

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

UNIVERSITY 7-43 46H						
API/UWI 42-003-47354-0000		Property Sub 927638-046		Operator PIONEER NATURAL RESRC USA, INC		State TEXAS
Field Name SPRABERRY (TREND AREA)		Surface Legal Location 210' FSL/ 1260' FWL; BLK 7; SEC 37				
Spud Date 8/11/2016		TD Date 9/19/2016		Drilling Rig Release Date 9/22/2016		Initial Potential Date
Ground Elevation (ft) 2,964.00	Original KB Elevation (ft) 2,993.00	PBTD (All) (ftKB) ORIGINAL - 19,626.7		Total Depth (All) (ftKB) ORIGINAL - 19,715.0		Total Depth All (TVD) (ftKB) ORIGINAL - 9,539.1
Report #: 1 Daily Operation: 8/11/2016 18:45 - 8/12/2016 06:00						
Job Category ORIG DRILLING				Primary Job Type ODR		AFE Number 039099
Days From Spud (days) 0	Days on Location (days) 0	End Depth (ftKB) 1,387.0	End Depth (TVD) (ftKB) 1,387.0	Dens Last Mud (lb/gal)	Rig PATTERSON - UTI, 802	
Operations Summary Walk, Rig Up, Test Mudlines, P/U BHA, Spud & Drill 17 1/2" Surface Hole F/129' - t/1387', Surface Section 67% Complete						
Remarks No Accidents, Incidents or Spills						
NPT for August: Patterson: Past 24 hr - 0, Total - 7.75 3rd Party: Past 24 hr - 0, Total - 0						
Time Log Summary						
Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/11/2016 18:45	8/11/2016 19:00	0.25	SAFETY	SAFETY	SFTY	PJSM with Patterson & PNR on walking rig f/University 47H t/University 46H
8/11/2016 19:00	8/11/2016 20:30	1.5	MOVE	MOVE	MOVE	Walk rig to University 46H & Center over Conductor
8/11/2016 20:30	8/11/2016 21:00	0.5	RIG UP	RIG UP	RU	R/U vibrator hoses, Set cellar pumps, Hook up pason lines, Set climb assist, Test mudlines with rig pumps 3500 psi/10 mins.
8/11/2016 21:00	8/11/2016 21:30	0.5	PLANNED RIG SERVICE	PLANNED RIG SERVICE	RIG_SVC	Rig Service
8/11/2016 21:30	8/11/2016 21:45	0.25	SAFETY	SAFETY	SFTY	PJSM with PNR, Patt & Leam on Handling BHA
8/11/2016 21:45	8/11/2016 22:15	0.5	P/U BHA	P/U BHA	PU_BHA	P/U stand W/Motor, Scribe BHA, Turn On EM Tool, P/U stand HWDP, Prep to Drill
8/11/2016 22:15	8/11/2016 22:30	0.25	TIH - ELEVATOR	TIH - ELEVATOR	TIH_ELEV	TIH & tag up @129',
8/11/2016 22:30	8/12/2016 00:00	1.5	DRILL	DRILL	DRL	Spud well @ 22:30 hrs. Drill F/129' to 369' (240' @ 160 fph). 18% complete 100% Rot @ 100 fph MW: 8.3+, pH 12.6, taking returns to cellar & circ outer reserve. Adding lime @ 6 sx/hr to maintain min pH of >12 to help w/redbed.
8/12/2016 00:00	8/12/2016 00:15	0.25	CIRCULATE	CIRCULATE	CIRC	Circulate B/U w/600 GPM,
8/12/2016 00:15	8/12/2016 00:30	0.25	TOOH - ELEVATOR	TOOH - ELEVATOR	TOOH_ELEV	TOOH for 8" DC's F/369' to 96'
8/12/2016 00:30	8/12/2016 00:45	0.25	TIH - ELEVATOR	TIH - ELEVATOR	TIH_ELEV	TIH w/2 stands 8" DC's & HWDP, With no issues
8/12/2016 00:45	8/12/2016 06:00	5.25	DRILL	DRILL	DRL	Drill F/369' T/1387' (1018' @ 194 fph), 67% complete. MW-8.3 w/ 49 vis, full returns. MW: 8.3+, pH 12.6, taking returns to cellar & circ outer reserve. Adding lime @ 6 sx/hr to maintain min pH of >12 to help w/redbed.
Report #: 2 Daily Operation: 8/12/2016 06:00 - 8/13/2016 06:00						
Job Category ORIG DRILLING				Primary Job Type ODR		AFE Number 039099
Days From Spud (days) 1	Days on Location (days) 1	End Depth (ftKB) 2,060.0	End Depth (TVD) (ftKB) 2,060.0	Dens Last Mud (lb/gal) 8.40	Rig PATTERSON - UTI, 802	
Operations Summary Drill sfc to TD @ 2060', CTCH, TOOH, R/U, run & land csg. Cement						
Remarks No Accidents, Incidents or Spills						
NPT for August: Patterson: Past 24 hr - 0, Total - 7.75 3rd Party: Past 24 hr - 1.25 Total - 1.25						

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Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/12/2016 06:00	8/12/2016 09:00	3		DRILL	DRL	Drill F/1387' T/1954' (567' @ 162 fph), 100% rotating ? MW: 8.3, pH 12.5, taking returns to cellar & circ outer reserve. ? Adding lime @ 5 sx/hr to maintain min pH of 12 to help w/redbed ? Drlg w/HWDP in place of 8"DC's until completely out of red bed ? Every connection - 2 soap & 1 gal PHPA
8/12/2016 09:00	8/12/2016 10:15	1.25		CIRCULATE	CIRC	Unable to continue drlg due to Oge's cellar pump discharge hoses continuing to get plugged up w/ loose cuttings. Circ @ 360 gpm, 500 psi while knocking lines loose. Then one of the power units had a leaking fitting, shut down same & RU 4x4 diesel transfer pump while waiting on backup power unit from town. The 1 running hydraulic unit broke down, swap hyd hose from that one to repair the leaking hose on previous one, still waiting on backup unit from town. Pump operator suspected of allowing the pumps to run at single continuous speed to make it easy to maintain constant level. Rather than alternating pumps running at higher level to ensure the clear passage for cuttings.
8/12/2016 10:15	8/12/2016 11:30	1.25		DRILL	DRL	Drill F/1954' T/2060' (106' @ 85 fph), 100% rotating ? TD'd surface @ 11:30 hrs
8/12/2016 11:30	8/12/2016 12:00	0.5		PLANNED RIG SERVICE	RIG_SVC	Rig service while circulating
8/12/2016 12:00	8/12/2016 13:30	1.5		CIRCULATE	CIRC	Circ hole clean @ GPM - 756, SPP - 1255 Pump 2 hi vis 80 bbl sweeps Spot 200 bbl hi-vis pill
8/12/2016 13:30	8/12/2016 14:00	0.5		TOOH - ELEVATOR	TOOH_E LEV	TOOH F/2060' - T/1556' No over pull observed off bottom.
8/12/2016 14:00	8/12/2016 15:00	1		TOOH - NON-ELEVATOR	TOOH_N ONELEV	Pull tight @ 1,556', Unable to work thru w/o screwing into std W&R F/1556' T/1497', 100 spm, 587 spp, 60 rpm w/ 4k tq
8/12/2016 15:00	8/12/2016 16:15	1.25		TOOH - ELEVATOR	TOOH_E LEV	TOOH F/1497' T/ BHA. w/o issue Rackback all HWDP & DC's No excess overpull observed.
8/12/2016 16:15	8/12/2016 16:30	0.25		SAFETY	SFTY	PJSM - Proper BHA handling
8/12/2016 16:30	8/12/2016 17:15	0.75		L/D BHA	L/D BHA	Turn off EM tool, drain MM & break bit ? Near bit stab & bit balled w/ red bed ? MM Drained well w/ no excessive play ? Bit Grade: 1-1-NO-A-X-0-NO-TD
8/12/2016 17:15	8/12/2016 17:45	0.5		P/U BHA	PU_BHA	PU new MM, MU SF65 & rack back same
8/12/2016 17:45	8/12/2016 18:00	0.25		SAFETY	SFTY	Safety Standown w/ all crews on location regarding PNR's R2LB & Patterson's Cornerstones for Life - Focusing on Fall or Elevated Work Safety
8/12/2016 18:00	8/12/2016 18:15	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR & Franks - RU & run csg
8/12/2016 18:15	8/12/2016 18:45	0.5		RIG UP	RU	RU casing tools that were already on floor Visually inspected & tested.
8/12/2016 18:45	8/12/2016 19:15	0.5		RUN CSG W/O WASH	CSG_W/ OWASH	PU & MU bucked on 1 jt shoe track. Thread locking all connections including top of FC PU single csg jt to test floats - Good, PU & RU CRT
8/12/2016 19:15	8/13/2016 00:00	4.75		RUN CSG W/O WASH	CSG_W/ OWASH	RIH w/ csg F/89' to 1847' Avg MU tq to base of ? ~ 9k ft/lbs. Taking returns to cellar, hole displacing properly.
8/13/2016 00:00	8/13/2016 01:15	1.25		RUN CSG WITH WASH	CSG_W WASH	Wash csg F/1847' - 2011', @ 425 GPM's, 280 psi, 10 rpm, 7k max tq
8/13/2016 01:15	8/13/2016 01:30	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR & Cactus - PU landing jt & landing in wellhead
8/13/2016 01:30	8/13/2016 02:00	0.5		WELLHEAD	WH	MU wellhead hanger & PU on last jt w/ PNR & Cactus on floor Land hanger in conductor w/ PNR & Cactus verify in cellar

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Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/13/2016 02:00	8/13/2016 03:00	1		CIRCULATE	CIRC	Circ w/ CRT @ 10 bpm, 305 psi while RD csg tools ? CRT, spider, tongs, bail ext. & elevators on floor for next sfc csg ? Pull SLB iron to floor, MU same to rigs standpipe on vdoor ? Preload top plug w/ PNR verify ? PJSM w/ Patt, PNR, Oge's & SLB - cmt ops
8/13/2016 03:00	8/13/2016 03:15	0.25		RIG DOWN	RD	PJSM w/ Patt, Frank's & PNR & L/D CRT
8/13/2016 03:15	8/13/2016 03:45	0.5		RIG UP	RU	PJSM. RU SLB cmt head & iron
8/13/2016 03:45	8/13/2016 06:00	2.25		CEMENT	CMT	Test lines to 3500 psi Pump 50 bbl, 8.4 ppg FW spacer Cemented per prog: ? 388 bbl lead, (1270 sx, 13 ppg, 1.66) ? 111 bbl tail, (460 sx, 13.6 ppg, 1.66) Est lift press 450 psi,.

Report #: 3 Daily Operation: 8/13/2016 06:00 - 8/13/2016 08:30

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 1	Days on Location (days) 2	End Depth (ftKB) 2,060.0	End Depth (TVD) (ftKB) 2,060.0	Dens Last Mud (lb/gal) 8.40	Rig PATTERSON - UTI, 802	

Operations Summary

Fiinish cmt sfc csg. (Offline Ops: Install wellhead & test sfc csg once walked to #45H)

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 7.75

3rd Party: Past 24 hr - 0, Total - 1.25

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/13/2016 06:00	8/13/2016 07:00	1		CEMENT	CMT	Displace w/309 bbl FW FCP of 605 psi (est lift 499 psi) Held 575 psi over Bled back 1.5 bbl. floats held Circ 125 bbl cmt to surface.
8/13/2016 07:00	8/13/2016 07:30	0.5		RIG DOWN	RD	RD SLB cmt iron while flushing cellar pumps & prep for walk
8/13/2016 07:30	8/13/2016 08:30	1		WELLHEAD	WH	Pull landing jt w/ PNR & Cactus rep on floor, LD same ? Offline Ops after walking to #45H ? ? Installed Wellhead & TA cap ? Test csg to 1000 psi/30 mins w/ tester ? Pause well @ 8:30 hrs ?

