLIDE	Slide 34' @ 45.3 ft/hr, 35 k wob, 144 spm, 537 gpm, 133 motor rpm 3718 spp, 225 diff, 10° left tfo.	0.75
DRL_SURVEY	Survey @ 10,245' - 71.10° inc - 220° azm - 7.5° DL 6° BRN to land.	0.25
DRL CURVE-SLIDE	Slide 32' @ 42.6 ft/hr, 35 k wob, 140 spm, 537 gpm, 133 motor rpm, 3750 spp, 100 diff, 10° left tfo.	0.75
DRL_SURVEY	Survey @ 10,277' - 74.8° inc - 1.60° azm - 11.7° DL - 4.7° BRN to land.	0.25
DRL CURVE-ROT	Rotary Drill 10' @ 40 ft/hr, 26 k wob, 35 RPM Tq on bottom 3k, 144 spm, 537 gpm, 133 motor rpm 3750 spp, 100 diff,	0.25
DRL CURVE-SLIDE	Slide 21' @ 42 ft/hr, 35 k wob, 140 spm, 537 gpm, 133 motor rpm, 3750 spp, 100 diff, 10° left tfo.	0.5
DRL_SURVEY	Survey @ 10,308' - 78.5° inc - 1.70° azm - 11.94° DL - 2.4° BRN to land.	0.25
DRL CURVE-ROT	Rotary Drill 12' @ 48 ft/hr, 26-35 k wob, 35 RPM Tq on bottom 7k, off btm 1k, 144 spm, 550 gpm, 132 motor rpm 3747 spp, 190 diff, PU 250k SO 220K Rot. 236k	0.25
DRL CURVE-SLIDE	Slide 20' @ 40 ft/hr, 25 k wob, 144 spm, 550 gpm, 3757 spp, 100-220 diff, 10° left tfo.	0.5
CIRC	Survey @ 10,340' - 80.70° inc - 1.60° azm - 6.88° DL - 2.2° BRN to land.	0.25
DRL-ROT	Rotary Drill 15' @ 60 ft/hr, 35 k wob, 25 RPM Tq on bottom 7 k-7500, off btm 1k, 144 spm, 550 gpm, 132 motor rpm 3747 spp, 190 diff,	0.25
DRL CURVE-SLIDE	Slide 16' @ 64 ft/hr, 30 k wob, 144 spm, 550 gpm, 132 motor rpm 3750 spp, 100 diff, 15° left tfo.	0.25
CIRC	Survey @ 10,371' Incl: 82.90° - Azim: 1.60° 7.10° DL - 2.1° BRN to land.	0.25
RIGSER	Rig service.	0.5
DRL-SLIDE	Slide 12' @ 24 ft/hr, 35 k wob, 144 spm, 550 gpm, 132 motor rpm 3750 spp, 100 diff, 15° left tfo.	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Rotary Drill 20' @ 80 ft/hr, 35 k wob, 25 RPM Tq on bottom 8 k, off btm 1k,144 spm, 550 gpm,132 motor rpm 3747 spp, 190 diff,	0.25
CIRC	Survey @ 10,403' Incl: 85.10° - Azim:1.00° 7.12° DL 0.4° BRN to land.	0.25
DRL CURVE-ROT	Rotary Drill 31' @ 62 ft/hr, 35 k wob, 35 RPM Tq on bottom 8 k, off btm 1k,144 spm, 550 gpm,132 motor rpm 3747 spp, 190 diff, Pu 253k, SO 223k, Rot. 236k,	0.5
CIRC	Survey @ 10,434' Incl: 87.60° - Azim:50° 8.22° DL 0.4° BRN to land.	0.25
BHA	Rotary Drill 32' @ 64 ft/hr, 35 k wob, 35 RPM Tq on bottom 8 k, off btm 1k,144 spm, 550 gpm,132 motor rpm 3747 spp, 190 diff,.	0.5
CIRC	Survey @10,466' Incl: 88.60° Azim:360° 3.49° DL *** Landed curve.2.5' above 24.4'Right of line****	0.25
DRL LAT-ROT	Rotary Drill 95' @ 126.6 ft/hr, 25-35 k wob,75 RPM Tq on bottom 10-12 k, off btm 3k,144 spm, 550 gpm,132 motor rpm 3747 spp, 190 diff, pump weighted sweep, solids contol equipment on line.	0.75
CIRC	Survey @ 10,561' Incl: 90.10° - Azim:357.90° 1.61° DL 5.7' above 25.3' right of line.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 94 ft/hr, 30-35 k wob,70 RPM Tq on bottom 12 k, off btm 3 k,144 spm, 550 gpm,132 motor rpm 3747 spp, 190 diff,	1
CIRC	Survey @ 10,655' Incl: 90.00° - Azim:358.80° 1.61° DL 4.9' above 24.2' right of line.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 126.6 ft/hr, 35 k wob,61 RPM Tq on bottom 12 k, off btm 3 k,144 spm, 550 gpm,132 motor rpm 3850 spp, 200 diff, Pump weighted sweep.	0.75
CIRC	Survey @ 10,750' Incl: 90.00° - Azim:357.90° 0.95° DL 4.0' above 19.7' right of line.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 126.6 ft/hr, 28 k wob, 35-61 RPM Tq on bottom 12 k, off btm 3k,144 spm, 550 gpm,132 motor rpm 3850 spp, 200 diff,	0.75
CIRC	Survey @ 10,845' Incl: 90.90° - Azim:357.50° 1.04° DL 4.05' above 13.94' right of line.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 125.3 ft/hr, 20 k wob, 75 RPM Tq on bottom 12 k, off btm 3k,144 spm, 550 gpm,132 motor rpm 3850 spp, 200 diff,Pump weighted sweep.	0.75
CIRC	Survey @ 10,939' Incl: 91.60° - Azim:357.50° 1.04° DL 5.2' above 8' right of line.	0.25
DRL LAT-SLIDE	Rotary Drill 10' @ 40 ft/hr, 20 k wob, 75 RPM Tq on bottom 12 k, off btm 3k,144 spm, 550 gpm,132 motor rpm 3850 spp, 200 diff,	0.25
DRL LAT-SLIDE	Slide 15' @ 60 ft/hr, 28 k wob, 144 spm, 550 gpm, 132 motor rpm 3750 spp,100 diff, 120° Right tfo.	0.5
DRL LAT-ROT	Rotary Drill 70' @ 93.33 ft/hr, 25 k wob, 75 RPM Tq on bottom 12 k, off btm 3k,144 spm, 550 gpm,132 motor rpm 3850 spp, 200 diff, Pump weighted sweep.	0.75
CIRC	Survey @ 11,034' Incl: 91.40° - Azim:358.60° 1.07° DL 6.90' above 2.92' right of line.	0.25
DRL LAT-ROT	Rotary Drill 70' @ 93.33 ft/hr, 20 k wob, 75 RPM Tq on bottom 12 k, off btm 3k,144 spm, 550 gpm,132 motor rpm 3800 spp, 200 diff, Pu 268k,SO 208 k, Rot.223 k.	0.75
U_RIG_OT R	Lost 200 psi pump pressure,Pu off bottom,Lock out Tag out Pump #1 Cir. reciprocate dp while change out swab & liner on Mud pump #1 Pod # 2	2.5
U_RIG	Lock out Tag out removed, electrical trouble shooting , breaker to pump keeps tripping when pump put on line. H &P Electrician at Big lake called to come to rig @05:30.	1

Report #: 50 Daily Operation: 2/23/2014 06:00 - 2/24/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days On Location (days)	End Depth (ftKB)
50	50	11,157.0
		End Depth (TVD) (ftKB)
		10,119.9
		Dens Last Mud (lb/gal)
		11.50
		Rig
		H & P, 604

#### Operations Summary

TOOH f/11,157' to 8,,276', trouble shoot electrical Pump #1.Replace Pump #1 Pod #2 & test pump 4500 psi,Rig service, Pump #2 change out valves seats & swab, Swap out vaccum.Pulled wear bushing, Hang off dp on test plug test BOPs.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 50.6 days since rig accepted, 50.5 days from spud

Rig NPT:16 hours for previous 24 hours, 54 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 10%

Land Curve on line.10,466' MD 10,126.88' TVD Incl:88.6° Azim:360°\*\*\*

Larteral line 6.9" Above & 2.92' Right of proposed directional plan # 1c (Tolerance change 25'above 5' below)

2215' from 30H & 1557 to 32H

Full crew.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_RIG	Lock out Tag out removed, electrical trouble shooting , breaker to pump keeps tripping when pump put on line. H &P Electrician at Big lake called to come to rig @05:30. ( Continue working pipe and circulate with 165 GPM rotate @ 5 RPMs ). Electricians found rod oilier elect motor shorting out, By pass rod oilier and ran mud pump #1 and still leaking on liner, tore down center pod had wash, waiting on new pod and removing Center pod on #1 Mud Pump while waiting on new Pod.	6
U_RIG	Flow check OK. Continue pulling center pod #2 on mud pump #1.  (Note: EMI inspected laid out grooved drill pipe, found 9 bad jts. out of 33 jts. Requested H &P to replace jts. )	0.5
U_RIG	High Side bit.POOH f/ 11,157' fill hole on trip tank,had proper fill, had over pull of 30K at 10985' pulled thru, normal 3-5k drag in Curve, pulled bit inside csg @ 8,287'. monitor hole on trip tank,Continue removing center pod on #1 mud pump.	1.5
U_RIG	Continue removing center pod #2 on mud pump #1 monitor well on trip tank. Hole static. (Note: This is the mud pump that was replace on 16th Feb. New pod on location @ 1430 hrs.) Lock outTag removed. Test Mud pump #1 to 4500 psi. 5 min. against closed 4" valve on Stand pipe. o.k	8
SAFETY	Held PJSM, Rig service on Top Drive Draw works	0.5
U_OTR	ReCenter BOP stack to rotary, to hang off drill pipe on test plug.Redressed shakers w/ 4 worn screens.  On pump #2 Pod # 1 changed out Discharge Valve & seat. Pod #2, Suction seats & valves. Pod #3 suction seat & valve, changed out worn swab. Suck out cellar of contaminated OBM, vacuum stopped working, Ru air jagger pump & hoses.pump out cellar to access Wear bushing tie down pins. Open csg valve drain stack, **** valve left in open position for BOP test. check for flow Hole static.****	1.5
U_OTR	Mu dbl pin 4 1/2 IF sub to wear bushing retrieving tool to Drill pipe in rotary, pulled wear bushing, MU test plug to drill pipe in rotary. Mu jt. DP to test plug land test plug, back out & pulled jt. fill stack with water. BOP tester testing Choke manifold, Chokes valves. 250 psi low 3500 psi High. Test BOP stack. Choke line, Blind Rams, (Mu jt. to test plug.) Lower & upper pipe rams, Annular preventer HCR & Manual Valve 250 psi low 3,500 psi high. tests Charted, held 5 min ea. test.	6

Report #: 51 Daily Operation: 2/24/2014 06:00 - 2/25/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
51	51	11,157.0
		End Depth (TVD) (ftKB)
		10,119.9
		Dens Last Mud (lb/gal)
		11.60
		Rig
		H & P, 604

### Operations Summary

Tested BOPE, Accumalator Function Tested as per Pioneer. Test on MWD failed, Retrieve w/ Wireline, Problems setting back up MWD, GIH w/MWD tool,it came off while GIH to set, TOO H to recover & install back up, MWD tool & check bit. (1) chip cutter. LD Bit, Mu new Bit, change mule shoe & Run back up MWD toolW/ New battery.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 51.6 days since rig accepted, 51.5 days from spud

Rig NPT:16 hours for previous 24 hours, 54 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 10%

Land Curve on line.10,466' MD 10,126.88' TVD Incl:88.6° Azim:360°\*\*

Larteral line 6.9" Above & 2.92' Right of proposed directional plan # 1c (Tolerance change 25'above 5' below)

2215' from 30H & 1557 to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
U_OTR	BOP tester testing Stand Pipe manifold back to mud pumps 250 PSI low and 4500 PSI High, and test Safety valves, Upper and lower IBOP valves on Top Drive T 250 PSI low3500 PSI high tests Charted, held 5 min ea. test.Rig down testers.  ****Perfomed Accumlator test as per Pioneer*****	3
U_OTR	Mu dbl pin 4 1/2 IF sub to wear bushing retrieving tool to Drill pipe in rotary, RIH and set wear bushing, POOH L/D running tool.	1.5
U_MWD	TIH F/ 8245' to 8529' Test MWD failed. MWD would not Sync.	0.75
U_MWD	POOH F/ 8529 to 8245.	0.75
U_MWD	Mobilize wire line unt f/ Ensign 156 Waiting on wire line unit to pull MWD tool. Wireline unit arrive16:30 hrs.	4.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_MWD	F/16:30 - 1800 hr. RU wire line unit. Gih to retrieve MWD tool(2) attempts to recover MWD at 8,150' Pooh recovered MWD tool. F/18:00,- 22:00hr Pump thru drill string 140 spm 537 gpm for 12 bbls. to clear MWD UBHO, Gih w/ MWD tool. 4 attempts to set, Pooh unsuccessful in setting tool. Check tool on rig floor, not closing. F/22:30 - 23:00 hr. LD tool redress with new battery. GIH 300' from surface lost string wt. Pooh MWD tool had dropped off from running tool. allow 25 min for to seat, pump down dp 5 spm 191 gpm f/ saw pressure increase f/ 250 to 500 psi. . Increased pup rate to 140 spm 537 gpm spp 3000 psi. indication of tool set but, no pulse of MWD. RD wire line. @23:00 hr. ( Note weight indicator on wire line unit needs calibration)	6.5
SAFETY	PJSM prepare floor for TOOH / for MWD tool to be set. Build slug.	0.5
U_MWD	Pumped slug. TOOH f/ 8,245' to 98.90' to BHA. fill hole w/Trip Tank, took proper fill. Visual on drill pipe didn't see any deep groove on way out. ( will visual inspect again on TIH.)	4.5
U_MWD	Pulled to Motor & drained, inspected bit. OK no damage. lowered BHA & pulled out MWD tool out of UBHO, ( tool was landed ) LD MWD tool. inspect UBHO & pull Muleshoe & replace with new one., Pu backup MWD tool. & set.	2

### Report #: 52 Daily Operation: 2/25/2014 06:00 - 2/26/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
52	52	11,278.0
		End Depth (TVD) (ftKB)
		10,119.6
		Dens Last Mud (lb/gal)
		11.60
		Rig
		H & P, 604

#### Operations Summary

PU/ Mu New bit, Dir. Bha w/ 1.83° motor. Surface Test/ TIH f/ 92' to 11,157' Rot/Slide drill survey lateral f/ 11,157' to 11,278', 121' / Pump #1 Pod #2 5"x6" rubber under suction valve, C/O valve & seat. Down time: Pump #1. Lost 400 psi pump pressure, rack back 1 std to 11,242' circ. reciprocate, Rot 5 rpm. while H&P Trouble shoot pump pulsation dampner. Charging pump rubber expansion jt. Reopen pump #1 fluid end to inspect.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 52.6 days since rig accepted, 52.5 days from spud

Rig NPT: 7 hours for previous 24 hours, 61 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 10%

Land Curve on line. 10,466' MD 10,126.88' TVD Incl: 88.6° Azim: 360°\*\*

Lateral line 8.42" Above & 7.37' Left of proposed directional plan # 1c (Tolerance change 25' above 5' below)

2215' from 30H & 1557 to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
U_MWD	L/D MWD tool and trouble shoot problem could not fix.	2
U_MWD	Wait on replacement New MWD tools. While waiting P/U new mud motor, 6 3/4" Hard Rubber 7/8 Lobe, Adjustable @ 1.83, Bit To Bend 7.08' Rev/Gal 0.29. flow range 300-600 gpm, max TQ 10,460 ft-bs.	2
U_MWD	Install new mule shoe sleeve, installed new MWD tool, scribe, Mu New Security MMD55DM bit, dress with 5X22 Jets. scribe. Shallow test MWD and Mud Motor (ok)	1
U_MWD	TIH F/ 99' to 9,375 Filling pipe every 30 stands Monitor displacement on trip tank had proper displacement.	4.5
U_MWD	Circulate @ 9,375', High side bit prior to TIH thru Top of curve 9,455'	0.5
U_MWD	TIH f/ 9,375' to 11,155' (TIH thru curve with no issues,) Fan bottom 11,157' pumping 422 gpm, 122 motor rpm. fan bottom No issues when tagging bottom.	2
DRL LAT-ROT	Rotary Drill 34' @ 45.33 ft/hr, 20 k wob, 70 RPM Tq on bottom 7 k, off btm 3500 ft.-lbs, 130 spm, 500 gpm, 145 motor rpm 2800 spp, 200 diff, Pu 260k, SO 215 k, Rot. 224 k.	0.75
CIRC	Survey @ 11,129' Incl: 91.20° - Azim: 357.80° 0.87° DL 8.20' above 2.00' left of line.	0.25
DRL LAT-SLIDE	Slide 15' @ 15 ft/hr, 28 k wob, 144 spm, 500 gpm, 145 motor rpm 3750 spp, 100 diff, 100° Right tfo.	1
DRL LAT-ROT	Rotary Drill 68' @ 68' ft/hr, 28 k wob, 70 RPM Tq on bottom 7 k, off btm 3500 ft.-lbs, 134 spm, 514 gpm, 149 motor rpm 3740 spp, 290 diff.	1
CIRC	Survey @ 11,220' Inc: 90.00° - Azim: 357.80° 1.32° DL 8.42' above 7.30' left of line.	0.25
DRL LAT-SLIDE	Slide 4' @ 5.3 ft/hr, 28 k wob, 144 spm, 500 gpm, 145 motor rpm 3750 spp, 100 diff, 100° Right tfo.	0.75
U_RIG_OT R	Lost 400 psi. pump pressure. Pu off bottom to 11,263' Cir. w/ Pump #2 rotate 3 rpm 69 spm 264 gpm. 1,125 spp. reciprocate Dp. Pump #1 had 5" x 6' piece of rubber off hose under suction valve. ( Pumps do not have suction screens ) Pod #2 check Pod # 1 change out washed valve & seat. check Pod #3 Pu off bottom to 11,263' Cir w/ Pump #2 rotate 3 rpm 69 spm 264 gpm. 1,125 spp.  ****@11,268 w/ 11.3 ppg. SPR #1 20=550 30=650 40=775 SPR #2 20=570 30=675 40=765	1
U_RIG	Brought pumps #1 #2 on line to 135 spm still having 850 psi below normal pump pressure. brought Pump #1 on line pressure varied from 645 -903 psi @ 69 spm. Trouble shoot Pulsation dampener control for Pump #1 no problems found, trouble shoot Charging pump for Blockage found plastic spatula removed, put pump on line still having cavitations of pump, losing constant pump pressure., continue trouble shoot pump #1	7

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 53 Daily Operation: 2/26/2014 06:00 - 2/27/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
53	53	12,119.0	10,097.7	11.40	H & P, 604		

### Operations Summary

Cont. to trouble shoot pump, small leak in suction, Drill lateral f/11,278' t/ 12,082' Down time Pump #2 Pod #2 liner siezed in pump. Drill lateral f/12,082' t/ 12,119'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 53.6 days since rig accepted, 53.5 days from spud

Rig NPT 9.5 hours for previous 24 hours, 70.5 hours for the month of ( February )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 17%

Land Curve on line.10,466' MD 10,126.88' TVD Incl:88.6° Azim:360°\*\*

Lateral line 18.7' Above & 7.7' Left of proposed directional plan # 1c (Tolerance change 25'above 5' below)

3,229' from 30H & 2,807' to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
U_RIG	Continue to re-assemble and air out mud pump #1 after trouble shooting pulsation dampener, expansion couplings and fluid end due to loss of pump pressure.	1.5
DRL LAT-ROT	Rotary Drill 81' @ 54' ft/hr, 30 k wob, 70 RPM Tq on bottom 11 k, off btm 2 k ft.-lbs,134 spm, 514 gpm,149 motor rpm 3906 spp, 290 diff.	1.25
CIRC	Survey @ 11,312' Inc: 89.50° - Azim:357.90° 0.55° DL 7.20' above12.70' left of line.	0.25
DRL LAT-SLIDE	Slide 20' @ 40 ft/hr, 26 k wob, 134 spm, 514 gpm, 149 motor rpm 3825 spp,150 diff, 80° Right tfo.	0.5
DRL LAT-ROT	Rotary Drill 73' @ 146' ft/hr, 28 k wob, 70 RPM Tq on bottom 11 k, off btm 3 ft.-lbs,134 spm, 514 gpm,149 motor rpm 3780 spp, 250 diff.	0.5
CIRC	Survey @ 11,405' Inc: 90.90° - Azim:359.90° 2.63° DL 6.70' above16.20' left of line.	0.25
DRL LAT-ROT	Rotary Drill 92' @ 122.66' ft/hr, 28 k wob, 70 RPM Tq on bottom 11 k, off btm 3 ft.-lbs,134 spm, 514 gpm,149 motor rpm 3780 spp, 250 diff.	0.75
CIRC	Survey @ 11,497' Inc: 91.40° - Azim:359.80° 0.55° DL 7.80' above18.50' left of line.	0.25
DRL LAT-SLIDE	Slide 20' @ 20 ft/hr, 15 k wob, 4092 spm, 514 gpm, 145 motor rpm 3750 spp,350 diff, 95° Right tfo.	1
DRL LAT-ROT	Rotary Drill 73' @ 48.66' ft/hr, 30 k wob, 70 RPM Tq on bottom11 k, off btm 2 ft.-lbs,134 spm, 514 gpm,149 motor rpm 3905 spp, 400 diff.	1.5
CIRC	Survey @ 11,590' Inc: 91.20° - Azim:1.60° 1.95° DL 9.0' above19.0' left of line.	0.25
DRL LAT-ROT	Rotary Drill 92' @ 184' ft/hr, 30 k wob, 70 RPM Tq on bottom11 k, off btm 2 ft.-lbs,134 spm, 514 gpm,149 motor rpm 3905 spp, 400 diff.	0.5
CIRC	Survey @ 11,682' Inc: 91.30° - Azim:0.70° 1.09° DL 9.40' above19.0' left of line.	0.25
DRL LAT-SLIDE	Slide 20' @ 40 ft/hr, 30 k wob, 3747 spm, 514 gpm, 145 motor rpm 3750 spp,350 diff, 95° Right tfo.	0.5
DRL LAT-ROT	Rotary Drill 73' @ 146.00' ft/hr, 30 k wob, 70 RPM Tq on bottom10 k, off btm 2 ft.-lbs,134 spm, 522 gpm,152 motor rpm 4069 spp, 315 diff.	0.5
CIRC	Survey @ 11,775' Inc: 92.00° - Azim:3.00° 2.58° DL 12.00' above18.30' left of line.	0.25
DRL LAT-SLIDE	Slide 8' @ 32 ft/hr, 30 k wob, 3747 spm, 514 gpm, 145 motor rpm 3750 spp,350 diff, 95° Right tfo.	0.25
DRL LAT-ROT	Rotary Drill 84' @ 168.00' ft/hr, 30 k wob, 70 RPM Tq on bottom10 k, off btm 2 ft.-lbs,134 spm, 522 gpm,152 motor rpm 4069 spp, 315 diff.	0.5
CIRC	Survey @ 11,867' Inc: 90.60° - Azim:3.0° 1.52° DL 13.0' above15.0' left of line.	0.25
DRL LAT-ROT	Rotary Drill 93' @ 124.00' ft/hr, 30 k wob, 70 RPM Tq on bottom10 k, off btm 2 ft.-lbs,134 spm, 522 gpm,152 motor rpm 4069 spp, 315 diff.	0.75
CIRC	Survey @ 11,961' Inc: 92.00° - Azim:3.70° 1.67° DL 14.70' above11.00' left of line.	0.25
U_RIG_OT R	Pump pressure drop 474 psi. Pulled off bottom cir. w/ pump #1 62 spm 261 gpm, Rot. 5 rpm. Dp Reciprocate 12,080' to 12,026' ,Pump#2 Pod# 2 pulled swab inspect liner, worn attempt to pull liner, liner siezed up. (Tool pusher went to H&P 467 to get liner pulling tool.)	1
RIGSER	Rig Srrvice.	0.5
U_RIG	Continue attempts to pull siezed liner, (Tool pusher went to H&P 467 to get liner pulling tool.)	1
U_RIG	Change out liner after several attempts to pull liner it became cocked, rig manager went to H&P 467 to get liner pulling tool and was successful in C/O liner ( Rotate @ 5 rpm and reciprocate pipe while working on pump )	8

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotary Drill 57' @ 114' ft/hr, 30 k wob, 70 RPM Tq on bottom 10 k, off btm 2 ft.-lbs, 134 spm, 522 gpm, 152 motor rpm 4069 spp, 315 diff.	0.5
CIRC	Survey @ 12,052' Inc: 92.00° - Azim: 3.70° 1.67° DL 14.70' above 11.00' left of line.	0.25
DRL LAT-ROT	Slide 18' @ 24 ft/hr, 30 k wob, 3747 spm, 514 gpm, 145 motor rpm 3750 spp, 350 diff, 95° Right tfo.	0.75

Report #: 54 Daily Operation: 2/27/2014 06:00 - 2/28/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days On Location (days)	End Depth (ftKB)
54	54	12,986.0
	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)
	10,089.1	11.40
	Rig	H & P, 604

Operations Summary  
Drill Lateral f/12,119' t/ 12,986'

Remarks  
H & P 604 Well (University 3-19 31H) Progress: 54.6 days since rig accepted, 54.5 days from spud  
Rig NPT 0 hours for previous 24 hours, 70.5 hours for the month of ( February )  
Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 25%  
Land Curve on line. 10,466' MD 10,126.88' TVD Incl: 88.6° Azim: 360°\*\*\*  
Lateral line 23.23' Above & 3.43' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)  
3,831' from 30H & 3,497' to 32H  
Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotary Drill 72' @ 72' ft/hr, 20 k wob, 75 RPM Tq on bottom 11 k, off btm 3.9 k ft.-lbs, 134 spm, 522 gpm, 152 motor rpm 3990 spp, 160 diff.	1
DRL_SURVEY	Survey @ 12,112' Inc: 92.9° - Azim: 3.0° 2.02° DL 23.43' above 3.06' left of line.	0.25
DRL LAT-SLIDE	Slide 13' @ 28 ft/hr, 20 k wob, 110 spm, 422 gpm, 122 motor rpm 2950 spp, 195 diff, 145° Right tfo. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	0.75
DRL LAT-ROT	Rotary Drill 18' @ 36' ft/hr, 18 k wob, 75 RPM Tq on bottom 13 k, off btm 3 k ft.-lbs, 110 spm, 422 gpm, 122 motor rpm 2815 spp, 130 diff. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	0.5
DRL LAT-SLIDE	Slide 20' @ 40 ft/hr, 20 k wob, 110 spm, 422 gpm, 122 motor rpm 2675 spp, 260 diff, 150° Right tfo. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	0.5
DRL LAT-ROT	Rotary Drill 21' @ 21' ft/hr, 15 k wob, 75 RPM Tq on bottom 11 k, off btm 2 k ft.-lbs, 110 spm, 422 gpm, 122 motor rpm 2925 spp, 163 diff. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	1
DRL LAT-SLIDE	Slide 7' @ 14 ft/hr, 20 k wob, 110 spm, 422 gpm, 122 motor rpm 2820 spp, 205 diff, 180° Right tfo. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	0.5
DRL-ROT	Rotary Drill 17' @ 34' ft/hr, 15 k wob, 75 RPM Tq on bottom 10 k, off btm 3 k ft.-lbs, 110 spm, 422 gpm, 122 motor rpm 2800 spp, 145 diff. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	0.5
DRL_SURVEY	Survey @ 12,197' Inc: 91.2° - Azim: 1.5° 2.46° DL 25' above 1.6' left of line.	0.25
DRL LAT-ROT	Rotary Drill 37' @ 49.3' ft/hr, 30 k wob, 70 RPM Tq on bottom 10 k, off btm 2 ft.-lbs, 134 spm, 522 gpm, 152 motor rpm 4069 spp, 315 diff. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	0.75
DRL LAT-SLIDE	Slide 8' @ 8 ft/hr, 20 k wob, 110 spm, 422 gpm, 122 motor rpm 2820 spp, 205 diff, 180° Right tfo. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	1
DRL LAT-ROT	Rotary Drill 54' @ 72' ft/hr, 15 k wob, 75 RPM Tq on bottom 10 k, off btm 2 ft.-lbs, 134 spm, 522 gpm, 152 motor rpm 4069 spp, 315 diff. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal	0.75
DRL_SURVEY	Survey @ 12,329' Inc: 89.6° - Azim 2.0° DL 1.73° above 25' left of line. 0.41'	0.25
DRL-ROT	Rotary Drill 95' @ 54' ft/hr, 15 k wob, 75 RPM Tq on bottom 10 k, off btm 2 ft.-lbs, 134 spm, 522 gpm, 152 motor rpm 4069 spp, 315 diff. Drilling with 1 pump due to liner change, ROP is approximately 50% of normal 3,229' from 30H & 2,807' to 32H	1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 12,424' Inc: 89.9° - Azim 1.5° DL 0.61° above 24.5' Right of line.0.5'	0.25
DRL LAT- ROT	Rotary Drill 31' @ 62' ft/hr, 17 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,134 spm, 483 gpm,140 motor rpm 4069 spp, 315 diff.	0.5
DRL LAT- SLIDE	Slide 10' @ 14 ft/hr, 10 k wob, 110 spm, 421 gpm, 122 motor rpm 3,862 spp, 306 diff, 180° Right tfo. Drilling with 1 pump due to liner change, ROP is approximatly 50% of normal	0.5
DRL LAT- ROT	Rotary Drill 53' @ 70' ft/hr, 14 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,126 spm, 483 gpm,140 motor rpm 3,820 spp, 251 diff.	0.75
DRL_SURV EY	Survey @ 12,518' Inc: 88.9° - Azim 1.5° DL 1.06° above 22' Right of line1'	0.25
DRL LAT- ROT	Rotary Drill 95' @ 63' ft/hr, 14 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,126 spm, 483 gpm,140 motor rpm 3,420 spp, 190 diff.	1.5
DRL_SURV EY	Survey @ 12,613' Inc: 89.2° - Azim 0.90° DL 0.71° above 20.33' Right of line1'	0.25
DRL LAT- ROT	Rotary Drill 95' @ 54' ft/hr, 14 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,126 spm, 483 gpm,140 motor rpm 3,420 spp, 190 diff.	1.75
DRL_SURV EY	Survey @ 12,708' Inc: 91.4° - Azim 1.90° DL 0.71° above 20.' Right of line1.45 '	0.25
DRL LAT- SLIDE	Slide 15' @ 30 ft/hr, 10 k wob, 110 spm, 476 gpm, 138 motor rpm 3,425 spp, 140 diff, 180°.	0.5
DRL LAT- ROT	Rotary Drill 17' @ 23' ft/hr, 10 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,124 spm, 476 gpm,138 motor rpm 3,425 spp, 180 diff.	0.75
DRL LAT- SLIDE	Slide 14' @ 28 ft/hr, 14 k wob, 124 spm, 476 gpm, 138 motor rpm 3,425 spp, 140 diff, TF 120° .	0.5
DRL LAT- ROT	Rotary Drill 49' @ 65' ft/hr, 10 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,132 spm, 506 gpm,146 motor rpm 3,425 spp, 180 diff.	0.75
DRL_SURV EY	Survey @ 12,708' Inc: 91.4° - Azim 1.90° DL 0.71° above 20.' Right of line1.45 '	0.25
DRL LAT- SLIDE	Slide 17' @ 23 ft/hr, 14 k wob, 132 spm, 506 gpm, 146 motor rpm 3,760 spp, 190 diff, TF 140° .	0.75
DRL LAT- ROT	Rotary Drill 16' @ 32' ft/hr, 10 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,132 spm, 506 gpm,146 motor rpm 3,700 spp, 190 diff.	0.5
DRL LAT- SLIDE	Slide 17' @ 23 ft/hr, 14 k wob, 132 spm, 506 gpm, 146 motor rpm 3,760 spp, 190 diff, TF 140° .	0.75
DRL LAT- ROT	Rotary Drill 16' @ 32' ft/hr, 10 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,132 spm, 506 gpm,146 motor rpm 3,700 spp, 190 diff.	0.5
DRL LAT- SLIDE	Slide 15' @ 20 ft/hr, 14 k wob, 132 spm, 506 gpm, 146 motor rpm 3,760 spp, 190 diff, TF 180° .	0.75
DRL LAT- ROT	Rotary Drill 14' @ 56' ft/hr, 10 k wob, 75 RPM Tq on bottom10 k, off btm 2 ft.-lbs,132 spm, 506 gpm,146 motor rpm 3,700 spp, 190 diff.	0.25
DRL_SURV EY	Survey @ 12,898' Inc: 91.9° - Azim 1.40° DL 0.82° above 23.23.' Right of line3.43 '	0.25
DRL LAT- SLIDE	Slide 17' @ 23 ft/hr, 14 k wob, 132 spm, 506 gpm, 146 motor rpm 3,760 spp, 190 diff, TF 150° .	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotary Drill 14' @ 56' ft/hr, 10 k wob, 75 RPM Tq on bottom 10 k, off btm 2 ft.-lbs, 132 spm, 506 gpm, 146 motor rpm 3,700 spp, 190 diff.	0.25
DRL LAT-SLIDE	Slide 10' @ 20 ft/hr, 14 k wob, 132 spm, 506 gpm, 146 motor rpm 3,760 spp, 190 diff, TF 150° .	0.75

Report #: 55 Daily Operation: 2/28/2014 06:00 - 3/1/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
Days From Spud (days) 55	Days on Location (days) 55	End Depth (ftKB) 13,382.0
	End Depth (TVD) (ftKB) 10,083.3	Dens Last Mud (lb/gal) 11.50
	Rig H & P, 604	

#### Operations Summary

Drill Lateral f/12,986' t/ 13,071', Circ. TOH & rack back HWDP, Circ. Tih, Drill Lateral f/ 13,071' t/ 13,382', Circ.