Report #: 4 Daily Operation: 8/21/2016 01:00 - 8/21/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 9	Days on Location (days) 2	End Depth (ftKB) 2,060.0	End Depth (TVD) (ftKB) 2,060.0	Dens Last Mud (lb/gal) 8.40	Rig PATTERSON - UTI, 802	

Operations Summary

Walk rig, N/U BOP's & test, Install wear bushing. Accepted rig @03:00

Continue Monitoring Universtiy 45H
@05:30 - 26 sec/qt=.82 bph

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/21/2016 01:00	8/21/2016 01:15	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR & Driltek - Walking rig to University 46H ? Assigning roles & responsibilities to all personnel

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/21/2016 01:15	8/21/2016 03:00	1.75		MOVE	MOVE	Walk rig F/45H to 46H ? Staging matting boards ? Installing HPU extension skids ? Catwalk was moved prior to walk ? Rig verified over hole center & accepted @ 03:00 hrs Note: while walking changed out hydraulic hose on ODS stomper approx...20 mins to change
8/21/2016 03:00	8/21/2016 03:15	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR & Cactus - NU BOP's
8/21/2016 03:15	8/21/2016 04:00	0.75		N/U BOPE	NU_BOP E	Stab BOP onto Cactus quick connect head, torque to 400 ft-lbs per Cactus rep w/ test plug already installed
8/21/2016 04:00	8/21/2016 04:15	0.25		SAFETY	SFTY	PJSM w/Patterson, Edge, Driltek - Testing BOP's
8/21/2016 04:15	8/21/2016 04:45	0.5		TEST BOPE	TEST_B OPE	Shelll test BOP - 250/5000 for 5 mins Break F/BOP spool T/speed head
8/21/2016 04:45	8/21/2016 05:30	0.75		RIG UP	RU	R/U flowline & center BOP's w/ turnbuckles. R/U vibrator hose & walk back catwalk.
8/21/2016 05:30	8/21/2016 06:00	0.5		WELLHEAD	WH	Pull test plug & lay down. Install wear bushing. Continue Monitor well on Universtiy 45H 26 sec/qt = .85 bbl/hr Gens 3=24 hs

Report #: 5 Daily Operation: 8/21/2016 06:00 - 8/22/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 10	Days on Location (days) 3	End Depth (ftKB) 4,287.0	End Depth (TVD) (ftKB) 4,283.9	Dens Last Mud (lb/gal) 10.40	Rig PATTERSON - UTI, 802	

Operations Summary

Koomey draw down test. P/U BHA, TIH, Drill out, Drill intermediate section t/4287'

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

PXDrill Performance Limiter- Differential

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/21/2016 06:00	8/21/2016 07:30	1.5		WELLHEAD	WH	Finish checking valve alignment on choke manifold. Perform koomey draw down test - Good. ? 1 generator on line.
8/21/2016 07:30	8/21/2016 07:45	0.25		SAFETY	SFTY	PJSM w/ Patt, Leam & PNR - BHA handling
8/21/2016 07:45	8/21/2016 08:30	0.75		P/U BHA	PU_BHA	Scribe MM, swap MWD batteries & program & test same.
8/21/2016 08:30	8/21/2016 09:30	1		P/U BHA	PU_BHA	TIH w/ 3 stds of 8" DC & HWDP.
8/21/2016 09:30	8/21/2016 09:45	0.25		N/U BOPE	NU_BOP E	Install rotating head
8/21/2016 09:45	8/21/2016 10:15	0.5		TIH - ELEVATOR	TIH_ELE V	TIH f/375' t/1940', with no issues. ? Note: tag cement @ 1,940'
8/21/2016 10:15	8/21/2016 11:00	0.75		DRILL OUT	DRL_OU T	Drill out cement & float equipment f/1940 t/1902' w/10-20 WOB, 352 GPM's, 35 RPM's FC - 1,994' FS - 2,040'
8/21/2016 11:00	8/21/2016 12:45	1.75		DRILL	DRL	Drill F/2060' T/2227' (167' @ 95 fph), 4% complete. MW-10 w/ 28 vis, full returns. ? Monitor backside psi on 45H: 0 psi @ 11:00 hrs ?? 2 generators on line.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/21/2016 12:45	8/21/2016 13:15	0.5		PLANNED RIG SERVICE	RIG_SVC	Service rig: Grease TD/ blocks.
8/21/2016 13:15	8/22/2016 06:00	16.7 5		DRILL	DRL	Drill F/2227' T/4287' (1039' @ 123 fph), 90% Rot, 56.5% complete. 90% Rot @ 132 fph 10% Sldg @ 43 fph MW-10.4 w/ 29 vis, full returns. Pump 20 bbl, 15 vis sweeps every other connection. Gens 1-5 hrs, 3-24 hrs ?? Monitor backside psi on 45H: 0 psi @ 0:600 hrs

Report #: 6 Daily Operation: 8/22/2016 06:00 - 8/23/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 11	Days on Location (days) 4	End Depth (ftKB) 6,020.0	End Depth (TVD) (ftKB) 6,014.8	Dens Last Mud (lb/gal) 10.40	Rig PATTERSON - UTI, 802	

Operations Summary

Drill Intermediate Sect f/ 4,287' to 6,020', CTCH, TOO H t/2500'

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

PXDrill Performance Limiter- WOB-Differential

?? Last survey @ 5961', Inc-1.7°, Azm-146.1°, 4' Low & 0.7' Left to plan #2, Gamma-32°, CBHT-133°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/22/2016 06:00	8/22/2016 10:45	4.75		DRILL	DRL	Drill F/4287' T/4757' (470' @ 99 fph), 100% Rot, 68.4% complete. MW-10.4 w/ 29 vis, full returns. Pump 20 bbl, 50 vis sweeps every other connection. ? SPR's @ 4,474' & 4,755' ?? 2 generators on line. ??? Opened 45H to choke, read 200 psi & stabilized. Bled off thru panic line, well flowing at 38 sec/qt. - 0.6 bph. Swapping out 5000 psi gauge w/ 1500 psi gauge.
8/22/2016 10:45	8/22/2016 11:15	0.5		PLANNED RIG SERVICE	RIG_SVC	Service Rig. Grease TD/Blocks/DW.
8/22/2016 11:15	8/23/2016 02:45	15.5		DRILL	DRL	Drill F/4757' T/6020' (1263' @ 67 fph), 100% Rot, 100% complete. MW-10.35 w/ 29 vis, full returns. Pump 25 bbl, 50 vis sweeps every other connection. TD Intermediate section @ 02:45 ? 45H flowing @ 15:00 42 sec/qt - 0.4 bph. Shut in & will continue to monitor. Continue monitoring pressure @ 01:30 225 psi @ 02:30 225 psi. @ 04:30 250 psi.
8/23/2016 02:45	8/23/2016 04:15	1.5		CIRCULATE	CIRC	Circulate 2- 35 bbls Hi-Vis sweep around with until shaker are clean. Note: Sweep return to surface @ 12,500 stks, calculated strokes was 8400, A total of 52% washout
8/23/2016 04:15	8/23/2016 06:00	1.75		TOOH - ELEVATOR	TOOH_E LEV	TOOH f/6020 t/2500', w/ no issues. hole taking proper fill monitored with trip tanks. No excessive overpull seen

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Report #: 7 Daily Operation: 8/23/2016 06:00 - 8/24/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099		
Days From Spud (days) 12	Days on Location (days) 5	End Depth (ftKB) 6,020.0	End Depth (TVD) (ftKB) 6,014.8	Dens Last Mud (lb/gal) 10.40	Rig PATTERSON - UTI, 802			

Operations Summary

TOOH, Kill well, C/O BHA, Pull WB, RIH w/ 9-5/8" Csg & Land, Cmt

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

?? Last survey @ 5961', Inc-1.7°, Azm-146.1°, 4' Low & 0.7' Left to plan #2, Gamma-32°, CBHT-133°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/23/2016 06:00	8/23/2016 06:30	0.5		TOOH - ELEVATOR	TOOH_E LEV	TOOH f/2,500' to 1,997', w/ no issues. hole taking less than calculated fill. No excessive overpull seen. ? 2 Generators on line.
8/23/2016 06:30	8/23/2016 08:00	1.5		FLOW CHECK	FLOW_C HK	Flow check @ surface shoe, 1997'. Well flowing @ 60 bph. Shut in well & build 50 bbls of 2# over mud cap (34 psi). Spot outside bit, well static. ? 50 bbls - 322'
8/23/2016 08:00	8/23/2016 08:45	0.75		TOOH - ELEVATOR	TOOH_E LEV	Cont TOOH f/ 1,997' to 1435', w/ no issues. Pulling wet & filling backside with heavy fluid but hole not taking fluid.
8/23/2016 08:45	8/23/2016 10:00	1.25		WELL CONTROL	WELL_C TRL	Flow check, well flowing @ 1 bbl/ 5 min - 12 bph. Weight up rest of pill to 3# over & spot 40 bbls. Well static.
8/23/2016 10:00	8/23/2016 10:15	0.25		TOOH - ELEVATOR	TOOH_E LEV	Cont TOOH f/1435' to 993, filing backside w/ heavy mud. Hole taking proper fill.
8/23/2016 10:15	8/23/2016 10:45	0.5		N/U BOPE	NU_BOP E	Pull rotating head & install trip nipple.
8/23/2016 10:45	8/23/2016 12:00	1.25		TOOH - ELEVATOR	TOOH_E LEV	TOOH racking back HWDP, C/O Jars & 3 stands of 8" DC's. ? 45H still reading 250 psi on backside, continue to monitor well.
8/23/2016 12:00	8/23/2016 12:15	0.25		SAFETY	SFTY	PJSM w/Crew, Leam & PNR on Handling Directional BHA
8/23/2016 12:15	8/23/2016 12:45	0.5		L/D BHA	L/D BHA	Shut off EM Tool, drain MM, break bit & LD same ? 3/1/BT/N/X/0/CT/TD
8/23/2016 12:45	8/23/2016 13:15	0.5		P/U BHA	PU_BHA	PU & MU new 7/8 - 4.0 MM & rack back. ? Didn't MU Bit due to need to adjust TFA.
8/23/2016 13:15	8/23/2016 14:15	1		SAFETY	SFTY	Clean & organize rig floor from wet trip. Prep to RU Csg crew.
8/23/2016 14:15	8/23/2016 14:45	0.5		PLANNED RIG SERVICE	RIG_SVC	Service Rig. Grease TD & Blocks.
8/23/2016 14:45	8/23/2016 15:00	0.25		SAFETY	SFTY	PJSM w/ Patt & PNR over pulling wear bushing.
8/23/2016 15:00	8/23/2016 16:00	1		WELLHEAD	WH	Attempt to Pull wear bushing w/ hoists - PNR rep on floor. Will not come, contacted Cactus WH rep & got ok to pull up to 55k over with TD w/ no success. Pulled up to 81k over where pulled free w/ Cactus WH rep on floor. ? Function test BOP's - Good. Close blinds & prepare to RU Csg crew.
8/23/2016 16:00	8/23/2016 16:15	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR & Frank's over RU csg tools & equipment. ? Csg float equipment already on floor. ? Csg tools already on floor.
8/23/2016 16:15	8/23/2016 16:30	0.25		RIG UP	RU	RU, inspect & test casing tools
8/23/2016 16:30	8/23/2016 16:45	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR & Frank's - Casing running procedures