Preparing to Trip out hole to pick up stabilize BHA because unable to drop angle, and maintain Angle suspect worn cutter on outer gauge on bit, and u stabilize BHA.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 55.6 days since rig accepted, 55.5 days from spud

Rig NPT 0 hours for previous 24 hours, 70.5 hours for the month of ( February )

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

Land Curve on line. 10,466' MD 10,126.88' TVD Incl: 88.6° Azim: 360°\*\*

Lateral line 25.66' Above & 7.33' Right of proposed directional plan # 1c (Tolerance change 20' above 10' below)

4,149' from 30H & 3,849' to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotary Drill 53' @ 70.6' ft/hr, 10 k wob, 75 RPM Tq on bottom 10 k, off btm 2 ft.-lbs, 132 spm, 506 gpm, 146 motor rpm 3,700 spp, 190 diff.	0.75
DRL_SURVEY	Survey @ 12,992' Inc: 89.10° - Azim 1.10° DL 03.0° above 23.23.' Right of line 3.54'	0.25
DRL LAT-SLIDE	Slide 12' @ 12 ft/hr, 14 k wob, 132 spm, 506 gpm, 146 motor rpm 3,760 spp, 190 diff, TF 180° .	1
DRL LAT-ROT	Rotary Drill 20' @ 40' ft/hr, 15 k wob, 75 RPM Tq on bottom 10 k, off btm 2 ft.-lbs, 132 spm, 506 gpm, 146 motor rpm 3,700 spp, 190 diff.	0.5
CIRC	Preform Clean up cycle pump sweep around pump weighted sweep around very little increase in cuttings. ( shakers clean)	2
TOOH	Flow check (ok)	0.5
TOOH	Poor Hole 5 stands hole taking proper fill and average drag (Pump 25 BBL slug 2.5 ppg over mud weight) Continue POOH set HWDP back in derrick to 11117' average drag, hole still taking proper fill	2
CIRC	Circulate testing pressure without HWDP looking problem with excess stand pipe pressure.	1
TIH	TIH without HWDP and pick up DP to replace HWDP F/11,117' to 12,314' Picking up 5" DP. Completion percentage: Lateral 25.6%	2
DRL LAT-SLIDE	Slide 15' @ 10 ft/hr, 16 k wob, 134 spm, 513 gpm, 148 motor rpm 3,476 spp, 253 diff, TF 180° .	1.5
DRL LAT-ROT	Rotary Drill 75' @ 100' ft/hr, 10 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 513 gpm, 148 motor rpm 3,210 spp, 420 diff.	0.75
DRL_SURVEY	Survey @ 13,114' Inc: 92.3° - Azim 3.90° DL 03.48° above 23.6.' Right of line 3.3'	0.25
DRL LAT-SLIDE	Slide 25' @ 50 ft/hr, 24 k wob, 132 spm, 506 gpm, 146 motor rpm 3,200 spp, 330 diff, TF 150° .	0.5
DRL LAT-ROT	Rotary Drill 7' @ 14' ft/hr, 12 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 513 gpm, 148 motor rpm 3,110 spp, 195 diff.	0.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-SLIDE	Slide 13' @ 26 ft/hr, 20 k wob, 132 spm, 506 gpm, 146 motor rpm 3,250 spp, 150 diff, TF 150° .	0.5
DRL LAT-ROT	Rotary Drill 7' @ 14' ft/hr, 12 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 513 gpm, 148 motor rpm 3,110 spp, 195 diff.	0.5
DRL LAT-SLIDE	Slide 13' @ 26 ft/hr, 29 k wob, 132 spm, 506 gpm, 146 motor rpm 3,250 spp, 140 diff, TF 150° .	1
DRL LAT-ROT	Rotary Drill 18' @ 72' ft/hr, 12 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 506 gpm, 148 motor rpm 3,220 spp, 340 diff.	0.25
DRL_SURVEY	Survey @ 13,209' Inc: 90.6° - Azim 1.90° DL 03.48° above 25.' Right of line 9'	0.25
DRL LAT-SLIDE	Slide 17' @ 23 ft/hr, 29 k wob, 132 spm, 506 gpm, 146 motor rpm 3,250 spp, 150 diff, TF 150° .	0.75
DRL LAT-ROT	Rotary Drill 16' @ 22' ft/hr, 12 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 506 gpm, 148 motor rpm 3,200 spp, 260 diff.	0.75
DRL LAT-SLIDE	Slide 23' @ 31 ft/hr, 10 k wob, 132 spm, 506 gpm, 146 motor rpm 3,250 spp, 90 diff, TF 130° .	0.75
DRL-ROT	Rotary Drill 7' @ 28' ft/hr, 12 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 506 gpm, 148 motor rpm 3,200 spp, 260 diff.	0.25
DRL LAT-SLIDE	Slide 23' @ 18 ft/hr, 6 k wob, 132 spm, 506 gpm, 146 motor rpm 3,250 spp, 260 diff, TF 130° .	1.25
DRL LAT-ROT	Rotary Drill 8' @ 28' ft/hr, 12 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 506 gpm, 148 motor rpm 3,200 spp, 260 diff.	0.25
DRL_SURVEY	Survey @ 13,303' Inc: 90.9° - Azim 358.2° DL 03.95° above 25..66' Right of line 7.33'	0.25
DRL LAT-SLIDE	Slide 24' @ 24 ft/hr, 6 k wob, 132 spm, 506 gpm, 146 motor rpm 3,190 spp, 75 diff, TF 180° .	1
DRL LAT-ROT	Rotary Drill 8' @ 28' ft/hr, 12 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 506 gpm, 148 motor rpm 3,200 spp, 260 diff.	0.75
CIRC	Pump weighted sweep around and Preform Clean up cycle.	2

Report #: 56 Daily Operation: 3/1/2014 06:00 - 3/2/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
56	56	13,382.0
	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)
	10,083.3	11.80
		Rig
		H & P, 604

#### Operations Summary

Circ, Tooh, Change out Mtr and Bit, Wash WH, TIH w/ Directional BHA. Wash to bottom.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 56.6 days since rig accepted, 56.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

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

Land Curve on line. 10,466' MD 10,126.88' TVD Incl: 88.6° Azim: 360°\*\*

Lateral line 25.66' Above & 7.33' Right of proposed directional plan # 1c (Tolerance change 20' above 10' below)

4,149' from 30H & 3,849' to 32H

Full crew.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Continue with Clean up Cycle First weighted sweep had little increase in cutting on shakers, Second Pump weighted sweep around had large amount of cutting come back, Third weighted sweep shakers were clean.  NOTE: Tripping because unable to drop angle while sliding thinking outer cutter worn on bit, and high stand pipe pressure.	3
TOOH	Flow Check (OK)	0.5
TOOH	POOH f/ 13,382' to 12,911' average drag, hole taking proper fill, pump 25 bbl slug Continue POOH F/ 12,911 to 92.45' still average drag 10 to 15 K Hole continue taking proper fill Completion percentage: Lateral 29%	6.5
BHA	Pulled out MWD tool out of UBHO, inspect UBHO ( OK ) Pulled to Motor & drained, Break bit and lay out motor, lowered lay out Flex Monel.	1.5
BHA	P/U 6.75" Hunting Motor, 7/8 Lobe; 5.0 Stag, 1.75° fixed, 8" stbd 0.29 RPG, Nortrac, Non mag DC, scribe mtr install MWD tool, Test MWD ( Test mwd @ 132 spm, 506 gpm, 1,750 psi, 1,350 psi low with tool pulsing. ) Rack in mouse hole.	2
TIH	Clean rig floor of excess OBM and Function tested manual TIW and Hyd IBOP on top drive, ( OK )	0.5
WEARBUS HING	Pull wear bushing and inspect, Jet well head, reinstall wear bushing.	1.5
RIGSER	Service Rig.	0.5
BHA	M/U 8 1/2 BH DP606X PDC bit with 5/22's & 1/16 jets.	0.5
TIH	TIH F/ 95' to 9,375' Filling pipe every 30 stands Monitor displacement on trip tank had proper displacement.	4.5
CIRC	Circulate @ 9,380', High side bit prior to TIH thru Top of curve 9,455'	0.5
TIH	Continue Tih f/ 9,380' t/ 13,260" , Filling pipe every 30 stands Monitor displacement on trip tank had proper displacement	2.25
WASH_REAM	Wash last 2 stands to bottom F/13260 to 13,382	0.25

Report #: 57 Daily Operation: 3/2/2014 06:00 - 3/3/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
Days From Spud (days) 57	Days On Location (days) 57	End Depth (ftKB) 14,033.0
	End Depth (TVD) (ftKB) 10,115.6	Dens Last Mud (lb/gal) 11.60
	Rig H & P, 604	

### Operations Summary

Drill Lateral Section f/ 13,382' t/ 14033'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 57.6 days since rig accepted, 57.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 36%

Land Curve on line. 10,466' MD 10,126.88' TVD Incl: 88.6° Azim: 360°\*\*

Lateral line 11.59 Below & 28.81' Right of proposed directional plan # 1c (Tolerance change 20' above 10' below)

4,719' from 30H & 4,460' to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-SLIDE	Slide 25' @ 16.6 ft/hr, 24 k wob, 132 spm, 506 gpm, 146 motor rpm 4070 spp, 75 diff, TF 180° .	1.5
DRL LAT-ROT	Rotary Drill 11' @ 22' ft/hr, 15 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 506 gpm, 122 motor rpm 3,010 spp, 260 diff.  Note Drilling on one mud pump. Number #2 mud pump changing liner and swab on #1 Modular.	0.5
DRL LAT-SLIDE	Slide 14' @ 9.3 ft/hr, 10 k wob, 110 spm, 422 gpm, 122 motor rpm 2933 spp, 244 diff, TF 160° .	1.5
DRL LAT-ROT	Rotary Drill 17' @ 34' ft/hr, 18 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 506 gpm, 122 motor rpm 3,010 spp, 260 diff.  Note Drilling on one mud pump. Number #2 mud pump changing liner and swab on #1 Modular.	0.5
DRL_SURVEY	Survey @ 13,398' Inc: 90.1° - Azim 3.50° DL 05.64° above 25.6' Right of line 6.80'	0.25
DRL CURVE-SLIDE	Slide 5' @ 20 ft/hr, 10 k wob, 110 spm, 422 gpm, 122 motor rpm 2933 spp, 244 diff, TF 160° .  Note: Drilling on one mud pump. Number #2 mud pump changing liner and swab on #1 Modular.	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotary Drill 59' @ 29.5' ft/hr, 15 k wob, 75 RPM Tq on bottom 10 k, off btm 5 ft.-lbs, 132 spm, 506 gpm, 122 motor rpm 3,049 spp, 260 diff.  Note Drilling on one mud pump. Number #2 mud pump changing liner and swab on #1 Modular.	2
DRL LAT-SLIDE	Slide 8' @ 20 ft/hr, 5.3 k wob, 110 spm, 422 gpm, 122 motor rpm 3163 spp, 435 diff, TF 20°.L  Note: Drilling on one mud pump. Number #2 mud pump changing liner and swab on #1 Modular.	1.5
DRL LAT-ROT	Rotary Drill 23' @ 30.6' ft/hr, 15 k wob, 75 RPM Tq on bottom 15 k, off btm 5 ft.-lbs, 132 spm, 422 gpm, 122 motor rpm 3,049 spp, 429 diff.  Note Drilling on one mud pump. Number #2 mud pump changing liner and swab on #1 Modular.	0.5
DRL_SURVEY	Survey @ 13,493' Inc: 85.60° - Azim 3.20° DL 04.75° above 21.20.' Right of line 10.4 'R  Completion percentage: , Lateral 30%	0.25
DRL LAT-ROT	Rotary Drill 95' @ 54.3' ft/hr, 15 k wob, 75 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 110 spm, 422 gpm, 122 motor rpm 2,909 spp, 329 diff.  Note Drilling on one mud pump. Number #2 mud pump changing liner and swab on #1 Modular.	1.75
DRL_SURVEY	Survey @ 13,589' Inc: 85.9° - Azim 3.0° DL 0.38° above 13.4.' Right of line 13.6 '	0.25
DRL LAT-ROT	Rotary Drill 94' @ 38' ft/hr, 15 k wob, 75 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 136 spm, 506 gpm, 146 motor rpm 3,420 spp, 200 diff.	2.5
DRL_SURVEY	Survey @ 13,682' Inc: 85.6° - Azim 3.2° DL 0.39° above 5.6' Right of line 16.7 '	0.25
DRL LAT-SLIDE	Slide 11' @ 9 ft/hr, 19 k wob, 132 spm, 506 gpm, 146 motor rpm 3,390 OB spp, 135 diff, TF 30°.L	1.25
DRL LAT-ROT	Rotary Drill 21' @ 28' ft/hr, 15 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 136 spm, 506 gpm, 146 motor rpm 3,400 spp, 300 diff	0.75
DRL LAT-SLIDE	Slide 20' @ 20 ft/hr, 19 k wob, 132 spm, 506 gpm, 146 motor rpm 3,410 OB spp, 85 diff, TF 30°.L	1
DRL LAT-ROT	Rotary Drill 43' @ 43' ft/hr, 15 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 136 spm, 506 gpm, 146 motor rpm 3,500 spp, 250 diff	1
DRL_SURVEY	Survey @ 13,777' Inc: 86.5° - Azim 4.10° DL 01.34° above 1.67' Right of line 20.7 '	0.25
DRL LAT-ROT	Rotary Drill 15' @ 60' ft/hr, 15 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 136 spm, 506 gpm, 146 motor rpm 3,390 spp, 210 diff	0.25
DRL LAT-SLIDE	Slide 18' @ 14.4 ft/hr, 23 k wob, 132 spm, 506 gpm, 146 motor rpm 3,410 OB spp, 230 diff, TF 30°.L	1.25
DRL LAT-ROT	Rotary Drill 62' @ 49' ft/hr, 15 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 136 spm, 506 gpm, 146 motor rpm 3,300 spp, 300 diff	1.25
DRL_SURVEY	Survey @ 13,872' Inc: 87.10° - Azim 3.80° DL 01.34° above 7.8' Right of line 25.4 '	0.25
DRL LAT-ROT	Rotary Drill 15' @ 60' ft/hr, 15 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 136 spm, 506 gpm, 146 motor rpm 3,300 spp, 300 diff	0.25
DRL LAT-SLIDE	Slide 30' @ 24 ft/hr, 35 k wob, 132 spm, 506 gpm, 146 motor rpm 3,410 OB spp, 230 diff, TF 30°.L	1.25
DRL LAT-ROT	Rotary Drill 50' @ 67' ft/hr, 15 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 136 spm, 506 gpm, 146 motor rpm 3,310 spp, 180 diff	0.75
DRL_SURVEY	Survey @ 13,967' Inc: 89.40° - Azim 2.50° DL 02.78° Below 11.59' Right of line 28.81 '	0.25
DRL LAT-ROT	Rotary Drill 15' @ 60' ft/hr, 15 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs, 136 spm, 506 gpm, 146 motor rpm 3,310 spp, 400 diff	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 58 Daily Operation: 3/3/2014 06:00 - 3/4/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
58	58	14,902.0	10,099.7	11.50	H & P, 604	

### Operations Summary

Drill Lateral Section f/ 14,033' t/ 14,902'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 58.6 days since rig accepted, 58.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 45%

Land Curve on line.10,466' MD 10,126.88' TVD Incl:88.6° Azim:360°\*\*

Lateral line 3.63 Below & 20.37 ' Right of proposed directional plan # 1c (Tolerance change 20'above 10' below)

5,457' from 30H & 5,245' to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-SLIDE	Slide 21' @ 42 ft/hr, 35 k wob, 132 spm, 506 gpm, 146 motor rpm 3,410 OB spp, 280 diff, TF 30°.L	0.5
DRL LAT-ROT	Rotary Drill 58' @ 29' ft/hr, 21 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs,136 spm, 506 gpm,146 motor rpm 3,310 spp, 503 diff	2
DRL_SURVEY	Survey @ 14,061' Inc: 91.0° - Azim 2.80° DL 01.73° Below 12' Right of line 31 '	0.25
DRL LAT-ROT	Rotary Drill 32' @ 128' ft/hr, 25 k wob, 50 RPM Tq on bottom 20 k, off btm 5 ft.-lbs,136 spm, 506 gpm,146 motor rpm 3,635 spp, 515 diff	0.25
DRL LAT-SLIDE	Slide 14' @ 7 ft/hr, 35 k wob, 110 spm, 421 gpm, 146 motor rpm 2853B spp, 280 diff, TF 90°.L	2
DRL LAT-ROT	Rotary Drill 49' @ 98' ft/hr, 25 k wob, 75 RPM Tq on bottom 21 k, off btm 5 ft.-lbs,136 spm, 513 gpm,148 motor rpm 3,635 spp, 360 diff	0.5
DRL_SURVEY	Survey @ 14,156' Inc: 91.3° - Azim 1.5° DL 01.4° Below 12' Right of line 31 '	0.25
DRL LAT-ROT	Rotary Drill 32' @ 42.6' ft/hr, 25 k wob, 75 RPM Tq on bottom 23 k, off btm 5 ft.-lbs,148 spm, 568 gpm,165 motor rpm 4,138 spp, 503 diff	0.75
DRL LAT-SLIDE	Slide 8' @ 8' ft/hr, 35 k wob, 110 spm, 421 gpm, 146 motor rpm 2853 PSI spp, 120 diff, TF 90°.L Note one one pump	1
DRL LAT-ROT	Rotary Drill 55' @ 36' ft/hr, 25 k wob, 75 RPM Tq on bottom 23 k, off btm 5 ft.-lbs,148 spm, 568 gpm,165 motor rpm 2,672 spp, 126 diff	1.25
DRL_SURVEY	Survey @ 14,251' Inc: 91.3° - Azim 0.5° DL 01.05° Below 8.6' Right of line 30.9 '	0.25
DRL LAT-ROT	Rotary Drill 95' @ 63' ft/hr, 36 k wob, 75 RPM Tq on bottom 23 k, off btm 5 ft.-lbs,148 spm, 514 gpm,165 motor rpm 3520 spp, 380 diff	1.5
DRL_SURVEY	Survey @ 14,346' Inc: 90.9° - Azim 359.90° DL 0.76° Below 8.6' Right of line 30.9 '	0.25
DRL LAT-ROT	Rotary Drill 95' @ 31.6' ft/hr, 36 k wob, 80 RPM Tq on bottom 23 k, off btm 5 ft.-lbs,148 spm, 514 gpm,165 motor rpm 3,490 spp, 300 diff	3
DRL_SURVEY	Survey @ 14441' Inc: 91.6° - Azim 0.10° DL 0.77° Below 7.4' Right of line 28.0 '.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 42' ft/hr, 36 k wob, 80 RPM Tq on bottom 23 k, off btm 5 ft.-lbs,148 spm, 514 gpm,165 motor rpm 3,500 spp, 280 diff. Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	2.25
DRL_SURVEY	Survey @ 14,535' Inc: 92.00° - Azim 0.10° DL 0.43° Below 5.2' Right of line 27.2 '	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotary Drill 32' @ 42' ft/hr, 34 k wob, 80 RPM Tq on bottom 23 k, off btm 5 ft.-lbs, 148 spm, 514 gpm, 165 motor rpm 3,585 spp, 215 diff. Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	0.75
DRL LAT-SLIDE	Slide 12' @ 9.6' ft/hr, 35 k wob, 1134 spm, 514 gpm, 148 motor rpm 3,610 PSI spp, 140 diff, TF 180°.L	1.25
DRL LAT-ROT	Rotary Drill 51' @ 68' ft/hr, 34 k wob, 80 RPM Tq on bottom 23 k, off btm 5 ft.-lbs, 148 spm, 514 gpm, 165 motor rpm 3,605 spp, 300 diff. Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	0.75
DRL_SURVEY	Survey @ 14,630' Inc: 90.70° - Azim 0.20° DL 1.37° Below 3.89' Right of line 25.5'	0.25
DRL LAT-ROT	Rotary Drill 95' @ 54' ft/hr, 32 k wob, 65 RPM Tq on bottom 23 k, off btm 5 ft.-lbs, 148 spm, 514 gpm, 165 motor rpm 3,605 spp, 300 diff. Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1.75
DRL_SURVEY	Survey @ 14,725' Inc: 90.60° - Azim 359.80° DL 0.43° Below 3.6' Right of line 23.5'	0.25
DRL LAT-ROT	Rotary Drill 95' @ 54' ft/hr, 32 k wob, 65 RPM Tq on bottom 23 k, off btm 5 ft.-lbs, 148 spm, 514 gpm, 165 motor rpm 3,605 spp, 290 diff. Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1.25
DRL_SURVEY	Survey @ 14,819' Inc: 90.40° - Azim 358.70° DL 1.19° Below 3.6' Right of line 20.37'	0.25
DRL LAT-ROT	Rotary Drill 32' @ 32' ft/hr, 32 k wob, 65 RPM Tq on bottom 31 k, off btm 5 ft.-lbs, 148 spm, 514 gpm, 165 motor rpm 3,615 spp, 330 diff. Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1

Report #: 59 Daily Operation: 3/4/2014 06:00 - 3/5/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 028762
Days From Spud (days) 59	Days on Location (days) 59	End Depth (ftKB) 15,849.0
	End Depth (TVD) (ftKB) 10,089.6	Dens Last Mud (lb/gal) 11.50
	Rig H & P, 604	

### Operations Summary

Drill Lateral Section f/ 14,902' t/ 15,849'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 59.6 days since rig accepted, 59.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100 %, Intermediate: 100 %, Pilot Hole 100%, Curve 100%, Lateral 54%

Land Curve on line.10,466' MD 10,126.88' TVD Incl:88.6° Azim:360°\*\*\*

Lateral line 2.72' below, 12.96 Left' of proposed directional plan # 1c (Tolerance change 20'above 10' below)

1.24m' from 30H & 1.18m' to 32H

Full crew.

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-SLIDE	Slide 14' @ 7 ft/hr, 35k wob, 134 spm, 514 gpm, 149 mrpm, 3,950 spp, 150 diff, 60R tfo.	0.5
DRL LAT-ROT	Rotary Drill 49' @ 65 ft/hr, 32k wob, 65 rpm, 23k trq, 134 spm, 514 gpm, 165 mrpm, 3,950 spp, 480 diff. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	0.75
DRL_SURVEY	Survey @ 14,914' Inc: 90.30° - Azim 357.8° DL 1.19°. Below 3' Right of line 16'	0.25
DRL LAT-ROT	Rot 95' @ 63.33 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1.5
RIGSER	Service Rig.	0.5
DRL_SURVEY	Survey @ 15,009' Inc 90.5° - Azi 359.5° DL 1.8°. 4' below, 11.3' right	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Time Log Summary		
Operation	Com	Dur (hr)
DRL LAT-ROT	Rot 94' @ 38 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	2.5
DRL_SURVEY	Survey @ 15,103' Inc 90.5° - Azi 359.5° DL 0.24°. 4' below, 8.7' right	0.25
DRL LAT-ROT	Rot 95' @ 63.3 ft/hr ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1.5
DRL_SURVEY	Survey @ 15,198' Inc 90.3° - Azi 358.6° DL 1.16°. 4.4' below, 5.4' right	0.25
DRL LAT-ROT	Rot 32' @ 42.7 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	0.75
DRL LAT-SLIDE	Slide 7' @ 9.3 ft/hr, 60R tfo.	0.75
DRL LAT-ROT	Rot 56' @ 56 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1
DRL_SURVEY	Survey @ 15,293' Inc 90.4° - Azi 359.7° 4' below, 4' right	0.25
DRL LAT-ROT	Rot 95' @ 42.2 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	2.25
DRL_SURVEY	Survey @ 15,388' Inc 90.9° - Azi 0.4°, 4' below, 0.42' Left	0.25
DRL LAT-ROT	Rot 94' @ 53.7 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1.75
DRL_SURVEY	Survey @ 15,482' Inc 90.6° - Azi 359.3°, 3.96' below, 2.01' Left	0.25
DRL LAT-ROT	Rot 95' @ 47.5 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	2
DRL_SURVEY	Survey @ 15,577' Inc 90.7° - Azi 359.3°, 3.7' below, 5.13' Left	0.25
DRL LAT-ROT	Rot 95' @ 54 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1.75
DRL_SURVEY	Survey @ 15,672' Inc 90.7° - Azi 358.5°, 3.8' below, 8.89 Left' Right	0.25
DRL LAT-ROT	Rot 31' @ 62 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	0.5
DRL LAT-SLIDE	Slide 12' @ 9.6 ft/hr, 42k wob, 134 spm, 514 gpm, 149 mrpm, 3,870 spp, 150 diff.TF 80	1.25
DRL LAT-ROT	Rot 51' @ 62 ft/hr. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1.25
DRL_SURVEY	Survey @ 15,766' Inc 91.10° - Azi 358.9°, 2.72' below, 12.96 Left'	0.25
DRL LAT-ROT	Rot 32' @ 32 ft/hr. 33k wob, 65 rpm, 19k trq, 134 spm, 514 gpm, 165 mrpm, 3,660 spp, 430 diff. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.	1



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 60 Daily Operation: 3/5/2014 06:00 - 3/6/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days) 60	Days on Location (days) 60	End Depth (ftKB) 16,526.0	End Depth (TVD) (ftKB) 10,080.3	Dens Last Mud (lb/gal) 11.40	Rig H & P, 604	

### Operations Summary

Drill Lateral Section f/ 15,849' t/ 16,526'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 60.6 days since rig accepted, 60.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100%, Intermediate: 100%, Pilot Hole: 100%, Curve: 100%, Lateral: 60%

Land curve on line.10,466' MD, 10,126.88' TVD, 88.6 inc, 360 azm.

Lateral line 1.1 Above, 28.83' Left of proposed directional plan # 1c (Tolerance change 20' above 10' below)

1.7 mi from 30H & 1.7 mi from 32H

Full crews.

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-SLIDE	Slide 11' @ 7.33 ft/hr, 35k wob, 134 spm, 514 gpm, 149 mrpm, 3,850 spp, 150 diff, 80R tfo.	1.5
DRL LAT-ROT	Rotary Drill 52' @ 41.6 ft/hr, 32k wob, 65 rpm, 18k trq, 134 spm, 514 gpm, 165 mrpm, 3,850 spp, 300-650 diff.  ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection.  ** Our torque has reduced 4-5 klbs on bottom drilling by pumping sweeps. Seeing slight increase in cuttings as well.	1.25
DRL_SURVEY	Survey @ 15,860' Inc 90.8° - Azi 358.8°, 1.9' below, 16 Left	0.25
DRL LAT-ROT	Rot 20' @ 40 ft/hr.	0.5
DRL LAT-SLIDE	Slide 12' @ 8 ft/hr, 120R tfo.	1.5
DRL LAT-ROT	Rot 63' @ 50.4 ft/hr.	1.25
DRL_SURVEY	Survey @ 15,956' Inc 90.7° - Azi 359.8°, 1.9' below, 19 Left	0.25
U_RIG_OTR	Lost 1,000 psi, after troubling shooting surface equipment discovered an issue with #1 mud pump. Valve spring on # 2 pod was broken. Isolate pumps continue drilling.	0.5
DRL LAT-ROT	Rot 9' @ 36 ft/hr.	0.25
DRL LAT-SLIDE	Slide 8' @ 8 ft/hr, 90°R tfo.	1
DRL LAT-ROT	Rot 80' @ 80 ft/hr.	1
RIGSER	Service Rig.	0.5
DRL_SURVEY	Survey @ 16,051' Inc 90.8° - Azi 0.10°, 1.1' below, 21 Left	0.25
DRL LAT-ROT	Rot 31' @ 80 ft/hr.	0.5
DRL LAT-SLIDE	Slide 20' @ 8 ft/hr, 90°R tfo.	2.5
DRL LAT-ROT	Rot 43' @ 80 ft/hr.	1
DRL_SURVEY	Survey @ 16,145' Inc 91.10° - Azi 0.30°, 0.3' below, 23.5 Left	0.25
DRL LAT-ROT	Rot 31' @ 31 ft/hr.	1
DRL LAT-SLIDE	Slide 14' @ 9.3 ft/hr, 90°R tfo.	1.5
DRL LAT-ROT	Rot 49' @ 65 ft/hr.	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURVEY	Survey @ 16,239' Inc 91.00° - Azi 1.30°, 0.53' Above, 24.2 Left	0.25
DRL LAT-ROT	Rot 95' @ 47.5 ft/hr.	2
DRL_SURVEY	Survey @ 16,334' Inc 90.70° - Azi 1.50°, 1.1' Above, 23.8 Left	0.25
DRL LAT-ROT	Rot 95' @ 64ft/hr. ** ( Held Well Control Drill While Drilling, Well shut in 60 seconds, All hands @ designated stations 1 minute 25 seconds ) **	1.5
DRL_SURVEY	Survey @ 16,429' Inc 90.50° - Azi 1.10°, 1.2' Above, 23.6 Left	0.25
DRL LAT-ROT	Rot 31' @ 41.3 ft/hr.	0.75
DRL LAT-SLIDE	Slide 15' @ 10 ft/hr, 40K WOB, Dif 150 psi off btm 3,775 psi, 70°R tfo.	1.5

Report #: 61 Daily Operation: 3/6/2014 06:00 - 3/7/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
61	61	17,150.0
	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)
	10,080.5	11.40
		Rig
		H & P, 604

### Operations Summary

Drill Lateral Section f/ 16,526' t/ 17,150'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 61.6 days since rig accepted, 61.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100%, Intermediate: 100%, Pilot Hole: 100%, Curve: 100%, Lateral: 67%

Land curve on line. 10,466' MD, 10,126.88' TVD, 88.6 inc, 360 azm.

Lateral line 3' Below, 21.15' Left of proposed directional plan # 1c (Tolerance change 30' above 0' below)

1.9 mi from 30H & 1.9 mi from 32H

Full crews.

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotary Drill 49' @ 49 ft/hr, 20-40k wob, 65 rpm, 18-20k trq, 134 spm, 514 gpm, 149 mrpm, 3,700 spp, 300-650 diff. ** Pump 20 bbl weighted sweep, w/ 20 ppb graphite, 10 ppb glass beads on each connection. Torque has reduced 4-5 klbs on bottom drilling by pumping sweeps. Seeing slight increase in cuttings as well. ** ** Still having issues with high pump pressure, off bottom psi running 3,700. Calculated hydraulics is 2,900 psi. **	1
DRL_SURVEY	Survey @ 16,524' Inc 90.70° - Azi 1.30°, 1.45' Above, 23.6' Left	0.25
DRL LAT-ROT	Rot 94' @ 54 ft/hr. ** Held fire drill. **	1.75
DRL_SURVEY	Survey @ 16,618' Inc 90.60° - Azi 0.90°, 1.7' Above, 23.7' Left	0.25
DRL LAT-SLIDE	Slide 8' @ 6.4 ft/hr, 35-50k wob, 134 spm, 514 gpm, 149 mrpm, 3,700 spp, 100 diff, 90R tfo.	1.25
DRL LAT-ROT	Rot 87' @ 58 ft/hr.	1.5
RIGSER	Service rig, H&P electricians reset VFD. Had to recalibrate sensors. H&P trying to eliminate any electrical issues for the high pump pressure. Manual gauges are still reading same as electric gauges. 3,700 psi off bottom. ** Function test pipe rams & annular. All in working order. **	0.75
DRL_SURVEY	Survey @ 16, Inc 90.10° - Azi 1.7°, 1.5' Above, 23.5' Left	0.25
DRL LAT-ROT	Rot 95' @ 47.5 ft/hr.	2
DRL_SURVEY	Survey @ 16,808' Inc 90.10° - Azi 2.90°, 0.79' Above, 21.65' Left	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rot 20' @ 40 ft/hr.	0.5
DRL LAT-SLIDE	Slide 9' @ 5.2 ft/hr, 35-50k wob, 134 spm, 514 gpm, 149 mrpm, 3,700 spp, 90 diff, 40R tfo.	1.75
DRL LAT-ROT	Rot 65' @ 52 ft/hr.	1.25
DRL_SURVEY	Survey @ 16,902' Inc 90.00° - Azi 1.50°, 0.06' Above, 19.98' Left	0.25
DRL LAT-ROT	Rot 95' @ 42.2 ft/hr. ** Pumped 40 bbl low vis weighted sweep followed by 40 bbl hi vis weighted sweep, 30/40 % increase in cuttings once 2nd sweep was back to surface. **	2.25
DRL_SURVEY	Survey @ 16,993' Inc 89.5° - Azi 0.60°, 1.23' Above, 20.18' Left	0.25
DRL LAT-SLIDE	Slide 5' @ 2 ft/hr, 35-50k wob, 100 spm, 382 gpm, 110 mrpm, 2,450 spp, 90 diff, 40R tfo. ** Drill with MP # 2 While changing swab in Mp # 1. **	2.5
DRL LAT-SLIDE	Slide 2' @ 2 ft/hr, 35-50k wob, 134 spm, 514 gpm, 149 mrpm, 3,850 spp, 80 diff, 40R tfo. ** Both MP's on line **	1
DRL LAT-ROT	Rot 88' @ 39 ft/hr. **Pump 40 bbl Hi vis weighted sweep. 45 / 50% Increase in cuttings when sweep back to surface.**	2.25
DRL_SURVEY	Survey @ 17, 092' Inc 89.3° - Azi 0.60°, 3.' Below, 21.15' Left	0.25
DRL LAT-SLIDE	Slide 7' @ 2.8 ft/hr, 35-50k wob, 134 spm, 514 gpm, 149 mrpm, 3,850 spp, 80 diff, 30R tfo.	2.5

Report #: 62 Daily Operation: 3/7/2014 06:00 - 3/8/2014 06:00

Job Category				Primary Job Type				AFE Number			
ORIG DRILLING				ODR				028762			
Days From Spud (days)		Days on Location (days)		End Depth (ftKB)		End Depth (TVD) (ftKB)		Dens Last Mud (lb/gal)		Rig	
62		62		18,280.0		10,056.3		11.50		H & P, 604	

#### Operations Summary

Drill Lateral Section f/ 17,150' t/ 18,280'

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 62.6 days since rig accepted, 62.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

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

Land curve on line.10,466' MD, 10,126.88' TVD, 88.6 inc, 360 azm.

Lateral line 6.3' Above, 2.72' Left. of proposed directional plan # 1c (Tolerance change 30' above 0' below)

1.9 mi from 30H & 1.9 mi from 32H

Full crews.