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Time Log Summary						
Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/23/2016 16:45	8/23/2016 17:45	1		RUN CSG W/O WASH	CSG_W/ OWASH	PU & MU 2 jt shoe track - Single valve down jet float shoe - 2 jts of csg - Float collar Thread locking all connections including top of FC PU single csg jt to test floats - Good. MU Frank's CRT. ? Avg ID of 10 jts - 8.9062" ? Casing Collars OD - 10.6875" ? Casing Elevators ID - 9.875" ? All csg components are 9 5/8" L-80 BTC
8/23/2016 17:45	8/23/2016 19:15	1.5		RUN CSG W/O WASH	CSG_W/ OWASH	RIH w/ csg F/142' to 1460', fill every 30 jts Avg MU tq to base of ? ~ 8k ft/lbs. Taking returns to pits, hole displacing properly. ? PU & MU ISO Tech Inflatable Csg packer & DV tool @1304', after 28 jt. ? Tool OD: 11.25" ? Opening Valve Psi (Design) - 2000 psi ? Closing Valve Psi (Design) - 1200 psi
8/23/2016 19:15	8/23/2016 23:30	4.25		RUN CSG WITH WASH	CSG_W WASH	RIH & lost returns @ 1460', slowed down from 150 fpm to 75 fpm to see if we could regain returns, having no success. Fill backside w/ FW + H2S scavenger & took ~3 bbls to fill backside every 10 jts. Cont RIH w/ csg F/1460' to 5833', fill every 30 jts Avg MU tq to base of ? ~ 8k ft/lbs. Continue filling backside every 10 jts, taking ~ 3-5 bbls. ? Safety Automation Technology Rep onsite.
8/23/2016 23:30	8/24/2016 00:00	0.5		RUN CSG WITH WASH	CSG_W WASH	Wash casing f/5833' t/5970', w/no returns, w/295 GPM's, 50 SPM. tight spot @5928', ? Continue filling backside with trip tank taking ~ 5-8 bbls keep full.
8/24/2016 00:00	8/24/2016 00:15	0.25		SAFETY	SFTY	PJSM w/ Patt rig crew, Cactus wellhead rep & PNR rep over PU/MU hanger & landing.
8/24/2016 00:15	8/24/2016 00:30	0.25		RUN CSG WITH WASH	CSG_W WASH	PU & MU hanger and landing joint. land casing in wellhead @6006', w/o issues, SO-170k, w/ Cactus & PNR Rep on rig floor. ? Inflatable packer- 4,684' ? DV tool - 4,674' ? Float Collar - 5,910 ' ? Shoe Depth - 6,004'
8/24/2016 00:30	8/24/2016 01:00	0.5		CIRCULATE	CIRC	Attempt to Circulate 1.5 Csg volumes @ 6-8 bbl/min having no success with returns after pumping 300 bbls decision was made to r/d down casing equipment & r/u cementers and pump cement. ? Continue filling backside with trip tank taking ~ 5-8 bbls keep full.
8/24/2016 01:00	8/24/2016 01:15	0.25		SAFETY	SFTY	PJSM w/ Franks, Patt & PNR on R/d Casing equipment.
8/24/2016 01:15	8/24/2016 02:00	0.75		RIG DOWN	RD	R/D casing equipment & CRT, While keeping back side full with water from reserve
8/24/2016 02:00	8/24/2016 02:15	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR, SLB Cmt, Miller Mud Eng, ISO tech tool rep & SAT H2S safety rep - Cementing ops.
8/24/2016 02:15	8/24/2016 03:15	1		RIG UP	RU	Rig up Cmt head & iron.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/24/2016 03:15	8/24/2016 06:00	2.75		CEMENT	CMT	Pump 1st stage cement as follows: Pump 20 bbls to flush lines to reserve; PSI test to 3,000 psi; Pump 70 bbls FW @ 8.3 ppg; Pump 70 bbls MPE @ 11 ppg; Pump 404 bbls (885 sks) Lead cement mixed @ 11.5 ppg, Yield 2.56 ft ³ /sk; Pump 62 bbls (262 sks) Tail Cement mixed @ 14.8 ppg Yield 1.33 ft ³ /sk. Dropped Top Plug @ 5:25 hrs, 8/24/2016, PNR Rep witnessed. Displacing with 433 bbls 8.3 ppg FW @ report time. ? 2 Generators on line - 100%

Report #: 8 Daily Operation: 8/24/2016 06:00 - 8/24/2016 12:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 039099
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Days From Spud (days) 13	Days on Location (days) 5	End Depth (ftKB) 6,020.0	End Depth (TVD) (ftKB) 6,014.8	Dens Last Mud (lb/gal) 10.40	Rig PATTERSON - UTI, 802
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Operations Summary

Finish displacing cmt, RD. Set pack off, N/D bop's, Release rig @ 14:00

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

?? Last survey @ 5961', Inc-1.7°, Azm-146.1°, 4' Low & 0.7' Left to plan #2, Gamma-32°, CBHT-133°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/24/2016 06:00	8/24/2016 07:15	1.25		CEMENT	CMT	Cementing 1st Stage; Cont pumping displacement w/ 434 bbls of 8.4 FW. Lift pressures on displacement: 50 bbl, 8 bpm, 210 psi., 100 bbl, 6.2 bpm, 160 psi., 150 bbl, 6.2 bpm, 240 psi., 200 bbl, 6 bpm, 425 psi., 250 bbl, 6 bpm, 495 psi., 300 bbl, 6 bpm, 645 psi. 350 bbl, 6 bpm, 800 psi., 400 bbl, 6 bpm, 933 psi., 434 bbl, 2.5 bpm, 1,053/1619 psi. Bumped plug @ 6:40 hrs, 8/24/2016; with 1,619 psi, 500 psi over final lift pressure of 1,053 psi., held 15 minutes. Bled back 3 bbls, Floats Held. Full returns throughout job.
8/24/2016 07:15	8/24/2016 07:45	0.5		CEMENT	CMT	Inflate Packer w/ 4.5 bbl's total 2750 psi. Lost 150 psi to packer. Pressure up to 2800 psi to test integrity of packer test good, bled to 500 psi and saw 1/4 bbl's lost into packer and bled back to 0 psi.
8/24/2016 07:45	8/24/2016 08:30	0.75		CEMENT	CMT	Drop cancellation plug and let free fall for 30 min. Pressure up to 3800 psi to shift DV tool. Lost 900 psi to confirm DV tool shifted. Pressure back up to 3800 psi to verify integrity. ? Pumped 6.5 bbls & bled back 6.5 bbls.
8/24/2016 08:30	8/24/2016 09:00	0.5		RIG DOWN	RD	RD Cmt head & iron.
8/24/2016 09:00	8/24/2016 09:30	0.5		RIG DOWN	RD	LD Csg tools
8/24/2016 09:30	8/24/2016 09:45	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR & Cactus - pull landing jt & install pack-off.
8/24/2016 09:45	8/24/2016 11:15	1.5		WELLHEAD	WH	Remove & L/D Landing Jt., Run wash tool, Install Packoff @ test seals to 5,000 psi. Lock in packoff, pull test 40K, retest seals to 5,000 psi, Lay out setting tool.
8/24/2016 11:15	8/24/2016 11:30	0.25		SAFETY	SFTY	PJSM w/ Patt, PNR & Cactus - ND BOP's

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
8/24/2016 11:30	8/24/2016 14:00	2.5		N/D BOPE	ND_BOP E	Cactus tech back out set screws from quick connect head, lift BOP's & install well cap. ? Bled off 250 psi off 45H, move psi gauge to allow room for matting board for HPU skid. ? Walk catwalk. ? Pause well @ 14:00 to walk to University 47H ?

Report #: 9 Daily Operation: 9/10/2016 08:00 - 9/11/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 30	Days on Location (days) 6	End Depth (ftKB) 6,020.0	End Depth (TVD) (ftKB) 6,014.8	Dens Last Mud (lb/gal) 8.50	Rig PATTERSON - UTI, 802	

Operations Summary
Walk to 46H, R/U, P/U BHA, TIH Drill Out DV tool, Test Csg, Drill out float equipment

Remarks
No Accidents, Incidents or Spills

NPT for August:
Patterson: Past 24 hr - 0, Total - 11
3rd Party: Past 24 hr - 0, Total - 41.5

?? Last survey @ 5961', Inc-1.7°, Azm-146.1°, 4' Low & 0.7' Left to plan #2, Gamma-32°, CBHT-133°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/10/2016 08:00	9/10/2016 08:15	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt, PNR & Driltek - Walking rig to University 7-43 46H ? Assigning roles & responsibilities to all personnel
9/10/2016 08:15	9/10/2016 09:45	1.5	RIG	SKID BETWEEN WELLS	SKID	Walk rig F/47H to 46H ? Staging matting boards ? Removing HPU extension skids ? Rig verified over hole center & accepted @ 09:45 hrs
9/10/2016 09:45	9/10/2016 10:00	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt, PNR & Cactus - NU BOP's
9/10/2016 10:00	9/10/2016 10:45	0.75	BOPE	NIPPLE UP BOPE	NU_BOP E	Stab BOP onto Cactus quick connect head, torque to 400 ft-lbs per Cactus rep w/ test plug already installed
9/10/2016 10:45	9/10/2016 11:00	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/Patterson, Edge, Driltek - Testing BOP's
9/10/2016 11:00	9/10/2016 11:30	0.5	BOPE	TEST BOPE CONNECTION	CONC_B OPE	ShellTest - 250/5k for 5 mins Break F/BOP spool T/speed head,
9/10/2016 11:30	9/10/2016 12:30	1	TEST	CSG TEST	CSG_TE ST	Pull test plug & test csg t/2500 psi for 30 mins
9/10/2016 12:30	9/10/2016 13:30	1	RIG	RIG UP	RU	R/U flowline & center BOP's w/ turnbuckles. R/U vibrator hose & walk back catwalk.
9/10/2016 13:30	9/10/2016 13:45	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt, PNR & RingCo - Changing out drill line
9/10/2016 13:45	9/10/2016 19:00	5.25	DRILL	SLIP & CUT	SLIP_CU T	Dock TDS, remove drill line from horses head, unspool drum, unstring blocks w/ string-up tech, Tighten bolts on horse head, unpin blocks calibrate DW ? Hot Work PTW in place for re-fabbing shaker slides
9/10/2016 19:00	9/10/2016 19:30	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Service Rig: Grease TD/ DW/Blocks.
9/10/2016 19:30	9/10/2016 20:30	1	NON_DRILL	WEARBUSHING	WRBSH	install wear bushing in well head. ? DOS rigging up solid control equipment in backyard.
9/10/2016 20:30	9/10/2016 21:00	0.5	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt & PNR - over dumb iron BHA.
9/10/2016 21:00	9/10/2016 21:30	0.5	BHA	PICK UP BHA	PU_BHA	P/U dumb iron BHA (Bit, 2 junk baskets, bit sub, HWDP) ? 8.75" Smith THI21B - s/#: RD2258 - Insert tooth
9/10/2016 21:30	9/10/2016 22:45	1.25	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH f/ BHA to 4674'. (tag top of DV tool4674'). hole displacing properly into open top.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/10/2016 22:45	9/10/2016 23:15	0.5	TEST	CSG TEST	CSG_TEST	Fill DP & Test DV tool @ 4674', set 50k on tool 2X to ensure closed.
9/10/2016 23:15	9/11/2016 00:30	1.25	DRILL	DRILL OUT	DRL_OUT	Drill DV tool f/ 4674' to 4699' w/ 450 gpm. 60 rpm, 23 wob. Full returns. ? Work through DV tool 3X's ?
9/11/2016 00:30	9/11/2016 01:00	0.5	TRIP	TIH - ELEVATOR	TIH_ELEV	TIH f/ 4,699' to 5,868'. Tag cement @ 5,868'
9/11/2016 01:00	9/11/2016 02:00	1	TEST	CSG TEST	CSG_TEST	Fill Pipe. Perform 9-5/8" Csg test. test to 2500 psi for 30 min - Good.
9/11/2016 02:00	9/11/2016 06:00	4	NON_DRILL	CIRCULATE	CIRC	Drill out cement F/5868' to Float collar "5910" ?Issues drilling out float collar (W/DV tool baffle) Ran various weights from 10 - 40K, rotary from 20 - 60, and pumps from 125 gpm - 500 gpm. ?Displaced to 8.5 ppg OBM while drilling out.

Report #: 10 Daily Operation: 9/11/2016 06:00 - 9/12/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 31	Days on Location (days) 7	End Depth (ftKB) 8,049.0	End Depth (TVD) (ftKB) 8,043.6	Dens Last Mud (lb/gal) 8.40	Rig PATTERSON - UTI, 802	

Operations Summary

Cont drill float equipment, FIT, TOOH, C/O BHA, TIH, Drill Prod Vertical F/6030' T/8049' 72% complete

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

Last Survey @ 7706'

? Inc-0.3°, Azm-241.6°, 8.4' behind & 7.6' right to plan #2, Gamma-33°, CBHT-138°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/11/2016 06:00	9/11/2016 07:30	1.5	DRILL	DRILL OUT	DRL_OUT	Drill out Cement & FS f/5910' t/6005', + 10' of new formation. f/6020' t/6030' ?Issues drilling out float collar (W/DV tool baffle) Ran various weights from 10 - 40K, rotary from 20 - 60, and pumps from 125 gpm - 500 gpm.
9/11/2016 07:30	9/11/2016 08:30	1	NON_DRILL	CIRCULATE	CIRC	Circ & Condition mud F/FIT, MW In/Out 8.4
9/11/2016 08:30	9/11/2016 09:00	0.5	TEST	FORMATION INTEGRITY	FIT	Pull inside shoe to 6,004' & Perform FIT to 9.8 EMW FIT Test: @ 6,004' MD, 5999' TVD 8.4 MW + 436 psi = 9.8 ppg EMW
9/11/2016 09:00	9/11/2016 11:30	2.5	TRIP	TOOH - ELEVATOR	TOOH_ELEV	TOOH F/ 6004' to Dumb iron BHA, hole taking proper fill from trip tanks.
9/11/2016 11:30	9/11/2016 11:45	0.25	BHA	LAY DOWN BHA	L/D BHA	Break dumb iron BHA & insert bit. L/D same. ? Bit Graded: 1/1/NO/A/0/0/NO/BHA, had no dull characteristics
9/11/2016 11:45	9/11/2016 12:00	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM W/Leam, Patterson and PNR on picking up BHA
9/11/2016 12:00	9/11/2016 13:00	1	BHA	PICK UP BHA	PU_BHA	P/U Bottom NMDC, UBHO, Pony NMDC, Stabilizer & Motor. Scribe UBHO, Set sleeve, Install MWD, M/U Bit, P/U Top NMDC.
9/11/2016 13:00	9/11/2016 14:15	1.25	TRIP	TIH - ELEVATOR	TIH_ELEV	P/U HWDP (5 jts) & TIH w/ 8.75" Prod Vert Assy t/3547'. Hole giving proper closed end displacement, Filling every 30 stands.
9/11/2016 14:15	9/11/2016 14:30	0.25	SURVEY	SURVEY	SRVY	Fill pipe & test MWD @ 3547'
9/11/2016 14:30	9/11/2016 15:00	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Rig Service

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/11/2016 15:00	9/11/2016 15:30	0.5	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH f/3547' t/6030. Hole giving proper closed end displacement, Filling every 30 stands.
9/11/2016 15:30	9/12/2016 06:00	14.5	DRILL	TIME DRILL	TIME_DR L	<p>Drill F/6030' T/8049' (2019' @ 139 fph), 72% complete. 95% Rot @ 145 fph 5% Sldg @ 32 fph MW-8.3 w/ 50 vis, full returns.</p> <p>Pump 10 bbl, 8.33 ppb prev LCM sweeps every other std.</p> <p>LITHOLOGY: 6090 -- 50% SD, 30% SH, 20% LS 6270 -- 50% SD, 40% SH, 10% LS 6450 -- 60% SD, 40% SH 6540 -- 50% SD, 50% SH 6720 -- 60% SD, 40% SH 6840 -- 90% LS, 10% SH 6960 -- 80% LS, 20% SH 7020 -- 90% LS, 10% SH 7140 -- 50% LS, 50% SH 7290 -- 60% SH, 40% LS</p> <p>Last Survey @ 7706' ? Inc-0.3°, Azm-241.6°, 8.4' behind & 7.6' right to plan #2, Gamma-33°, CBHT-138°F.</p> <p>?CLEARFORK @ 6,770' MD & 6,765' TVD</p> <p>Gens hrs 1 & 2 24hrs</p>

Report #: 11 Daily Operation: 9/12/2016 06:00 - 9/13/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 32	Days on Location (days) 8	End Depth (ftKB) 9,225.0	End Depth (TVD) (ftKB) 9,198.3	Dens Last Mud (lb/gal) 8.40	Rig PATTERSON - UTI, 802	

Operations Summary

Drill Prod. Vertical F/8,049' to 8,862' (TD), CTCH, TOO F/Curve Assy., C/O BHA, TIH Re-Log Gamma, Drill 8 3/4" Prod. Curve F/8,862' - 9,225'

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

Last Survey @ 9041'

? Inc-17.8°, Azm-339.9°, 1' high & 5.7' right to plan #2, Gamma-56°, CBHT-124°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/12/2016 06:00	9/12/2016 07:00	1	DRILL	DRILLING	DRL	<p>Drill F/8049' T/8300' (251' @ 251 fph), 80% complete. MW-8.3 w/ 50 vis, full returns. Pump 10 bbl, 8.33 ppb prev LCM sweeps every other std.</p> <p>LITHOLOGY: 8010 -- 70% SH, 30% LS 8100 -- 70% SH, 30% LS 8190 -- 70% SH, 30% LS 8280 -- 80% SH, 20% LS 8329 -- 50% SH, 40% LS, 10% SD</p> <p>? U. Spraberry @ 8400' MD & 8394 TDV, 8' high ? M. Spraberry A1, @ 8700' MD & 8694' TVD, 11' high</p> <p>Last Survey @ 8175' ? Inc-0.3°, Azm-66.6°, 11' low & 11.5' right to plan #2, Gamma-38°, CBHT-138°F.</p>
9/12/2016 07:00	9/12/2016 07:30	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Rig Service, Lubricate top drive and ST-80

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary						
Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/12/2016 07:30	9/12/2016 08:15	0.75	NON_DRILL	CIRCULATE	CIRC	Circ.1.5 BU before entering Spraberry@ 600 gpm, 2590 psi & 90 rpm. Full returns to surface. (BU = 4285 strokes) Shakers loaded up @ BU, circulate until clean.
9/12/2016 08:15	9/12/2016 13:45	5.5	DRILL	DRILLING	DRL	Drill F/8300' T/8862' (562' @ 102 fph), 100% complete. MW-8.3 w/ 50 vis, full returns. Pump 10 bbl, 8.33 ppb prev LCM sweeps every other std. LITHOLOGY: 8460 -- 30% SH, 20% LS, 50% SD 8520 -- 40% SH, 20% LS, 40% SD 8580 -- 40% SH, 10% LS, 50% SD 8640 -- 50% SH, 10% LS, 40% SD 8670 -- 60% SH, 10% LS, 30% SD Last Survey @ 8800' ? Inc-1.1°, Azm-173.4°, 18' low & 11' right to plan #2, Gamma-93°, CBHT-146°F.
9/12/2016 13:45	9/12/2016 15:00	1.25	NON_DRILL	CIRCULATE	CIRC	Circulated for 8,900 stks @ 600 gpm, 2,520 psi & 90 rpm. Shakers were clean after 1.5 B/U. Full returns to surface. (B/U = 4450 stks) ? Held PJSM over TOO H operations while circ. ? Completed flat time checklists while drlg. & circ.
9/12/2016 15:00	9/12/2016 17:30	2.5	TRIP	TOOH - ELEVATOR	TOOH_E LEV	TOOH F/Curve assembly F/8,930' to 150', No hole issues seen, Hole taking proper fill from trip tanks.
9/12/2016 17:30	9/12/2016 18:00	0.5	NON_DRILL	ROTATING HEAD HANDLING	HDL_RO THD	Pull Rotating Head & Install Trip Nipple.
9/12/2016 18:00	9/12/2016 18:15	0.25	TRIP	TOOH - ELEVATOR	TOOH_E LEV	Cont. TOOH w/Curve assembly F/150' T/BHA', No hole issues seen, Hole taking proper fill from trip tanks.
9/12/2016 18:15	9/12/2016 18:30	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt crew, Leam & PNR CM over BHA handling.
9/12/2016 18:30	9/12/2016 19:15	0.75	BHA	LAY DOWN BHA	L/D BHA	L/D Top NMDC, Pull MWD, Drain Motor, Break Bit, L/D IBS, L/D Motor. ? Function Test BOP ? Bit grade 1-2-CT-S-0-0-CT-BHA
9/12/2016 19:15	9/12/2016 19:30	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt crew, Leam & PNR CM over P/U BHA & handling.
9/12/2016 19:30	9/12/2016 20:15	0.75	BHA	PICK UP BHA	PU_BHA	P/U 6 3/4" 2.38° Fixed Slick 7/8 - 5.0 Motor, M/U Float Sub & UBHO Sub/NMDC, Scribe & Install MWD, Pulse test MWD, M/U 8 3/4" MMD55DM Bit & Flex NMDC.
9/12/2016 20:15	9/12/2016 22:15	2	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH W/Curve Assy, F/102' to 6000', Hole giving proper closed end displacement to trip tanks, Filling every 30 stands.
9/12/2016 22:15	9/12/2016 22:45	0.5	NON_DRILL	ROTATING HEAD HANDLING	HDL_RO THD	Pull trip nipple & install rotating head.
9/12/2016 22:45	9/12/2016 23:30	0.75	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH with Curve Assembly F/6,000' - 8,788'. Hole giving proper closed end displacement, Filling every 30 stands.
9/12/2016 23:30	9/13/2016 00:15	0.75	SURVEY	SURVEY	SRVY	Re-Log Gamma F/8,788' - 8,862', Wash to bottom 150' ft/hr with 500 GPM

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/13/2016 00:15	9/13/2016 06:00	5.75	DRILL	DRILLING	DRL	Drill F/8862' T/9225' (363' @ 41 fph), 38% complete. 3% Rot @ 40 fph 97% Sldg @ 42 fph MW-8.4 w/ 49 vis, full returns. LITHOLOGY: 8890 -- 70% SH, 30% LS 8920 -- 60% LS, 40% SH 8980 -- 50% SH, 30% SD, 20% LS 9070 -- 60% SH, 40% SD Last Survey @ 9041' ? Inc-17.8°, Azm-339.9°, 1' high & 5.7' right to plan #2, Gamma -56°, CBHT-124°F. ? L. Spraberry A1 @ 8920' MD & 8914' TVD Generators Hrs #1-24hrs, #2-2hrs, #3-22hrs

Report #: 12 Daily Operation: 9/13/2016 06:00 - 9/14/2016 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 039099
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Days From Spud (days) 33	Days on Location (days) 9	End Depth (ftKB) 9,943.0	End Depth (TVD) (ftKB) 9,460.4	Dens Last Mud (lb/gal) 8.35	Rig PATTERSON - UTI, 802
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Operations Summary

Drill 8 3/4" Prod. Curve (100% complete) T/9708', Drill Lat. T/9,943', CTCH, TOO H F/Lateral Assy, Land curve @ 21:00 / 9,708' - 12.5' Above - 14.1' Left.