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-SLIDE	Slide 5' @ 5 ft/hr, 35-50k wob, 134 spm, 514 gpm, 149 mrpm, 3,850 spp, 80 diff, 40R tfo.	1
DRL LAT-ROT	Rotary Drill 83' @ 47.4 ft/hr, 20-40k wob, 65 rpm, 16-19k trq,134 spm, 514 gpm,149 mrpm, 3,850 spp, 250-450 diff. ** Pump 40 bbl 12.5 weighted sweep 100 vis sweep, no change in shakers @ return of sweep ** Still having issues with high pump pressure, off bottom psi running 3,700. Calculated hydraulics is 2,900 psi. **	1.75
DRL_SURVEY	Survey @ 17,187' Inc 89.5° Azi 1.40°, 4.8' Below, 21.15' Left.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 94 ft/hr, 25-38k wob, 50 rpm, 20-22k trq,134 spm, 514 gpm,149 mrpm, 3,850 spp, 450-650 diff.	1
DRL_SURVEY	Survey @ 17,281' Inc 89.3° Azi 0.60°, 6.6' Below, 21.15' Left.	0.25
DRL LAT-ROT	Rot 29' @ 58 ft/hr.	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-SLIDE	Slide 20' @ 3 ft/hr, 20-50°R tfo. ** Target change of 0' below & 30' above original plan line. Currently 6.6' low of new target change. **	6.5
DRL LAT-ROT	Rot 51' @ 68 ft/hr.	0.75
DRL_SURVEY	Survey @ 17,376' Inc 90.5° Azi 1.9°, 7.6' Below, 21.6' Left.	0.25
DRL LAT-ROT	Rot 95' @ 126 ft/hr.	0.75
DRL_SURVEY	Survey @ 17,471' Inc 90.9° Azi 2.4°, 7.3' Below, 17' Left.	0.25
DRL LAT-ROT	Rot 95' @ 76 ft/hr.	1.25
DRL_SURVEY	Survey @ 17,566' Inc 91.00° Azi 2.10°, 6.53' Below, 18.2' Left.	0.25
DRL LAT-ROT	Rot 94' @ 94 ft/hr.	1
DRL_SURVEY	Survey @ 17,660' Inc 92.00° Azi 3.00°, 4.8' Below, 15.9' Left.	0.25
DRL LAT-ROT	Rot 95' @ 63.3 ft/hr.	1.5
DRL_SURVEY	Survey @ 17,755' Inc 91.70° Azi 2.00°, 2.64' Below, 13.78' Left.	0.25
DRL LAT-ROT	Rot 95' @ 126 ft/hr.	0.75
DRL_SURVEY	Survey @ 17850' Inc 92.00° Azi 3.00°, 0.3' Below, 11.58' Left.	0.25
DRL LAT-ROT	Rot 94' @ 62 ft/hr.	1.5
DRL_SURVEY	Survey @ 17,944' Inc 91.80° Azi 3.00°, 1.9' Above, 8.6' Left.	0.25
DRL LAT-ROT	Rot 95' @ 95 ft/hr.	1
DRL_SURVEY	Survey @ 18,039' Inc 91.90° Azi 2.70°, 4.1' Above, 5.82' Left.	0.25
DRL LAT-ROT	Rot 95' @ 95 ft/hr.	1
DRL_SURVEY	Survey @ 18,134' Inc 91.70° Azi 3.4°, 6.3' Above, 2.72' Left.	0.25
DRL LAT-ROT	Rot 95' @ 95 ft/hr. 25-38k wob, 70 rpm, 20-22k trq, 134 spm, 514 gpm, 149 mrpm, 3,890 spp, 450 diff.	1.25

**Report #: 63 Daily Operation: 3/8/2014 06:00 - 3/9/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
63	63	18,858.0	10,036.8	11.50	H & P, 604	

#### Operations Summary

Drill Lateral Section f/ 18,280' t/ 18,858', Perform Clean up cycles, Daylight savings, TOO H f/ 18,858' t/ 17,875'.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 63.6 days since rig accepted, 63.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100%, Intermediate: 100%, Pilot Hole: 100%, Curve: 100%, Lateral: 84%

Land curve on line. 10,466' MD, 10,126.88' TVD, 88.6 inc, 360 azm.

Lateral line 24.67' Above, 17.87' Right. of proposed directional plan # 1c (Tolerance change 30' above 0' below)

1.9 mi from 30H & 1.9 mi from 32H

Full crews.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURVEY	Survey @ 18,229' Inc 92.20° Azi 3.0°, 8.7' Above, 0.6 Right.	0.25
DRL LAT-ROT	Rot 94' @ 94 ft/hr. 22-30k wob, 70 rpm, 17-20k trq, 134 spm, 514 gpm, 149 mrpm, 4,000 spp, 450 diff. ** Trying to control Inc & Azm with different drilling parameters to keep from sliding. **	1
DRL_SURVEY	Survey @ 18,323' Inc 92.20° Azi 2.40°, 11' Above, 3.3 Right.	0.25
DRL LAT-ROT	Rot 95' @ 76 ft/hr. 22-30k wob, 75 rpm, 17-20k trq, 134 spm, 514 gpm, 149 mrpm, 4,000 spp, 400 diff. ** 100 ft/hr max. **	1.25
DRL_SURVEY	Survey @ 18,513' Inc 92.30° Azi 3.20°, 11' Above, 3.3 Right.	0.25
DRL LAT-ROT	Rot 95' @ 58.3 ft/hr. 17-20k wob, 80 rpm, 15-18k trq, 124 spm, 476 gpm, 138 mrpm, 3,850 spp, 250 diff. ** 75 ft/hr max. **	1.75
DRL_SURVEY	Survey @ 18,513' Inc 92.40° Azi 3.0°, 17' Above, 9' Right.	0.25
DRL LAT-ROT	Rot 94' @ 62.7 ft/hr. 17-20k wob, 80 rpm, 15-18k trq, 124 spm, 476 gpm, 138 mrpm, 3,850 spp, 250 diff. ** 75 ft/hr max. **	1.5
DRL_SURVEY	Survey @ 18,607' Inc 92.0° Azi 3.0°, 20' Above, 12' Right.	0.25
DRL LAT-ROT	Rot 95' @ 62.7 ft/hr. 17-20k wob, 90 rpm, 15-18k trq, 134 spm, 513 gpm, 149 mrpm, 3,850 spp, 250 diff. ** 65 ft/hr max. **	1.5
DRL_SURVEY	Survey @ 18,702' Inc 92.4° Azi 3.3°, 23' Above, 15' Right.	0.25
DRL LAT-ROT	Rot 20' @ 40 ft/hr. 17-20k wob, 90 rpm, 15-18k trq, 128 spm, 483 gpm, 149 mrpm, 4,241 spp, 146 diff. ** 65 ft/hr max. **	0.5
DRL LAT-SLIDE	Slide 16' @ 4 ft/hr, 35-50k wob, 124 spm, 476 gpm, 149 mrpm, 3,600 spp, 85 diff, 100L tfo.	4
DRL LAT-ROT	Rot 59' @ 59 ft/hr. 17-20k wob, 90 rpm, 15-18k trq, 124 spm, 476 gpm, 149 mrpm, 3,600 spp, 250 diff. ** 65 ft/hr max. **	1
DRL_SURVEY	Survey @ 18,797' Inc 90.5° Azi 2.20°, 24.67' Above, 17.87' Right.	0.25
DRL LAT-ROT	Rot 10' @ 10 ft/hr. 17-20k wob, 90 rpm, 15-18k trq, 124 spm, 476 gpm, 149 mrpm, 3,600 spp, 250 diff. ** 65 ft/hr max. **	0.25
U_MTR	MP pressure spiked to 4,900 psi, Normal off bottom 3,600 psi pressure with 250 psi differential @ 476 gpm, drill string torqued stalled out, Shut down MP's pick up off bottom, bring on MP's pressure @ 4,250 psi bleeding down to 3,700 psi. Then increasing back to 4,900 psi, dropping back and forth from 3,700 to 4,900 psi. @ 124 spm 476 gpm.	1
U_MTR	Pump 40 bbl weighted sweep circulate out of hole. 100 spm, 384 gpm, 2,600 spp, 0 rpm.	2.25
U_MTR	Rack back one stand in derrick 18,858' t/ 18,753'.	0.25
U_MTR	Pump second 40 bbl weighted sweep. 30% increase in cuttings across shakers. 100 spm, 384 gpm, 2,600 spp, 0 rpm.	2
SAFETY	Daylight savings	1
U_MTR	Continue pumping second 40 bbl weighted sweep. 30% increase in cuttings across shakers. 100 spm, 384 gpm, 2,600 spp, 0 rpm.	1.75
U_MTR	Check for flow. Well static.	0.25
U_MTR	Drop rabbit, TOO H f/ 18,753' t/ 17,875' for possible motor failure. Monitor well through trip tank, hole taking proper displacement. Pump slug.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 64 Daily Operation: 3/9/2014 06:00 - 3/10/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
64	64	18,858.0	10,036.8	11.70	H & P, 604	

Operations Summary  
TOOH f/ 17,875' t/ 8,148', Cut drilling line, TOOH f/ 8,148' t/ 6,253', TIH w/ 13 stands HWDP, L/D HWDP f/ 7,864' t/ 6,253', TOOH f/ 6,253' t/ 96', L/D BHA. Pull WB, Wash WH, Run WB, Pressure test BHA components, TIH f/ 96' t/ 1,993'.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 64.6 days since rig accepted, 64.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100%, Intermediate: 100%, Pilot Hole: 100%, Curve: 100%, Lateral: 84%

Land curve on line.10,466' MD, 10,126.88' TVD, 88.6 inc, 360 azm.

Lateral line 24.67' Above, 17.87' Right. of proposed directional plan # 1c (Tolerance change 30' above 0' below)

1.9 mi from 30H & 1.9 mi from 32H

Full crews.

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	TOOH for motor failure f/ 17,875' t/ 8,148'. Monitor well through trip tank, hole taking proper displacement.	5
RIGSER	Installed TIW, after hanging blocks and removing dead man clamp draw works would not function. Code saying it is the resistor grid #2 on the draw works went out. It is a valve that controls air flow. No way to by pass or fix on location. Electrician & new valve on the way. ETA 1500, Monitoring well on trip tank well static.	0.5
U_OTR	While waiting on parts for draw works begin tracing out mud lines to find possibly obstruction causing high pump pressure down hole. Busted 4" hoses on top of both 4" valves on pumps, and the 4" on rig floor. All three valves are in proper working order open all the way. Checked manual & hydraulic IBOP valve on top drive both are open all the way. While working on that we double checked all plugs and wires for the draw works. Found one plug not making good contact. It was still connected, but all the way. Draw works working properly. Monitoring well on trip tank well static.	2.25
RIGSER	Slip & cut 120' of drilling line. Re-calibrate. Monitoring well on trip tank well static.	1.75
U_MTR	TOOH for motor failure f/ 8,148' t/ 6,253' 15 stands. Monitor well through trip tank, hole taking proper displacement.	0.5
TIH	TIH w 13 stands of HWDP that was racked backed in derrick f/ 6,253' t/ 8,148'. Neded room in derrick for drill pipe. Monitor well through trip tank, hole giving proper displacement.	1
TOOH	L/D 39 joints of HWDP f/ 8,148' t/ 6,253'. Monitor well through trip tank, hole taking proper displacement.	2
U_MTR	TOOH for motor failure f/ 6,253' t/ 96'. Monitor well through trip tank, hole taking proper displacement.  ** Derrick held 199 stands of drill pipe, and still used pipe wrangler. Could of 15 or 16 more in derrick but would not of been able to wrangler. **	3
U_MTR	L/D Directional Tools, Break bit and lay out motor. Found that a grease port plug on low side of motor was washed - blowing fluid out of it while rotating bit box. While draining motor did not look like there was any fluid coming out of bit only out of side of motor. Was hard to see. Did not see any other visible damage to motor. Bit had two blockd jets, both with formation ( dry powder ). No indication of rubber.	2
WEARBUS HING	P/U wear bushing retrieving tool and Pull Wear bushing.	0.5
WLHEAD	P/u jetting tool and wash wellhead and Bop's.	1
WEARBUS HING	Run wear bushing and L/D retrieving tool.	0.5
U_MTR	P/U 1 stand 5" drill pipe with screen @ 500 gpm 200 psi, P/U mtr and pump through @ 500 gpm 1,080 psi, P/U nortrac and pump through @ 500 gpm 1,060 psi, P/U UBHO and pump through @ 500 gpm 1,070 ps, P/U UBHO and pump through with mule shoe installed @ 500 gpm 1,1500 ps, P/U 1st monel and pump through @ 500 gpm 1,190 psi, P/U 2nd Monel, and pump through @ 500 gpm 1,210 psi, Install MWD and pump through @ 500 gpm 1,500 psi. Pull back scrib and M/U bit.	3.5
U_MTR	TIH f/ 97' T/ 1,993'. Taking returns to trip tank, giving proper displacement.	0.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 65 Daily Operation: 3/10/2014 06:00 - 3/11/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days) 65	Days on Location (days) 65	End Depth (ftKB) 18,858.0	End Depth (TVD) (ftKB) 18,852.6	Dens Last Mud (lb/gal) 11.50	Rig H & P, 604	

### Operations Summary

TIH f/ 1,993' t/ 17,232', W & R F/ 17,232' t/ 17,333', Circ sweep around, W & R F/17,333' t/ 18,700'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 65.6 days since rig accepted, 65.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100%, Intermediate: 100%, Pilot Hole: 100%, Curve: 100%, Lateral: 84%

Land curve on line.10,466' MD, 10,126.88' TVD, 88.6 inc, 360 azm.

Larteral line 24.67' Above, 17.87' Right. of proposed directional plan # 1c (Tolerance change 30' above 0' below)

1.9 mi from 30H & 1.9 mi from 32H

Full crews.

### Time Log Summary

Operation	Com	Dur (hr)
U_DIR	TIH for motor failure f/ 1,993' t/ 17,232'. Montior well through trip tank, hole giving proper displacement. Fill pipe every 20 stands & break circulation once in open hole.  ** Broke circulation @ 13,252' had 3,750 spp, 134 spm. Same pressure as previous run. **	9
U_DIR	Taking 50K down weight, Wash & Ream f/ 17,232' t/ 17,333', Hole packing off. Top drive stalling out.	2.5
U_DIR	Pump 40 bbl weighted sweep around @ 415 gpm and work pipe until no resistance, 50% increase in cutting once sweep was at surface.	1.5
U_DIR	Wash & Ream F/ 17,333' T/ 18,123' WOB 5/20 k , 60/90 rpm, Diff 250 - 600. Pumping 40 bbl weighted sweeps every 3rd stand. Sweeps bringing back 30-40 % increase in cuttings once sweeps are to surface. Attempt to slack off without pumps or rotation unable to stacking weight.	6
U_DIR	Reamed down to 18,123' back ream up to make connection, packing off, work up gain good circulation @18,020' start reaming down taking up to 20 K weight motor diff stalling up to 950 psi diff. Pump sweep while working back down rpm 60 gpm varying gpm from 415 to 506 gpm, Until able to freely work down t/ 18,123'. ** 60-65% increase in amount of cuttings once sweep was back to surface. **	2.5
U_DIR	Continue to Wash & Ream F/ 18,123' T/ 18,700' WOB 9-15, 460 gpm,diff 300 psi, Off Btm Pressure 3,600 psi.Pumping 40 bbl weighted sweeps every 3rd stand.Sweeps bringing back 30-40 % increase in cuttings once sweeps are to surface.	2.5

Report #: 66 Daily Operation: 3/11/2014 06:00 - 3/12/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762
Days From Spud (days) 66	Days on Location (days) 66	End Depth (ftKB) 19,637.0	End Depth (TVD) (ftKB) 19,631.5	Dens Last Mud (lb/gal) 11.70	Rig H & P, 604	

### Operations Summary

W&R f/18,700' t/ 18,858', Rot f/ 18,858' t/ 18,883', Circ & Cond mud f/ 11.5 t/ 11.7 MW, Rot drl F/18,883' T/ 19,637'

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 66.6 days since rig accepted, 66.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

Completion percentage: Surface: 100%, Intermediate: 100%, Pilot Hole: 100%, Curve: 100%, Lateral: 92%

Land curve on line.10,466' MD, 10,126.88' TVD, 88.6 inc, 360 azm.

Larteral line 23.89' Above, 7.37 Right.t. of proposed directional plan # 1c (Tolerance change 30' above 0' below)

1.9 mi from 30H & 1.9 mi from 32H

Full crews.

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	Wash & ream f/ 18,700' t/ 18,858', 9-15 wob, 460 gpm, diff 300 psi, Off Btm Pressure 3,600 psi. Pumping 40 bbl weighted / low vis sweeps every 3rd stand . Sweeps bringing back 30-40 % increase in cuttings once sweeps are to surface. Starting see some nickel size cuttings coming across shakers. Shakers cleaned up, very little coming across. From 18,735' t/ 18,858' did not have any pressure spikes, minimal torque.	3
DRL LAT-ROT	Rot 25' @ 50 ft/hr. 30k wob, 90 rpm, 15-18k trq,134 spm, 514 gpm,138 mrpm, 3,950 spp, 500 diff. Pumped a sweep @ top of stand after pumping 4,800 strokes string torqued and pressured up. Decision was made to bring mud weight up from an 11.5 t/ 11.7.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
U_TH	Circulate and condition mud f/ 11.5 t/ 11.7 mud weight. Before sweep hit surface it was unloading the hole. Began getting back quarter to half dollar sizes of shale. Cleared up after sweep was out of hole. Hole was torqueing and pressure up every 5 - 10 minutes. In last hour pressure and torque have stayed consistant. 3,500 psi, 12k trq.  ** Current mud weight 11.6+ / 75 In - 11.6+ / 74 Out. **	6
DRL LAT-ROT	Rotary Drill 60' @ 48 ft/hr, 38k wob, 70 rpm, 15k trq, 124 spm, 476 gpm, 138 mrpm, 3,830 spp, 405 diff.	1.25
DRL_SURVEY	Survey @ 18,892' Inc 90.40° Azi 356.20°, 24' Above, 14 Right.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 47 ft/hr,	2
DRL_SURVEY	Survey @ 18,986' Inc 90.50° Azi 0.80°, 24.52' Above, 10.2 Right.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 63 ft/hr,	1.5
DRL_SURVEY	Survey @ 19,081' Inc 90.50° Azi 0.60°, 24.52' Above, 9.4 Right.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 63 ft/hr,	1.5
DRL_SURVEY	Survey @ 19,176' Inc 90.20° Azi 1.00°, 24.28' Above, 8.79 Right.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 63 ft/hr,	1.25
DRL_SURVEY	Survey @ 19,270' Inc 90.90° Azi 1.20°, 24.37' Above, 8.66 Right.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 63 ft/hr,	1.5
DRL_SURVEY	Survey @ 19,365' Inc 89.90° Azi 0.10°, 24.2' Above, 7.7 Right.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 63 ft/hr,	1.5
DRL_SURVEY	Survey @ 19,460' Inc 90.90° Azi 2.20°, 24.04' Above, 7.7 Right.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 63 ft/hr, ** Drilling with MP#1 only while changing swab & liner in MP# 2 from 04:45 Hrs **	1.5
DRL_SURVEY	Survey @ 19,554' Inc 89.90° Azi 359.7°, 23.89' Above, 7.37 Right.	0.25
DRL LAT-ROT	Rotary Drill 32' @ 63 ft/hr, ** Drilling with MP#1 only while changing swab & liner in MP# 2 from 04:45 Hrs ** On last sweeps 15-20% no large pieces of shale all small or ground cuttings.	0.5

### Report #: 67 Daily Operation: 3/12/2014 06:00 - 3/13/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
67	67	20,484.0	20,478.3	11.80	H & P, 604			
Operations Summary								
Rot drlg f/19,637' t/ 20,484' Perform Clean up cycles.								
Remarks								
H & P 604 Well (University 3-19 31H) Progress: 67.6 days since rig accepted, 67.5 days from spud								
Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )								
Completion percentage: Surface: 100%, Intermediate: 100%, Pilot Hole: 100%, Curve: 100%, Lateral: 100%								
Land curve on line.10,466' MD, 10,126.88' TVD, 88.6 inc, 360 azm.								
Larteral line 6' Below, 2.2' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)								
1.9 mi from 30H & 1.9 mi from 32H								
Full crews.								

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotary Drill 63' @ 63 ft/hr, 38k wob, 70 rpm, k trq, 1200 spm, 384 gpm, 138 mrpm, 3,830 spp, 400 diff.  ** Drilling with MP#1 only while changing swab & liner in MP# 2 @ 04:45 Hrs. While pump was offline installed suction screen also. Still need to install suction screen on #1 mud pump. **	1
DRL_SURVEY	Survey @ 19,649' Inc 89.60° Azm. 0.70°, 23' Above, 6' Right.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 63 ft/hr.	1.5
DRL_SURVEY	Survey @ 19,744' Inc 89.20° Azm. 0.40°, 21' Above, 5' Right.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 54 ft/hr.	1.75
DRL_SURVEY	Survey @ 19,838' Inc 89.0° Azm. 0.70°, 19' Above, 4' Right.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 76 ft/hr.  ** #2 pump on line. **	1.25
DRL_SURVEY	Survey @ 19,933' Inc 88.90° Azm. 1.40°, 16' Above, 3' Right.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 54 ft/hr.  ** #1 pump off line. Change out swab. **	1.75
DRL_SURVEY	Survey @ 20,028' Inc 88.40° Azm. 1.70°, 13' Above, 4' Right.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 62 ft/hr.  ** installed suction screen Pump #1. Put both pumps back on line.*****	1.5
DRL_SURVEY	Survey @ 20,123' Inc 88.30° Azm. 0.8°, 9.4' Above, 4.2' Right.	0.25
DRL LAT-ROT	Rotary Drill 94' @ 62 ft/hr.	1.5
DRL_SURVEY	Survey @ 20,217' Inc 88.00° Azm. 0.6°, 5.5' Above, 3.4' Right.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 95 ft/hr.	1
DRL_SURVEY	Survey @ 20,313' Inc 87.4° Azm. 1.10°, 1.1' Above, .3' Right.	0.25
DRL LAT-ROT	Rotary Drill 95' @ 54 ft/hr.  ** Dust Mud weight up to 11.8 ppg while drilling.**	1.75
DRL_SURVEY	Survey @ 20407' Inc 87.1° Azm. 0.7°, 4.5' Below, .32.5' Right.	0.25
DRL LAT-ROT	Rotary Drill 26' @ 52 ft/hr. TD Production Hole section 20,484 MD on 3-12-14 @2145 hrs.  ** Dust Mud weight up to 11.8 ppg while drilling.**	0.5
DRL_SURVEY	Survey @ 20,433' Inc 86.5° Azm. 0.7°, 6' Below, 2.2' Right.	0.25
CIRC	Perform clean up cycles consisting, of pumping 60 bbl weighted sweep around rack back 2 stands of drill pipe after sweep to surface and clear of shakers, 10% increase in cuttings from #1 & #2 sweeps 3rd cycle started at 04:30 hrs. ( repeat cycle for a total of 5 cycle's.)  ** circ with MP# 2 while changing 2-swab's & 1-liner in MP #1. As soon as MP #1 was on line Swab blew in MP# 2, Continue circ with 1 MP. Both Mp's back on line @ 03:00 **	8

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 68 Daily Operation: 3/13/2014 06:00 - 3/14/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
68	68	20,484.0	20,478.3	11.80	H & P, 604		

### Operations Summary

Finished Clean up cycles.Pioneer Natural Resources Security stand down, TOO H f/19,889' to 11,000' Pump (3) 30 bbl sweeps. TOO H f/ 11,000' to 9,400' TIH f/ 9,400' to 17,000', Cir. slug out of Dp as weighted sweep.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 68.6 days since rig accepted, 68.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

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

Land curve on line.10,466' MD, 10,126.88' TVD, 88.6° inc, 360° azm.

Larteral line 6' Below, 2.2' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)

1.9 mi from 30H & 1.9 mi from 32H

Full crews.

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Circulate 3rd sweep out of hole. 20% increase in cuttings @ shakers. Circulate until shakers clean	1
TOOH	TOOH f/ 20,268' t/ 20,079'. 2 stands.	0.25
CIRC	Circulate 4th sweep out of hole. 10-15% increase in cuttings @ shakers. Circulate until shakers clean.	3.5
TOOH	TOOH f/ 20,079' t/ 19,889'. 2 stands.	0.25
CIRC	Circulate 5th sweep.	1
SAFETY	Pioneer security arrived on location. Continued circulating @ reduced rates. Left driller on rig floor & Solid control personnel in back yard. Driller monitoring well while shut down. Security team found no infractions.	0.75
CIRC	Continue circulating 5th sweep out of hole. 5% increase in cuttings @ shakers. Circulate until shakers clean.	1.25
TOOH	Flow check , hole static. Pumped slug.TOOH f/ 19,889' t/ 11,000'. had indication of cuttings bed f/14,030 t/ 14,010' (21' slide area.) no major tight hole over pull issues. Monitor well on trip tank, hole taking proper fill. Trip @ 100' ft/min max to eliminate swabbing causing hole caving in.	7
CIRC	Break cir. Pumping 530 gpm 3136 psi. rotate 50 rpm motor 154 rpm pumped (3) 30 bbl's sweeps wait 15 min. between sweeps each sweep 50 vis. w/ 10#/ bbl medium nut plug. Cir.until shakers clean. build & pumped slug. 1st sweep estimated 35% fine reworked cuttings, 2nd sweep 25% fine reworked cuttings, 3rd sweep 10% fine reworked cuttings, (20) Blocky, tabular pieces with 1st sweep.	2.25
TOOH	Continue TOO H aboveTop of curve @9400' no tight hole issues thru curve.	1.25
TIH	Flow check Hole static.TIH f/ 9,400' to 17000' , fill pipe every 30 stands. Monitor pipe displacement in trip tank.( had 25 k extra drag @ 16,555' & 16,569') no other tight hole issues.	4.5
CIRC	Cir.utilize slug in Dp as weighted sweep to clean out hole f/ 17,000', prior to continue TIH to TD @ 20,484'	1

Report #: 69 Daily Operation: 3/14/2014 06:00 - 3/15/2014 06:00

Job Category			Primary Job Type			AFE Number	
ORIG DRILLING			ODR			028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
69	69	20,484.0	20,478.3	11.80	H & P. 604		

### Operations Summary

Wash & ream f/ 16,838' to 20,484', perform Clean up cycles pump 60 bbls sweeps in 20 bbl increments.Pull 2 stands after sweeps returned to surface. Current working depth 19,947' to 19,854' on 4th cycle. increased sweep size to (3) 30 bbls.15 min pause ea sweep.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 68.6 days since rig accepted, 68.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

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

Larteral line 6' Below, 2.2' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)

Estimated Pad Drilling Completion date: April/ 14/ 2014

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Started washing stand down tagged up @ 16,838'. Flow % dropped, torque increased, psi increased.signs of packing off. Pull back out to 16, 833'. Seems to be the roof of hole caving in with de- lamination fragile shale. where motor pressure spiking occurred on last BHA. Circ slug out of pipe for the weighted sweep @ 17,000', trouble spot on last trip.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
WASH_RE AM	Tried several different parameters to get passed 16,838' only thing that helped was low rotary & low gpm. Slowed rotary to 20 rpm, 60 spm, 1,300 spp, 9k torque. Wash on f/ 16,838 t/ 17,049'. Tried washing two stands to ensure we were away from tight spot with no issues. Hole acting as though it was packing in the middle of second stand @ 17,009'. Decision made to pump sweep.	1
CIRC	After making up third stand could not get down @ 17,144' Pump weighted low vis sweep out of hole to clean any large pieces of shale that have fallen from top side of hole. Sweep returns 30% increase in sandy fines. Reworked cuttings, No big pieces.	3
WASH_RE AM	Wash & ream to bottom f/ 17,144' t/ 20,484'. 20 rpm's, 60 spm, 230 gpm 1,200 psi. ( attempted several times to TIH on elevators, weight just stacks out.)	7.5
CIRC	Pump (3) 20 bbl's weighted sweep pause 15 min apart on ea sweep. Increased pump rate to 124 spm, 476 gpm. 4100 spp Rot 100 rpm on up stroke & 25 rpm when slacking off. Tq, off bottom 12-14k. 1st sweep had Increase of fine reworked cuttings by 30% 2nd had 20%, 3rd 10% w/ (10 ) piece's Blocky Tabular pieces.	3
TOOH	TOOH 2 stds f/20,484' to 20,335' pulled 390k off bottom max drag 44 k.	0.5
CIRC	Pump (3) 20 bbl's 105 high vis sweeps w/ 10#/bbl nut plug ea sweep. pause 15 min apart on ea sweep. Increased pump rate to 124 spm, 476 gpm. 4100 spp Rot 100 rpm on up stroke & 25 rpm when slacking off. Tq, off bottom 12-14k, work Dp f/ 20,335' to 20,147' Fine reworked cuttings, 1st sweep had 15% 2nd sweep 10%, 3rd 5%.	2.75
TOOH	TOOH 2 stds f/20,335' to 20,147' pulled max drag 19 k.	0.25
CIRC	Pump (3) 20 bbl's 50 vis sweeps w/ 10#/bbl nut plug ea sweep. pause 15 min apart on ea sweep. Increased pump rate to 124 spm, 476 gpm. 4100 spp Rot 100 rpm on up stroke & 25 rpm when slacking off. Tq, off bottom 12-14k work Dp f/ 20,154' to 20,035' 1st sweep 15% 2nd sweep 10% 3rd sweep. 5%.	3.5
TOOH	TOOH 2 stds f/20,147' to 19,947' pulled max drag 20k.	0.25
CIRC	Pump (3) 30 bbl's weighted sweeps w/ 10#/bbl nut plug ea sweep. pause 15 min apart on ea sweep. Increased pump rate to 124 spm, 476 gpm. 4100 spp Rot 100 rpm on up stroke & 25 rpm when slacking off. Tq, off bottom 12-14k work Dp f/19,947' to 19,851'.	1.25

Report #: 70 Daily Operation: 3/15/2014 06:00 - 3/16/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days On Location (days)	End Depth (ftKB)
70	70	20,484.0
		End Depth (TVD) (ftKB)
		20,478.3
		Dens Last Mud (lb/gal)
		11.80
		Rig
		H & P, 604

### Operations Summary

Circ, TOOH, rack back 180 Stds Dp, LD 106 Jts. 5" Dp, Functioned BOP's, LD Dir BHA, Pull W/B, Clean Rig floor of OBM, PJSM.

### Remarks

H & P 604 Well (University 3-19 31H) Progress: 69.6 days since rig accepted, 68.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

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

Lateral line 6' Below, 2.2' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)

Estimated Pad Drilling Completion date: 4/14/ 2014

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Circulate 4th sweep out of hole for clean up cycle @ TD. Pumped three sweeps around 15 minutes apart. 1st sweep give us 15% increase in silty fines, 2nd sweep 5% increase with silty fines to 1/4" pieces, 3rd sweep gave back 5% silty fines.	2
TOOH	TOOH f/ 19,988' t/ 19,800'.	0.25
CIRC	Started 5th circulation. Pumped 366 strokes, string pressured up could not pump on string. Worked pipe, pipe was free indicating bit was not stalled out on formation. Checked all surface valves, all in open position. Opened 2" valves and closed 4" valves on pumps, pumped back to active system, both in proper working order. Tried isolating both pumps still not able pump down hole. Determined we had a locked up motor.	0.5
TOOH	TOOH wet to run production casing f/ 19,800' t/ 12,917'. Monitor well through trip tank, hole taking proper displacement. Pulled tight @ 19,398' 30k over, & 17,750' 30k over, 13,877' 25k over. From 17,190' t/ 16,906' pulled 20k over during that 284' spot. (same place we have had trouble with during TIH's). Minimal drag throughout rest of lateral. No issues thru curve. Rack back 180 stands Dp. ( Clean OBM from rig floor of OBM 30 min.)  **Picked up single to reach TD. TOOH on double. Changed break.	12.75
TOOH	Continue TOOH f/ 3,875' Ld 106 jts. 5" Dp to run Production csg. Pulling wet string. Monitor well through trip tank, hole taking proper displacement. ( Safety break Clean rig floor of OBM) Functioned BOP's pipe rams & annular preventer.	3.75
TOOH	TOOH w/ Dir. BHA, to surface, hole full, Hole static. Closed Blind Rams. Attempted to drain motor, Motor siezed up would not drain, Break out Bit, (bit had 2 jets plugged w/ stator rubber) Ran BHA in mouse hole, pulled MWD/Gamma tool. Break down & LD motor & BHA.	2.5
WEARBUS HING	Pull wear bushing, Jet wellhead.	0.5
SFTY	Clean rig floor of OBM after wet trip. Place all casing equipment on rig floor.	1.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	Held PJSM subject rigging up CRT Tool, Csg handling tools, R/D Top drive stabbing guide Rig Bails.	0.5

**Report #: 71 Daily Operation: 3/16/2014 06:00 - 3/17/2014 06:00**

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762

Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
71	71	20,484.0	20,478.3	11.80	H & P, 604

#### Operations Summary

Ru CRT Csg handling tools & Torque turn equip, Run 5 1/2" 20 #/ft P-110 BTC production csg. CBU in OH every 80 jts.depth at report time 13,785'.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 70.6 days since rig accepted, 69.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

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

Lateral line 6' Below, 2.2' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)

Estimated Pad Drilling Completion date: 4/14/ 2014

### Time Log Summary

Operation	Com	Dur (hr)
CASE	Rig up Tesco casing equipment including torque turn.( Pre-Installed torque rings in casing.)	2

\*\* Contacted TRRC for planned production csg cement job Operator - Sedy. Talked to Troyce McKnight regarding the BOP test due date on the 17th before midnight that we should be cementing the csg before due date. Verbal approval was given to continue our operation of running production csg. 3-16-2014 @ 0700 hrs. \*\*

CASE	M/U 5 1/2" 20# P110 BTC. Topco reamer float shoe, 2 joint shoe track, Weatherford latch in double float collar, 20' short jnt, 8' pup, GeoDynamics time delay toe sleeve, 8' pup. Tested floats - good. TIH w/ 5 1/2" casing f/ 130' t/ 8,623'. Taking returns to trip tank, hole giving proper displacement 12.5 bbl's per 10 joints. Torque = 10,600 ft/lbs. Break cir. every 40 jts.Taking PU,SO,ROT.TQ every 1000' while inside csg.	14
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CIRC	Cir. Bottoms up f/ 8,623' stage pumps up to148 spm 569 gpm 1785 spp.Taking PU,SO, every 500' after getting in OH. ( AV in OH 294 ft-min 291 ft-min csg.) *****@ 8,623' PU=202 k SO=194 k**	0.5
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CASE	Cont.TIH f/8,623' to 12,063'.Break cir. every 40 jts. no issues going thru curve into lateral with proper displacement.	4.25
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CIRC	Cir. Bottoms up f/ 12,063 stage pumps up to 148 spm 569 gpm 2162 spp. ( AV in OH 294 ft-min. 291 ft-min.in csg ) Uniform fine reworked cuttings on shakers. ****@12,063 PU= 215 k. SO=199 k***	1
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CASE	Cont. TIH f/12,063' to.13,785' Break cir. every 40 jts. having proper displacement.	2.25
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**Report #: 72 Daily Operation: 3/17/2014 06:00 - 3/18/2014 06:00**

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762

Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
72	72	20,484.0	20,478.3	11.80	H & P, 604

#### Operations Summary

Run 5 1/2" 20 #/ft P-110 BTC production csg f/ 13,785' t/ 20,280', Circ bottoms up, R/D CRT, R/U Bails & casing elevators, R/U 5 1/2" safety valve, Cement head, PJSM.

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 71.6 days since rig accepted, 70.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

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

Lateral line 6' Below, 2.2' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)

Estimated Pad Drilling Completion date: 4/14/ 2014

### Time Log Summary

Operation	Com	Dur (hr)
CASE	TIH f/13,785' t/ 15,503' w/ 5.5 20# P-110 BTC. Monitor well through trip take, hole giving proper displacement.	2

CIRC	Circulate bottoms up @ 15,503' stage pumps up to 120 spm, 460 gpm, 11 bpm, 1,730 spp. Uniform fine reworked cuttings on shakers.  ** @15,503' - PU= 260k. SO=180k pumps on, 273k / 168k pumps off. **	1.5
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CASE	TIH f/15,503' t/ 18,784' w/ 5.5 20# P-110 BTC. Monitor well through trip take, hole giving proper displacement. Fill pipe every 40 joints.	4
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## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Circulating bottoms up @ 18,913' stage pumps up to 120 spm, 460 gpm, 11 bpm, 1,850 spp. Uniform fine reworked cuttings on shakers.  ** @ 18,913' - PU= 280k. SO=120k pumps on, 355k / 95k pumps off. **	1.5
CASE	TIH f/ 18,784' t/ 19,740' w/ 5.5 20# P-110 BTC. Monitor well through trip take, hole giving proper displacement. Starting taking weight would not slack off. Hook Load showing block weight.	0.5
CASE	Wash & Ream casing f/ 19,740' t/ 20,280. 110 spm, 415 gpm, 9.5 bpm, 1,665 spp, 20 rpm, 9k torque. Pipe rotating on the up stroke, stalling on the down stroke. Slack off to 50k, Pick up 283 k.breaking over, Work string up and down, difficult making progress with casing every down stroke. Hole not packing off, full returns during entire process. @ 20,285' becoming more difficult to rotate pipe down, decision made to stop while csg free with csg collar 5' above rig floor. PU of 200 k csg set 204' from TD of 20,484'  Float shoe bottom - 20,280' Float shoe top - 20,278.8' 2 jnt shoe track - 85.96' Latch in F.C. Btm - 20,192.9 Latch In F.C. top - 20,190.7' 2 short jnts - 27.26' Toe sleeve Btm - 20,163.4' Toe sleeve top - 20,158.1' Marker joint Btm - 9,298.0' Marker joint top - 9,288.3'	7.75
CIRC	Circ. bottoms up. clean at shakers	1.75
CASE	RD CRT tool & torque turn equip. R/U 22' bails & YT csg. elevators.	2.5
SAFETY	Held PJSM with Schlumberger & rig crew rigging up cement head & pump line.	0.5
CMT	MU 5 1/2" Full open Safety valve,RU Cement head.loaded with Weatherford bottom plug, (witness by night Company man & Weatherford Service man)	1.5
SAFETY	Held PJSM cementing Prod. csg. **Schlumberger Pump truck #2 rigged up for backup in case trouble with Pump truck #1 occurs during cementing**	0.5

### Report #: 73 Daily Operation: 3/18/2014 06:00 - 3/18/2014 21:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	028762
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
72	72	20,484.0
		End Depth (TVD) (ftKB)
		20,478.3
		Dens Last Mud (lb/gal)
		11.80
		Rig
		H & P, 604

#### Operations Summary

Cement 5 1/2" 20# P-110 production csg. ND BOPs, Seaboard Installed Emergency Slips, Cut csg w/ saw,& LD cut jt.Installed Dry hole cap.Release rig 21:00 hrs 3-18-2014 to skid to 3-19-32H

#### Remarks

H & P 604 Well (University 3-19 31H) Progress: 71.6 days since rig accepted, 70.5 days from spud

Rig NPT 0 hours for previous 24 hours, 0.0 hours for the month of ( March )

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

Larteral line 6' Below, 2.2' Right of proposed directional plan # 1c (Tolerance change 25' above 5' below)

Estimated Pad Drilling Completion date: 4/14/ 2014

## Time Log Summary

Operation	Com	Dur (hr)
CMT	<p>Pressure test cement lines @ 5000 psi Cement 5-1/2" 20 ppf P-110 Tenaris BTC as follows: Drop Bottom Plug. Mix and Pump @ 8 bpm</p> <p>Mud Push Express: 50 bbls @ 11.87 ppg (.8 lb/bbl of MUDPUSH Express B389, .2 gal/bbl of B220 Surfactant, 0.2 gal/bbl of D206 Antifoam, D031 Barite 135.46 ib/bbl)</p> <p>Mix and Pump @ bpm Scavenger Slurry (Lead): 336 bbls @ 12.04 ppg, 561.67 sk 1.89 yield w/10.63 gal/sk h2O. Mixed with 75 lb/sk cement. D049, 0.5% fluid loss D207, 7% extender D020, .2 % anti foam D046, .7% retarder D013, and, 0.1% Dispersant D065.</p> <p>Mix and Pump @ 8.2 bpm Tail Slurry: 570.4 bbls @ 12.5 ppg TXI Liteweight Cement. 1925.27 sks (75 lb/sk) Yield 1.66 ft3/sk. w/ Mix Fluid 8.928 gal/sk. Additives: 7.000 % BWOC (D020) extender, 0.500 % BWOC (D207) FluidLoss, 0.200 % BWOC (D046) Anti Foam, 0.550% BWOC (D013) Retarder,0.100% BWOC (D065)Dispersant,</p> <p>Load &amp; Drop Top Plug. Mix and Pump @ 8 bpm Biocide Displacement, 437 bbls fresh water @ 8.33 lb/gal. Fresh Water Plug down @ 09:48 3/18/2014. Bumped Plug @ 500psi over final lift psi to 2793 psi. Full returns throughout cementing operations</p> <p>Lift Pressures: 10 bbls - 7.7 bpm - 1196 psi, 100 bbls - 8.2 bpm - 1971 psi, 200 bbls- 8.1 bpm- 2918 psi, 300 bbls- 8.0 bpm- 3101 psi- 400 bbls 5.1 bpm - 2638 psi, 430 bbls- 3.2 bpm- 2375 psi, Bumped plug after 437.8 bbls pumped Held pressure 5 min released pressure,4 bbls returned.Checked floats Held .</p> <p>In Tension 200 k Float shoe bottom - 20,280' Float shoe top - 20,278.8' 2 jnt shoe track - 85.96' Latch in F.C. Btm - 20,192.9 Latch In F.C. top - 20,190.7' 2 short jnts - 27.26' Toe sleeve Btm - 20,163.4' Toe sleeve top - 20,158.1' Marker joint Btm - 9,298.0' Marker joint top - 9,288.3'</p>	4
CMT	R/D Schlumberger cement head and all circulating iron.	1.5
SAFETY	Pre job safty meeting with Monohans for N/D job	0.5
RIG UP / RIG DOWN	Nipple down, Flow Line, Turn buckles, catch pan, And BOP'S, RD choke line,Kill line vaccum out cellar,	5.5
WLHEAD	Seaboard set Emergency slips,13 5/8" x 5 1/2" S-22 set 225k on csg slips. Cut 5 1/2" with Wet saw.Pulled cut jt. & LD 5 1/2" 20# P-110 P-110, Removed Csg Bails & Csg Elevators. NU Dry hole cap. *****Release Rig 3-18-2014 @2100 hrs to Skid to 3-19-32H*****	3.5

Report #: 74 Daily Operation: 3/18/2014 21:00 - 3/19/2014 21:00

Job Category ORIG DRILLING				Primary Job Type ODR			AFE Number 028762	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
73	72	20,484.0	20,478.3	11.80				
Operations Summary								
Remarks								

### Time Log Summary

Time Log Summary		
Operation	Com	Dur (hr)

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

<b>Report #: 1 Daily Operation: 5/13/2014 06:00 - 5/14/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 129	Days on Location (days) 1	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6
<b>Operations Summary</b> WSI Install "B" section Test void Install lower frac stack Plumb up cellar Fill cellar with rock Set 8 sand silos Set 5 frac tanks Run GRJB Run RCBL					
<b>Remarks</b> WSI No activity					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
OTHR	No activity				2
RURD	MIRU Seaboard WH. Remove metal grates. Install "B" section well head 11" 5M x 7-1/16" 10M. Tested void to 5K OK. Plumbed intermediate & surface csg valves to ground level. Painted surface valve RED & intermediate valve GREEN. Welded plate on top of mouse hole. NOTE: #31 well head has no Back pressure valve capability due to emergency slips installed. # 31 is the middle well. Installed 6" PVC cellar drain. Filled cellar w/ pea gravel Set 5 frac tanks. 2 FB & 2 pump down, 1 stand alone. Set 8 sand silos. Set 2 company man Tan Mar trailers & 3 crew trailers.				9
WSI	WSI waiting on API Wireline				4.5
LOGCBL	Run GRJB to 10,219' & POOH				1.5
WSI	WSI awaiting GRJB runs and CBLs on 32H.				4
LOGCBL	RIH and begin running RCBL from 10225'				3
<b>Report #: 2 Daily Operation: 5/14/2014 06:00 - 5/15/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 130	Days on Location (days) 2	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6
<b>Operations Summary</b> RIH GR/CBL WSI while opening sleeve on 32H Open toe Sleeve RD frac pumps & blender					
<b>Remarks</b> Toe prep Ops.  FTR: 795 RT: 0 CR:0 LTR: 795					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
LOGCBL	Pull Gamma Ray / CBL 10,235' TOC@ surface. Marker Joint @ 9,304-9,314				2
OTHR	WSI while opening toe sleeve on # 32H				10
OTHR	Priming up lines. Psi test lines to 9,500 psi Tested intermediate to 1,500 psi. Monitored and charted psi for 5 min. Kept chart Opened well & began pumping down csg @ 1 bpm walking psi up to 7014 psi, monitored psi for 10 min. Had small leak on wing valve to goathhead block. FMC Hammered up all flange nuts. Bumped psi up to 9,500 psi. Held for 13 min. & sleeve Opened. Watched for 30 min Psi fell from 9414 psi to 3292 psi. Walked rate up to 20 bpm @ 6,170 psi. Rate stabalized @ 20 BPM @ 5680 psi. Pumped 1500 gal of 15% HCl acid, 5 bbl fresh water, 500 gal limonene. After acid cleared sleeve, increased rate to 31 BPM @ 7131 psi. Flushed well w/ 200 bbls over flush with total of 795 bbls fluid pumped @ 31 bpm 7131 psi. Acid on @ 20 BPM @ 6474 psi. Acid gone @ 5680 psi. ISIP:3961  5min 3733 psi 10 min 3588 psi 15 min 3527 psi				4.5
OTHR	WSI pending sleeve ops on #30H				6
OTHR	RD PPS frac pumps, blender & support equipment				1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Report #: 3 Daily Operation: 5/15/2014 06:00 - 5/16/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
131	3	0.0			SWAT PPS Frac Fleet, #6	

#### Operations Summary

MIRU PPS Frac & Support Equip.  
NU Upper half frac stacks  
Delivering sand & Acid  
Con't to RU ground valves & risers  
Water transfer ready

#### Remarks

PPS Downtime: 0 Hrs. 0 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 795  
RT: 0  
CR:0  
LTR: 795

### Time Log Summary

Operation	Com	Dur (hr)
MIRU	MIRU Pioneer Pumping Services,Epic WL & Pressure Control, Performance Pumping Services, F2 flowback & NU FMC Upper Frac Stacks	12
MIRU	Delivering sand & acid. Water transfer RU & ready. Con't to RU risers and ground valves. RU pop off & installed restraints.	12

### Report #: 4 Daily Operation: 5/16/2014 06:00 - 5/17/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
132	4	0.0			SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI pending frac ops  
Prime up & pressure test  
Repair hydraulic pump  
Wait on E tech to fix electrical issue

#### Remarks

PPS Downtime: 10 Hrs. 10 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 795  
RT: 0  
CR:0  
LTR: 795

### Time Log Summary

Operation	Com	Dur (hr)
MIRU	Continue to set up pps and related equipment	9
OTHR	Pressure Test. calculating straps	3
U_PEPXD	Repair hydraulic pump to chem pumps	10
U_PEPXD	Wait on E tech to fix electrical issues on blender	2

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

Job Category				Primary Job Type		AFE Number	
ORIG COMPLETION				OCM		028745	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
133	5	0.0			SWAT PPS Frac Fleet, #6		

#### Operations Summary

WSI waiting on frac ops on 32H  
Frac Stage 1 of 36  
Perf stg 2 of 36  
Frac stg 2 of 36  
WSI pending WL & frac ops

#### Remarks

PPS Downtime: 7 Hrs. 17 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:7058  
RT: 0  
CR:0  
LTR: 7058  
TSIF: 8046 lbs

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Time Log Summary		
Operation	Com	Dur (hr)
U_PEPXD	Wait on E tech to fix electrical issues on blender. Then we had to work on the suction pump.	7.5
STIM	<p>FRAC STG # 1 of 36: ( Toe Sleeve) Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 47 bbls 15% HCL, 567 bbls of slickwater fluid down5.5" csg.</p> <p>Step test:</p> <p>39 @ 6602 Psi 20 @ 5216 Psi.</p> <p>Acid on form @ 39 bpm @ 6930 psi. Acid cleared @ 39 bpm @ 6602 psi.</p> <p>Pre Pad ISIP: 5087 Pad FG: 0.94 5 Min: 3,956</p> <p>Avg rate: 26 bpm Avg psi: 6152 psi Max rate: 39 bpm Max psi:7075 psi</p> <p>LTR= 1,362 bbls. TSIF= 0 lbs.</p> <p>Pump 567 bbls of slickwater { including 47 bbls of 15% HCL}, pressures were to high was told to not pump sand and to perforate Stage #2 per Jose Bolivar.</p>	1
PERF	<p>RU EPIC WL for Stage # 2. RIH &amp; pump down Magnum CFP &amp; 4 each 3.125" guns. Set CFP @ 20,148' perforate intervals 19,956' - 19,958' &amp; 20,016' - 20,018' &amp; 20,076' - 20,078' &amp; ' 20,136' - 20,138' - 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 7000 PSI and 285 Ft/Min. Line Speed. Log well on way out.</p> <p>FTR: 615 BBLS LTR: 1977 BBLS</p>	5.5
OTHR	Wait on frac ops on #32 and #30	3
STIM	<p>FRAC STG # 2 of 36: Test stack to 9,200 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/22 bbls 15% HCL, 8046 lbs.40/70 brown sand &amp; 5081 bbls of hybrid fluid linear/X-link down5.5" csg.</p> <p>Step test: 64@ 7516 Psi 48@ 6570 Psi 32 @ 5756 Psi 16 @ 4912 Psi</p> <p>Formation broke @ 20 bpm @ 5483 psi. Acid on form @ 40 bpm @ 6700 psi. Acid cleared @ 40 bpm @ 6615 psi.</p> <p>Increased rate to 64 bpm. Started Stage w/15# gel Equivalent gel loading, 12 cp.@ 70 *F Pumped 1750 bbl pre pad &amp; 1718 bbl X-linked pad Ramped 40/70 brown sand from .25 ppg to.5 ppg. Pressure started climbing. Cut sand &amp; flushed well. Flushed well with 543 bbls. Ending rate 40 bpm @ 8354 psi. Placed .03% prop in formation.</p> <p>Avg rate: 38.2 bpm Avg psi: 7110 psi Max rate: 40.3 bpm Max psi: 9020 psi Pad ISIP: 4401 psi FG: 0..86 psi/ft 5 Min.SIP: 4082 Psi Ending ISIP: 4676 psi FG: 0..89 psi/ft</p> <p>LTR= 5103 bbls. TSIF= 8046 lbs.</p>	3.25
OTHR	WSI pending perf ops on # 32H	3.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 6 Daily Operation: 5/18/2014 06:00 - 5/19/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 134	Days on Location (days) 6	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

### Operations Summary

WSI pending WL ops on 32H

Plug & Perf Stg.3

Frac Stage 3

### Remarks

PPS Downtime: 2 Hrs. 19 Cum.Hrs.

Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.

Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,258

RT: 0

CR:0

LTR: 15,258

TSIF: 276,041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	Wait on ops on the #30.	7
PERF	RU EPIC WL for Stage # 3. RIH & pump down Magnum CFP & 4 each 3.125" guns. Set CFP @ 19,927 ' perforate intervals 19,716' - 19,718' & 19,776' - 19,778' & 19,836' - 19,838' & 19,896' - 19,898' w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 32 holes total. POOH. All shots fired. RD WL; .Pump down at 15 Bpm at 8,400 PSI and 255 Ft/Min. Line Speed  FTR: 639 BBLS  LTR: 7,697 BBLS	3.5
OTHR	Wait on 30H Frac Ops.	6.5
STIM	FRAC STG # 3 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 29 bbls 15% HCL, 267,995 lbs.40/70 brown sand & 7561 bbls of hybrid fluid linear/X-link down5.5" csg.  Step test: 64 @ 7085 Psi 48 @ 6289 Psi 32 @ 5561 Psi 12 @ 4910 Psi Pad ISIP 4382 psi FG: 0.86 5 Min SIP 3991 psi  Formation broke @ 20 bpm @ 5693 psi. Acid on form @ 36 bpm @ 5843 psi. Acid cleared @ 36 bpm @ 6107 psi.  Increased rate to 64 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 7 cp.@ 77 *F Pumped 1829 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3 ppg. Flushed well with 513 bbls. Ending rate 64 bpm @ 7474 psi. Placed 100% prop in formation.  Avg rate: 65 bpm Avg psi: 7686 psi Max rate: 65 bpm Max psi: 9025 psi Pad ISIP: 4382 psi FG: 0.86 psi/ft 5 Min.SIP: 3991 Psi Ending ISIP: 4226 psi FG: 0.85 psi/ft  Note : Down for 2 Hours , Chemical additives out of balance  Total FTR - 15,258 Total SIF - 276,041	4.5
OTHR	WSI , pending WL ops on # 30H , 32H, Extremely high winds , Did not start perf ops until wind settles down .	2.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Report #: 7 Daily Operation: 5/19/2014 06:00 - 5/20/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745	
Days From Spud (days) 135	Days on Location (days) 7	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6		

#### Operations Summary

#### Plug & Perf Stg. 4

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 2 Hrs. 19 Cum.Hrs.

Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.

Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.

RT: 0

CR:0

LTR: 15,801 bbls.

TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI , pending WL ops on # 30H , 32H, Extremely high winds , Will not start perf ops until wind settles down .	4
PERF	RU EPIC WL for Stage # 4. RIH & pump down Magnum CFP & 4 each 3.125" guns. Set CFP @ 19,687 ' perforate intervals 19,476' - 19,478' & 19,536' - 19,538' & 19,596' - 19,598' & 19,656' - 19,658' w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 32 holes total. POOH. All shots fired. RD WL; .Pump down at 15 Bpm at 6,900 PSI and 280 Ft/Min. Line Speed.  FTR: 543 BBLS LTR: 15,801 BBLS	8
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	12

### Report #: 8 Daily Operation: 5/20/2014 06:00 - 5/21/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 136	Days on Location (days) 8	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.

Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.

Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.

RT: 0

CR:0

LTR: 15,801 bbls.

TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

### Report #: 9 Daily Operation: 5/21/2014 06:00 - 5/22/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 137	Days on Location (days) 9	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.

Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.

Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.

RT: 0

CR:0

LTR: 15,801 bbls.

TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Report #: 10 Daily Operation: 5/22/2014 06:00 - 5/23/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 138	Days on Location (days) 10	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

### Report #: 11 Daily Operation: 5/23/2014 06:00 - 5/24/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 139	Days on Location (days) 11	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

### Report #: 12 Daily Operation: 5/24/2014 06:00 - 5/25/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 140	Days on Location (days) 12	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Report #: 13 Daily Operation: 5/25/2014 06:00 - 5/26/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 141	Days on Location (days) 13	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

### Report #: 14 Daily Operation: 5/26/2014 06:00 - 5/27/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 142	Days on Location (days) 14	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

### Report #: 15 Daily Operation: 5/27/2014 06:00 - 5/28/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 143	Days on Location (days) 15	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Report #: 16 Daily Operation: 5/28/2014 06:00 - 5/29/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745	
Days From Spud (days) 144	Days on Location (days) 16	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6		

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

### Report #: 17 Daily Operation: 5/29/2014 06:00 - 5/30/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 145	Days on Location (days) 17	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

### Report #: 18 Daily Operation: 5/30/2014 06:00 - 5/31/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
146	18	0.0			SWAT PPS Frac Fleet. #6	

#### Operations Summary

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

#### Remarks

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	24

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

**Report #: 19 Daily Operation: 5/31/2014 06:00 - 6/1/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 147	Days on Location (days) 18	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6

**Operations Summary**

WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.

**Remarks**

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 15,801 bbls.  
TSIF: 276.041 lbs

**Time Log Summary**

Operation	Com	Dur (hr)

**Report #: 20 Daily Operation: 6/1/2014 06:00 - 6/2/2014 06:00**

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 148	Days on Location (days) 19	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6

**Operations Summary**

WSI. No frac ops scheduled on this well until the frac ops on #32 H are completed.

Frac Stg 4  
Plug & Perf Stg 5

**Remarks**

PPS Downtime: 0 Hrs. 19 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:15,801 bbls.  
RT: 0  
CR:0  
LTR: 22,025 BBLs.  
TSIF: 545,064 LBs

**Time Log Summary**

Operation	Com	Dur (hr)
OTHR	WSI. No frac ops scheduled on this well until the frac ops on # 30H & 32 H are completed. Waiting on drilling rig on off set loc to finish drilling lateral.	14
OTHR	Waiting on frac ops 30H	2
ZPM	Zipper Maintenance	0.75
STIM	<p>FRAC STG # 4 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/ 32 bbls 15% HCL, 269,023 lbs.40/70 brown sand &amp; 6224 bbls of hybrid fluid linear/X-link down5.5" csg</p> <p>Step test: 64 @ 7649 Psi 48 @ 6633 Psi 32 @ 5768 Psi 9 @ 4749 Psi</p> <p>Formation broke @ 18.3 bpm @ 5764 psi.</p> <p>Acid on form @ 18.3 bpm @ 5689 psi Acid cleared @ 28.7 bpm @ 5770 psi.</p> <p>Increased rate to 64 bpm, Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 78 *F Pumped 2229 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3 ppg, Flushed well with 535 bbls. Ending rate 64 bpm @ 7524 psi. Placed 100% prop in formation.</p> <p>Avg rate: 64.4 bpm Avg psi: 7959 psi Max rate: 65.5 bpm Max psi: 8582 psi</p> <p>Pad ISIP: 4375 psi FG: 0.86 psi/ft 5 Min.SIP: 4074 Psi Ending ISIP: 4456 psi FG: 0.87 psi/ft</p> <p>LTR= 22,025 bbls. TSIF= 545,064 lbs.</p>	3

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
PERF	RU EPIC WL for Stage # 5, RIH & pump down Magnum CFP & 4 each 3.125" guns. Set CFP @ 19,447 ' perforate intervals 19,416' - 19,418' & 19,360' - 19,362' & 19,296' - 19,298' & 19,236' - 19,238' w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 32 holes total. POOH. All shots fired. RD WL; .Pump down at 15 Bpm at 6400 PSI and 265 Ft/Min. Line Speed  FTR: 548 BBLS LTR: 22,573 BBLS	3.25
OTHR	Waiting on frac ops on 30H	1

Report #: 21 Daily Operation: 6/2/2014 06:00 - 6/3/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	028745
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
149	20	0.0
	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)
		Rig
		SWAT PPS Frac Fleet, #6

#### Operations Summary

Frac Stgs 5 thru 7  
Plug & Perf Stgs 6 thru 8  
Waiting on third party pump down RD and RU pop off on backside  
Unable to pump sand into Stg 7 & 8 due to excessivePSI.

#### Remarks

PPS Downtime: 2.25 Hrs. 21.25 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR:22,025 bbls.  
RT: 0  
CR:0  
LTR: 34,303 BBLs.  
TSIF: 812,791 LBs

### Time Log Summary

Operation	Com	Dur (hr)
STIM	FRAC STG # 5 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/ 30 bbls 15% HCL, 266,719 lbs.40/70 brown sand & 6223 bbls of hybrid fluid linear/X-link down5.5" csg Step test: 64 @ 7711 Psi 48 @ 6910 Psi 32 @ 5933 Psi 12 @ 4755 Psi Formation broke @ 17 bpm @ 6987 psi. Acid on form @ 35 bpm @ 7211 psi Acid cleared @ 35 bpm @ 6528 psi. Increased rate to 64 bpm, Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 72 *F Pumped 2229 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3 ppg, Flushed well with 527 bbls. Ending rate 64 bpm @ 7567 psi. Placed 100% prop in formation. Avg rate: 57.5 bpm Avg psi: 7722 psi Max rate: 62 bpm Max psi: 9001 psi Pad ISIP: 4341 psi FG: 0.86 psi/ft 5 Min.SIP: 3941 Psi Ending ISIP: 4394 psi FG: 0..86 psi/ft LTR= 28,796 bbls. TSIF= 811,783 lbs.	2.75
PERF	RU EPIC WL for Stage # 6, RIH & pump down Magnum CFP & 4 each 3.125" guns. Set CFP @ 19,205 ' perforate intervals 18,996' - 18,998' & 19,056' - 19,058' & 19,116' - 19,118' & 19,172' - 19,174' w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 32 holes total. POOH. All shots fired. RD WL; .Pump down at 16 Bpm at 7000 PSI and 285 Ft/Min. Line Speed FTR: 557 BBLS LTR: 29,353 BBLS	3.5
RURD	Waiting on setting CBP on 30H and rigging down Progressive Pumping Services and rigging up backside with pop-off valve and line to manifold.	6
U_PEPXD	Crew change. Replaced check valves and retest lines to 9500 psi. Working on silo's gate.	2.25



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 6 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/ 63 bbls total of 15% HCL, 0 lbs. 40/70 brown sand &amp; 1,452 bbls of hybrid fluid linear/X-link down 5.5" csg.</p> <p>Formation broke @ 20 bpm @ 8978 psi.            Acid on form @ 19 bpm @ 8946 psi            Acid cleared @ 19 bpm @ 8748 psi.</p> <p>Increased rate to 24 bpm @ 8948 psi, pumped 721 bbls FR Slick water. Pumped an additional 26 bbls of 15% HCL. Shut down for 5 minutes after acid hits perf's.</p> <p>Acid on form @ 20 bpm @ 7920 psi            Acid cleared @ 19 bpm @ 7639 psi.            5 min: 4166 psi.</p> <p>Increased rate to 38 bpm @ 9119 psi. Unable to break down formation with additional acid. Engineer orders are to abandon stage #6 frac, RIH w/ WL &amp; Perf guns only, perforate stage #7 and frac both #6 and #7 together. Put an additional 100,000 lbs + of 40/70 Brown sand in stage #7 formation if possible.</p> <p>Ending rate 38 bpm @ 8908 psi.</p> <p>Avg rate: 22 bpm Avg psi: 8112 psi            Max rate: 41 bpm Max psi: 9119 psi            Ending ISIP: 6336 psi FG: 1.1 psi/ft.</p> <p>LTR= 30,805 bbls.            TSIF= 811,783 lbs.</p>	1.25
PERF	<p>RU EPIC WL for Stage # 7, RIH &amp; pump down 4 each 3.125" guns. Perforate intervals 18,936' - 18,938' &amp; 18,872' - 18,874' &amp; 18,816' - 18,818' &amp; 18,756' - 18,758' w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 32 holes total. POOH. All shots fired. RD WL; . Pump down at 16 Bpm at 7780 PSI and 296 Ft/Min. Line Speed</p> <p>FTR: 550 BBLS            LTR: 31,355 BBLS</p> <p>NOTES: Did not run a Magnum CFP on this stage, as per engineer.</p>	2.75
STIM	<p>FRAC STG # 7 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/ 39 bbls 15% HCL, 1008 lbs. 40/70 brown sand &amp; 2415 bbls of hybrid fluid linear/X-link down 5.5" csg</p> <p>Step test: 32 @ 8725 Psi            24 @ 8138 Psi            16 @ 7377 Psi            8 @ 6192 Psi</p> <p>Formation broke @ 7697 bpm @ 20 psi.</p> <p>Acid on form @ 21.8 bpm @ 7686 psi            Acid cleared @ 21.8 bpm @ 7345 psi.</p> <p>Increased rate to 48 bpm @ 9054 PSI, dropped rate to 46.5 BPM @ 8961 did not get PSI break, pump 75 BBL slug of .25 sand PSI increased 200 PSI when sand on formation. Step down and talked to Jose decided to set plug and perf Stg 8.</p> <p>Avg rate: 34 bpm Avg psi: 8308 psi            Max rate: 53 bpm Max psi: 9342 psi</p> <p>Pad ISIP: 5489 psi FG: 0.98 psi/ft</p> <p>LTR= 33,770 bbls.            TSIF= 812,791 lbs.</p>	2
PERF	<p>RU EPIC WL for Stage # 8, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 18,727' perforate intervals 18,696' - 18,698' &amp; 18,636' - 18,638' &amp; 18,576' - 18,578' &amp; 18,516 - 18,518' w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 32 holes total. POOH. All shots fired. RD WL; . Pump down at 16 Bpm at 7980 PSI and 300 Ft/Min. Line Speed</p> <p>FTR: 533 BBLS            LTR: 34,303 BBLS</p>	2.75
STIM	Start Stg #8	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 22 Daily Operation: 6/3/2014 06:00 - 6/4/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 150	Days on Location (days) 21	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

### Operations Summary

Attempt to frac Stg 8 excessive PSI, re-perf Stg 8 (8A), attempt to frac Stg 8A excessive PSI, ordered out Connex XEH charges (22.7) gram. Plug & Perf Stg 9, waiting on 100 mesh sand. Attempt of frac Stg 9 excessive PSI, waiting on 100 mesh. Stg 9 2nd attempt, pumped 2000 gals 15% acid and soak 15 minutes on formation. Star gel and x-linker, Pumping .15 ppg 40/70 30 BPM @ 9018 PSI at report time.

### Remarks

PPS Downtime: 0 Hrs. 21.25 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 0 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 39,498 BBLs  
RT: 0  
CR:0  
LTR: 39,498 BBLs.  
TSIF: 812,792 # sand

### Time Log Summary

Operation	Com	Dur (hr)
STIM	FRAC STG # 8 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/ 29 bbls 15% HCL, 1,021 bbls of hybrid fluid linear/ down5.5" csg  LTR= 34,918 bbls. TSIF= 0 lbs.  Note: pumping pad pressure was at 9150 and climbing. Called in to Jose and was told to reperf stage. Shut down and RU WL to reperf stg.	0.5
PERF	RU EPIC WL for Stage # 8A, RIH & pump down 4 each 3.125" guns.' Perforate intervals 18,523' - 18,524' & 18,540' - 18,542' & 18,560' - 18,562' & 18,583 - 18,585' w/ 8 shots, 4 SPF, 60*, 21.5 GR, 0.42" EHD, perf guns. 32 holes total. POOH. All shots fired. RD WL; .Pump down at 16 Bpm at 7980 PSI and 300 Ft/Min. Line Speed  Pump Down Bbls: 615 FTR: 35,939 BBLs LTR: 35,939 BBLs	4
STIM	FRAC STG # 8A of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/ 48 bbls 15% HCL, 2146 bbls of hybrid fluid linear/X-link down5.5" csg  LTR= 38,085 bbls.  Note: Pumped 48 bbls of 15% acid and brought on 15# gel w/X-linker. Had lower rate @31.5 bpm @9200 psi. Called in and was told to go to flush. Going to different charge and EHD. Will go with 100 Mesh sand.	3.5
OTHR	Waiting on 100 Mesh and new charges for guns.	4.5
PERF	Larger charges arrived load 4 guns.  RU EPIC WL for Stage # 9, RIH & pump down 4 each 3.125" guns. Perforate intervals 18,456' - 18,458' & 18,396' - 18,398' & 18,336' - 18,338' & 18,280' - 18,282' w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0.52" EHD, perf guns. 32 holes total. POOH. All shots fired. RD WL; .Pump down at 16 Bpm at 7640 PSI and 400 Ft/Min. Line Speed  FTR: 496 BBLs LTR: 38,581 BBLs	3
OTHR	Waiting on 100 mesh sand	2.5
STIM	FRAC STG # 9 of 36: Test stack to 9,500 psi. Pump 30 BBLs acid acid on perfs 20 BPM @ 7522 PSI acid cleared 20 BPM @ 7435. walked rate up to 50 BPM @ 9116 PSI flat lined. Did not see break ib PSI. Walked rate down. Waiting on 100 mesh.  Started: 20 @ 7423 30 @ 7888 40 @ 8881 50 @ 9116 ISIP 6200 FG 1.05  FTR: 917 BBLs LTR: 39,498 BBLs	0.75
OTHR	Waiting on 100 mesh. Sand not on location call Jose decision was made to attempt to frac at 30 BPM running Xlinker if PSI was below 9K.	3.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	Started FRAC STG # 9A of 36 second attempt at report time.	1.75

Report #: 23 Daily Operation: 6/4/2014 06:00 - 6/5/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	028745

Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
151	22	0.0			SWAT PPS Frac Fleet, #6

#### Operations Summary

Finished fracing stg 9 second attempt.  
Perf stg 10  
Frac stg 10, Pressured out on frac and flowed well back and unable to pump back into wellbore.