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

Last Survey @ 9884'

? Inc-89.5°, Azm-346.06°, 15.7' high & 18.9' left to plan #2, Gamma-66°, CBHT-138°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/13/2016 06:00	9/13/2016 18:15	12.2 5	DRILL	DRILLING	DRL	Drill F/9225' T/9570' (345' @ 28 fph), 72% complete. 100% Sldg @ 28 fph MW-8.4 w/ 49 vis, full returns. LITHOLOGY: 9380 -- 60% SH, 30% LS 9390 -- 70% LS, 30% SH 9410 -- 50% SH, 50% LS 9430 -- 60% SH, 40% LS 9450 -- 90% SH, 10% LS 9510 -- 80% SH, 20% LS 9570 -- 70% SH, 30% LS ?SPBY L B1 @ 9,270' MD & 9,235' TVD ?SPBY L C1 @ 9,330' MD & 9,282' TVD
9/13/2016 18:15	9/13/2016 18:45	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Rig Service, get oil samples
9/13/2016 18:45	9/13/2016 21:00	2.25	DRILL	DRILLING	DRL	Drill F/9570' T/9708' (138' @ 61 fph), 100% complete. 100% Sldg @ 61 fph MW-8.4 w/ 49 vis, full returns. Lithology: 9600 -- 90% SH, 10% LS 9690 -- 80% SH, 20% LS ?Land curve @ 21:00 / 9,708' - 12.5' Above - 14.1' Left.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/13/2016 21:00	9/14/2016 00:00	3	DRILL	DRILLING	DRL	Drill F/9708' T/9943' (235' @ 78 fph), 2% complete. 83% Rot @ 85 fph 17% Sldg @ 44 fph MW-8.4 w/ 49 vis, full returns. Lithology: 9750 -- 90% SH, 10% LS 9810 -- 70% SH, 30% LS 9840 -- 70% SH, 30% LS Last Survey @ 9884' ? Inc-89.5°, Azm-346.06°, 15.7' high & 18.9' left to plan #2, Gamma-66°, CBHT-138°F.
9/14/2016 00:00	9/14/2016 01:30	1.5	NON_DRILL	CIRCULATE	CIRC	Perform clean up cycle. Circulate 2 btms up, @ 500 GPM 2160 SPP, 30 RPM, while reciprocating drill string. Full returns throughout circulation.
9/14/2016 01:30	9/14/2016 01:45	0.25	TEST	FLOW CHECK	FLOW_C HK	Flow check to trip tanks, well static. Pump slug.
9/14/2016 01:45	9/14/2016 04:45	3	TRIP	TOOH - ELEVATOR	TOOH_E LEV	TOOH F/Lateral assembly F/9,943' to 250', No hole issues seen, Hole taking proper fill from trip tanks.
9/14/2016 04:45	9/14/2016 05:15	0.5	NON_DRILL	ROTATING HEAD HANDLING	HDL_RO THD	Remove rotate head element & install trip nipple
9/14/2016 05:15	9/14/2016 05:30	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/Patterson Crew, Leam Directional & PNR CM over BHA Handling ? Monitor well, backside static.
9/14/2016 05:30	9/14/2016 06:00	0.5	BHA	BHA HANDLING	HDL_BH A	L/D Flex NMDC, Remove MWD, Drain Motor, Break Bit, L/D Motor, Mousehole Float Sub, Pony NMDC, UBHO Sub & NMDC. Generators Hrs #1-12hrs, #2-14hrs, #3-22hrs

Report #: 13 Daily Operation: 9/14/2016 06:00 - 9/15/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 34	Days on Location (days) 10	End Depth (ftKB) 11,991.0	End Depth (TVD) (ftKB) 9,486.3	Dens Last Mud (lb/gal) 8.45	Rig PATTERSON - UTI, 802	

Operations Summary

P/U BHA, TIH, 6 Axis, Drill 8 1/2" Prod. Lat. to 11,991'

Remarks

No Accidents, Incidents or Spills

NPT for August:

Patterson: Past 24 hr - 0, Total - 11

3rd Party: Past 24 hr - 0, Total - 41.5

?? Last survey @ 11681', Inc-88.1°, Azm-347.15°, 6' High & 1.8' Right to plan #2, Gamma-37°, CBHT-168°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/14/2016 06:00	9/14/2016 06:45	0.75	BHA	PICK UP BHA	PU_BHA	MU UBHO & MU to NMDC, PU & MU RST (w/ float), PU MWD & lock down same, PU & MU 7/8 - 3.3 straight MM, double pin sub & pony NMDC, MU MM65D
9/14/2016 06:45	9/14/2016 07:00	0.25	SURVEY	SURVEY MANAGEMENT	SRVY_M GMT	Test MWD - SPM: 60, SPP: 370,
9/14/2016 07:00	9/14/2016 09:15	2.25	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH w/ RST F/84' T/6180', with no issues, Hole displacing properly to trip tanks, Fill every 30 stds.
9/14/2016 09:15	9/14/2016 11:15	2	SURVEY	SURVEY MANAGEMENT	SRVY_M GMT	Fill pipe, DL RST to neutral & perform svy mgmt F/6180' T/6743' ? Re-logged gammaf/6630' t/6680'
9/14/2016 11:15	9/14/2016 12:30	1.25	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH F/6743' T/9190', Hole displacing properly to trip tanks, Fill every 30 stds. ? Hit tight spot @ 9190'.
9/14/2016 12:30	9/14/2016 13:15	0.75	TRIP	TIH - NON-ELEVATOR	TIH_NON ELEV	Wash & ream f/9190' t/9380', w/30 RPM's, 80 SPM, 4 TQ, 1500 SPP,

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/14/2016 13:15	9/14/2016 13:45	0.5	TRIP	TIH - ELEVATOR	TIH_ELEV	TIH F/9380' t/9926, with no issues Hole displacing properly to trip tanks, Fill every 30 stds.
9/14/2016 13:45	9/14/2016 14:15	0.5	SURVEY	SURVEY MANAGEMENT	SRVY_M GMT	Relog gamma f/9926' t/9943', 500 GPM's,
9/14/2016 14:15	9/14/2016 16:15	2	DRILL	DRILLING	DRL	Drill F/9943' T/10116' (173' @ 87 fph), 100% Rot, 2.4% complete. MW-8.3 w/ 55 vis, full returns. Survey MD — RST DL Info — Azm 9943' — 20' Nuetral — 348.9° 9963' — 660' of Inc 89L — 349.3° Lithology: 9950 -- 60% SH, 40% LS 10010 -- 80% SH, 20% LS
9/14/2016 16:15	9/14/2016 16:45	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Rig Service
9/14/2016 16:45	9/15/2016 06:00	13.2 5	DRILL	DRILLING	DRL	Drill F/10116' T/11991' (1875' @ 142 fph), 100% Rot, 21.5% complete. MW-8.3 w/ 55 vis, full returns. Survey MD — RST DL Info — Azm 10023' — 94' of Inc 88H 10117' — 188' of Inc 88L 10305' — 281' of Inc 90H 10586' — 94' of Inc 89L 10680' — 94' of Inc 89R 10773' — 188' of Inc 88H 10961' — 188' of Inc 90H 11148' — 375' of Inc 88H 11523' -- 94" of Inc 88L Lithology: 10100 -- 90% SH, 10% LS 10160 -- 90% SH, 10% LS 10460 -- 70% SH, 30% LS 10670 -- 90% SH, 10% LS 10790 -- 90% SH, 10% LS 10970 -- 90% SH, 10% LS 11090 -- 50% SH, 40% LS, 10% SD 11210 -- 60% SH, 40% LS 11450 -- 90% SH, 10% LS ?? Last survey @ 11681', Inc-88.1°, Azm-347.15°, 6" High & 1.8" Right to plan #2, Gamma-37°, CBHT-168°F. ?? Generator #2-24hrs #3-24hrs

Report #: 14 Daily Operation: 9/15/2016 06:00 - 9/16/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 35	Days on Location (days) 11	End Depth (ftKB) 12,335.0	End Depth (TVD) (ftKB) 9,477.2	Dens Last Mud (lb/gal) 8.40	Rig PATTERSON - UTI, 802	

Operations Summary

Drill 8 1/2" Prod. Lat. F/11,991' to 12335', CTCH, TOO H F/Lateral Assy, L/D RST BHA, P/U FBH Motor, TIH, slip/cut, 6 axis & rig repair

Remarks

No Accidents, Incidents or Spills

NPT for Septembert:

Patterson: Past 24 hr - 1.25, Total - 1.25

3rd Party: Past 24 hr - 14.75, Total - 14.75

? Survey @ 12243', Inc- 92.4°, Azm-350.37°, 8' High, 28.5' Right.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary						
Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/15/2016 06:00	9/15/2016 09:00	3	DRILL	DRILLING	DRL	Drill F/11991' T/12210' (219' @ 73 fph), 100% Rot, 25% complete. MW-8.4 w/ 50 vis, full returns. ? Survey MD — RST DL Info — Azm 11,991' -- 93' of Inc 90L 12,084' -- 94' of Inc 90LL ? Lithology: 11960 -- 60% SH, 40% LS 12020 -- 90% SH, 10% LS 12170 -- 80% SH, 20% LS 12200 -- 60% SH, 40% LS ?? 2 generators on line.
9/15/2016 09:00	9/15/2016 09:15	0.25	SURVEY	SURVEY	SRVY	Down link off bttm t/ Gravity 90 L due to formation pushing hard right.
9/15/2016 09:15	9/15/2016 12:30	3.25	DRILL	DRILLING	DRL	Drill F/12210' T/12335' (125' @ 38 fph), 100% Rot, 26.3% complete. MW-8.3 w/ 49 vis, full returns. ? Lithology: 12230 -- 70% SH, 30% LS 12290 -- 80% SH, 20% LS ? RST Downlink & Drlg Parameter Info: 12,178' — Grav 90L — 570 GPM—70 RPM—60 ROP -- Right 0.2° 12,178' -- Grav 90L -- 570 GPM - 60 RPM - 50 ROP -- Right 0.2° ? Unable to get turned back in hole direction (4.4° Right of Plan 2). Controlled drilled with multiple parameters in gravity mode with no success. Tried decreasing ROP to 75, Rot 70 with WOB & Diff not limited - No luck. Dropped ROP to 50, Rot 60 w/ no diff & wob limiters w/ no success. Notified drlg supt & eng, decision made to TOO H for conventional assembly w/ agitator. ? Survey @ 12243', Inc- 92.4°, Azm-350.37°, 8' High, 28.5' Right.
9/15/2016 12:30	9/15/2016 14:30	2	NON_DRILL	CIRCULATE	CIRC	Circ 2.5 x BU w/ 2-30 bbl vis sweeps @ GPM-570, SPP-2650, full returns. ?? 1st BU, shakers loaded w/ fine cuttings, minimal cuttings at 2nd.
9/15/2016 14:30	9/15/2016 15:00	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Service Rig. Lubricate Rig, DW, TD & Blocks.
9/15/2016 15:00	9/15/2016 15:15	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	Flow check @ trip tanks, well static. ? PJSM w/ Patt & PNR - TOO H w/ RST
9/15/2016 15:15	9/15/2016 15:45	0.5	TRIP	TOOH - ELEVATOR	TOOH_E LEV	Pull 10 stds wet, Pulling @ 255k, Max seen 265k ? Hole slick & took proper fill from trip tanks
9/15/2016 15:45	9/15/2016 16:00	0.25	TEST	FLOW CHECK	FLOW_C HK	Flow check @ trip tanks, well static, pump slug.
9/15/2016 16:00	9/15/2016 18:30	2.5	TRIP	TIH - ELEVATOR	TIH_ELE V	TOOH F/FBH Mtr. Lateral assy. F/11,393' to 80, No hole issues seen, Hole taking proper fill from trip tanks.
9/15/2016 18:30	9/15/2016 18:45	0.25	NON_DRILL	ROTATING HEAD HANDLING	HDL_RO THD	Pull Rotating Head & Install Trip nipple.
9/15/2016 18:45	9/15/2016 19:00	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt, Leam & PNR - over L/D BHA handling.
9/15/2016 19:00	9/15/2016 20:30	1.5	BHA	LAY DOWN BHA	L/D BHA	Attempt to Drain Motor w/ no success, L/D Motor, Pony NMDC & Bit. Break UBHO Sub & Unlock MWD, L/D MWD, L/D UBHO, RST & NMDC. ?? Bit Graded: 1/1/CT/G/X/0/CT/BHA