#### Remarks

PPS Downtime: 0 Hrs. 21.25 Cum.Hrs.  
Epic WL Downtime: 1.5 Hrs. 1.5 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 56213 BBLs  
RT: 1760  
CR:0  
LTR: 54503 BBLs.  
TSIF: 1,234,193 LBs

### Time Log Summary

Operation	Com	Dur (hr)
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STIM	<p>Finished FRAC on STG # 9A of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/48 bbls 15% HCL, 406,537 lbs.40/70 brown sand &amp; 11,159 bbls of hybrid fluid linear/X-link down5.5" csg</p> <p>Step test: 50 @ 9116 Psi 40 @ 8381 Psi 30 @ 7888 Psi 20 @ 7423 Psi</p> <p>Formation broke @ 25 bpm @ 7678 psi. Acid on form @ 20 bpm @ 7522 psi Acid cleared @ 20 bpm @ 7435 psi.</p> <p>Increased rate to 30 bpm, Started Stage w/ 15# gel Equivalent gel loading, 9.8 cp.@ 78 *F Pumped 3017 bbl pad. Ramped 40/70 brown sand from 0.15 ppg to 3 ppg, Flushed well with 505 bbls. Ending rate 39 bpm @ 9212 psi. Placed 151 % prop in formation. Traced sand w/Antimony 124 RA material. Used 120 Mc's</p> <p>Avg rate: 33.4 bpm Avg psi: 8326 psi Max rate: 42.0 bpm Max psi: 9112 psi Pad ISIP: 6200 psi FG: 1.048 psi/ft 5 Min.SIP:5600 Psi Ending ISIP: 8654 psi FG:1.291 psi/ft LTR= 50,567 bbls. TSIF= 1,219,328 lbs.</p>	4
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U_WL	Leak found in top of lubricator. Repair leak	1.5
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PERF	<p>RU EPIC WL for Stage # 10, RIH &amp; pump down Magnum CFP &amp; 4 each 3.125" guns. Set CFP @ 18,247 ' perforate intervals:18,216 - 18,218, 18,156 - 18,158, 18,096 - 18,098, 18,036 - 18,038 w/ 8 shots, 4 SPF, 60", 22..7 GR, 0.56" EHD, Connex-XEH perf guns. 32 holes total. POOH. All shots fired. RD WL; .Pump down @ 16 Bpm @ 7229 PSI and 250 Ft/Min. Line Speed. Used 553 bbls to pump down.</p> <p>FTR: 553 BBLs LTR: 51,210 BBLs</p>	3.25
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STIM	<p>FRAC STG # 10 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/ 50 bbls 15% HCL, 14,865 lbs.40/70 brown sand &amp; bbls of hybrid fluid linea 4790-link down5.5" csg</p> <p>Formation broke @ 20 bpm @ 7246 psi. Acid on form @ 20 bpm @ 7180 psi Acid cleared @ 30 bpm @ 7990 psi. Flushed well with 113 bbls. Ending rate 13 bpm @ 9380 psi.</p> <p>LTR= 56,000 bbls. TSIF= 1,234,193 lbs.</p> <p>Flowed well back-starting pressre was 4400 psi thru 2" full opening @choke manifold. flowed back 850 bbls. Shut in and peressure equalized @2600 psi.</p> <p>Started pumping pumped 850 bbls pressure increased to 9500# shut down.</p>	3
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## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
OTHR	SICP was 4500 psi. Open choke manifold down the 2" full opening. Flowed 850 bbls back and shut well in. Checked casing pressure and had built up to 2600 Psi. Open well and brought pumps up slowly to 19 BPM and pressure was climbing over 9000 psi. Dropped rate down to 16 BPM and pressure leveled off @8832. Had a pressure spike up to 9800 psi and had to use pump shut down button to kill pumps. Called in and was told to flow well back again. Waiting on trucks to arrive and empty tanks.	2.5
OTHR	Emptying frac to flow well back. Called in for 6 trucks and received 3 trucks and finally a 4th	3.75
OTHR	SICP-3300 psi. Open well down 2" line thru choke manifold and flowed 860 bbls back. Shut well in to get PPS back on well. Pressure on gauge bleed off to 0 psi	2.25
OTHR	SICP-2470 psi. Open well and brought PPS pumps on line slowly and built rate up to 15 BPM @7800 and pressure leveled off. Started to increase rate to 18 and @16 BPM pressure spiked to 9382 and pumps were killed. Shut well in and called in to report results.	0.5
OTHR	Emptying frac tanks and preparing for CTU from PPS. CTU is presently RIH with TCP guns o Gidding Lse.	3.25

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

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	028745
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
152	23	0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
		SWAT PPS Frac Fleet, #6

#### Operations Summary

WSI. Waiting on PXD CTU.  
Flow back wellbore to FB tanks  
Flush wellbore w/ slick water  
Plug and Perf stg #11  
Attempt to Frac Stg 11. Shut down due to high pressure  
Plug and Perf stg #12  
Frac Stg #12

#### Remarks

PPS Downtime: 0 Hrs. 21.25 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 1.5 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 62.075 BBLs  
RT: 1192  
CR:0  
LTR: 60,365 BBLs.  
TSIF: 1,234,193 LBs

### Time Log Summary

Operation	Com	Dur (hr)
WSI	WSI. No activity	2
FLWTST	SICP 550 psi. Opened well to FB tanks to FB ball. Well flowing through gut line wide open @ 75 psi. flowing approx 5.5 BPM back. Recovered 1192 bbls fluid during FB.	3
OTHR	Installed top tree WL flange. Pressure tested lines. Started flushing wellbore @ 2.5 BPM. Pressured to 9577 psi and pressure started breaking back to 6300 psi. Pumped 405 bbls flush & started increasing rate in 1/2 bbl increments. Did simulated pump down job started at 3 bpm to 17.5 bpm finished with a pressure of 9,200 psi. Pumped 513 bbls dure pump down test. Pumped total of 3277 bbls.	9.5
PERF	RU EPIC WL for Stage # 11. RIH & pump down Magnum CFP & 5 each 3 1/8" guns. Set CFP @18,007' perforate intervals 17,976' - 17,978' & 17,916' - 17,918' & 17,856' - 17,858' 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 7200 PSI and 280 Ft/Min. Line Speed  FTR: 60,000 BBLs  LTR Total: __ BBLs	3
STIM	FRAC STG11 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 18 bbls 15% HCL, 0 lbs.20/40 Brady sand & 1576 bbls of hybrid fluid linear/xlink down 5.5" csg.  Formation broke @ 30 bpm @ 7110 psi. Acid on form @ 20 bpm @ 3617 psi. Acid cleared @ 7067 bpm @ 30 psi. Ending rate 16 bpm  Shut down pumping due to high pressure  Ending ISIP: 8149 psi  LTR= 61,567 bbls  TSIF= 0 lbs.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
PERF	RU EPIC WL for Stage # 12. RIH & pump down Magnum CFP & 5 each 3 1/8" guns. Set CFP @ 17,707' perforate intervals 17,436' - 17,438' & 17,496' - 17,498' & 17,556' - 17,558' & 17,616' - 17,618' & 17,676' - 17,678' 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 8570 PSI and 280 Ft/Min. Line Speed  FTR: 62075 BBLS  LTR Total: 60,365 BBLS	3.75
STIM	Started frac stg12.	1.75

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

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	028745
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
153	24	0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
		SWAT PPS Frac Fleet, #6

#### Operations Summary

AttemptFrac stg 12

MIRU PNR 2 3/8" CTU, MU BHA, Pressure test, RIH with CT and BHA for clean out run and drill CFP's #11-10.

#### Remarks

PPS Downtime: 0 Hrs. 21.25 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 1.5 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 66,999BBLS  
RT: 110 bbls  
CR:1302  
LTR: 65,289 BBLS.  
TSIF: 1,245,552 LBs

### Time Log Summary

Operation	Com	Dur (hr)
STIM	FRAC STG #12 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perms per schedule w/ 32 bbls 15% HCL, 11,259 lbs.40/70 brown sand & 4,516 bbls of hybrid fluid linear/X-link down5.5" csg Step test: 80 @ 9055 Psi 60 @ 8010 Psi 40 @ 6947 Psi 20 @ 5636 Psi Formation broke @ 20 bpm @ 5917 psi. Acid on form @ 20 bpm @ 5906 psi Acid cleared @ 20 bpm @ 5702 psi.  Increased rate to 46 bpm, Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 77 *F Pumped 400 bbl pad. Began 40/70 brown sand @ 0.5 ppg, pumped 11,359# sand and well pressured out to 9500 psi. Cut sand & attempted to flush well w/ 1698 bbls. Ending rate 3 bpm @ 9380 psi. Placed .04% prop in formation.  Avg rate: 5 bpm Avg psi: 8347 psi Max rate: 48 bpm Max psi: 9617 psi  Pad ISIP: 4630 psi FG: 0.89 psi/ft 5 Min.SIP: 3942 Psi Ending ISIP: 9380 psi FG: 0.1.362 psi/ft LTR= 66,591 bbls. TSIF= 1,245,552 lbs.	9
MIRU	MIRU PPS coil tbg unit, spot CTU equipment, respot crane, PU 10K lubricator, attach 2 3/8" coil connector and perform pull test to 30K. PU 4 5/8" JZ bit(used) X-over, Stator, # 1/8" motor, X-over,Tempress Hydrapull, Tempress screen, disconnect, CTT Jars, Dual flapper valve, coil connector, Have BHA made up. Test motor 3 bpm at 1400#. Stab unit onto well head make up and start pressure test to 9500#. Hold safety meeting. Open well and start RIH	6
TUB-CLNOUT	RIH with 2 3/8" CT, 4 5/8" bit and BHA to drill plugs #9 and 10 and clean out to 18,247'. Did weight check @9400' weighing 3200#. RIH to 11,200' and PU to 10,100' to clean out curve. RIH for clean out run. Tagged sand @15,150' and started washing sand. Washed down 500' and pull up 100' to put spacer between sand.	5.75
MILL	Tag #11 CFP @17,673 CTM, CP-4400 psi @2.5 bpm, WHP-2800 psi @ 3 bpm return rate. Drill plug in 10 min. Send 10 bbls sweep and RIH to CFP #10. RIH 5' and stalled out, took 2 hrs. to finish drilling plug. CFP release and started RIH to next CFP #10.	2.25
MILL	Tag CFP @17,972' CTM, CP-4200 psi @2.75 bpm, WHP-2275 psi @3 bpm return rate. Dril time was 7 mins. Sent 10 bbl sweep. RIH to CFP #9 @18,247'	0.25
STIM	Tag CFP #8 @18,215' CTM. CP-4300 psi @2.75 bpm, WHP-2300 @3 bpm. Drilled 3 mins on plug and picked up. Sweep came out end of CT and started POOH for short trip up to 9550'.	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

<b>Report #: 26 Daily Operation: 6/7/2014 06:00 - 6/8/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 154	Days on Location (days) 25	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6
<b>Operations Summary</b> Trip out of hole with CT. Did injection test 25 bpm @ 7600 pumped 500 bbls CT down 4 hrs RDMO CT					
<b>Remarks</b> PPS Downtime: 4 Hrs. 25.25 Cum.Hrs. Epic WL Downtime: 0 Hrs. 1.5 Cum. Hrs. Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs.  FTR: 67,499 BBLs RT: 408 bbls CR:1710 LTR: 65,789 BBLs. TSIF: 1,245,552 LBs					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
TUB-CLNOUT	Short trip BHA to 9550'. Pumped 20 bbl gel sweep				3.5
TUB-CLNOUT	TIH to 18,247'. Tagged top of plug. Pumped 20 bbl gel sweep. Chase sweep out of hole. Pumping 2.8 BPM in @ 4200 psi. Returning 3.0 BPM @ 2500 psi. Recovering an avg of 180 bbls /hr. Pulled to curve. Pumped 20 bbl gel sweep. Chased sweep to surface. Pumping 3.0 BPM in @ 5000 psi. Returning 3.0 BPM @ 2600 psi.				8.5
OTHR	Out of hole with CT swing CT unit out of way. Remove BHA. Lock CT blinds and install night cap. Start RU of pump lines will make sure we can pump into well. Pump casing volume plus 200 bbls total of 500 bbls at 7,700 psi.				4
RDMO	Start RDMO of CT unit.				0.5
U_PEPXD	CTU Over heated while rigging down and had to be shut down. Mechanic repairing. Have CTU repaired				4
RDMO	Swing CTU back over to well head and nipple up. Start pumping N2 to displace fluid in reel. Reel is clean continue RDMO				3.5
<b>Report #: 27 Daily Operation: 6/8/2014 06:00 - 6/9/2014 06:00</b>					
Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 155	Days on Location (days) 26	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6
<b>Operations Summary</b> RDMO CTU. RU WL and RIH with stage 13 perf guns with a pump down sub (no plug). Frac stage 13, 14, 15 Perf stg 13, 14, 15 RIH to perf stg 16 at report time					
<b>Remarks</b> PPS Downtime: 2 Hrs. 27.25 Cum.Hrs. Epic WL Downtime: 0 Hrs. 1.5 Cum. Hrs. Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs.  FTR: 97,671 BBLs RT: 0 bbls CR:1710 LTR: 95,961 BBLs. TSIF: 2,470,841 Lbs					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
RURD	NU WL flange to top of frac stack. PU 10K lubricator for WL ops.				2
PERF	RU EPIC WL for Stage # 13 of 36, RIH & pump down with pump down sub & 5 each 3.125" guns. NO CFP set on this stage. Perforate intervals: 17,376 - 17,378, 17,316 - 17,318, 17,256 - 17,258, 17,200 - 17,202, 17,136 - 17,138, w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 16 Bpm at 6600 PSI and 250 Ft/Min. Line Speed  FTR: 542 BBLs  LTR: 66,331 BBLs				2.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 13 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/38 bbls 15% HCL, 452,777 lbs.40/70 brown sand &amp; 10,255 bbls of hybrid fluid linear/X-link down5.5" csg</p> <p>Step test: 80 @ 8646 Psi 60 @ 7614 Psi 40 @ 6749 Psi 20 @ 5863 Psi</p> <p>Formation broke @ 52 bpm @ 8448 psi. Acid on form @ 51 bpm @ 8425 psi Acid cleared @ 51 bpm @ 7594 psi.</p> <p>Increased rate to 80 bpm, Started Stage w/ 25# gel Equivalent 18 cp @ 77 deg gel loading, then decreased to 20# gel Equivalent 13 cp.@ 76 *F on .2 ppa sand. Pumped 1858 bbl pad. Ramped 40/70 brown sand from 0.1 ppg to 3 ppg, Flushed well with 481 bbls. Ending rate 73 bpm @ 6612 psi. Placed 117% prop in formation. Traced sand w/ 120 Mc's of Iridium Material</p> <p>Avg rate: 57 bpm Avg psi: 8194 psi Max rate: 72.9 bpm Max psi: 9427 psi</p> <p>Pad ISIP: 4663 psi FG: 0.89 psi/ft 5 Min.SIP: 3913 Psi Ending ISIP: 4420 psi FG: 0..87 psi/ft</p> <p>LTR= 76,587 bbls. TSIF= 1,698,329 lbs.</p>	4
PERF	<p>RU EPIC WL for Stage # 14 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 17,113 Perforate intervals: 17,076 - 17,078, 17,015 - 17,017, 16,956 - 16,958, 16,897 - 16,899, 16,836 - 16,838, w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 16 Bpm @ 5173 PSI and 260 Ft/Min. Line Speed</p> <p>FTR: 430 BBLS</p> <p>LTR: 77,017 BBLS</p>	3.5
STIM	<p>FRAC STG # 14 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/48 bbls 15% HCL, 386,396 lbs.40/70 brown sand &amp; 9569 bbls of hybrid fluid linear/X-link down5.5" csg. Pumped 120 Mc's of Scandium tracer material.</p> <p>Step test: 80 @ 8000 Psi 60 @ 6942 Psi 40 @ 5900 Psi 20 @ 4903 Psi</p> <p>Formation broke @ 62 bpm @ 8237 psi. Acid on form @ 51 bpm @ 5677 psi Acid cleared @ 51 bpm @ 5722 psi.</p> <p>Increased rate to 80 bpm, Started Stage w/ 25# gell Equivalent 13 cp.@ 77 *F on .2 ppa sand. Pumped 1836 bbl pad. Ramped 40/70 brown sand from 0.1 ppg to 3 ppg, Flushed well with 474 bbls. Ending rate 80 bpm @ 7462 psi.</p> <p>Avg rate: 69 bpm Avg psi: 8307 psi Max rate: 80 bpm Max psi: 9117 psi</p> <p>Pad ISIP: 4857 psi FG: .91 psi/ft 5 Min.SIP: 3934 Psi Ending ISIP: 4484 psi FG: .88 psi/ft</p> <p>LTR= 86,586 bbls. TSIF= 2,084,725 lbs.</p>	2.5
PERF	<p>RU EPIC WL for Stage # 15 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 16800 Perforate intervals: 16776 - 16778, 16714 - 16716, 16656-16658, 16598 - 16600 &amp; 16536 - 16538, w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 16 Bpm @ 5440 PSI and 297 Ft/Min. Line Speed</p> <p>FTR: 382 BBLS</p> <p>LTR: 86,968 BBLS</p>	3
OTHR	Down due to air leak on hydration unit	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 15 of 36: Test stack to 9,500 psi. Hold 1433 psi on backside. PPS frac perms per schedule w/ 34 bbls 15% HCL, 386,116 lbs.40/70 brown sand &amp; 8,993 bbls of hybrid fluid linear/X-link down5.5" csg. Pumped 120 Mc's of Antimony Tracer material.</p> <p>Formation broke @ 4772 bpm @ 15 psi. Acid on form @ 4772 bpm @ 15 psi Acid cleared @ 7536 bpm @ 80 psi.</p> <p>Increased rate to 80 bpm, Started Stage w/ 20# gell Equivalent 13 cp.@ 74 *F on .2 ppa sand. Pumped 1688 bbl pad. Lowered gel to 18# system with 11 cp @ 74°F. Ramped 40/70 brown sand from 0.1 ppg to 3 ppg, Flushed well with 467 bbls. Ending rate 80 bpm @ 8403 psi.</p> <p>Lost gel transport so had to cut sand stages and ramp sand up quicker to pump correct sand vol.</p> <p>Avg rate: 74 bpm Avg psi: 8150 psi Max rate: 80 bpm Max psi: 9052 psi</p> <p>Ending ISIP: 4596 psi FG: 0.89 psi/ft</p> <p>LTR= 95,961 bbls. TSIF= 2,470,841 lbs.</p>	3
PERF	RIH @ Report time.	1.5

Report #: 28 Daily Operation: 6/9/2014 06:00 - 6/10/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	028745
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
156	27	0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
		SWAT PPS Frac Fleet, #6

#### Operations Summary

Perf stg 16,  
Frac stg 16  
Perf Stg 17  
Frac stg17  
Perf stg 18  
Frac stg 18  
Perf stg 19  
Frac stg 19  
Perf stg 20

#### Remarks

PPS Downtime: 2.0 Hrs. 29.25 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 1.5 Cum. Hrs.  
Orbit Water Xfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 131,598 BBLs  
RT: 0 bbls  
CR:1710  
LTR: 129,888 BBLs.  
TSIF: 3,864,163 Lbs

### Time Log Summary

Operation	Com	Dur (hr)
PERF	<p>RU EPIC WL for Stage # 16 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 16,500, Perforate intervals: 16,476, - 16,478, 16,416 - 16,418, 16,356 - 16,358, 16,298 - 16,300, - 16,298 - 16,300, 16,236 - 16,238 w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 16 Bpm @ 4872 PSI and 280 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 374 BBLs</p> <p>LTR: 96,335 BBLs</p>	1
U_PEPXD	Wait on Gel unit fluid pump repair	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 16 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/ 35 bbls 15% HCL, 386,280 lbs.40/70 brown sand &amp; 8900 bbls of hybrid fluid linear/X-link down5.5" csg. Pumped 120 Mc's Iridium tracer material</p> <p>Step test: 80 @ 7392 Psi 60 @ 6392 Psi 40 @ 5484 Psi 20 @ 4864 Psi</p> <p>Formation broke @ 20 bpm @ 5125 psi. Acid on form @ 22 bpm @ 5122 psi Acid cleared @ 75 bpm @ 7433 psi.</p> <p>Increased rate to 80 bpm, Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 71 °F Pumped 2820 bbl pad. Ramped 40/70 brown sand from 0.2 ppg to 3.0 ppg, Flushed well with 460 bbls. Ending rate 79 bpm @ 7092 psi. Placed 100% prop in formation.</p> <p>Avg rate: 72.7 bpm Avg psi: 8214 psi Max rate: 79.8 bpm Max psi: 9167 psi Pad ISIP: 4417 psi FG: 0.87 psi/ft 5 Min.SIP: 3964 Psi Ending ISIP: 4596 psi FG: 0.88 psi/ft</p> <p>LTR= 105,235 bbls. TSIF= 2,857,121 lbs.</p>	2.5
PERF	<p>RU EPIC WL for Stage # 17 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 16,207, Perforate intervals: 16,176 - 16,178, 16,116 - 16,118, 16,056 - 16,058, 15,996 - 15,998, 15,936 - 15,938 w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 15 Bpm @ 4300 PSI and 275 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 352 BBLS</p> <p>LTR: 105,587 BBLS</p>	2.5
STIM	<p>FRAC STG 17 of36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perfs per schedule w/36 bbls 15% HCL, 334,601 lbs.40/70 brown sand &amp; 8112 bbls of hybrid fluid linear/X-link down5.5" csg</p> <p>Step test: 80 @ 7015 Psi 60@ 6161 Psi 40 @ 5224 Psi 20@ 4103 Psi</p> <p>Formation broke @ 20 bpm @ 4798 psi. Acid on form @ 28.7 bpm @ 5225 psi Acid cleared @ 80 bpm @7015 psi</p> <p>Increased rate to 80 bpm, Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 75 °F Pumped 3255 bbl pad. Ramped 40/70 brown sand from 0.25 ppg to 3.0 ppg, Flushed well with 627 bbls. Ending rate 78.9 bpm @ 6985 psi. Placed 100% prop in formation. Traced sand w/120 Mc's of Scandium</p> <p>Avg rate: 72 bpm Avg psi: 7722 psi Max rate: 80 bpm Max psi: 8650 psi</p> <p>Pad ISIP: 4395 psi FG: 0..86 psi/ft 5 Min.SIP: 3860 Psi Ending ISIP: 4544 psi FG: 0.88 psi/ft</p> <p>LTR= 113,699 bbls. TSIF= 3,191,722 lbs.</p>	2.5
PERF	<p>RU EPIC WL for Stage # 18 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 15,910, Perforate intervals: 15,876 - 15,878, 15,812 - 15,814, 15,756 - 15,758, 15,696 - 15,698, 15,636 - 15,638, w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 14 Bpm @ 4200 PSI and 280 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 323 BBLS</p> <p>LTR:114,019 BBLS</p>	3

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG 18 o f36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac perms per schedule w/ 40 bbls 15% HCL, 336,3291 lbs.40/70 brown sand &amp; 7754 bbls of hybrid fluid linear/X-link down5.5" csg</p> <p>Step test: 80 @ 6980 Psi 60@ 6133 Psi 40 @ 5315 Psi 20@ 4100 Psi</p> <p>Formation broke @ 20 bpm @ 8415 psi. Acid on form @ 28.7 bpm @ 5122 psi Acid cleared @ 80 bpm @ 4989 psi</p> <p>Increased rate to 80 bpm, Started Stage w/ 15# gel Equivalent gel loading, 10 cp.@ 75 *F Pumped 2386 bbl pad. Ramped 40/70 brown sand from 0.25 ppg to 3.0 ppg, Flushed well with 450 bbls. Ending rate 80 bpm @ 6840 psi. Placed 100% prop in formation. Traced sand w/120 Mc's of Scandium</p> <p>Avg rate: 69 bpm Avg psi: 7521 psi Max rate: 80 bpm Max psi: 9147 psi</p> <p>Pad ISIP: 4211 psi FG: .85 psi/ft 5 Min.SIP: 3912 Psi Ending ISIP: 4317 psi FG: .86 psi/ft</p> <p>LTR= 121,772 bbls. TSIF= 3,528,051 lbs.</p>	2
PERF	<p>RU EPIC WL for Stage # 19 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 15,607, Perforate intervals: 15,576 - 15,578, 15,510 - 15,512, 15,456 - 15,458, 15,396 - 15,398 &amp; 15,336 - 15,338, w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 16 Bpm @ 4667 PSI and 298 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 312 BBLS LTR: 122084 BBLS</p>	2.25
STIM	<p>FRAC STG 19 o f36: Test stack to 9,500 psi. Hold 1677 psi on backside. PPS frac perms per schedule w/ 35 bbls 15% HCL, 336,112 lbs.40/70 brown sand &amp; 7497 bbls of hybrid fluid linear / X-link down 5.5" csg</p> <p>Step test: 80 @ 7450 Psi 60 @ 6380 Psi 40 @ 5437 Psi 20 @ 4701 Psi</p> <p>Formation broke @ 20 bpm @ 4733 psi. Acid on form @ 20 bpm @ 4733 psi Acid cleared @ 80 bpm @ 7450 psi</p> <p>Increased rate to 80 bpm, Started Stage w/ 15# gel Equivalent gel loading, 10 cp.@ 72 *F Pumped 2836 bbl pad. Ramped 40/70 brown sand from 0.50 ppg to 3.0 ppg, Flushed well with 440 bbls. Ending rate 80 bpm @ 8677 psi. Placed 100% prop in formation. Traced sand w/120 Mc's of Scandium</p> <p>Avg rate: 69 bpm Avg psi: 7444 psi Max rate: 80 bpm Max psi: 9085 psi</p> <p>Pad ISIP: 4195 psi FG: 0.85 psi/ft 5 Min.SIP: 3892 Psi Ending ISIP: 4377 psi FG: 0.87 psi/ft</p> <p>LTR= 129,581 bbls. TSIF= 3,864,163 lbs.</p>	3.25
PERF	<p>RU EPIC WL for Stage # 20 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 15,387, Perforate intervals: 15,276 - 15,278, 15,216 - 15,218, 15,156 - 15,158, 15,096 - 15,098 &amp; 15,036 - 15,038, w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 16 Bpm @ 4667 PSI and 298 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 307 BBLS LTR: 129,888 BBLS</p>	3

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 29 Daily Operation: 6/10/2014 06:00 - 6/11/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 157	Days on Location (days) 28	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6

### Operations Summary

Frac stg 20  
Perf stg 21  
Frac stg 21  
Perf stg 22  
Frac stg 22  
Perf Stg 23  
Frac stg 23  
Perf stg 24  
Start frac stg 24 at report time

### Remarks

PPS Downtime: 5.5 Hrs. 34.75 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 1.5 Cum. Hrs.  
Orbit Water Transfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 162,770 BBLs  
RT: 0 bbls  
CR:1710  
LTR: 161,060 BBLs.  
TSIF: 5,205,274 Lbs

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG 20 of 36: Tested stack to 9600 psi. Held 1500 psi on backside. PPS frac perfs per schedule w/ 27 bbls 15% HCL, 335,359 lbs.40/70 brown sand &amp; 7545 bbls of hybrid fluid linear / X-link down 5.5" csg</p> <p>Step test: 80 @ 6857 Psi 60 @ 6044 Psi 40 @ 5305 Psi 20 @ 4664 Psi</p> <p>Formation broke @ 20 bpm @ 5031 psi. Acid on form @ 45 bpm @ 6188 psi Acid cleared @ 53 bpm @ 6253 psi</p> <p>Increased rate to 80 bpm, Started Stage w/15# gel Equivalent gel loading, 9 cp.@ 64 *F Pumped 2812 bbl pad. Ramped 40/70 brown sand from 0.50 ppg to 3.0 ppg, Flushed well with 434 bbls. Ending rate 80 bpm @ 6776 psi. Placed 100% prop in formation. Traced sand w/90 Mc's of Scandium</p> <p>Avg rate: 80 bpm Avg psi: 8013 psi Max rate: 80.8 bpm Max psi: 8431 psi</p> <p>Pad ISIP: 4256 psi FG: 0.86 psi/ft 5 Min.SIP: 3956 Psi Ending ISIP: 4595 psi FG: 0.88 psi/ft</p> <p>LTR= 137,433 bbls.</p> <p>TSIF= 4,199,522 lbs.</p>	1.75
PERF	<p>RU EPIC WL for Stage # 21 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 15,007 , Perforate intervals: 14,976 - 14,978, 14,918 - 14,920, 14,856 - 14,858, 14,796 - 14,798, 14,730 - 14,732, w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 14 Bpm @ 4440 PSI and 275 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 272 BBLS</p> <p>LTR: 137,705 BBLS</p>	2.25
U_PEPXD	Down to change out 4" rubber gasket on Missile block valve & 8'- 4" "Y" on high pressure lateral line inside missile.	3.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG 21 of 36: Tested stack to 9700 psi. Held 1314 psi on backside. PPS frac perms per schedule w/ 41 bbls 15% HCL, 336,517 lbs.40/70 brown sand &amp; 7519 bbls of hybrid fluid linear / X-link down 5.5" csg</p> <p>Step test: 80 @ 7162 Psi 60 @ 6218 Psi 40 @ 5374 Psi 20 @4662 Psi</p> <p>Formation broke @ 20 bpm @ 5121 psi. Acid on form @ 20 bpm @ 5142 psi Acid cleared @ 20 bpm @ 4858 psi</p> <p>Increased rate to 80 bpm, Started Stage w/15# gel Equivalent gel loading, 9 cp.@ 78 °F Pumped 2785 bbl pad. Ramped 40/70 brown sand from 0.50 ppg to 3.0 ppg, Flushed well with 427 bbls. Ending rate 79 bpm @ 6989 psi. Placed 100% prop in formation. Traced sand w/120 Mc's of Antimony</p> <p>Avg rate: 78.3 bpm Avg psi: 8047 psi Max rate: 82.5 bpm Max psi: 9356 psi</p> <p>Pad ISIP: 4316 psi FG: 86. psi/ft 5 Min.SIP: 4017 Psi Ending ISIP: 4578 psi FG: .88 psi/ft</p> <p>LTR= 145,224 bbls. TSIF= 4,536,039 lbs.</p>	2.5
PERF	<p>RU EPIC WL for Stage # 22 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 14,707 , Perforate intervals:14,678 - 14,676, 14,616 - 14,618, 14,556 - 14,558, 14,496 - 14,498, 14,444 -14,446 w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 14 Bpm @ 4645 PSI and 285 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 244 BBLS LTR: 145,468 BBLS</p>	2
OTHR	Down Packing a pump	1.75
STIM	<p>FRAC STG 22 of 36: Tested stack to 9700 psi. Held 1314 psi on backside. PPS frac perms per schedule w/ 36 bbls 15% HCL, 335,827 lbs.40/70 brown sand &amp; 7573 bbls of hybrid fluid linear / X-link down 5.5" csg</p> <p>Step test: 80 @ 6895 Psi 60 @ 6096 Psi 40 @ 5341 Psi 20 @ 4747 Psi</p> <p>Formation broke @ 20 bpm @ 5780 psi. Acid on form @ 20 bpm @ 5149 psi Acid cleared @ 20 bpm @ 5559 psi</p> <p>Increased rate to 80 bpm, Started Stage w/15# gel Equivalent gel loading, 9 cp.@ 77 °F Pumped 2386 bbl pad. Ramped 40/70 brown sand from 0.50 ppg to 3.0 ppg, Flushed well with 420 bbls. Ending rate 80 bpm @ 6895 psi. Placed 100% prop in formation. Traced sand w/120 Mc's of Antimony</p> <p>Avg rate: 70 bpm Avg psi: 7370 psi Max rate: 80 bpm Max psi: 8575 psi</p> <p>Pad ISIP: 4219 psi FG: .85. psi/ft 5 Min.SIP: 3988 Psi Ending ISIP: 4436 psi FG: .87 psi/ft</p> <p>LTR= 153,041 bbls. TSIF= 4,871,866 lbs.</p>	2
PERF	<p>RU EPIC WL for Stage # 23 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 14,407 , Perforate intervals:14,478 - 14,476, 14,316 - 14,318, 14,256 - 14,258, 14,196 - 14,198, 14,132 -14,130 w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 14 Bpm @ 4592 PSI and 298 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 244 BBLS LTR: 153,296 BBLS</p>	2



### Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

#### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG 23 of 36: Tested stack to 9700 psi. Held 1222 psi on backside. PPS frac perms per schedule w/ 30 bbls 15% HCL, 333,408 lbs.40/70 brown sand &amp; 7529 bbls of hybrid fluid linear / X-link down 5.5" csg</p> <p>Step test: 80 @ 7560 Psi 60 @ 6740 Psi 40 @ 5862 Psi 20 @ 5071 Psi</p> <p>Formation broke @ 20 bpm @ 5785 psi. Acid on form @ 20 bpm @ 6410 psi Acid cleared @ 20 bpm @ 5071 psi</p> <p>Increased rate to 80 bpm, Started Stage w/15# gel Equivalent gel loading, 9 cp.@ 77 °F Pumped 2786 bbl pad. Ramped 40/70 brown sand from 0.50 ppg to 3.0 ppg, Flushed well with 415 bbls. Ending rate 80 bpm @ 8074 psi. Placed 100% prop in formation. Traced sand w/120 Mc's of Antimony</p> <p>Avg rate: 69 bpm Avg psi: 7702 psi Max rate: 80 bpm Max psi: 9100 psi</p> <p>Pad ISIP: 4402 psi FG: 0.87 psi/ft 5 Min.SIP: 3905 Psi Ending ISIP: 4453 psi FG: 0.88 psi/ft</p> <p>LTR= 160,825 bbls. TSIF= 5,205,274 lbs.</p>	2.25
PERF	<p>RU EPIC WL for Stage # 24 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 14,107 , Perforate intervals:14,078 - 14,076, 14,016 - 14,018, 13,956 - 13,958, 13,896 - 13,898, 13,842 -13,840 w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 14 Bpm @ 4592 PSI and 298 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 235 BBLS LTR: 161,060 BBLS</p>	2
STIM	Start stage 24 frac at report time	1.75

#### Report #: 30 Daily Operation: 6/11/2014 06:00 - 6/12/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG COMPLETION	OCM	028745
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
158	29	0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
		SWAT PPS Frac Fleet, #6

#### Operations Summary

Frac Stg 24, 25, 26, 27, 28  
Perf Stage 25, 26, 27, 28

#### Remarks

PPS Downtime: 2.25 Hrs. 37.00 Cum.Hrs.  
Epic WL Downtime: 0 Hrs. 1.5 Cum. Hrs.  
Orbit Water Transfer Downtime: 0 Hrs. 0 Cum. Hrs

FTR: 202,100 BBLs  
RT: 0 bbls  
CR:1710  
LTR: 200,390 BBLs.  
TSIF: 6,884,884 Lbs