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/15/2016 20:30	9/15/2016 20:45	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt, Leam & PNR - over P/U BHA handling.
9/15/2016 20:45	9/15/2016 21:45	1	BHA	PICK UP BHA	PU_BHA	P/U NMDC, UBHO Sub, Pony NMDC, Float Sub & Motor (7:8 5.7 1.83° FBH), Scribe Motor to UBHO Sub, Set Sleeve, Install MWD, Lock Down MWD, M/U Bit (8 1/2" MM65D TFA 1.035), P/U Top NMDC.
9/15/2016 21:45	9/15/2016 22:45	1	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH W/FBH Mtr. Lateral Assy, F/108' to 2100', Hole giving proper closed end displacement to trip tanks, Fill @ 21 stds. then ea. 30.
9/15/2016 22:45	9/15/2016 23:00	0.25	SURVEY	SURVEY MANAGEMENT	SRVY_M GMT	Fill-up & Test MWD @ 2100' - Good.
9/15/2016 23:00	9/16/2016 00:00	1	TRIP	TIH - ELEVATOR	TIH_ELE V	P/U Agitator & Cont TIH W/ FBH Mtr Lateral Assy F/2100' to 6000'. Hole giving proper closed end displacement to trip tanks. Filling every 30 stds.
9/16/2016 00:00	9/16/2016 00:30	0.5	NON_DRILL	ROTATING HEAD HANDLING	HDL_RO THD	Pull trip nipple & install rotate head element
9/16/2016 00:30	9/16/2016 01:30	1	DRILL	SLIP & CUT	SLIP_CU T	Slip N cut 80' drill line, Calibrate DW's
9/16/2016 01:30	9/16/2016 02:00	0.5	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH W/FBH Mtr. Lateral Assy, F/6000' to 6247', Hole giving proper closed end displacement to trip tanks,
9/16/2016 02:00	9/16/2016 03:00	1	SURVEY	SURVEY MANAGEMENT	SRVY_M GMT	Perform 6 Axis managment surveys f/6224' t/6786', 600 GPM 2000 SPP
9/16/2016 03:00	9/16/2016 04:00	1	TRIP	TIH - ELEVATOR	TIH_ELE V	TIH W/FBH Mtr. Lateral Assy, F/6247' to 7349', Hole giving proper closed end displacement to trip tanks,
9/16/2016 04:00	9/16/2016 05:15	1.25	NPT	RIG REPAIR	RIG_RPR	Drill line is not spooling as designed after Slip N Cut it is spooling over designed grooves and tripping crown o matic. Unspooled drill line, respooled and jumped grooves again. Slip N Cut 80' drill line and respool.
9/16/2016 05:15	9/16/2016 06:00	0.75	TRIP	TIH - ELEVATOR	TIH_ELE V	Cont TIH F/ 7349' to 8538'. Hole giving proper closed end displacement to trip tanks.

Report #: 15 Daily Operation: 9/16/2016 06:00 - 9/17/2016 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 039099
Days From Spud (days) 36	Days on Location (days) 12	End Depth (ftKB) 14,844.0
End Depth (TVD) (ftKB) 9,498.2	Dens Last Mud (lb/gal) 8.30	Rig PATTERSON - UTI, 802

Operations Summary

TIH, log gamma, Drill 8 1/2" Prod Lat f/ 12,335' to 14,844'

Remarks

No Accidents, Incidents or Spills

NPT for Septembert:

Patterson: Past 24 hr - 0, Total - 1.25

3rd Party: Past 24 hr - 0, Total - 17.75

?? Last survey @ 14592', Inc-87.6°, Azm-344°, 11' High & 6' Right to plan #2, Gamma-116°, CBHT-175°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/16/2016 06:00	9/16/2016 08:15	2.25	TRIP	TIH - ELEVATOR	TIH_ELE V	Cont TIH F/ 8538' to 12,283'. Hole giving proper closed end displacement to trip tanks. No issues seen tripping thru curve. ? 2 Generators on line.
9/16/2016 08:15	9/16/2016 09:00	0.75	SURVEY	LWD	LWD	Relog f/ 12,283' to 12,335' @ 150 fph w/ 485 GPM, 50 ROT, 2338 SPP. Full returns.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/16/2016 09:00	9/16/2016 16:30	7.5	DRILL	DRILLING	DRL	Drill F/12335' T/13157' (822' @ 110 fph), 72% Rot, 36% complete. 72% Rot @ 149 fph 28% Sldg @ 54 fph MW-8.35 w/ 50 vis, full returns. ? SPR's @ 12,407' & 13,155'. ?? Lithology: 12350 -- 80% SH, 20% LS 12530 -- 90% SH, 10% LS 12710 -- 100% SH 12800 -- 100% SH 12980 -- 90% SH, 10% LS
9/16/2016 16:30	9/16/2016 17:00	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Service Rig
9/16/2016 17:00	9/17/2016 06:00	13	DRILL	DRILLING	DRL	Drill F/13157' T/14844' (1687' @ 130 fph), 75% Rot, 51.3% complete. 75% Rot @ 157 fph 25% Sldg @ 48 fph MW-8.35 w/ 50 vis, full returns ? SPR's @ 13,816' & 14,563' ?? Lithology: 13280 -- 90% SH, 10% LS 13460 -- 80% SH, 20% LS 13730 -- 90% SH, 10% LS 13940 -- 80% SH, 20% LS 14300 -- 80% SH, 20% LS 14570 -- 90% SH, 10% LS ??? Generators: #1 - 12 hrs / #2 - 24 hrs / #3 - 24 hrs

Report #: 16 Daily Operation: 9/17/2016 06:00 - 9/18/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 37	Days on Location (days) 13	End Depth (ftKB) 17,291.0	End Depth (TVD) (ftKB) 9,525.2	Dens Last Mud (lb/gal) 8.36	Rig PATTERSON - UTI, 802	

Operations Summary

Drill 8 1/2" Prod Lat f/ 14,844' TO 17,291'

Remarks

No Accidents, Incidents or Spills

NPT for Septembert:

Patterson: Past 24 hr - 0, Total - 1.25

3rd Party: Past 24 hr - 0, Total - 17.75

?? Last survey @ 17029', Inc-86.9°, Azm-343°, 2' High & 4' Right to plan #2, Gamma-121°, CBHT-183°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/17/2016 06:00	9/17/2016 18:00	12	DRILL	DRILLING	DRL	Drill F/14844' T/16250' (1406' @ 117 fph), 77% Rot, 65.6% complete. 78% Rot @ 147 fph 22% Sldg @ 34 fph MW-8.45 w/ 51 vis, full returns. ? SPR's @ 15,035' & 15,875' ?? Lithology: 14930 -- 80% SH, 20% LS 15110 -- 90% SH, 10% LS ??? 3 generators on line.
9/17/2016 18:00	9/17/2016 18:30	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Service rig

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/17/2016 18:30	9/18/2016 06:00	11.5	DRILL	DRILLING	DRL	Drill F/16250' T/17291' (1041' @ 91 fph), 87% Rot, 87% complete. 87% Rot @ 127 fph 13% Sldg @ 28 fph MW-8.4 w/ 53 vis, full returns. ? SPR's @ 16906' Lithology: 16130 -- 90% SH, 10% LS 16340 -- 90% SH, 10% LS 16580 -- 80% SH, 20% LS 16730 -- 80% SH, 20% LS 16940 -- 80% SH, 20% LS 17030 -- 90% SH, 10% LS ??? 3 generators on line

Report #: 17 Daily Operation: 9/18/2016 06:00 - 9/19/2016 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 039099
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Days From Spud (days) 38	Days on Location (days) 14	End Depth (ftKB) 19,342.0	End Depth (TVD) (ftKB) 9,535.9	Dens Last Mud (lb/gal) 8.30	Rig PATTERSON - UTI, 802
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Operations Summary

Drill 8 1/2" Prod Lat f/ 17,291' to 19,342'

Remarks

No Accidents, Incidents or Spills

NPT for Septembert:

Patterson: Past 24 hr - 0, Total - 1.25

3rd Party: Past 24 hr - 0, Total - 17.75

?? Last survey @ 19089', Inc-87.4°, Azm-346°, 1.8' Low & 19' Right to plan #2, Gamma-125°, CBHT-190°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/18/2016 06:00	9/18/2016 16:15	10.2 5	DRILL	DRILLING	DRL	Drill F/17291' T/18218' (927' @ 90 fph), 66% Rot, 85.3% complete. 66% Rot @ 126 fph 34% Sldg @ 31 fph MW-8.45 w/ 51 vis, full returns. ? SPR's @ 17,750' & 18,217' ?? Tq (22/25) - limiting factor for MSE. ??? Lithology: 17330 -- 90% SH, 10% LS ???? 3 Generators on line.
9/18/2016 16:15	9/18/2016 16:45	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Service Rig.
9/18/2016 16:45	9/19/2016 06:00	13.2 5	DRILL	DRILLING	DRL	Drill F/18218' T/19342' (1124' @ 88 fph), 66% Rot, 96.3% complete. 66% Rot @ 110 fph 34% Sldg @ 36 fph MW-8.45 w/ 51 vis, full returns. ? SPR's @ 18780' ?? Tq (22/25) - limiting factor for MSE. ??? Lithology: 18200 -- 90% SH, 10% LS 18440 -- 90% SH, 10% LS 18740 -- 80% SH, 20% LS 18980 -- 90% SH, 10% L ???? 3 Generators on line.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Report #: 18 Daily Operation: 9/19/2016 06:00 - 9/20/2016 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 039099
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Days From Spud (days) 39	Days on Location (days) 15	End Depth (ftKB) 19,715.0	End Depth (TVD) (ftKB) 9,539.1	Dens Last Mud (lb/gal) 8.35	Rig PATTERSON - UTI, 802
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Operations Summary
Drill 8 1/2" Prod Lat f/ 19,342' to 19,715' (TD), K&M cycles, TOOH

Remarks
No Accidents, Incidents or Spills

NPT for Septembert:
Patterson: Past 24 hr - 0, Total - 1.25
3rd Party: Past 24 hr - 0, Total - 17.75