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG 24 of 36: Tested stack to 9700 psi. Held 1670 psi on backside. PPS frac perfs per schedule w/ 28 bbls 15% HCL, 335,851 lbs.40/70 brown sand &amp; 7,316 bbls of hybrid fluid linear / X-link down 5.5" csg</p> <p>Step test: 80 @ 7281 Psi 60 @ 6401 Psi 40 @ 5527 Psi 20 @ 4770 Psi</p> <p>Formation broke @ 20 bpm @ 5229 psi. Acid on form @ 20 bpm @ 5229 psi Acid cleared @ 80 bpm @ 7389 psi</p> <p>Increased rate to 80 bpm, Started Stage w/15# gel Equivalent gel loading, 9 cp.@ 77 *F Pumped 2,602 bbl pad. Ramped 40/70 brown sand from 0.50 ppg to 3.0 ppg, Flushed well with 407 bbls. Ending rate 80 bpm @ 7,455 psi. Placed 100% prop in formation. Traced sand w/120 Mc's of Antimony</p> <p>Avg rate: 78 bpm Avg psi: 7,593 psi Max rate: 80 bpm Max psi: 9,209 psi</p> <p>Pad ISIP: 4145 psi FG: 0.84 psi/ft 5 Min.SIP: 3829 Psi Ending ISIP: 4,394 psi FG: 0.87 psi/ft</p> <p>LTR= 168,376 bbls. TSIF= 5,541,125 lbs.</p>	1
PERF	<p>RU EPIC WL for Stage # 25 of 36, RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 13,807', Perforate intervals :13,536' - 13,538' &amp; 13,596' - 13,598' &amp; 13,656' - 13,658' &amp; 13,716' - 13,718' &amp; 13,776' - 13,778' w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0..56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; Pump down at 14 Bpm @ 4,440 PSI and 278 Ft/Min. Line Speed. Drop 1.5 SG frac ball instead of 1.9 SG ball</p> <p>FTR: 213 BBLS LTR: 168,589 BBLS</p>	2.75
STIM	<p>FRAC STG # 25 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 43 bbls 15% HCL, 336,873 lbs.40/70 brown sand &amp; 6,858 bbls of hybrid fluid linear/X-link down 5.5" csg.</p> <p>Step test: 80 @ 6,850 Psi 60 @ 5,985 Psi 40 @ 5,200 Psi 20 @ 4,565 Psi</p> <p>Formation broke @ 20 bpm @ 4,795 psi. Acid on form @ 30 bpm @ 5,421 psi. Acid cleared @ 60 bpm @ 6,000 psi.</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 75 *F Pumped 2,551 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3 ppg. Flushed well with XX bbls. Ending rate 80 bpm @ 7,900 psi. Placed 100% prop in formation.</p> <p>Avg rate: 78 bpm Avg psi: 7,766 psi Max rate: 80 bpm Max psi: 8,820 psi Pad ISIP: 4,145 psi FG: 0.84 psi/ft 5 Min.SIP: 3,800 Psi Ending ISIP: 4,537 psi FG: 0.88 psi/ft</p> <p>LTR= 175,447 bbls. TSIF= 5,877,998 lbs.</p>	2
PERF	<p>RU EPIC WL for Stage # 26. RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 13,507' perforate intervals 13,236' - 13,238' &amp; 13,296' - 13,298' &amp; 13,356' - 13,358' &amp; 13,416' - 13,418' &amp; 13,476' - 13,478' w/ 8 shots, 4 SPF, 60*, 22.7 GR, 0.56" EHD, perf guns. 40 holes total. POOH. All shots fired. RD WL; .Pump down at 14 Bpm at 4,300 PSI and 287 Ft/Min. Line Speed</p> <p>FTR: 189 BBLS LTR: 175,636 BBLS</p>	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 26 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perms per schedule w/ 41 bbls 15% HCL, 335,841 lbs.40/70 brown sand &amp; 7,433 bbls of hybrid fluid linear/X-link down5.5" csg.</p> <p>Step test: 80 @ 7,500 Psi 60 @ 6,320 Psi 40 @ 5,360 Psi 20 @ 4,650 Psi</p> <p>Formation broke @ 20 bpm @ 5,384 psi. Acid on form @ 30 bpm @ 5,932 psi. Acid cleared @ 60 bpm @ 6,500 psi.</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 8 cp.@ 78 °F Pumped 2,786 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3 ppg. Flushed well with 394 bbls. Ending rate 80 bpm @ 7,520 psi. Placed 100% prop in formation.</p> <p>Avg rate: 80 bpm Avg psi: 7,750 psi Max rate: 80 bpm Max psi: 9,040 psi Pad ISIP: 4,240 psi FG: 0.85 psi/ft 5 Min.SIP: 3,780 Psi Ending ISIP: 4,330 psi FG: 0.86 psi/ft</p> <p>LTR= 183,069 bbls. TSIF= 6,213,839 lbs.</p>	2.5
PERF	<p>RU EPIC WL for Stage # 27. RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 13,207' perforate intervals 12,936' - 12,938' &amp; 12,996' - 12,998' &amp; 13,056' - 13,058' &amp; 13,116' - 13,118' &amp; 13,176' - 13,178' 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 4047 PSI and 280 Ft/Min. Line Speed</p> <p>FTR: 179 BBLS LTR: 183,248 BBLS</p>	2.25
STIM	<p>FRAC STG # 27 of 36: Test stack to 9,500 psi. Hold 1647 psi on backside. PPS frac'd perms per schedule w/ 38 bbls 15% HCL, 335,842 lbs.40/70 brown sand &amp; 9646 bbls of hybrid fluid linear/X-link down5.5" csg.</p> <p>Step test: 80 @ 6878 Psi 60 @ 5885 Psi 40 @ 5122 Psi 20 @ 4558 Psi</p> <p>Formation broke @ 15 bpm @ 5076 psi. Acid on form @ 15 bpm @ 5076 psi. Acid cleared @ 80 bpm @ 6919 psi.</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 8 cp.@ 78 °F Pumped 2633 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3 ppg. Flushed well with 389 bbls. Ending rate 80 bpm @ 7509 psi. Placed 100% prop in formation.</p> <p>Had to SD 4710 bbl into job due to leak on high pressure iron. isolated the missile and flushed well for 600 bbl with 3rd line. SD and repair leak. Down 45 mins Started back up and ramped sand back up and finished job.</p> <p>Avg rate: 69 bpm Avg psi: 6165 psi Max rate: 80 bpm Max psi: 8943 psi Pad ISIP: 4081 psi FG: 0.84 psi/ft 5 Min.SIP: 3781 Psi Ending ISIP: 4370 psi FG: 0.87 psi/ft</p> <p>LTR= 192,894 bbls. TSIF= 6,549,681 lbs.</p>	3.75
PERF	<p>RU EPIC WL for Stage # 28. RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 12,907' perforate intervals 12,638' - 12,640' &amp; 12,696' - 12,698' &amp; 12,756' - 12,758' &amp; 12,816' - 12,818' &amp; 12,876' - 12,878' 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 4277 PSI and 270 Ft/Min. Line Speed</p> <p>FTR: 169 BBLS LTR: 193,063 BBLS</p>	2
U_PEPXD	Down for pump repair / maintenance	2.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 28 of 36: Test stack to 9,500 psi. Hold 1364 psi on backside. PPS frac'd perfs per schedule w/ 38 bbls 15% HCL, 335,203 lbs.40/70 brown sand &amp; 7327 bbls of hybrid fluid linear/X-link down5.5" csg.</p> <p>Step test: 80 @ 6688 Psi 60 @ 5929 Psi 40 @ 5204 Psi 20 @ 4622 Psi</p> <p>Formation broke @ 15 bpm @ 6102 psi. Acid on form @ 15 bpm @ 6102 psi. Acid cleared @ 65bpm @ 6750 psi.</p> <p>Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 10 cp.@ 75 *F Pumped 2622 bbl pad. Ramped 40/70 brown sand from 0.5 ppg to 3 ppg. Flushed well with 380 bbls. Ending rate 80 bpm @ 7929 psi. Placed 100% prop in formation.</p> <p>Avg rate: 72 bpm Avg psi: 7720 psi Max rate: 80 bpm Max psi: 9187 psi Pad ISIP: 4160 psi FG: 0.85 psi/ft 5 Min.SIP: 3883 Psi Ending ISIP: 4278 psi FG: 0.86 psi/ft</p> <p>LTR= 200,390 bbls. TSIF= 6,884,884 lbs.</p>	2
PERF	Start PD for stage 29 @ report time	1

**Report #: 31 Daily Operation: 6/12/2014 06:00 - 6/13/2014 06:00**

Job Category ORIG COMPLETION	Primary Job Type OCM	AFE Number 028745
Days From Spud (days) 159	Days on Location (days) 30	End Depth (ftKB) 0.0
End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6

#### Operations Summary

Attempt to Perf Stage 29, Lost Plug & Guns  
Waiting on PPS Coil  
MIRU PPS Coil & Related Equip.

#### Remarks

PPS Downtime: 0.0 Hrs. 37.75 Cum.Hrs.  
Epic WL Downtime: 24 Hrs. 25.5 Cum. Hrs.  
Orbit Water Transfer Downtime: 0 Hrs. 0 Cum. Hrs  
Pioneer Coil Downtime: 9.5 hrs 9.5 Cum Hrs

FTR: 202,100 BBLs  
RT: 0 bbls  
CR:1710  
LTR: 200,390 BBLs.  
TSIF: 6,884,884 Lbs

### Time Log Summary

Operation	Com	Dur (hr)
U_WL	Lost CCL and Plug & Guns stopped Pulled up no indication plug & guns on. Continue to POOH. At Surface rope socket was intact and had unscrewed from CCL. Calling Coil and will fish guns.	10
MIRU	<p>MIRU PPS Coil Tubing &amp; Related Equipment for Fishing Plug &amp; Guns</p> <p>Down 9.5 hours due to Pioneer CTU breaking down durring rig up. ( fuel injector went out )</p>	14

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 32 Daily Operation: 6/13/2014 06:00 - 6/14/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 028745
Days From Spud (days) 160	Days on Location (days) 31	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6	

### Operations Summary

MIRU PPS Coil & Related Equip.

Pickup Lube and MU BHA consisting of: Coil Connector,Dual back pressure valve,accelerator,Jars,Hyd. disconnect,Indexing tool,Overshot W/2" grapple overall length 24.63'.

Function test BOP's Pull test Coil Con. to 25,000# test stacks and lines to 6,500 psi

RIH ,tag fish @12,871' work pipe

POOH w/ Fish

Bump up close well in and secure

Retrieved Entire fish including CFP

RDMO PPS Coil

RIH to set plug and perf stg #29

### Remarks

PPS Downtime: 0.0 Hrs. 37.75 Cum.Hrs.

Epic WL Downtime: 0.0 Hrs. 25.5 Cum. Hrs.

Orbit Water Transfer Downtime: 0 Hrs. 0 Cum. Hrs

Pioneer Coil Downtime: 0.0 hrs 9.5 Cum Hrs

Weather Downtime: 5.25 Hrs 5.25 Cum Hrs

FTR: 0 BBLs

RT: 0 bbls

CR:1710

LTR: 0 BBLs.

TSIF: 6,884,884 Lbs

### Time Log Summary

Operation	Com	Dur (hr)
MIRU	MIRU PPS Coil Tubing & Related Equipment for Fishing Plug & Guns	1
RURD	Pickup Lube and MU BHA consisting of: Coil Connector,Dual back pressure valve,accelerator,Jars,Hyd. disconnect,Indexing tool,Overshot W/2' grappleoverall length 24.63'.Function test BOP's Pull test Coil Con. to 25,000# test stacks and lines to 6,500 psi	2.5
FISHING	Start in hole w Fishing BHA Pumping 0.5 BPM at 3,000 Psi Returning 0.5 BPM at 2,800 psi.tagged fish at 12,871'	3.5
FISHING	Tagged Fish at 12,871' pumping 1 bpm at 3,590 psi returning 1 bpm at 3,000 psi. worked up and sat back down several times. confirmed pressure increase on tby. start POOH	2.5
FISHING	Bump up Close well in. retrieved entire fish including CFP. start RDMO coil and set frac /WL back up	1
RDMO	RDMO PPS Coil	6
U_WOW	SD due to storms and lightening	5.25
RURD	RU wireline, lub and PU plug and gun string	0.75
PERF	RIH to set plug and perf stage 29 at report time.	1.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 33 Daily Operation: 6/14/2014 06:00 - 6/15/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 161	Days on Location (days) 32	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6

Operations Summary  
 Plug & Perf Stg 29  
 Frac Stg.29  
 Perf Stg.30 (Did not run CFP)  
 Frac Stg. 30  
 Plug & Perf Stg 31  
 Frac Stg 31  
 Plug & Perf Stg 32  
 Frac Stg 32  
 Plug & Perf Stg 33  
 Frac Stg 33

Remarks  
 PPS Downtime: 1.25 Hrs. 39.0 Cum.Hrs.  
 Epic WL Downtime: 2.0 Hrs. 27.5 Cum. Hrs.  
 Orbit Water Transfer Downtime: 0 Hrs. 0 Cum. Hrs  
 Pioneer Coil Downtime: 0.0 hrs 9.5 Cum Hrs  
 Weather Downtime: 0.0 Hrs 5.25 Cum Hrs  
  
 FTR: 238,508 BBLs  
 RT: 0 bbls  
 CR:1710  
 LTR: 236,798 BBLs.  
 TSIF: 6,884,884 Lbs

### Time Log Summary

Operation	Com	Dur (hr)
PERF	RU EPIC WL for Stage # 29. RIH & pump down Magnum CFP & 5 each 3.125" guns. Set CFP @ 12,607' perforate intervals 12,336' - 12,338' & 12,396' - 12,398' & 12,456' - 12,458' & 12,516' - 12,518' & 12,576' - 12,878' 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 5,255 PSI and 285 Ft/Min. Line Speed  FTR: 141 BBLs LTR: 200,531 BBLs	2
STIM	FRAC STG # 29 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 37 bbls 15% HCL, 8,286 lbs.40/70 brown sand & 4274 bbls of hybrid fluid linear/X-link down5.5" csg.  Step test: 80 @ 6,620 Psi 60 @ 5,940 Psi 40 @ 5,288 Psi 20 @ 4,720 Psi  Formation broke @ 20 bpm @ 5,543 psi. Acid on form @ 30 bpm @ 6,264 psi. Acid cleared @ 63 bpm @ 6,435 psi.  Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 9 cp.@ 75 °F Pumped 2,786 bbl pad. Ramped 40/70 brown sand from 0.5 ppg. Flushed well with 950 bbls. Ending rate 50 bpm @ 4,274 psi. Placed .02% prop in formation.  Avg rate: 64.4 bpm Avg psi: 8,422 psi Max rate: 80.9 bpm Max psi: 9,685 psi Pad ISIP: 4,145 psi FG: 0.85 psi/ft 5 Min.SIP: 3,700 Psi Ending ISIP: 4,174 psi FG: 0.85 psi/ft  LTR= 204,805 bbls. TSIF= 6,893,170 lbs.  NOTE: Due to high PSI, only ran 0.5 PPA. Contacted engineer. Will PERF next stage with no plug between satges 29-30.	1.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
PERF	RU EPIC WL for Stage # 30. RIH & pump down Magnum CFP & 5 each 3.125" guns. Did not run plug. perforate intervals 12,036' - 12,038' & 12,096' - 12,098' & 12,156' - 12,158' & 12,216' - 12,218' & 12,276' - 12,278' 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 7,524 PSI and 285 Ft/Min. Line Speed  FTR: 128 BBLS LTR: 204,933 BBLS	1.75
U_PEPXD	Working on pop-offs.	1.25
STIM	FRAC STG # 30 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 48 bbls 15% HCL, 535,104 lbs.40/70 brown sand & 9,777 bbls of hybrid fluid linear/X-link down5.5" csg.  Step test: 80 @ 6,190 Psi 60 @ 5,520 Psi 40 @ 4,890 Psi 20 @ 4,400 Psi  Formation broke @ 20 bpm @ 5,149 psi. Acid on form @ 30 bpm @ 5,149 psi. Acid cleared @ 20 bpm @ 5,370 psi.  Increased rate to 80 bpm. Started Stage w/ 16 # gel Equivalent gel loading, 9 cp.@ 78 *F Pumped 2,787 bbl pad. Ramped 40/70 brown sand from 0.25 ppg to 3 ppg. Flushed well with 374 bbls. Ending rate 80 bpm @ 6,550 psi. Placed 160% prop in formation.  Avg rate: 80 bpm Avg psi: 7,163 psi Max rate: 80 bpm Max psi: 8,979 psi Pad ISIP: 4,180 psi FG: 0.85 psi/ft 5 Min.SIP: 3,764 Psi Ending ISIP: 4,612 psi FG: 0.89 psi/ft  LTR= 214,710 bbls. TSIF= 7,428,274 lbs.  NOTE: Pumped additional 200,000 lbs proppant per ENG.	2.5
PERF	RU EPIC WL for Stage # 31. RIH & pump down Magnum CFP & 5 each 3.125" guns. Set CFP @ 12,007' perforate intervals 11,736' - 11,738' & 11,796' - 11,798' & 11,856' - 11,858' & 11,916' - 11,918' & 11,976' - 11,978' 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 4,042 PSI and 295 Ft/Min. Line Speed  FTR: 111 BBLS LTR: 214,821 BBLS	2
STIM	FRAC STG # 31 of 36: Test stack to 9,500 psi. Hold 1386 psi on backside. PPS frac'd perfs per schedule w/ 37 bbls 15% HCL, 335,126 lbs.40/70 brown sand & 7959 bbls of hybrid fluid linear/X-link down5.5" csg.  Step test: 80 @ 7500 Psi 60 @ 6650 Psi 40 @ 5660 Psi 20 @ 4800 Psi  Formation broke @ 20 bpm @ 5815 psi. Acid on form @ 20 bpm @ 5661 psi. Acid cleared @ 68 bpm @ 6860 psi. Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 8 cp.@ 81 *F Pumped 2786 bbl pad. Ramped 40/70 brown sand from 0.25 ppg to 3 ppg. Flushed well with 360 bbls. Ending rate 80 bpm @ 7039 psi. Placed 100% prop in formation.  Avg rate: 69 bpm Avg psi: 7548 psi Max rate: 80bpm Max psi: 9321 psi Pad ISIP: 4200 psi FG: 0.85 psi/ft 5 Min.SIP: 3819 Psi Ending ISIP: 4491 psi FG: 0.88 psi/ft  LTR= 222,780 bbls. TSIF= 7,763,400 lbs.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
PERF	<p>RU EPIC WL for Stage # 32. RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 11,707 ' perforate intervals 11,676' - 11,678' &amp; 11,616' - 11,618' &amp; 11,560' - 11,562' &amp; 11,496' - 11,498' &amp; 11,436' - 11,438' 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 3,952 PSI and 290 Ft/Min. Line Speed</p> <p>FTR: 112 BBLS LTR: 222,892 BBLS</p>	2
STIM	<p>FRAC STG # 32 of 36: Test stack to 9,500 psi. Hold 1355 psi on backside. PPS frac'd perfs per schedule w/ 33 bbls 15% HCL, 332,798 lbs.40/70 brown sand &amp; 6878 bbls of hybrid fluid linear/X-link down5.5" csg.</p> <p>Step test: 80 @ 6722 Psi 60 @ 5929 Psi 40 @ 5183 Psi 20 @ 4663 Psi</p> <p>Formation broke @ 20 bpm @ 5971 psi. Acid on form @ 20 bpm @ 5971 psi. Acid cleared @ 57 bpm @ 6840 psi. Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 9 cp.@ 81 *F Pumped 2184 bbl pad. Ramped 40/70 brown sand from 0.50 ppg to 3 ppg. Flushed well with 354 bbls. Ending rate 80 bpm @ 7202 psi. Placed 100% prop in formation.</p> <p>Avg rate: 72 bpm Avg psi: 7361 psi Max rate: 80 bpm Max psi: 9398 psi Pad ISIP: 4251 psi FG: 0.86 psi/ft 5 Min.SIP: 4053 Psi Ending ISIP: 4530 psi FG: 0.88 psi/ft</p> <p>LTR= 229,770 bbls. TSIF= 8,096,198 lbs.</p>	2.5
PERF	<p>RU EPIC WL for Stage # 33. RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 11,407 ' perforate intervals 11,376' - 11,378' &amp; 11,316' - 11,318' &amp; 11,259' - 11,261' w/ 8 shots, 4 SPF, 60", 21.5 GR, 0.42" EHD, perf guns. 24 holes total. Two top guns showed open circuit. POOH to repair guns. All guns fired. Consulted John Gossett &amp; decided to frac interval as designed.</p> <p>FTR: 102 BBLS LTR: 229,872 BBLS</p>	2
STIM	<p>FRAC STG # 33 of 36: Test stack to 9,500 psi. Hold 1210 psi on backside. PPS frac'd perfs per schedule w/ 45 bbls 15% HCL, 335,515 lbs.40/70 brown sand &amp; 6926 bbls of hybrid fluid linear/X-link down5.5" csg.</p> <p>Step test: 80 @ 7184 Psi 60 @ 6276 Psi 40 @ 5493 Psi 20 @ 4871 Psi</p> <p>Formation broke @ 20 bpm @ 5517 psi. Acid on form @ 20 bpm @ 5517 psi. Acid cleared @ 70 bpm @ 7478 psi. Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 9 cp.@ 74 *F Pumped 2192 bbl pad. Ramped 40/70 brown sand from 0.50 ppg to 3 ppg. Flushed well with 347 bbls. Ending rate 80 bpm @ 7204 psi. Placed 100% prop in formation.</p> <p>Avg rate: 73 bpm Avg psi: 7197 psi Max rate: 80 bpm Max psi: 8707 psi Pad ISIP: 4380 psi FG: 0.87 psi/ft 5 Min.SIP: 4032 Psi Ending ISIP: 4445 psi FG: 0.87 psi/ft</p> <p>LTR= 236,798 bbls. TSIF= 8,431,713 lbs.</p>	2.5
U_EL	Wireline pressure cut their line when equalizing	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Report #: 34 Daily Operation: 6/15/2014 06:00 - 6/16/2014 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM		AFE Number 028745
Days From Spud (days) 162	Days on Location (days) 33	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig SWAT PPS Frac Fleet, #6

### Operations Summary

Repair (Re Head W/L)  
Plug & Perf Stage #34  
Frac Stage #34  
Plug & Perf Stage #35  
Down 1 hr for iron leak  
Frac Stage#35  
Plug & Perf Stage #36  
Frac Stage#36  
Set kill plug @ 9772

### Remarks

PPS Downtime: 0.0 Hrs. 39.0 Cum.Hrs.  
Epic WL Downtime: 0.0 Hrs. 27.5 Cum. Hrs.  
Orbit Water Transfer Downtime: 0 Hrs. 0 Cum. Hrs  
Pioneer Coil Downtime: 1.0 hrs 10.5 Cum Hrs  
Weather Downtime: 0.0 Hrs 5.25 Cum Hrs

FTR: 323,914 BBLs  
RT: 0 bbls  
CR:1710  
LTR: 322,204 BBLs.  
TSIF: 9,372,837 Lbs

### Time Log Summary

Operation	Com	Dur (hr)
PERF	RU EPIC WL for Stage # 34. RIH & pump down Magnum CFP & 5 each 3.125" guns. Set CFP @ 11,107 ' perforate intervals 11,076' - 11,078' & 11,016' - 11,018' & 10,956' - 10,958' & 10,896' - 10,898' & 10,836' - 10,838' 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 4,100 PSI and 250 Ft/Min. Line Speed  FTR: 73 BBLs LTR: 236,871 BBLs	2.5
STIM	FRAC STG # 34 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 58 bbls 15% HCL, 335,202 lbs.30/50 brown sand & 7,837 bbls of hybrid fluid linear/X-link down5.5" csg. Step test: 80 @ 6,870 Psi 60 @ 6,035 Psi 40 @ 5,280 Psi 20 @ 4,670 Psi  Formation broke @ 20 bpm @ 5,559 psi. Acid on form @ 20 bpm @ 5,559 psi. Acid cleared @ 80 bpm @ 7,218 psi.  Increased rate to 80 bpm. Started Stage w/ 16# gel Equivalent gel loading, 9 cp.@ 75 °F Pumped 2,617 bbl pad. Ramped 30/50 brown sand from 0.25 ppg to 3 ppg. Flushed well with 340 bbls. Ending rate 80 bpm @ 7,180 psi. Placed 100% prop in formation.  Avg rate: 78.4 bpm Avg psi: 7,556 psi Max rate: 80.5 bpm Max psi: 9,390 psi Pad ISIP: 4,102 psi FG: 0.84 psi/ft 5 Min.SIP: 3,777 Psi Ending ISIP: 4,486 psi FG: 0.88 psi/ft  LTR= 244,342 bbls. TSIF= 8,766,915 lbs.	2
PERF	RU EPIC WL for Stage # 35. RIH & pump down Magnum CFP & 5 each 3.125" guns. Set CFP @ 10,807 ' perforate intervals 10,536' - 10,538' & 10,596' - 10,598' & 10,656' - 10,658' & 10,716' - 10,718' & 10,776' - 10,778' 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 4,329 PSI and 250 Ft/Min. Line Speed  FTR: 56 BBLs LTR: 244,398 BBLs	2.5
U_PEPXD	Leak at Missile on High Pressure Side	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Time Log Summary

Operation	Com	Dur (hr)
STIM	<p>FRAC STG # 35 of 36: Test stack to 9,500 psi. Hold 1500 psi on backside. PPS frac'd perfs per schedule w/ 57 bbls 15% HCL, 336,641 lbs.40/70 brown sand &amp; 7,792 bbls of hybrid fluid linear/X-link down5.5" csg.</p> <p>Step test: 80 @ 7,245 Psi 60 @ 6,350 Psi 40 @ 5,410 Psi 20 @ 4,770 Psi</p> <p>Formation broke @ 20 bpm @ 5,496 psi. Acid on form @ 20 bpm @ 5,496 psi. Acid cleared @ 30 bpm @ 6,067 psi. Increased rate to 80 bpm. Started Stage w/ 15# gel Equivalent gel loading, 8 cp.@ 82 °F Pumped 2,563 bbl pad. Ramped 30/50 brown sand from 0.25 ppg to 3 ppg. Flushed well with 334 bbls. Ending rate 80 bpm @ 6800 psi. Placed 100% prop in formation.</p> <p>Avg rate: 76.1 bpm Avg psi: 8,266 psi Max rate: 81 bpm Max psi: 9,456 psi Pad ISIP: 4,344 psi FG: 0.86 psi/ft 5 Min.SIP: 3,886 Psi Ending ISIP: 4,645 psi FG: 0.88 psi/ft</p> <p>LTR= 252,190 bbls. TSIF= 9,103,556 lbs.</p>	2
PERF	<p>RU EPIC WL for Stage #36. RIH &amp; pump down Magnum CFP &amp; 5 each 3.125" guns. Set CFP @ 10,507' perforate intervals 10,236' - 10,436' &amp; 10,296' - 10,298' &amp; 10,356' - 10,358' &amp; 10,416' - 10,418' &amp; 10,476' - 10,478' 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 4,138 PSI and 250 Ft/Min. Line Speed</p> <p>FTR: 42 BBLs LTR: 252,232 BBLs</p>	2.5
STIM	<p>FRAC STG # 36 of 36: Test stack to 9,500 psi. Hold 1700 psi on backside. PPS frac'd perfs per schedule w/ 87 bbls 15% HCL, 60,083 lbs. 100 Mesh sand, 86,938 lbs. 40/70 brown sand, 122,261 lbs.30/50 brown sand &amp; 6972 bbls of hybrid fluid linear/X-link down5.5" csg.</p> <p>Step test: 80 @ 7427 Psi 60 @ 6350 Psi 40 @ 5476 Psi 20 @ 4739 Psi</p> <p>Formation broke @ 15 bpm @ 6909 psi. Acid on form @ 15 bpm @ 6909 psi. Acid cleared @ 80 bpm @ 7820 psi.</p> <p>Increased rate to 80 bpm. Started Stage w/ 15 # gel Equivalent gel loading, 8 cp.@ 81 °F Pumped 2281 bbl pad. Ramped 100 Mesh sand from 0.25 ppg to 1.5 ppg. Ramped 40/70 brown sand from 1.50 ppg to 2.00 ppg. Ramped 30/50 brown sand from 2.50 ppg to 3 ppg. Flushed well with 425 bbls. Ending rate 46 bpm @ 5186 psi. Placed 80% prop in formation.</p> <p>Blender lost slip pump while on 3 lbs sand. Had to cut sand and flush well. Engineer decided to call the stage due to time needed to change blender out.</p> <p>Avg rate: 67 bpm Avg psi: 6494 psi Max rate: 80 bpm Max 8714 psi Pad ISIP: 4071 psi FG: 0.84 psi/ft 5 Min.SIP: 3686 Psi Ending ISIP: 4490 psi FG: 0.88 psi/ft</p> <p>LTR= 322,204 bbls. TSIF= 9,372,837 lbs.</p>	2.5
PERF	RU EPIC WL and set Magnum CBP @ 9,772' Bleed PSI off, POOH. RDMO WL;	1.5
RDMO	RDMO PPS Frac	7.5

### WELL DETAILS

Well Name UNIVERSITY 3-19 31H	API/UWI 42-461-39019-0000	Operator PIONEER NATURAL RESRC USA INC			
Wellbore Hole Size					
Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date	End Date
Conductor	30	26.0	146.0	10/30/2013	10/30/2013

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Wellbore Hole Size									
Section Des		Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date		End Date		
Surface		17 1/2	146.0	1,200.0	1/5/2014		1/6/2014		
Intermediate		12 1/4	1,200.0	8,340.0	1/6/2014		1/15/2014		
Pilot Hole		8 1/2	8,340.0	10,400.0	1/18/2014		2/7/2014		
Production		8 1/2	9,478.0	20,484.0	2/11/2014		3/12/2014		
Conductor Casing									
Run Date		Set Depth (ftKB)			Centralizers				
		0.0							
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		20	19.124	94.00		120.00	1	-120.0	0.0
Run Date		Set Depth (ftKB)			Centralizers				
10/31/2013		146.0							
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		20	18.730	133.00	J-55	120.00		26.0	146.0
Surface Casing									
Set Depth (ftKB)		Run Date		Centralizers					
725.0									
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	700.00	18	25.0	725.0
Set Depth (ftKB)		Run Date		Centralizers					
1,196.0		1/7/2014							
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Jts		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	18.40	1	26.0	44.4
Casing Jts		13 3/8	12.715	48.00	J 55	1,105.24	26	44.4	1,149.7
Float Collar		13 3/8	12.715	48.00	J 55	1.50	1	1,149.7	1,151.2
Casing Jts		13 3/8	12.715	48.00	J 55	42.83	1	1,151.2	1,194.0
Float Shoe		13 3/8	12.715	48.00	J 55	2.00	1	1,194.0	1,196.0
Surface Casing Cement									
Type		String		Cementing Start Date		Cementing End Date		Cementing Company	
Casing		Surface, 1,196.0ftKB		1/7/2014		1/7/2014		SCHLUMBERGER	
Class		Amount (sacks)			Yield (ft³/sack)		Density (lb/gal)		
Class C		1,023			1.70		13.60		
Intermediate Casing									
Set Depth (ftKB)		Run Date		Centralizers					
8,300.0									
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		9 5/8	8.835	40.00	L-80	8,275.00	207	25.0	8,300.0
Set Depth (ftKB)		Run Date		Centralizers					
8,327.0		1/17/2014		40					
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Landing Joint		9 5/8	8.835	40.00	L-80	0.00	0	30.6	30.6
Hanger		9 5/8	8.835	40.00	L-80	4.00	1	30.6	34.6
Marker Jnt		9 5/8	8.835	40.00	L-80	19.75	2	34.6	54.3
Casing Jnt		9 5/8	8.835	40.00	L-80	3,455.46	75	54.3	3,509.8
Ryte Wrap		9 5/8	8.835	40.00	L-80	2,167.60	47	3,509.8	5,677.4
DV Tool		9 5/8	8.835	40.00	L-80	2.57	1	5,677.4	5,680.0
Casing Packer		9 5/8	8.835	40.00	L-80	23.73	1	5,680.0	5,703.7
Ryte Wrap		9 5/8	8.835	40.00	L-80	368.21	8	5,703.7	6,071.9
Casing Jnt		9 5/8	8.755	43.50	L-80	2,111.27	45	6,071.9	8,183.2
Float Collar		9 5/8	8.755	43.50	L-80	1.50	1	8,183.2	8,184.7
Casing Jnt		9 5/8	8.755	43.50	L-80	140.78	3	8,184.7	8,325.5
Shoe		9 5/8	8.755	43.50	L-80	1.54	1	8,325.5	8,327.0
Intermediate Casing Cement									
Type		String		Cementing Start Date		Cementing End Date		Cementing Company	
Casing		Intermediate, 8,327.0ftKB		1/17/2014		1/18/2014		SCHLUMBERGER	
Class		Amount (sacks)			Yield (ft³/sack)		Density (lb/gal)		
							10.00		
Class		Amount (sacks)			Yield (ft³/sack)		Density (lb/gal)		
							10.00		
Class		Amount (sacks)			Yield (ft³/sack)		Density (lb/gal)		
TXI LITEWEIGHT		417			2.24		11.50		
Class		Amount (sacks)			Yield (ft³/sack)		Density (lb/gal)		
Class H		188			1.07		16.40		

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)
Type Casing	String Intermediate, 8,327.0ftKB	Cementing Start Date 1/17/2014	Cementing End Date 1/18/2014
		Cementing Company SCHLUMBERGER	Top (ftKB) 1,758.0
			Btm (ftKB) 5,677.0
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)
TXI LITEWEIGHT	609	2.24	11.50
Class H	188	1.07	16.40
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)
			10.00

### Production Casing

Set Depth (ftKB)	Run Date	Centralizers						
20,280.0	3/17/2014	27						
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Langing Joint	5 1/2	4.778	20.00	P110	0.00	0	27.1	27.1
Running Tool	5 1/2	4.778	20.00	P110	0.00	0	27.1	27.1
Hanger	5 1/2	4.778	20.00	P110	1.00	1	27.1	28.1
Marker Joint	5 1/2	4.778	20.00	P110	9.69	1	28.1	37.8
Casing Jnt	5 1/2	4.778	20.00	P110	0.00	0	37.8	37.8
Casing Jnt	5 1/2	4.778	20.00	P110	0.00	0	37.8	37.8
Marker Joint	5 1/2	4.778	20.00	P110	0.00	0	37.8	37.8
Casing Jnt	5 1/2	4.778	20.00	P110	9,250.51	216	37.8	9,288.3
Marker Joint	5 1/2	4.778	20.00	P110	9.70	1	9,288.3	9,298.0
Casing Jnt	5 1/2	4.778	20.00	P110	10,852.47	253	9,298.0	20,150.5
Pup Joint	5 1/2	4.778	20.00	P110	7.61	1	20,150.5	20,158.1
Time Delay Toe Sleeve	5 1/2	4.778	20.00	P110	5.32	1	20,158.1	20,163.4
Pup Joint	5 1/2	4.778	20.00	P110	7.59	1	20,163.4	20,171.0
Marker Joint	5 1/2	4.778	20.00	P110	19.67	1	20,171.0	20,190.7
Latch In Float Collar	5 1/2	4.778	20.00	P110	2.18	1	20,190.7	20,192.9
Casing Jnt	5 1/2	4.778	20.00	P110	85.96	2	20,192.9	20,278.8
Float Shoe	5 1/2	4.778	20.00	P110	1.16	1	20,278.8	20,280.0

Set Depth (ftKB)	Run Date	Centralizers						
20,500.0								
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints	5 1/2	4.892	17.00	P-110	20,475.00	512	25.0	20,500.0

### Production Casing Cement

Type	String	Cementing Start Date	Cementing End Date	Cementing Company	Top (ftKB)	Btm (ftKB)
Casing	Production, 20,280.0ftKB	3/18/2014	3/18/2014	SCHLUMBERGER	10,980.0	20,280.0
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
				11.80		
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
TXI LITEWEIGHT	862	1.89		12.00		
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
TXI LITEWEIGHT	1,959	1.64		12.50		
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
				8.32		

### 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
10,236.0	10,238.0	Wolfcamp D, Original Hole	4.0	8	STAGE 36
10,296.0	10,298.0	Wolfcamp D, Original Hole	4.0	8	STAGE 36
10,356.0	10,358.0	Wolfcamp D, Original Hole	4.0	8	STAGE 36
10,416.0	10,418.0	Wolfcamp D, Original Hole	4.0	8	STAGE 36
10,476.0	10,478.0	Wolfcamp D, Original Hole	4.0	8	STAGE 36
10,536.0	10,538.0	Wolfcamp D, Original Hole	4.0	8	STAGE 35
10,596.0	10,598.0	Wolfcamp D, Original Hole	4.0	8	STAGE 35
10,656.0	10,658.0	Wolfcamp D, Original Hole	4.0	8	STAGE 35
10,716.0	10,718.0	Wolfcamp D, Original Hole	4.0	8	STAGE 35

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Perforations

Top (ftKB)	Btm (ftKB)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
10,776.0	10,778.0	Wolfcamp D, Original Hole	4.0	8	STAGE 35
10,836.0	10,838.0	Wolfcamp D, Original Hole	4.0	8	STAGE 34
10,896.0	10,898.0	Wolfcamp D, Original Hole	4.0	8	STAGE 34
10,956.0	10,958.0	Wolfcamp D, Original Hole	4.0	8	STAGE 34
11,016.0	11,018.0	Wolfcamp D, Original Hole	4.0	8	STAGE 34
11,076.0	11,078.0	Wolfcamp D, Original Hole	4.0	8	STAGE 34
11,136.0	11,138.0	Wolfcamp D, Original Hole	4.0	8	STAGE 33
11,196.0	11,198.0	Wolfcamp D, Original Hole	4.0	8	STAGE 33
11,259.0	11,261.0	Wolfcamp D, Original Hole	4.0	8	STAGE 33
11,316.0	11,318.0	Wolfcamp D, Original Hole	4.0	8	STAGE 33
11,376.0	11,378.0	Wolfcamp D, Original Hole	4.0	8	STAGE 33
11,436.0	11,438.0	Wolfcamp D, Original Hole	4.0	8	STAGE 32
11,496.0	11,498.0	Wolfcamp D, Original Hole	4.0	8	STAGE 32
11,560.0	11,562.0	Wolfcamp D, Original Hole	4.0	8	STAGE 32
11,616.0	11,618.0	Wolfcamp D, Original Hole	4.0	8	STAGE 32
11,676.0	11,678.0	Wolfcamp D, Original Hole	4.0	8	STAGE 32
11,736.0	11,738.0	Wolfcamp D, Original Hole	4.0	8	STAGE 31
11,796.0	11,798.0	Wolfcamp D, Original Hole	4.0	8	STAGE 31
11,856.0	11,858.0	Wolfcamp D, Original Hole	4.0	8	STAGE 31
11,916.0	11,918.0	Wolfcamp D, Original Hole	4.0	8	STAGE 31
11,976.0	11,978.0	Wolfcamp D, Original Hole	4.0	8	STAGE 31
12,036.0	12,038.0	Wolfcamp D, Original Hole	4.0	8	STAGE 30
12,096.0	12,098.0	Wolfcamp D, Original Hole	4.0	8	STAGE 30
12,156.0	12,158.0	Wolfcamp D, Original Hole	4.0	8	STAGE 30
12,216.0	12,218.0	Wolfcamp D, Original Hole	4.0	8	STAGE 30
12,276.0	12,278.0	Wolfcamp D, Original Hole	4.0	8	STAGE 30
12,336.0	12,338.0	Wolfcamp D, Original Hole	4.0	8	STAGE 29
12,396.0	12,398.0	Wolfcamp D, Original Hole	4.0	8	STAGE 29
12,456.0	12,458.0	Wolfcamp D, Original Hole	4.0	8	STAGE 29
12,516.0	12,518.0	Wolfcamp D, Original Hole	4.0	8	STAGE 29
12,576.0	12,578.0	Wolfcamp D, Original Hole	4.0	8	STAGE 29
12,638.0	12,640.0	Wolfcamp D, Original Hole	4.0	8	STAGE 28
12,696.0	12,698.0	Wolfcamp D, Original Hole	4.0	8	STAGE 28
12,756.0	12,758.0	Wolfcamp D, Original Hole	4.0	8	STAGE 28
12,816.0	12,818.0	Wolfcamp D, Original Hole	4.0	8	STAGE 28
12,876.0	12,878.0	Wolfcamp D, Original Hole	4.0	8	STAGE 28
12,938.0	12,940.0	Wolfcamp D, Original Hole	4.0	8	STAGE 27
12,996.0	12,998.0	Wolfcamp D, Original Hole	4.0	8	STAGE 27
13,056.0	13,058.0	Wolfcamp D, Original Hole	4.0	8	STAGE 27
13,116.0	13,118.0	Wolfcamp D, Original Hole	4.0	8	STAGE 27
13,176.0	13,178.0	Wolfcamp D, Original Hole	4.0	8	STAGE 27
13,240.0	13,242.0	Wolfcamp D, Original Hole	4.0	8	STAGE 26
13,296.0	13,298.0	Wolfcamp D, Original Hole	4.0	8	STAGE 26
13,356.0	13,358.0	Wolfcamp D, Original Hole	4.0	8	STAGE 26
13,416.0	13,418.0	Wolfcamp D, Original Hole	4.0	8	STAGE 26
13,476.0	13,478.0	Wolfcamp D, Original Hole	4.0	8	STAGE 26
13,536.0	13,538.0	Wolfcamp D, Original Hole	4.0	8	STAGE 25
13,596.0	13,598.0	Wolfcamp D, Original Hole	4.0	8	STAGE 25
13,656.0	13,658.0	Wolfcamp D, Original Hole	4.0	8	STAGE 25
13,716.0	13,718.0	Wolfcamp D, Original Hole	4.0	8	STAGE 25
13,776.0	13,778.0	Wolfcamp D, Original Hole	4.0	8	STAGE 25
13,836.0	13,838.0	Wolfcamp D, Original Hole	4.0	8	STAGE 24
13,896.0	13,898.0	Wolfcamp D, Original Hole	4.0	8	STAGE 24
13,956.0	13,958.0	Wolfcamp D, Original Hole	4.0	8	STAGE 24



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Perforations

Top (ftKB)	Btm (ftKB)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
14,016.0	14,018.0	Wolfcamp D, Original Hole	4.0	8	STAGE 24
14,076.0	14,078.0	Wolfcamp D, Original Hole	4.0	8	STAGE 24
14,130.0	14,132.0	Wolfcamp D, Original Hole	4.0	8	STAGE 23
14,196.0	14,198.0	Wolfcamp D, Original Hole	4.0	8	STAGE 23
14,256.0	14,258.0	Wolfcamp D, Original Hole	4.0	8	STAGE 23
14,316.0	14,318.0	Wolfcamp D, Original Hole	4.0	8	STAGE 23
14,376.0	14,378.0	Wolfcamp D, Original Hole	4.0	8	STAGE 23
14,444.0	14,446.0	Wolfcamp D, Original Hole	4.0	8	STAGE 22
14,496.0	14,498.0	Wolfcamp D, Original Hole	4.0	8	STAGE 22
14,556.0	14,558.0	Wolfcamp D, Original Hole	4.0	8	STAGE 22
14,616.0	14,618.0	Wolfcamp D, Original Hole	4.0	8	STAGE 22
14,676.0	14,678.0	Wolfcamp D, Original Hole	4.0	8	STAGE 22
14,730.0	14,732.0	Wolfcamp D, Original Hole	4.0	8	STAGE 21
14,796.0	14,798.0	Wolfcamp D, Original Hole	4.0	8	STAGE 21
14,856.0	14,858.0	Wolfcamp D, Original Hole	4.0	8	STAGE 21
14,918.0	14,920.0	Wolfcamp D, Original Hole	4.0	8	STAGE 21
14,976.0	14,978.0	Wolfcamp D, Original Hole	4.0	8	STAGE 21
15,036.0	15,038.0	Wolfcamp D, Original Hole	4.0	8	STAGE 20
15,096.0	15,098.0	Wolfcamp D, Original Hole	4.0	8	STAGE 20
15,156.0	15,158.0	Wolfcamp D, Original Hole	4.0	8	STAGE 20
15,216.0	15,218.0	Wolfcamp D, Original Hole	4.0	8	STAGE 20
15,276.0	15,278.0	Wolfcamp D, Original Hole	4.0	8	STAGE 20
15,336.0	15,338.0	Wolfcamp D, Original Hole	4.0	8	STAGE 19
15,396.0	15,398.0	Wolfcamp D, Original Hole	4.0	8	STAGE 19
15,456.0	15,458.0	Wolfcamp D, Original Hole	4.0	8	STAGE 19
15,516.0	15,518.0	Wolfcamp D, Original Hole	4.0	8	STAGE 19
15,576.0	15,578.0	Wolfcamp D, Original Hole	4.0	8	STAGE 19
15,636.0	15,638.0	Wolfcamp D, Original Hole	4.0	8	STAGE 18
15,696.0	15,698.0	Wolfcamp D, Original Hole	4.0	8	STAGE 18
15,756.0	15,758.0	Wolfcamp D, Original Hole	4.0	8	STAGE 18
15,812.0	15,814.0	Wolfcamp D, Original Hole	4.0	8	STAGE 18
15,876.0	15,878.0	Wolfcamp D, Original Hole	4.0	8	STAGE 18
15,936.0	15,938.0	Wolfcamp D, Original Hole	4.0	8	STAGE 17
15,996.0	15,998.0	Wolfcamp D, Original Hole	4.0	8	STAGE 17
16,056.0	16,058.0	Wolfcamp D, Original Hole	4.0	8	STAGE 17
16,114.0	16,116.0	Wolfcamp D, Original Hole	4.0	8	STAGE 17
16,176.0	16,178.0	Wolfcamp D, Original Hole	4.0	8	STAGE 17
16,236.0	16,238.0	Wolfcamp D, Original Hole	4.0	8	STAGE 16
16,298.0	16,300.0	Wolfcamp D, Original Hole	4.0	8	STAGE 16
16,356.0	16,358.0	Wolfcamp D, Original Hole	4.0	8	STAGE 16
16,416.0	16,418.0	Wolfcamp D, Original Hole	4.0	8	STAGE 16
16,476.0	16,478.0	Wolfcamp D, Original Hole	4.0	8	STAGE 16
16,536.0	16,538.0	Wolfcamp D, Original Hole	4.0	8	STAGE 15
16,596.0	16,598.0	Wolfcamp D, Original Hole	4.0	8	STAGE 15
16,656.0	16,658.0	Wolfcamp D, Original Hole	4.0	8	STAGE 15
16,716.0	16,718.0	Wolfcamp D, Original Hole	4.0	8	STAGE 15
16,776.0	16,778.0	Wolfcamp D, Original Hole	4.0	8	STAGE 15
16,836.0	16,838.0	Wolfcamp D, Original Hole	4.0	8	STAGE 14
16,897.0	16,899.0	Wolfcamp D, Original Hole	4.0	8	STAGE 14
16,956.0	16,958.0	Wolfcamp D, Original Hole	4.0	8	STAGE 14
17,015.0	17,017.0	Wolfcamp D, Original Hole	4.0	8	STAGE 14
17,076.0	17,078.0	Wolfcamp D, Original Hole	4.0	8	STAGE 14
17,136.0	17,138.0	Wolfcamp D, Original Hole	4.0	8	STAGE 13
17,200.0	17,202.0	Wolfcamp D, Original Hole	4.0	8	STAGE 13

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Perforations

Top (ftKB)	Btm (ftKB)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com
17,256.0	17,258.0	Wolfcamp D, Original Hole	4.0	8	STAGE 13
17,316.0	17,318.0	Wolfcamp D, Original Hole	4.0	8	STAGE 13
17,376.0	17,378.0	Wolfcamp D, Original Hole	4.0	8	STAGE 13
17,436.0	17,438.0	Wolfcamp D, Original Hole	4.0	8	STAGE 12
17,496.0	17,498.0	Wolfcamp D, Original Hole	4.0	8	STAGE 12
17,556.0	17,558.0	Wolfcamp D, Original Hole	4.0	8	STAGE 12
17,616.0	17,618.0	Wolfcamp D, Original Hole	4.0	8	STAGE 12
17,676.0	17,678.0	Wolfcamp D, Original Hole	4.0	8	STAGE 12
17,736.0	17,738.0	Wolfcamp D, Original Hole	4.0	8	STAGE 11
17,796.0	17,798.0	Wolfcamp D, Original Hole	4.0	8	STAGE 11
17,852.0	17,854.0	Wolfcamp D, Original Hole	4.0	8	STAGE 11
17,916.0	17,918.0	Wolfcamp D, Original Hole	4.0	8	STAGE 11
17,976.0	17,978.0	Wolfcamp D, Original Hole	4.0	8	STAGE 11
18,036.0	18,038.0	Wolfcamp D, Original Hole	4.0	8	STAGE 10
18,092.0	18,094.0	Wolfcamp D, Original Hole	4.0	8	STAGE 10
18,156.0	18,158.0	Wolfcamp D, Original Hole	4.0	8	STAGE 10
18,216.0	18,218.0	Wolfcamp D, Original Hole	4.0	8	STAGE 10
18,280.0	18,282.0	Wolfcamp D, Original Hole	4.0	8	STAGE 9
18,336.0	18,338.0	Wolfcamp D, Original Hole	4.0	8	STAGE 9
18,396.0	18,398.0	Wolfcamp D, Original Hole	4.0	8	STAGE 9
18,456.0	18,458.0	Wolfcamp D, Original Hole	4.0	8	STAGE 9
18,516.0	18,518.0	Wolfcamp D, Original Hole	4.0	8	STAGE 8
18,523.0	18,525.0	Wolfcamp D, Original Hole	4.0	8	STAGE 8
18,540.0	18,542.0	Wolfcamp D, Original Hole	4.0	8	STAGE 8
18,560.0	18,562.0	Wolfcamp D, Original Hole	4.0	8	STAGE 8
18,576.0	18,578.0	Wolfcamp D, Original Hole	4.0	8	STAGE 8
18,583.0	18,585.0	Wolfcamp D, Original Hole	4.0	8	STAGE 8
18,636.0	18,638.0	Wolfcamp D, Original Hole	4.0	8	STAGE 8
18,696.0	18,698.0	Wolfcamp D, Original Hole	4.0	8	STAGE 8
18,756.0	18,758.0	Wolfcamp D, Original Hole	4.0	8	STAGE 7
18,816.0	18,818.0	Wolfcamp D, Original Hole	4.0	8	STAGE 7
18,876.0	18,878.0	Wolfcamp D, Original Hole	4.0	8	STAGE 7
18,936.0	18,938.0	Wolfcamp D, Original Hole	4.0	8	STAGE 7
18,996.0	18,998.0	Wolfcamp D, Original Hole	4.0	8	STAGE 6
19,056.0	19,058.0	Wolfcamp D, Original Hole	4.0	8	STAGE 6
19,116.0	19,118.0	Wolfcamp D, Original Hole	4.0	8	STAGE 6
19,172.0	19,174.0	Wolfcamp D, Original Hole	4.0	8	STAGE 6
19,236.0	19,238.0	Wolfcamp D, Original Hole	4.0	8	STAGE 5
19,296.0	19,298.0	Wolfcamp D, Original Hole	4.0	8	STAGE 5
19,356.0	19,358.0	Wolfcamp D, Original Hole	4.0	8	STAGE 5
19,416.0	19,418.0	Wolfcamp D, Original Hole	4.0	8	STAGE 5
19,476.0	19,478.0	Wolfcamp D, Original Hole	4.0	8	STAGE 4
19,536.0	19,538.0	Wolfcamp D, Original Hole	4.0	8	STAGE 4
19,596.0	19,598.0	Wolfcamp D, Original Hole	4.0	8	STAGE 4
19,656.0	19,568.0	Wolfcamp D, Original Hole	4.0	8	STAGE 4
19,716.0	19,718.0	Wolfcamp D, Original Hole	4.0	8	STAGE 3
19,776.0	19,778.0	Wolfcamp D, Original Hole	4.0	8	STAGE 3
19,836.0	19,838.0	Wolfcamp D, Original Hole	4.0	8	STAGE 3
19,896.0	19,898.0	Wolfcamp D, Original Hole	4.0	8	STAGE 3
19,956.0	19,958.0	Wolfcamp D, Original Hole	4.0	8	STAGE 2
20,016.0	20,018.0	Wolfcamp D, Original Hole	4.0	8	STAGE 2
20,076.0	20,078.0	Wolfcamp D, Original Hole	4.0	8	STAGE 2
20,136.0	20,138.0	Wolfcamp D, Original Hole	4.0	8	STAGE 2
20,158.0	20,163.0	Wolfcamp D, Original Hole	4.0	8	Toe Sleeve

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Completion (FRAC) Details

#### STAGE 1 on 5/16/2014 19:00

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
5/16/2014	STAGE 1	Wolfcamp D, Original Hole	Pioneer Pumping Services	20,158.0	20,162.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 615.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 615.00
Fluid Name Slickwater	Total Clean Volume (bbl) 615.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
20/40 Brown	Bulk Sand	0.0	lb	40/70	
20/40 Brown	Bulk Sand	0.0	lb	40/70	
20/40 Brown	Bulk Sand	0.0	lb	40/70	
20/40 Brown	Bulk Sand	0.0	lb	40/70	
20/40 Brown	Bulk Sand	0.0	lb	40/70	
20/40 Brown	Bulk Sand	0.0	lb	40/70	
20/40 Brown	Bulk Sand	8,046.0	lb	40/70	

#### STAGE 2 on 5/17/2014 13:15

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
5/17/2014	STAGE 2	Wolfcamp D, Original Hole	Pioneer Pumping Services	19,956.0	20,138.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 5,742.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 5,742.00
Fluid Name Slickwater	Total Clean Volume (bbl) 5,742.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
40/70 Brown	Bulk Sand	8,046.0	lb	40/70	0.50
40/70 Brown	Bulk Sand	0.0	lb	40/70	1.00
40/70 Brown	Bulk Sand	0.0	lb	40/70	1.50
40/70 Brown	Bulk Sand	0.0	lb	40/70	2.00
40/70 Brown	Bulk Sand	0.0	lb	40/70	2.50
40/70 Brown	Bulk Sand	0.0	lb	40/70	3.00
20/40 Brown Sand	Bulk Sand	2,846.0	lb	20/40	0.50
20/40 Brown Sand	Bulk Sand		lb	20/40	1.00
20/40 Brown Sand	Bulk Sand	5,200.0	lb	20/40	0.25
20/40 Brown Sand	Bulk Sand		lb	20/40	0.00
20/40 Brown Sand	Bulk Sand		lb	20/40	2.00
20/40 Brown Sand	Bulk Sand		lb	20/40	3.00
20/40 Brown Sand	Bulk Sand		lb	20/40	1.50

#### STAGE 3 on 5/18/2014 22:00

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
5/18/2014	STAGE 3	Wolfcamp D, Original Hole	Pioneer Pumping Services	19,716.0	19,898.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 8,297.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 8,297.00

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

GEL						
Fluid Name Slickwater			Total Clean Volume (bbl) 8,297.00			
SAND & ACID						
Additive 40/70 Brown	Type Bulk Sand	Amount 11,765.0	Units lb	Sand Size 40/70	Concentration... 0.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 20,132.0	Units lb	Sand Size 40/70	Concentration... 1.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 35,855.0	Units lb	Sand Size 40/70	Concentration... 1.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 48,039.0	Units lb	Sand Size 40/70	Concentration... 2.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 69,609.0	Units lb	Sand Size 40/70	Concentration... 2.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 82,595.0	Units lb	Sand Size 40/70	Concentration... 3.00	
STAGE 4 on 6/1/2014 22:47						
Date 6/1/2014	Type STAGE 4	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 19,476.0	Max Btm Depth (ftKB) 19,658.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 6,772.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 6,772.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 6,772.00			
SAND & ACID						
Additive 30/50 Brown	Type Bulk Sand	Amount 9,383.0	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive 30/50 Brown	Type Bulk Sand	Amount 19,712.0	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive 30/50 Brown	Type Bulk Sand	Amount 36,625.0	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive 30/50 Brown	Type Bulk Sand	Amount 47,205.0	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive 30/50 Brown	Type Bulk Sand	Amount 71,777.0	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive 30/50 Brown	Type Bulk Sand	Amount 84,321.0	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 6 on 6/2/2014 00:00						
Date 6/2/2014	Type STAGE 6	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 18,996.0	Max Btm Depth (ftKB) 19,174.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 2,006.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 2,006.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 2,006.00			
SAND & ACID						
Additive 40/70 Brown	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 0.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 1.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 1.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 2.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 2.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 3.00	
STAGE 5 on 6/2/2014 06:00						
Date 6/2/2014	Type STAGE 5	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 19,236.0	Max Btm Depth (ftKB) 19,418.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 6,223.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 6,223.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 6,223.00			

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### SAND & ACID

Additive 30/50 Brown	Type Bulk Sand	Amount 10,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 20,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 36,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 48,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 70,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 82,776.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 7 on 6/3/2014 00:30

Date 6/3/2014	Type STAGE 7	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 18,756.0	Max Btm Depth (ftKB) 18,938.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 2,415.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 2,415.00
Fluid Name Slickwater	Total Clean Volume (bbl) 2,415.00

### SAND & ACID

Additive 30/50 Brown	Type Bulk Sand	Amount 1,008.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration...

### STAGE 8 on 6/3/2014 05:30

Date 6/3/2014	Type STAGE 8	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 18,516.0	Max Btm Depth (ftKB) 18,698.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 1,009.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 1,009.00
Fluid Name Slickwater	Total Clean Volume (bbl) 1,009.00

### STAGE 8 A on 6/3/2014 13:00

Date 6/3/2014	Type STAGE 8 A	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 18,516.0	Max Btm Depth (ftKB) 18,698.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 2,642.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 2,642.00
Fluid Name Slickwater	Total Clean Volume (bbl) 2,642.00

### STAGE 9 on 6/4/2014 00:00

Date 6/4/2014	Type STAGE 9	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 18,276.0	Max Btm Depth (ftKB) 18,458.0
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### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 917.00
Fluid Name Slickwater	Total Clean Volume (bbl) 917.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 917.00

### STAGE 10 on 6/4/2014 15:12

Date 6/4/2014	Type STAGE 10	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 18,036.0	Max Btm Depth (ftKB) 18,218.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 4,790.00
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## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

GEL						
Fluid Name 15% HCl			Total Clean Volume (bbl) 4,790.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 4,790.00			
SAND & ACID						
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration... 0.50	
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration... 1.00	
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration... 1.50	
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration... 2.00	
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration... 2.50	
Additive 30/50 Brown	Type Bulk Sand	Amount	Units lb	Sand Size 30/50	Concentration... 3.00	
STAGE 11 on 6/5/2014 11:15						
Date 6/5/2014	Type STAGE 11	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 17,852.0	Max Btm Depth (ftKB) 17,978.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 1,596.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 1,596.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 1,596.00			
STAGE 12 on 6/6/2014 04:00						
Date 6/6/2014	Type STAGE 12	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 17,436.0	Max Btm Depth (ftKB) 17,678.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 4,516.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 4,516.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 4,516.00			
SAND & ACID						
Additive 40/70	Type Bulk Sand	Amount 11,359.0	Units lb	Sand Size 40/70	Concentration... 0.50	
Additive 40/70	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 1.00	
Additive 40/70	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 1.50	
Additive 40/70	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 2.00	
Additive 40/70	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 2.50	
Additive 40/70	Type Bulk Sand	Amount 0.0	Units lb	Sand Size 40/70	Concentration... 3.00	
STAGE 13 on 6/8/2014 11:00						
Date 6/8/2014	Type STAGE 13	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 17,136.0	Max Btm Depth (ftKB) 17,378.0
GEL						
Fluid Name			Total Clean Volume (bbl) 11,204.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 11,204.00			
Fluid Name 20# XLink			Total Clean Volume (bbl) 11,204.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 11,204.00			
SAND & ACID						
Additive 40/70 Brown	Type Bulk Sand	Amount 1,372.0	Units lb	Sand Size 40/70	Concentration... 0.10	
Additive 40/70 Brown	Type Bulk Sand	Amount 3,177.0	Units lb	Sand Size 40/70	Concentration... 0.20	
Additive 40/70 Brown	Type Bulk Sand	Amount 4,625.0	Units lb	Sand Size 40/70	Concentration... 0.30	
Additive 40/70 Brown	Type Bulk Sand	Amount 6,573.0	Units lb	Sand Size 40/70	Concentration... 0.40	

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### SAND & ACID

Additive 40/70 Brown	Type Bulk Sand	Amount 8,741.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 10,655.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 70,037.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 12,429.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 21,841.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 30,265.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 24,600.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 17,561.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 13,735.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 40,614.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 36,842.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 85,582.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 64,128.0	Units lb	Sand Size 40/70	Concentration...

### STAGE 14 on 6/8/2014 14:00

Date 6/8/2014	Type STAGE 14	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 16,836.0	Max Btm Depth (ftKB) 17,078.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 9,951.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 9,951.00
Fluid Name Slickwater	Total Clean Volume (bbl) 9,951.00

### SAND & ACID

Additive 1	Type Bulk Sand	Amount 1,785.0	Units lb	Sand Size 40/70	Concentration...
Additive 2	Type Bulk Sand	Amount 3,570.0	Units lb	Sand Size 40/70	Concentration...
Additive 3	Type Bulk Sand	Amount 5,355.0	Units lb	Sand Size 40/70	Concentration...
Additive 4	Type Bulk Sand	Amount 7,140.0	Units lb	Sand Size 40/70	Concentration...
Additive 5	Type Bulk Sand	Amount 8,925.0	Units lb	Sand Size 40/70	Concentration...
Additive 6	Type Bulk Sand	Amount 10,710.0	Units lb	Sand Size 40/70	Concentration...
Additive 7	Type Bulk Sand	Amount 12,485.0	Units lb	Sand Size 40/70	Concentration...
Additive 8	Type Bulk Sand	Amount 14,280.0	Units lb	Sand Size 40/70	Concentration...
Additive 9	Type Bulk Sand	Amount 17,850.0	Units lb	Sand Size 40/70	Concentration...
Additive 10	Type Bulk Sand	Amount 22,313.0	Units lb	Sand Size 40/70	Concentration...
Additive 11	Type Bulk Sand	Amount 26,775.0	Units lb	Sand Size 40/70	Concentration...
Additive 12	Type Bulk Sand	Amount 31,238.0	Units lb	Sand Size 40/70	Concentration...
Additive 13	Type Bulk Sand	Amount 35,700.0	Units lb	Sand Size 40/70	Concentration...
Additive 14	Type Bulk Sand	Amount 40,163.0	Units lb	Sand Size 40/70	Concentration...
Additive 15	Type Bulk Sand	Amount 44,625.0	Units lb	Sand Size 40/70	Concentration...
Additive 16	Type Bulk Sand	Amount 49,088.0	Units lb	Sand Size 40/70	Concentration...
Additive 17	Type Bulk Sand	Amount 53,550.0	Units lb	Sand Size 40/70	Concentration...



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Completion (FRAC) Details

#### STAGE 9A on 6/8/2014 19:30

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/8/2014	STAGE 9A	Wolfcamp D, Original Hole	Pioneer Pumping Services	8,945.0	18,458.0

#### GEL

Fluid Name 15% HCl	Total Clean Volume (bbl) 11,159.00
Fluid Name Slickwater	Total Clean Volume (bbl) 11,159.00
Fluid Name 15# XLink	Total Clean Volume (bbl) 11,159.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
40/70 Brown	Bulk Sand	126,794.0	lb	40/70	
40/70 Brown	Bulk Sand	58,106.0	lb	40/70	
40/70 Brown	Bulk Sand	18,617.0	lb	40/70	
40/70 Brown	Bulk Sand	37,234	lb	40/70	
40/70 Brown	Bulk Sand	19,962.0	lb	40/70	
40/70 Brown	Bulk Sand	21,339.0	lb	40/70	
40/70 Brown	Bulk Sand	15,131.0	lb	40/70	
40/70 Brown	Bulk Sand	56,182.0	lb	40/70	
40/70 Brown	Bulk Sand	7,329.0	lb	40/70	
40/70 Brown	Bulk Sand	45,843.0	lb	40/70	

#### STAGE 15 on 6/9/2014 02:00

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/9/2014	STAGE 15	Wolfcamp D, Original Hole	Pioneer Pumping Services	16,536.0	16,778.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 9,367.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 9,367.00
Fluid Name Slickwater	Total Clean Volume (bbl) 9,367.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
1	Bulk Sand	1,823.0	lb	40/70	0.10
2	Bulk Sand	3,272.0	lb	40/70	0.20
3	Bulk Sand	5,473.0	lb	40/70	0.30
4	Bulk Sand	7,238.0	lb	40/70	0.40
5	Bulk Sand	9,367.0	lb	40/70	0.50
6	Bulk Sand	10,982.0	lb	40/70	0.60
7	Bulk Sand	12,231.0	lb	40/70	0.70
8	Bulk Sand	24,483.0	lb	40/70	1.00
9	Bulk Sand	22,305.0	lb	40/70	1.25
10	Bulk Sand	14,500.0	lb	40/70	1.50
11	Bulk Sand	60,147.0	lb	40/70	2.00
12	Bulk Sand	90,734.0	lb	40/70	2.50
13	Bulk Sand	123,561.0	lb	40/70	3.00

#### STAGE 16 on 6/9/2014 11:15

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/9/2014	STAGE 16	Wolfcamp D, Original Hole	Pioneer Pumping Services	16,236.0	16,478.0

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 9,252.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 9,252.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 9,252.00			
SAND & ACID						
Additive 40/70 Brown	Type Bulk Sand	Amount 2,348.0	Units lb	Sand Size 40/70	Concentration... 0.20	
Additive 40/70 Brown	Type Bulk Sand	Amount 7,893.0	Units lb	Sand Size 40/70	Concentration... 0.40	
Additive 40/70 Brown	Type Bulk Sand	Amount 11,093.0	Units lb	Sand Size 40/70	Concentration... 0.60	
Additive 40/70 Brown	Type Bulk Sand	Amount 14,007.0	Units lb	Sand Size 40/70	Concentration... 0.80	
Additive 40/70 Brown	Type Bulk Sand	Amount 25,590.0	Units lb	Sand Size 40/70	Concentration... 1.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 46,197.0	Units lb	Sand Size 40/70	Concentration... 1.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 88,264.0	Units lb	Sand Size 40/70	Concentration... 2.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 61,475.0	Units lb	Sand Size 40/70	Concentration... 2.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 129,413.0	Units lb	Sand Size 40/70	Concentration... 3.00	
STAGE 17 on 6/9/2014 15:00						
Date 6/9/2014	Type STAGE 17	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 15,936.0	Max Btm Depth (ftKB) 16,178.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,432.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,432.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 8,432.00			
SAND & ACID						
Additive 40/70 Brown	Type Bulk Sand	Amount 4,779.0	Units lb	Sand Size 40/70	Concentration... 0.25	
Additive 40/70 Brown	Type Bulk Sand	Amount 12,507.0	Units lb	Sand Size 40/70	Concentration... 0.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 25,845.0	Units lb	Sand Size 40/70	Concentration... 1.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 45,131.0	Units lb	Sand Size 40/70	Concentration... 1.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 61,722.0	Units lb	Sand Size 40/70	Concentration... 2.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 89,563.0	Units lb	Sand Size 40/70	Concentration... 2.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 95,054.0	Units lb	Sand Size 40/70	Concentration... 3.00	
STAGE 18 on 6/9/2014 21:30						
Date 6/9/2014	Type STAGE 18	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 15,636.0	Max Btm Depth (ftKB) 15,878.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 8,065.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 8,065.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 8,065.00			
SAND & ACID						
Additive 40/70 Brown	Type Bulk Sand	Amount 89,213.0	Units lb	Sand Size 40/70	Concentration... 2.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 103,988.0	Units lb	Sand Size 40/70	Concentration... 3.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 5,726.0	Units lb	Sand Size 40/70	Concentration... 0.25	
Additive 40/70 Brown	Type Bulk Sand	Amount 45,254.0	Units lb	Sand Size 40/70	Concentration... 1.50	
Additive 40/70 Brown	Type Bulk Sand	Amount 60,539.0	Units lb	Sand Size 40/70	Concentration... 2.00	
Additive 40/70 Brown	Type Bulk Sand	Amount 25,543.0	Units lb	Sand Size 40/70	Concentration... 1.00	

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### SAND & ACID

Additive 40/70 Brown	Type Bulk Sand	Amount 5,728.0	Units lb	Sand Size 40/70	Concentration...
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### STAGE 19 on 6/9/2014 23:45

Date 6/9/2014	Type STAGE 19	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 15,336.0	Max Btm Depth (ftKB) 15,578.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 7,804.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 7,804.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,804.00

### SAND & ACID

Additive 40/70 Brown	Type Bulk Sand	Amount 10,403.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 25,515.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 46,471.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 61,567.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 87,850.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 104,306.0	Units lb	Sand Size 40/70	Concentration...

### STAGE 20 on 6/10/2014 07:30

Date 6/10/2014	Type STAGE 20	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 15,036.0	Max Btm Depth (ftKB) 15,278.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 7,817.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 7,817.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,817.00

### SAND & ACID

Additive 40/70 Brown	Type Bulk Sand	Amount 12,349.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 25,357.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 44,783.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 60,431.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 87,873.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 104,566.0	Units lb	Sand Size 40/70	Concentration...

### STAGE 21 on 6/10/2014 16:10

Date 6/10/2014	Type STAGE 21	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 14,730.0	Max Btm Depth (ftKB) 14,978.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 7,763.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 7,763.00
Fluid Name Slickwater	Total Clean Volume (bbl) 7,763.00

### SAND & ACID

Additive 40/70 Brown	Type Bulk Sand	Amount 13,254.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 25,372.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 46,253.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 60,166.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 87,755.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 103,735.0	Units lb	Sand Size 40/70	Concentration...