?? Last survey @ 19651', Inc-89.9°, Azm-342.2°, 11.4' Low & 3.4' Left to plan #2, Gamma-126°, CBHT-190°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/19/2016 06:00	9/19/2016 09:45	3.75	DRILL	DRILLING	DRL	Drill F/19342' T/19715' TD (373' @ 99 fph), 100% Rot, 100% complete. MW-8.45 w/ 51 vis, full returns. ? Lithology: 19340 -- 90% SH, 10% LS ?? Last/Final survey @ 19651', Inc-89.9°, Azm-342.2°, 11.4' Low & 3.4' Left to plan #2, Gamma-126°, CBHT-190°F. ?? TD'ed Production Lateral on 9/19/16 @ 09: 45 hrs ??? 3 Generators on line.
9/19/2016 09:45	9/19/2016 21:45	12	NON_DRILL	CIRCULATE	CIRC	Perform K&M clean up cycle w/ 9 BU's (9400 strokes/BU = 84,600 strokes) w/ 586 GPM, 3550 spp, 90 rpm, reciprocate @ 75'/min. Pump 2 30 bbl hi-vis sweeps w/ super sweep added for marker. ? 1st BU - Shakers loaded up ? 2nd BU - Shakers loaded up ? 3rd BU - Saw slight decrease at shakers ? 4th BU - Fine to small size cuttings at shakers ? Continue to see reducing waves of small Coffee grain size cuttings throughout remianing BU's (5-9). ? Continue to see reduction of TRQ 11k first BU down to 4k 9th BU ?? While Circulating ?? ? Stage float equipment on rig floor ? Check dies in st-80 & collar clamps, slips ? RU mud bucket ? Fill trip tanks ? Ensure TOOH/ LD BHA checklists is completed
9/19/2016 21:45	9/19/2016 22:15	0.5	RIG	RIG SERVICE PLANNED	RIG_SVC	Service Rig. Lubricate Rig, DW, TD & Blocks.
9/19/2016 22:15	9/19/2016 22:30	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	Flow check @ trip tanks, well static. ? PJSM w/ Patt & PNR - TOOH w/ FBH MTR
9/19/2016 22:30	9/19/2016 23:00	0.5	TRIP	TOOH - ELEVATOR	TOOH_E LEV	Pull 10 stds wet, Pulling @ 285k, Max seen 305k ? Hole slick & took proper fill from trip tanks
9/19/2016 23:00	9/20/2016 04:15	5.25	TRIP	TIH - ELEVATOR	TIH_ELE V	TOOH F/prod CSG. F/18,770' to 2300', No hole issues seen, Hole taking proper fill from trip tanks.
9/20/2016 04:15	9/20/2016 04:45	0.5	NON_DRILL	ROTATING HEAD HANDLING	HDL_RO THD	Remove rotating head and install trip nipple
9/20/2016 04:45	9/20/2016 06:00	1.25	TRIP	TOOH - ELEVATOR	TOOH_E LEV	TOOH F/prod CSG. F/2,300' to BHA', L/D agitator @ 2100', No hole issues seen, Hole taking proper fill from trip tanks. ? 2 Generators on line.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Report #: 19 Daily Operation: 9/20/2016 06:00 - 9/21/2016 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 039099
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Days From Spud (days) 40	Days on Location (days) 16	End Depth (ftKB) 19,715.0	End Depth (TVD) (ftKB) 9,539.1	Dens Last Mud (lb/gal) 8.35	Rig PATTERSON - UTI, 802
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Operations Summary
TOOH, LD BHA, PNR Safety Chk, RU & RIH w/ 5.5" Prod Csg to 15,000'

Remarks
No Accidents, Incidents or Spills

NPT for Septembert:
Patterson: Past 24 hr - 0, Total - 1.25
3rd Party: Past 24 hr - 0, Total - 17.75

?? Last survey @ 19651', Inc-89.9°, Azm-342.2°, 11.4' Low & 3.4' Left to plan #2, Gamma-126°, CBHT-190°F.

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/20/2016 06:00	9/20/2016 06:15	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt, Leam & PNR - BHA handling. ? 2 generators on line.
9/20/2016 06:15	9/20/2016 07:15	1	BHA	LAY DOWN BHA	L/D BHA	LD BHA - Drain MM & LD same, break bit, LD MWD, RST & directional equip. ? Bit Graded: 1/2/CT/G/X/0/WT/TD
9/20/2016 07:15	9/20/2016 07:30	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt & PNR - Wear bushing.
9/20/2016 07:30	9/20/2016 08:00	0.5	NON_DRILL	WEARBUSHING	WRBSH	Retrieve wear bushing. ? Pioneer rep witness retrieval of wear bushing. ?? Function Test BOP
9/20/2016 08:00	9/20/2016 08:15	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt, Pipe Pro's, Weatherford, Frontier, Superior & PNR - RU & running 5.5" csg
9/20/2016 08:15	9/20/2016 08:45	0.5	CASING	RIG UP CASING	RU_CSG	RU casing tools, CRT & torque turn equipment. Perform safety inspection on tools.
9/20/2016 08:45	9/20/2016 09:30	0.75	SAFETY	UNPLANNED SAFETY EVENT	SFTY_NPT	PNR Security w/ dogs on location doing location search - Good.
9/20/2016 09:30	9/20/2016 10:15	0.75	CASING	M/U SHOE TRACK	MU_SHO E_TRK	PU & MU 2 jt shoe track & test floats - Good ? Single valve down jet float shoe ? 2 jts of csg ? Float collar w/latch-in plate ? Single csg jt ? Time delayed toe sleeve - WFD (10' pup each end) ? Single csg jt Thread lock all connections up to bottom of toe sleeve. ? Note: All csg components are 5-1/2" 20# P-110IC TXP-BTC ? Optimum MU Tq = 12,520 ft/lbs, monitored w/ tq turn ?Toe Sleeve Info: (SFC PSI to Activate Sleeve) Burst Disk Rating 12,552 psi Min - 8,122 psi Nom - 8,372 psi Max - 8,622 psi Time Delay - 15 min
9/20/2016 10:15	9/20/2016 23:45	13.5	CASING	RUN CSG W/O ROTATION	CSG_W/ O_ROTATION	Run 5.5" prod'n csg 191' to 9800' Fill & break circ. every 30/40 jts. Hole displacing properly ? Avg ID of 10 jts - 4.84375" ? OD of csg collars - 6.09375" ? ID of csg elevators - 5.625" ?? L/D jt 50 (bad box) & 51 (bad pin). Adjusted talley & marker jts.
9/20/2016 23:45	9/21/2016 01:00	1.25	NON_DRILL	CIRCULATE	CIRC	Circulate B/U w/350 GPM's, 392 psi, max gas seen 150 units

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/21/2016 01:00	9/21/2016 06:00	5	CASING	RUN CSG W/O ROTATION	CSG_W/O_ROTATION	Run 5.5" prod'n csg f/9,800' t/15,000' Fill & break circ. every 30/40 jts. Hole displacing properly ? @ 13,400' filled up and change out elevators due to broken latch

Report #: 20 Daily Operation: 9/21/2016 06:00 - 9/22/2016 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 039099
Days From Spud (days) 41	Days on Location (days) 17	End Depth (ftKB) 19,715.0	End Depth (TVD) (ftKB) 9,539.1	Dens Last Mud (lb/gal) 8.35	Rig PATTERSON - UTI, 802	

Operations Summary

RIH w/ 5.5" Csg, Land Csg, Cir, Cmt, Pack, ND, Walk to 45H, Install & Test Abandonment Cap, Release Rig.

Remarks

No Accidents, Incidents or Spills

NPT for September:

Patterson: Past 24 hr - 0, Total - 1.25

3rd Party: Past 24 hr - 0, Total - 17.75

? Last survey @ 19651', Inc-89.9°, Azm-342.2°, 11.4' Low & 3.4' Left to plan #2, Gamma-126°, CBHT-190°F. Production Lateral 100% Complete

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/21/2016 06:00	9/21/2016 12:30	6.5	CASING	RUN CSG W/O ROTATION	CSG_W/O_ROTATION	Run 5.5" prod'n csg f/15,000' to 19,383' Fill & break circ. every 30/40 jts. Hole displacing properly ? Note: All csg components are 5-1/2" 20# P-110IC TXP-BTC ? Optimum MU Tq = 12,520 ft/lbs, monitored w/ tq turn ? 2 generators on line.
9/21/2016 12:30	9/21/2016 16:30	4	CASING	RUN CSG WITH ROTATION	CSG_W/ROTATION	Wash & ream f/ 19,383' to 19,680', w/ 8 bpm, 15 rpm, 17k Tq, 796 spp. Full returns. ? @ 19,383', taking weight & unable to get jt down.
9/21/2016 16:30	9/21/2016 17:30	1	CASING	RUN CSG WITH ROTATION	CSG_W/ROTATION	PU hanger & landing jt. Land csg in wellhead - PNR & Cactus reps on floor. ? Csg Jewelry Depths (Top MD): ? Marker 1 8,596.9' ? Marker 2 8,833.3' ? Marker 3 14,784' ? Toe Sleeve 19,571.1' ? Float Collar 19,626.7' ? Float Shoe 19,710.3' ?? Ran 38 Rigid Body Centralizers
9/21/2016 17:30	9/21/2016 19:45	2.25	NON_DRILL	CIRCULATE	CIRC	Circ w/ CRT @ 80 SPM & 715 SPP while RD csg tools & RU Cmt iron. ? Held PJSM while circulating w/Patt, Frontier, Pipe Pros, & PNR - RD csg tools. ?PJSM W/Patterson Crew, RM, PNR Rep., SLB & Miller & Assoc. Mud Eng'r. On cementing production casing.
9/21/2016 19:45	9/21/2016 20:15	0.5	CEMENT	RIG UP CEMENT	RU_CMT	R/D CRT, R/U Cement Head
9/21/2016 20:15	9/21/2016 23:45	3.5	CEMENT	CEMENTING	CMT	Flush lines with 50 bbls Test lines to 5,000 psi. 50 bbl, 9.5 ppg hi-vis water spacer. 156 bbl lead, (354 sx, 11.5 ppg, 2.47 ft3/sk) 478 bbl tail, (1715 sx, 13.2 ppg, 1.57 ft3/sk) Dropped top plug & displaced w/ 436 bbls of FW Bumped plug w/1,450 psi, held 3,400 psi, bled back 5 bbl. Est calc TOC 5400' (w/5% OH excess) ? Full returns see cement details.
9/21/2016 23:45	9/22/2016 00:15	0.5	CEMENT	RIG DOWN CEMENT	RD_CMT	PJSM & R/D SLB cmt head & iron from floor.
9/22/2016 00:15	9/22/2016 00:30	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/Cactus, on removing l/d jt. & wash well head & set pack off

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
9/22/2016 00:30	9/22/2016 02:30	2	NON_DRILL	WELLHEAD	WH	Drain stack, remove landing jt, P/U wash tool & wash top of well head. Install pack off & test (5,000 psi/15 min), Pull test 40k, Pull setting tool. ? PNR Rep. witness operation ? Confined Space Permit in Place
9/22/2016 02:30	9/22/2016 04:00	1.5	BOPE	NIPPLE DOWN N/D	ND_BOP E	Flush through all mud lines & BOP stack, Drain Stack & blow down lines. Back out set screws from well head. R/D flow line, lift BOP & prep to skid to 45H. ? PJSM w/Cactus on N/D BOP's
9/22/2016 04:00	9/22/2016 04:15	0.25	SAFETY	PLANNED SAFETY EVENT	SFTY	PJSM w/ Patt, PNR & Driltek - Walking rig to University 7-43 45H ? Assigning roles & responsibilities to all personnel
9/22/2016 04:15	9/22/2016 06:00	1.75	RIG	SKID BETWEEN WELLS	SKID	Walk rig F/46H to 45H ? Staging matting boards ? Removing HPU extention skids ? Installed Wellhead and Abandonment Cap ? Test abandonment cap 500 psi/30 min after walked to 45H ? RR @ 06:00 hrs

Report #: 1 Daily Operation: 10/13/2016 13:00 - 10/14/2016 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 039090
Days From Spud (days) 63	Days on Location (days) 1	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	

Operations Summary
filled cellars, installed surface and intermediate valves, installed and tested tbg heads