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Completion (FRAC) Details

#### STAGE 22 on 6/10/2014 20:00

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/10/2014	STAGE 22	Wolfcamp D, Original Hole	Pioneer Pumping Services	14,436.0	14,678.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl)
	7,828.00
Fluid Name 15% HCl	Total Clean Volume (bbl)
	7,828.00
Fluid Name Slickwater	Total Clean Volume (bbl)
	7,828.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
40/70 Brown	Bulk Sand	12,500.0	lb	40/70	0.50
40/70 Brown	Bulk Sand	25,000.0	lb	40/70	1.00
40/70 Brown	Bulk Sand	45,000.0	lb	40/70	1.50
40/70 Brown	Bulk Sand	60,000.0	lb	40/70	2.00
40/70 Brown	Bulk Sand	87,500.0	lb	40/70	2.50
40/70 Brown	Bulk Sand	105,000.0	lb	40/70	3.00

#### STAGE 23 on 6/11/2014 00:00

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/11/2014	STAGE 23	Wolfcamp D, Original Hole	Pioneer Pumping Services	14,136.0	14,378.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl)
	7,764.00
Fluid Name 15% HCl	Total Clean Volume (bbl)
	7,764.00
Fluid Name Slickwater	Total Clean Volume (bbl)
	7,764.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
40/70 Brown	Bulk Sand	12,500.0	lb	40/70	0.50
40/70 Brown	Bulk Sand	25,000.0	lb	40/70	1.00
40/70 Brown	Bulk Sand	45,000.0	lb	40/70	1.50
40/70 Brown	Bulk Sand	60,000.0	lb	40/70	2.00
40/70 Brown	Bulk Sand	87,500.0	lb	40/70	2.50
40/70 Brown	Bulk Sand	103,408.0	lb	40/70	3.00

#### STAGE 24 on 6/11/2014 04:30

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/11/2014	STAGE 24	Wolfcamp D, Original Hole	Pioneer Pumping Services	13,836.0	14,078.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl)
	7,529.00
Fluid Name 15% HCl	Total Clean Volume (bbl)
	7,529.00
Fluid Name Slickwater	Total Clean Volume (bbl)
	7,529.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
40/70 Brown	Bulk Sand	12,500.0	lb	40/70	0.50
40/70 Brown	Bulk Sand	25,000.0	lb	40/70	1.00
40/70 Brown	Bulk Sand	45,000.0	lb	40/70	1.50
40/70 Brown	Bulk Sand	60,000.0	lb	40/70	2.00
40/70 Brown	Bulk Sand	87,500.0	lb	40/70	2.50
40/70 Brown	Bulk Sand	105,851.0	lb	40/70	3.00

#### STAGE 25 on 6/11/2014 09:50

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/11/2014	STAGE 25	Wolfcamp D, Original Hole	Pioneer Pumping Services	13,536.0	13,778.0

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 7,047.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 7,047.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 7,047.00			
SAND & ACID						
Additive 30/50 Brown	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 106,873.0	Units lb	Sand Size 30/50	Concentration...	
STAGE 26 on 6/11/2014 14:20						
Date 6/11/2014	Type STAGE 26	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 13,236.0	Max Btm Depth (ftKB) 13,478.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 7,612.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 7,612.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 7,612.00			
SAND & ACID						
Additive 30/50 Brown	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...	
Additive 30/50 Brown	Type Bulk Sand	Amount 105,831.0	Units lb	Sand Size 30/50	Concentration...	
STAGE 27 on 6/11/2014 19:00						
Date 6/11/2014	Type STAGE 27	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services		Min Top Depth (ftKB) 12,936.0	Max Btm Depth (ftKB) 13,178.0
GEL						
Fluid Name 15# XLink			Total Clean Volume (bbl) 9,815.00			
Fluid Name 15% HCl			Total Clean Volume (bbl) 9,815.00			
Fluid Name Slickwater			Total Clean Volume (bbl) 9,815.00			
SAND & ACID						
Additive 1 40/70 Brown	Type Bulk Sand	Amount 12,414.0	Units lb	Sand Size 40/70	Concentration...	
Additive 2 40/70 Brown	Type Bulk Sand	Amount 25,080.0	Units lb	Sand Size 40/70	Concentration...	
Additive 3 40/70 Brown	Type Bulk Sand	Amount 58,696.0	Units lb	Sand Size 40/70	Concentration...	
Additive 4 40/70 Brown	Type Bulk Sand	Amount 8,582.0	Units lb	Sand Size 40/70	Concentration...	
Additive 1 40/70 Brown	Type Bulk Sand	Amount 11,312.0	Units lb	Sand Size 40/70	Concentration...	
Additive 2 40/70 Brown	Type Bulk Sand	Amount 19,036.0	Units lb	Sand Size 40/70	Concentration...	
Additive 3 40/70 Brown	Type Bulk Sand	Amount 27,410.0	Units lb	Sand Size 40/70	Concentration...	
Additive 4 40/70 Brown	Type Bulk Sand	Amount 42,460.0	Units lb	Sand Size 40/70	Concentration...	
Additive 5 40/70 Brown	Type Bulk Sand	Amount 43,335.0	Units lb	Sand Size 40/70	Concentration...	
Additive 6 40/70 Brown	Type Bulk Sand	Amount 99,931.0	Units lb	Sand Size 40/70	Concentration...	

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Completion (FRAC) Details

#### STAGE 28 on 6/12/2014 02:55

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/12/2014	STAGE 28	Wolfcamp D, Original Hole	Pioneer Pumping Services	12,636.0	12,878.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl)
	7,468.00
Fluid Name 15% HCl	Total Clean Volume (bbl)
	7,468.00
Fluid Name Slickwater	Total Clean Volume (bbl)
	7,468.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
40/70 Brown	Bulk Sand	11,973.0	lb	40/70	0.50
40/70 Brown	Bulk Sand	24,629.0	lb	40/70	1.00
40/70 Brown	Bulk Sand	45,802.0	lb	40/70	1.50
40/70 Brown	Bulk Sand	60,985.0	lb	40/70	2.00
40/70 Brown	Bulk Sand	88,666.0	lb	40/70	2.50
40/70 Brown	Bulk Sand	103,148.0	lb	40/70	3.00

#### STAGE 29 on 6/14/2014 07:00

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/14/2014	STAGE 29	Wolfcamp D, Original Hole	Pioneer Pumping Services	12,336.0	12,578.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl)
	4,274.00
Fluid Name 15% HCl	Total Clean Volume (bbl)
	4,274.00
Fluid Name Slickwater	Total Clean Volume (bbl)
	4,274.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
40/70 Brown	Bulk Sand	8,286.0	lb	40/70	0.50

#### STAGE 30 on 6/14/2014 11:15

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/14/2014	STAGE 30	Wolfcamp D, Original Hole	Pioneer Pumping Services	12,036.0	12,278.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl)
	9,888.00
Fluid Name 15% HCl	Total Clean Volume (bbl)
	9,888.00
Fluid Name Slickwater	Total Clean Volume (bbl)
	9,888.00

#### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
40/70 Brown	Bulk Sand	16,000.0	lb	40/70	0.50
40/70 Brown	Bulk Sand	31,000.0	lb	40/70	1.00
40/70 Brown	Bulk Sand	65,000.0	lb	40/70	1.50
40/70 Brown	Bulk Sand	80,000.0	lb	40/70	2.00
40/70 Brown	Bulk Sand	117,000.0	lb	40/70	2.50
40/70 Brown	Bulk Sand	226,104.0	lb	40/70	3.00

#### STAGE 31 on 6/14/2014 18:00

Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)
6/14/2014	STAGE 31	Wolfcamp D, Original Hole	Pioneer Pumping Services	11,736.0	11,978.0

#### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl)
	8,071.00
Fluid Name 15% HCl	Total Clean Volume (bbl)
	8,071.00
Fluid Name Slickwater	Total Clean Volume (bbl)
	8,071.00

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### SAND & ACID

Additive 40/70 Brown	Type Bulk Sand	Amount 7,875.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 9,828.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 20,105.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 45,031.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 61,423.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 87,509.0	Units lb	Sand Size 40/70	Concentration...
Additive 40/70 Brown	Type Bulk Sand	Amount 103,355.0	Units lb	Sand Size 40/70	Concentration...

### STAGE 32 on 6/14/2014 21:00

Date 6/14/2014	Type STAGE 32	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 11,436.0	Max Btm Depth (ftKB) 11,678.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 6,980.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 6,980.00
Fluid Name Slickwater	Total Clean Volume (bbl) 6,980.00

### SAND & ACID

Additive 30/50 Brown	Type Bulk Sand	Amount 11,485.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 24,737.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 45,264.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 61,111.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 86,945.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 103,256.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 33 on 6/15/2014 02:00

Date 6/15/2014	Type STAGE 33	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 11,136.0	Max Btm Depth (ftKB) 11,378.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 6,999.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 6,999.00
Fluid Name Slickwater	Total Clean Volume (bbl) 6,999.00

### SAND & ACID

Additive 30/50 Brown	Type Bulk Sand	Amount 11,223.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 24,807.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 45,033.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 58,473.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 87,659.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 108,320.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 34 on 6/15/2014 08:30

Date 6/15/2014	Type STAGE 34	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 10,836.0	Max Btm Depth (ftKB) 11,078.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 10,209.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 10,209.00
Fluid Name Slickwater	Total Clean Volume (bbl) 10,209.00



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### SAND & ACID

Additive 30/50 Brown	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 105,202.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 35 on 6/15/2014 14:00

Date 6/15/2014	Type STAGE 35	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 10,536.0	Max Btm Depth (ftKB) 10,778.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 10,455.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 10,455.00
Fluid Name Slickwater	Total Clean Volume (bbl) 10,455.00

### SAND & ACID

Additive 30/50 Brown	Type Bulk Sand	Amount 12,500.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 25,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 45,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 60,000.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 87,500.0	Units lb	Sand Size 30/50	Concentration...
Additive 30/50 Brown	Type Bulk Sand	Amount 106,649.0	Units lb	Sand Size 30/50	Concentration...

### STAGE 36 on 6/15/2014 18:00

Date 6/15/2014	Type STAGE 36	Zone Wolfcamp D, Original Hole	Stim/Treat Company Pioneer Pumping Services	Min Top Depth (ftKB) 10,236.0	Max Btm Depth (ftKB) 10,478.0
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### GEL

Fluid Name 15# XLink	Total Clean Volume (bbl) 6,972.00
Fluid Name 15% HCl	Total Clean Volume (bbl) 6,972.00
Fluid Name Slickwater	Total Clean Volume (bbl) 6,972.00

### SAND & ACID

Additive 1. 100 Mesh	Type Bulk Sand	Amount 5,661.0	Units lb	Sand Size 100M	Concentration...
Additive 2. 100 Mesh	Type Bulk Sand	Amount 11,265.0	Units lb	Sand Size 100M	Concentration...
Additive 3. 100 Mesh	Type Bulk Sand	Amount 34,724.0	Units lb	Sand Size 100M	Concentration...
Additive 4. 100 Mesh	Type Bulk Sand	Amount 8,433.0	Units lb	Sand Size 100M	Concentration...
Additive 5. Brown Sand	Type Bulk Sand	Amount 30,521.0	Units lb	Sand Size 40/70	Concentration...
Additive 6. Brown Sand	Type Bulk Sand	Amount 56,417.0	Units lb	Sand Size 40/70	Concentration...
Additive 7. Brown Sand	Type Bulk Sand	Amount 96,067.0	Units lb	Sand Size 30/50	Concentration...
Additive 8. Brown Sand	Type Bulk Sand	Amount 26,913.0	Units lb	Sand Size 30/50	Concentration...

### Zones

Zone Name Wolfcamp D	Top (ftKB)
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### Tubing Details

Tubing Description	Set Depth (ftKB)	Run Date
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### Tubing Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
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## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Rod Strings

Rod Description	Set Depth (ftKB)	Run Date
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### Rod Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	Make	Model	SN
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### Other In Hole

Des	Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Com	String	Wellbore
Magnum Snub Nose Composite Plug 1	20,148.0	20,150.0	4.89	5/17/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 2	19,927.0	19,929.0	4.89	5/18/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 3	19,687.0	19,689.0	4.89	5/19/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 4	19,447.0	19,449.0	4.89	6/2/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 5	19,205.0	19,207.0	4.89	6/2/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 6	18,967.0	18,969.0	4.89	6/2/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 7	18,727.0	18,729.0	4.89	6/3/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 8	18,487.0	18,489.0	4.89	6/3/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 10	18,007.0	18,009.0	4.89	6/5/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 11	17,707.0	17,709.0	4.89	6/6/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 12	17,407.0	17,409.0	4.89	6/6/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 13	17,113.0	17,115.0	4.89	6/8/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 14	16,800.0	16,802.0	4.89	6/8/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 9	18,247.0	18,249.0	4.89	6/9/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 15	16,500.0	16,502.0	4.89	6/9/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 16	16,200.0	16,202.0	4.89	6/9/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 17	15,907.0	15,909.0	4.89	6/9/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 18	15,607.0	15,609.0	4.89	6/9/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 19	15,307.0	15,309.0	4.89	6/10/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 20	15,007.0	15,009.0	4.89	6/10/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 21	14,707.0	14,709.0	4.89	6/10/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 22	14,407.0	14,409.0	4.89	6/10/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 23	14,107.0	14,109.0	4.89	6/11/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 24	13,807.0	13,809.0	4.89	6/11/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 25	13,507.0	13,509.0	4.89	6/11/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 26	13,207.0	13,209.0	4.89	6/11/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 27	12,907.0	12,909.0	4.89	6/11/2014		Production, 20,280.0ftKB	Lateral

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

### Other In Hole

Des	Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Com	String	Wellbore
Magnum Snub Nose Composite Plug 28	12,607.0	12,609.0	4.89	6/14/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 30	12,007.0	12,009.0	4.89	6/14/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 31	11,707.0	11,709.0	4.89	6/14/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 32	11,407.0	10,629.0	4.89	6/15/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 33	11,107.0	11,109.0	4.89	6/15/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 34	10,807.0	10,809.0	4.89	6/15/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 35	10,507.0	10,509.0	4.89	6/15/2014		Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 36	9,772.0	9,774.0	4.89	6/15/2014	kill plug	Production, 20,280.0ftKB	Lateral
Magnum Snub Nose Composite Plug 29	12,307.0	12,309.0	4.89	1/29/3000	Did not run as per Eng	Production, 20,280.0ftKB	Lateral

### 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					
5/3/2013		MAIN HOLE SURVEY					
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company	
	0.00	0.00	0.00	0.00	0.00		
1/5/2014	100.00	0.00	0.00	100.00	0.00	KP	
1/5/2014	224.00	0.80	100.30	224.00	0.87	KP	
1/5/2014	317.00	1.10	102.10	316.98	2.41	KP	
1/5/2014	429.00	0.90	118.30	428.97	4.34	KP	
1/5/2014	522.00	1.40	191.30	521.95	5.86	KP	
1/5/2014	614.00	2.50	208.50	613.90	8.96	KP	
1/5/2014	707.00	2.80	211.60	706.80	13.26	KP	
1/5/2014	799.00	3.27	225.80	798.67	18.09	KP	
1/5/2014	892.00	2.80	241.70	891.54	22.97	KP	
1/5/2014	984.00	2.90	245.60	983.43	27.54	KP	
1/5/2014	1,079.00	3.40	252.00	1,078.28	32.75	KP	
1/5/2014	1,130.00	3.30	255.80	1,129.20	35.73	KP	
1/5/2014	1,292.00	3.50	240.80	1,290.91	45.26	KP	
1/5/2014	1,386.00	3.30	215.10	1,384.75	50.69	KP	
1/5/2014	1,481.00	3.40	196.50	1,479.59	56.17	KP	
1/5/2014	1,576.00	3.20	188.10	1,574.44	61.63	KP	
1/5/2014	1,670.00	3.10	189.50	1,668.30	66.79	KP	
1/5/2014	1,765.00	3.30	189.20	1,763.15	72.09	KP	
1/5/2014	1,860.00	2.80	177.20	1,858.01	77.12	KP	
1/5/2014	1,954.00	2.70	169.20	1,951.91	81.62	KP	
1/5/2014	2,049.00	2.90	168.90	2,046.79	86.26	KP	
1/5/2014	2,144.00	2.70	155.60	2,141.68	90.87	KP	
1/5/2014	2,239.00	2.60	150.00	2,236.58	95.26	KP	
1/5/2014	2,333.00	2.70	150.40	2,330.48	99.60	KP	
1/5/2014	2,428.00	2.80	148.70	2,425.37	104.16	KP	
1/9/2014	2,523.00	2.50	140.40	2,520.27	108.54	KP	
1/9/2014	2,618.00	2.60	134.40	2,615.17	112.76	KP	
1/9/2014	2,712.00	1.90	144.10	2,709.10	116.44	KP	
1/9/2014	2,807.00	2.10	152.70	2,804.04	119.75	KP	

### Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
1/9/2014	2,897.00	2.10	150.20	2,893.98	123.04	KP
1/9/2014	2,991.00	2.10	149.60	2,987.92	126.49	KP
1/9/2014	3,086.00	2.10	133.80	3,082.86	129.94	KP
1/9/2014	3,186.00	1.40	122.70	3,182.81	132.98	KP
1/9/2014	3,280.00	0.90	79.00	3,276.79	134.73	KP
1/9/2014	3,375.00	1.10	47.70	3,371.78	136.33	KP
1/9/2014	3,470.00	1.40	56.40	3,466.76	138.40	KP
1/9/2014	3,565.00	1.00	53.40	3,561.73	140.39	KP
1/9/2014	3,659.00	0.30	137.10	3,655.73	141.27	KP
1/9/2014	3,754.00	0.60	164.80	3,750.73	142.00	KP
1/9/2014	3,849.00	0.70	154.90	3,845.72	143.07	KP
1/9/2014	3,944.00	0.70	145.20	3,940.71	144.23	KP
1/9/2014	4,038.00	0.50	140.50	4,034.71	145.21	KP
1/9/2014	4,133.00	0.60	154.60	4,129.70	146.11	KP
1/9/2014	4,227.00	0.60	157.10	4,223.70	147.10	KP
1/9/2014	4,322.00	0.70	155.80	4,318.69	148.18	KP
1/10/2014	4,417.00	0.70	152.60	4,413.68	149.34	KP
1/10/2014	4,511.00	0.70	154.20	4,507.68	150.48	KP
1/10/2014	4,606.00	0.70	158.90	4,602.67	151.64	KP
1/10/2014	4,701.00	0.70	164.10	4,697.66	152.80	KP
1/10/2014	4,795.00	0.70	159.20	4,791.66	153.95	KP
1/10/2014	4,890.00	0.50	163.30	4,886.65	154.94	KP
1/10/2014	4,984.00	0.40	163.60	4,980.65	155.68	KP
1/10/2014	5,079.00	0.40	155.90	5,075.65	156.34	KP
1/10/2014	5,174.00	0.30	140.00	5,170.64	156.92	KP
1/10/2014	5,269.00	0.40	109.00	5,265.64	157.48	KP
1/11/2014	5,363.00	0.40	122.00	5,359.64	158.13	KP
1/11/2014	5,458.00	0.30	100.30	5,454.64	158.70	KP
1/11/2014	5,553.00	0.40	93.30	5,549.64	159.28	KP
1/11/2014	5,648.00	0.40	69.70	5,644.63	159.93	KP
1/11/2014	5,743.00	0.50	69.20	5,739.63	160.68	KP
1/11/2014	5,837.00	0.40	65.50	5,833.63	161.41	KP
1/11/2014	5,932.00	0.40	41.20	5,928.63	162.06	KP
1/11/2014	6,027.00	0.40	29.40	6,023.62	162.72	KP
1/11/2014	6,091.00	0.40	28.90	6,087.62	163.17	KP
1/11/2014	6,184.00	0.40	46.50	6,180.62	163.81	KP
1/11/2014	6,280.00	0.50	45.40	6,276.62	164.56	KP
1/11/2014	6,374.00	0.70	53.80	6,370.61	165.55	KP
1/12/2014	6,469.00	0.40	344.40	6,465.61	166.31	KP
1/12/2014	6,564.00	0.40	324.40	6,560.61	166.96	KP
1/12/2014	6,659.00	0.40	331.00	6,655.60	167.62	KP
1/12/2014	6,758.00	0.40	351.10	6,754.60	168.31	KP
1/12/2014	6,853.00	0.30	341.30	6,849.60	168.88	KP
1/12/2014	6,948.00	0.30	336.60	6,944.60	169.38	KP
1/12/2014	7,043.00	0.40	238.10	7,039.60	169.76	KP
1/12/2014	7,138.00	0.30	4.80	7,134.60	170.03	KP
1/12/2014	7,232.00	0.40	306.30	7,228.60	170.54	KP
1/12/2014	7,326.00	0.40	301.80	7,322.59	171.19	KP
1/12/2014	7,421.00	0.40	333.10	7,417.59	171.83	KP
1/15/2014	7,517.00	0.20	327.30	7,513.59	172.33	KP
1/15/2014	7,611.00	0.30	8.00	7,607.59	172.72	KP
1/15/2014	7,705.00	0.20	14.70	7,701.59	173.13	KP
1/15/2014	7,800.00	0.20	33.00	7,796.59	173.46	KP
1/15/2014	7,895.00	0.30	42.70	7,891.59	173.87	KP
1/15/2014	7,989.00	0.40	46.20	7,985.58	174.44	KP
1/15/2014	8,084.00	0.40	14.80	8,080.58	175.08	KP

### Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
1/15/2014	8,179.00	0.40	22.60	8,175.58	175.74	KP
1/15/2014	8,270.00	0.40	7.60	8,266.58	176.37	KP
1/15/2014	8,340.00	0.40	7.60	8,336.58	176.86	KP
1/15/2014	8,374.00	0.50	20.60	8,370.58	177.13	KP
1/15/2014	8,469.00	0.40	6.80	8,465.57	177.87	KP
1/15/2014	8,563.00	0.60	15.20	8,559.57	178.69	KP
1/15/2014	8,658.00	0.50	35.60	8,654.56	179.58	KP
1/15/2014	8,753.00	0.70	20.30	8,749.56	180.57	KP
1/15/2014	8,847.00	0.70	2690.00	8,843.56	180.87	KP
1/15/2014	8,942.00	0.60	39.30	8,938.55	181.33	KP
1/15/2014	9,037.00	1.00	44.60	9,033.54	182.65	KP
1/15/2014	9,095.00	1.20	24.50	9,091.53	183.75	KP
1/15/2014	9,131.00	1.40	17.70	9,127.52	184.56	KP
1/15/2014	9,175.00	1.60	17.50	9,171.51	185.71	KP
1/15/2014	9,321.00	1.60	23.80	9,317.45	189.79	KP
1/15/2014	9,416.00	1.60	26.60	9,412.42	192.44	KP
1/15/2014	9,510.00	1.60	28.10	9,506.38	195.06	KP
1/15/2014	9,557.00	1.60	29.20	9,553.36	196.37	KP
1/15/2014	9,605.00	1.50	27.70	9,601.34	197.67	KP
1/15/2014	9,700.00	1.30	40.90	9,696.31	199.98	KP
1/15/2014	9,795.00	1.20	53.80	9,791.29	202.04	KP
1/15/2014	9,875.00	1.20	72.00	9,871.28	203.69	KP
2/7/2014	9,977.00	1.10	78.80	9,973.25	205.74	KP
2/7/2014	10,071.00	1.00	86.80	10,067.24	207.45	KP
2/7/2014	10,166.00	1.20	66.90	10,162.22	209.25	KP
2/7/2014	10,261.00	1.00	63.40	10,257.20	211.07	KP
2/7/2014	10,351.00	1.10	57.20	10,347.19	212.72	KP
2/7/2014	10,400.00	1.10	57.20	10,396.18	213.66	KP
Date 2/9/2014		Description Lateral				
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
3/12/2014	0.00	0.00	0.00	0.00	0.00	KP
1/15/2014	9,416.00	1.60	26.60	9,412.44	0.00	KP
2/13/2014	9,424.00	1.80	20.27	9,420.44	0.24	KP
2/11/2014	9,455.00	2.90	0.10	9,451.41	1.49	KP
2/11/2014	9,487.00	7.00	350.30	9,483.28	4.24	KP
2/12/2014	9,518.00	11.50	345.50	9,513.87	9.22	KP
2/12/2014	9,550.00	13.50	345.90	9,545.11	16.15	KP
2/12/2014	9,581.00	13.90	356.20	9,575.24	23.46	KP
2/12/2014	9,613.00	9.70	9.00	9,606.56	29.96	KP
2/12/2014	9,642.00	3.20	28.90	9,635.36	33.18	KP
2/12/2014	9,674.00	1.60	88.10	9,667.34	34.37	KP
2/12/2014	9,706.00	4.20	36.80	9,699.30	35.86	KP
2/13/2014	9,737.00	8.30	17.90	9,730.11	39.19	KP
2/13/2014	9,769.00	11.90	8.50	9,761.61	44.79	KP
2/13/2014	9,800.00	15.30	8.40	9,791.74	52.08	KP
2/13/2014	9,832.00	19.60	8.80	9,822.26	61.67	KP
2/13/2014	9,864.00	24.60	6.10	9,851.90	73.70	KP
2/13/2014	9,895.00	28.60	1.50	9,879.61	87.57	KP
2/16/2014	9,927.00	32.50	0.10	9,907.17	103.83	KP
2/16/2014	9,958.00	36.50	2.30	9,932.71	121.38	KP
2/16/2014	9,990.00	40.70	3.20	9,957.71	141.34	KP
2/16/2014	10,022.00	45.20	3.30	9,981.13	163.14	KP
2/16/2014	10,053.00	49.40	3.00	10,002.15	185.92	KP
2/17/2014	10,085.00	53.50	3.30	10,022.09	210.94	KP
2/17/2014	10,116.00	57.80	3.60	10,039.57	236.53	KP

### Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
2/17/2014	10,148.00	61.60	3.00	10,055.72	264.15	KP
2/17/2014	10,182.00	65.80	2.40	10,070.78	294.62	KP
2/17/2014	10,213.00	68.70	2.20	10,082.76	323.21	KP
2/17/2014	10,245.00	71.10	2.20	10,093.76	353.26	KP
2/17/2014	10,277.00	74.80	1.60	10,103.14	383.85	KP
2/17/2014	10,308.00	78.50	1.70	10,110.30	414.00	KP
2/17/2014	10,340.00	80.70	1.60	10,116.07	445.47	KP
2/17/2014	10,371.00	82.90	1.60	10,120.50	476.16	KP
2/17/2014	10,403.00	85.10	1.00	10,123.84	507.98	KP
2/17/2014	10,434.00	87.60	0.50	10,125.81	538.91	KP
2/17/2014	10,466.00	88.60	360.00	10,126.87	570.90	KP
2/17/2014	10,561.00	90.10	359.70	10,127.95	665.89	KP
2/17/2014	10,655.00	90.00	358.80	10,127.87	759.89	KP
2/17/2014	10,750.00	90.00	357.90	10,127.87	854.88	KP
2/17/2014	10,845.00	90.90	357.90	10,127.12	949.88	KP
2/17/2014	10,939.00	91.60	357.60	10,125.07	1,043.86	KP
2/17/2014	11,034.00	91.40	358.60	10,122.59	1,138.82	KP
2/17/2014	11,129.00	91.20	357.80	10,120.43	1,233.80	KP
2/17/2014	11,220.00	90.00	357.80	10,119.48	1,324.79	KP
2/17/2014	11,312.00	89.50	357.90	10,119.88	1,416.79	KP
2/17/2014	11,405.00	90.90	359.90	10,119.56	1,509.78	KP
2/17/2014	11,497.00	91.40	359.80	10,117.71	1,601.76	KP
2/17/2014	11,590.00	91.20	1.60	10,115.60	1,694.74	KP
2/17/2014	11,682.00	91.30	0.70	10,113.59	1,786.71	KP
2/17/2014	11,775.00	92.00	3.00	10,110.91	1,879.67	KP
2/17/2014	11,867.00	90.60	3.00	10,108.83	1,971.64	KP
2/26/2014	11,961.00	92.00	3.70	10,106.69	2,065.61	KP
2/27/2014	12,052.00	94.00	4.50	10,101.93	2,156.48	KP
2/27/2014	12,144.00	92.90	3.00	10,096.39	2,248.31	KP
2/27/2014	12,236.00	91.20	1.50	10,093.10	2,340.25	KP
2/27/2014	12,329.00	89.60	2.00	10,092.45	2,433.24	KP
2/27/2014	12,424.00	89.90	1.50	10,092.87	2,528.24	KP
2/27/2014	12,518.00	88.90	1.50	10,093.85	2,622.24	KP
2/27/2014	12,613.00	89.20	0.90	10,095.43	2,717.22	KP
2/27/2014	12,708.00	91.40	1.90	10,094.93	2,812.21	KP
2/27/2014	12,803.00	91.30	1.90	10,092.69	2,907.19	KP
2/28/2014	12,898.00	91.90	1.40	10,090.04	3,002.15	KP
2/28/2014	12,992.00	89.10	1.10	10,089.22	3,096.14	KP
2/28/2014	13,114.00	92.30	3.90	10,087.73	3,218.10	KP
3/2/2014	13,209.00	90.60	1.90	10,085.33	3,313.06	KP
3/2/2014	13,303.00	90.90	358.20	10,084.09	3,407.04	KP
3/2/2014	13,398.00	90.10	3.50	10,083.26	3,502.00	KP
3/2/2014	13,493.00	85.60	3.20	10,086.83	3,596.91	KP
3/2/2014	13,589.00	85.90	3.00	10,093.94	3,692.64	KP
3/2/2014	13,682.00	85.60	3.20	10,100.83	3,785.39	KP
3/2/2014	13,777.00	86.50	4.10	10,107.38	3,880.16	KP
3/2/2014	13,872.00	87.10	3.80	10,112.68	3,975.01	KP
3/2/2014	13,967.00	89.40	2.50	10,115.58	4,069.96	KP
3/2/2014	14,061.00	91.00	2.80	10,115.25	4,163.95	KP
3/2/2014	14,156.00	91.30	1.50	10,113.35	4,258.93	KP
3/2/2014	14,251.00	91.30	0.50	10,111.19	4,353.91	KP
3/3/2014	14,346.00	90.90	359.90	10,109.37	4,448.89	KP
3/3/2014	14,441.00	91.60	0.10	10,107.30	4,543.87	KP
3/4/2014	14,535.00	92.00	0.10	10,104.34	4,637.82	KP
3/4/2014	14,630.00	90.70	0.20	10,102.11	4,732.79	KP
3/4/2014	14,725.00	90.60	359.80	10,101.03	4,827.78	KP

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
3/4/2014	14,819.00	90.40	358.70	10,100.21	4,921.78	KP
3/4/2014	14,914.00	90.30	357.80	10,099.63	5,016.78	KP
3/4/2014	15,009.00	90.50	359.50	10,098.96	5,111.77	KP
3/4/2014	15,103.00	90.40	359.70	10,098.23	5,205.77	KP
3/4/2014	15,198.00	90.30	358.60	10,097.65	5,300.76	KP
3/4/2014	15,293.00	90.40	359.70	10,097.07	5,395.76	KP
3/4/2014	15,388.00	90.90	0.40	10,095.99	5,490.75	KP
3/4/2014	15,482.00	90.60	359.30	10,094.76	5,584.74	KP
3/4/2014	15,577.00	90.70	359.30	10,093.68	5,679.74	KP
3/5/2014	15,672.00	90.70	358.50	10,092.52	5,774.73	KP
3/5/2014	15,766.00	91.10	358.90	10,091.04	5,868.72	KP
3/5/2014	15,860.00	90.80	358.80	10,089.48	5,962.71	KP
3/5/2014	15,956.00	90.70	359.80	10,088.23	6,058.70	KP
3/5/2014	16,051.00	90.80	0.10	10,086.98	6,153.69	KP
3/5/2014	16,145.00	91.10	0.30	10,085.42	6,247.67	KP
3/5/2014	16,239.00	91.00	1.30	10,083.70	6,341.66	KP
3/5/2014	16,334.00	90.70	1.50	10,082.29	6,436.65	KP
3/6/2014	16,429.00	90.50	1.10	10,081.30	6,531.64	KP
3/6/2014	16,524.00	90.70	1.30	10,080.30	6,626.64	KP
3/6/2014	16,618.00	90.60	0.90	10,079.24	6,720.63	KP
3/6/2014	16,713.00	90.10	1.70	10,078.66	6,815.63	KP
3/6/2014	16,808.00	90.10	2.90	10,078.49	6,910.63	KP
3/6/2014	16,902.00	90.00	1.50	10,078.41	7,004.62	KP
3/6/2014	16,997.00	89.50	0.60	10,078.82	7,099.62	KP
3/6/2014	17,092.00	89.30	0.60	10,079.82	7,194.62	KP
3/6/2014	17,187.00	89.50	1.40	10,080.81	7,289.61	KP
3/6/2014	17,281.00	89.30	0.60	10,081.80	7,383.60	KP
3/7/2014	17,376.00	90.50	1.90	10,081.96	7,478.60	KP
3/7/2014	17,471.00	90.90	2.40	10,080.80	7,573.59	KP
3/7/2014	17,566.00	91.00	2.10	10,079.23	7,668.58	KP
3/7/2014	17,660.00	92.00	3.00	10,076.77	7,762.54	KP
3/7/2014	17,755.00	91.70	2.00	10,073.70	7,857.49	KP
3/8/2014	17,850.00	92.00	3.00	10,070.63	7,952.44	KP
3/8/2014	17,944.00	91.80	3.00	10,067.52	8,046.39	KP
3/8/2014	18,039.00	91.90	2.70	10,064.45	8,141.34	KP
3/8/2014	18,134.00	91.70	3.40	10,061.47	8,236.29	KP
3/8/2014	18,229.00	92.20	3.00	10,058.23	8,331.24	KP
3/8/2014	18,323.00	92.20	2.40	10,054.62	8,425.17	KP
3/8/2014	18,418.00	92.30	3.20	10,050.89	8,520.09	KP
3/8/2014	18,513.00	92.40	3.00	10,047.00	8,615.01	KP
3/8/2014	18,607.00	92.00	3.00	10,043.39	8,708.95	KP
3/8/2014	18,702.00	92.40	3.30	10,039.74	8,803.87	KP
3/8/2014	18,797.00	90.50	2.20	10,037.34	8,898.84	KP
3/11/2014	18,892.00	90.40	356.20	10,036.59	8,993.79	KP
3/11/2014	18,986.00	90.50	0.80	10,035.85	9,087.76	KP
3/11/2014	19,081.00	90.50	0.60	10,035.03	9,182.76	KP
3/12/2014	19,176.00	90.20	1.00	10,034.45	9,277.76	KP
3/12/2014	19,270.00	90.90	1.20	10,033.54	9,371.75	KP
3/12/2014	19,365.00	89.90	0.10	10,032.88	9,466.75	KP
3/12/2014	19,460.00	90.90	2.20	10,032.22	9,561.74	KP
3/12/2014	19,554.00	89.90	359.70	10,031.56	9,655.73	KP
3/12/2014	19,649.00	89.60	0.70	10,031.97	9,750.73	KP
3/12/2014	19,744.00	89.20	0.40	10,032.97	9,845.72	KP
3/12/2014	19,838.00	89.00	0.70	10,034.45	9,939.71	KP
3/12/2014	19,933.00	88.90	1.40	10,036.19	10,034.69	KP
3/12/2014	20,028.00	88.40	1.70	10,038.42	10,129.67	KP



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 31H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
3/12/2014	20,123.00	88.30	0.80	10,041.16	10,224.63	KP
3/12/2014	20,217.00	88.00	0.60	10,044.19	10,318.58	KP
3/12/2014	20,313.00	87.40	1.10	10,048.05	10,414.50	KP
3/12/2014	20,407.00	87.10	0.70	10,052.56	10,508.39	KP
3/12/2014	20,433.00	86.50	0.70	10,054.01	10,534.35	KP
3/12/2014	20,484.00	86.50	0.70	10,057.12	10,585.25	KP