Remarks

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/13/2016 13:00	10/13/2016 16:00	3	NONOPS	NON ACTIVE DUE TO PAD OPERATIONS	PAD	waiting on 45H ops.
10/13/2016 16:00	10/13/2016 19:00	3	SETUP	WELLHEAD/CELLAR	WH/CELL AR	Plumbing in surface valve, intermediate valve and installing tbg heads. Cellars were filled with dirt and topped off with pea gravel once valves were tested and found to be good.
10/13/2016 19:00	10/14/2016 06:00	11	NONOPS	WELL SHUT IN	SHUT_IN	waiting to run CBL in morning

Report #: 2 Daily Operation: 10/14/2016 06:00 - 10/15/2016 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 039090
Days From Spud (days) 64	Days on Location (days) 2	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig CDK PERFORATING (NINE ENERGY), <rigno>	

Operations Summary
CBL, installing Frac Stacks and spotting pump down tanks, RU Pump down

Remarks

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/14/2016 06:00	10/14/2016 07:00	1	NONOPS	NON ACTIVE DUE TO PAD OPERATIONS	PAD	waiting on pad ops
10/14/2016 07:00	10/14/2016 08:00	1	WIRELINE	GAUGE RING/JUNK BASKET	WL_GR/J B	Junk basket run
10/14/2016 08:00	10/14/2016 11:24	3.4	NONOPS	NON ACTIVE DUE TO PAD OPERATIONS	PAD	waiting on pad ops
10/14/2016 11:24	10/14/2016 14:30	3.11	WIRELINE	CBL	WL_CBL	CBL
10/14/2016 14:30	10/14/2016 17:00	2.5	NONOPS	NON ACTIVE DUE TO PAD OPERATIONS	PAD	waiting on pad ops
10/14/2016 17:00	10/14/2016 19:00	2	SETUP	FRAC STACK	FRAC_S TAC	Rigging up and testing frac stack
10/14/2016 19:00	10/14/2016 22:00	3	NONOPS	NON ACTIVE DUE TO PAD OPERATIONS	PAD	waiting on pad ops

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/14/2016 22:00	10/15/2016 01:00	3	SETUP	RIG UP OR RIG DOWN	RURD	MIRU PPS Pump down
10/15/2016 01:00	10/15/2016 06:00	5	NONOPS	WELL SHUT IN	SHUT_IN	Waiting on Cameron to deliver 4"1002 to 3" 1502 X overs

Report #: 3 Daily Operation: 10/15/2016 06:00 - 10/16/2016 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 039090
Days From Spud (days) 65	Days on Location (days) 3	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	

Operations Summary

Rigging up flow back iron and water transfer

Remarks

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/15/2016 06:00	10/16/2016 01:00	19	SETUP	RIG UP OR RIG DOWN	RURD	Rigging up location for Toe prep; Flow back iron, water transfer, pump down, well head stands, and containments are being finished.
10/16/2016 01:00	10/16/2016 06:00	5	NONOPS	WELL SHUT IN	SHUT_IN	Starting Toe prep in the morning

Report #: 4 Daily Operation: 10/16/2016 06:00 - 10/17/2016 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 039090
Days From Spud (days) 66	Days on Location (days) 4	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig PIONEER PUMPING SERVICES, <rigno>	

Operations Summary

Open Toe Sleeve

Remarks

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/16/2016 06:00	10/16/2016 08:00	2	NONOPS	WELL SHUT IN	SHUT_IN	WSI
10/16/2016 08:00	10/16/2016 08:15	0.25	TEST	PRIME	TEST_P RIME	Prime up pumps
10/16/2016 08:15	10/16/2016 08:55	0.67	TEST	SURFACE LINES/PUMP	TEST_LI NE	Tested pumpdown lines and flow back iron and manifold, Found leaks in the flow back iron that we had to fix.
10/16/2016 08:55	10/16/2016 09:40	0.75	TEST	WELLHEAD	TEST_W H	Tested frac stacks and set pop off to 9600 once the well heads were tested.
10/16/2016 09:40	10/16/2016 17:40	8	NONOPS	NON ACTIVE DUE TO PAD OPERATIONS	PAD	Wait on pad ops
10/16/2016 17:40	10/16/2016 19:15	1.58 3	PUMP DOWN	OPEN SLEEVE	PD_SLE EVE	Pressure up CSG to 8,110 psi & held for 10 minutes, walked psi up to 9,601 psi & shut down, sleeve opened in 11 minutes pressure dropped to 3,716 psi. EIR of 5 BPM @ 5,303 psi, & pumped 1,000 gallons of 15% HCL, flushed Acid with 485 bbls of fresh water & shut down. Ending Rate 15 bpm @ 5,237 PSI.
10/16/2016 19:15	10/17/2016 06:00	10.7 5	NONOPS	WELL SHUT IN	SHUT_IN	WSI

Report #: 5 Daily Operation: 10/17/2016 06:00 - 10/18/2016 06:00

Job Category ORIG COMPLETION			Primary Job Type OCM			AFE Number 039090
Days From Spud (days) 67	Days on Location (days) 5	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig CDK PERFORATING (NINE ENERGY), <rigno>	

Operations Summary

Plug and Perf for Stage 1 / Log

Remarks

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/17/2016 06:00	10/17/2016 08:45	2.75	SETUP	RIG UP OR RIG DOWN	RURD	Wire line and pressure control are rigging up equipment to get ready to plug/perf/and log the wells for the 1st stage of the frac job.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/17/2016 08:45	10/17/2016 12:30	3.75	NONOPS	NON ACTIVE DUE TO PAD OPERATIONS	PAD	Waiting on pad operations before running in the hole to plug/perf/and log
10/17/2016 12:30	10/17/2016 13:15	0.75	WIRELINE	RIG UP LUBRICATOR	WL_LUB_RU	Test lubricator to 8800 psi prior to running in the hole to plug and perf
10/17/2016 13:15	10/17/2016 14:33	1.3	WIRELINE	RUN DOWN	WL_RUN DN	
10/17/2016 14:33	10/17/2016 14:36	0.05	WIRELINE	PLUG/PERF	WL_PERF	Set plug at 19551
10/17/2016 14:36	10/17/2016 15:33	0.95	WIRELINE	MISC LOG	WL_LOG	logging the well on the way out after the first plug of the frac was set
10/17/2016 15:33	10/17/2016 15:40	0.12	WIRELINE	RIG DOWN LUBRICATOR	WL_LUB_RD	
10/17/2016 15:40	10/18/2016 06:00	14.3 3	NONOPS	WELL SHUT IN	SHUT_IN	all valves on the well have been shut in and the well is sitting idle waiting for the frac crew to move in and rig up

Report #: 6 Daily Operation: 10/18/2016 06:00 - 10/19/2016 06:00

Job Category ORIG COMPLETION	Primary Job Type OCM	AFE Number 039090
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Days From Spud (days) 68	Days on Location (days) 6	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig PIONEER PUMPING SERVICES, <rigno>
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Operations Summary

MIRU Frac Equipment

Remarks

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/18/2016 06:00	10/19/2016 06:00	24	SETUP	RIG UP OR RIG DOWN	RURD	MIRU Frac Equipment

Report #: 7 Daily Operation: 10/19/2016 06:00 - 10/20/2016 06:00

Job Category ORIG COMPLETION	Primary Job Type OCM	AFE Number 039090
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Days From Spud (days) 69	Days on Location (days) 7	End Depth (ftKB) 0.0	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig PIONEER PUMPING SERVICES, <rigno>
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Operations Summary

MIRU Frac Equipment

FRAC STG 1

Remarks

Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
10/19/2016 06:00	10/19/2016 17:00	11	SETUP	RIG UP OR RIG DOWN	RURD	MIRU Frac Equipment
10/19/2016 17:00	10/19/2016 23:30	6.5	TEST	PRIME	TEST_P RIME	CONTINUE TO RU PRIME PUMPS
10/19/2016 23:30	10/20/2016 00:00	0.5	TEST	SURFACE LINES/PUMP	TEST_LI NE	TEST LINES
10/20/2016 00:00	10/20/2016 00:46	0.77	NONOPS	NON ACTIVE DUE TO SAFETY EVENT	SAFETY	PRE FRAC SAFETY MEETING
10/20/2016 00:46	10/20/2016 03:53	3.12	FRAC	FRAC / STIM	STIM	FRAC STG 1
10/20/2016 03:53	10/20/2016 04:30	0.62	WIRELINE	RIG UP LUBRICATOR	WL_LUB_RU	RU LUBE
10/20/2016 04:30	10/20/2016 06:00	1.5	WIRELINE	RUN DOWN	WL_RUN DN	RIH

WELL DETAILS

Well Name UNIVERSITY 7-43 46H	API/UWI 42-003-47354-0000	Operator PIONEER NATURAL RESRC USA, INC
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Wellbore Hole Size

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date	End Date
CONDUCTOR	30	29.0	129.0	7/20/2016	7/21/2016

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Wellbore Hole Size						
Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date	End Date	
SURFACE	17 1/2	129.0	2,060.0	8/11/2016	8/12/2016	
INTERMEDIATE	12 1/4	2,060.0	6,020.0	8/21/2016	8/23/2016	
PRODUCTION	8 3/4	6,020.0	9,943.0	9/11/2016	9/14/2016	
PRODUCTION 2	8 1/2	9,943.0	19,715.0	9/14/2016	9/19/2016	

Conductor Casing									
Run Date	Set Depth (ftKB)			Centralizers					
	100.0								
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
CONDUCTOR	20	19.25	94.00	L-80	100.00	1	0.0	100.0	
Run Date	Set Depth (ftKB)			Centralizers					
7/21/2016	129.0								
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
CONDUCTOR	20	19.124	94.00	J-55	100.00	2	29.0	129.0	

Surface Casing									
Set Depth (ftKB)	Run Date			Centralizers					
2,042.0	8/13/2016			13					
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
CASING JOINTS	13 3/8	12.615	54.50	J-55	0.00	0	29.1	29.1	
LANDING JOINT	13 3/8	12.615		J-55	0.00	0	29.1	29.1	
CASING HANGER	13 3/8	12.615		J-55	1.25	1	29.1	30.3	
CASING JOINTS	13 3/8	12.615	54.50	J-55	1,964.21	47	30.3	1,994.5	
FLOAT COLLAR	13 3/8	12.615		J-55	1.28	1	1,994.5	1,995.8	
CASING JOINTS	13 3/8	12.615	54.50	J-55	44.56	1	1,995.8	2,040.4	
FLOAT SHOE	13 3/8	12.615		J-55	1.64	1	2,040.4	2,042.0	
Set Depth (ftKB)	Run Date			Centralizers					
2,053.0	8/9/2016			13					
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
CASING JOINTS	13 3/8	12.615	54.50	J-55	2,053.00	51	0.0	2,053.0	

Surface Casing Cement							
Type	String	Cementing Start Date	Cementing End Date	Cementing Company		Top (ftKB)	Btm (ftKB)
Casing	SURFACE, 2,042.0ftKB	8/13/2016	8/13/2016	SCHLUMBERGER		29.0	2,042.0
Class	Spacer	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
		0	0.00				
Class	Class C	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
		1,325	1.64	13.00			
Class	Class C	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
		374	1.68	13.60			
Class	Displace	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
		0	0.00	8.34			

Intermediate Casing									
Set Depth (ftKB)	Run Date			Centralizers					
6,000.0	8/9/2016			31					
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
CASING JOINTS	9 5/8	8.835	40.00	L-80 IC	6,000.00	150	0.0	6,000.0	
Set Depth (ftKB)	Run Date			Centralizers					
6,006.0	8/23/2016			31					
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
CASING JOINTS	9 5/8	8.835	40.00	L-80 IC	0.00	0	-4.0	-4.0	
LANDING JOINT - INTERMEDIATE	9 5/8	8.835			35.00	1	-4.0	31.0	
CASING HANGER - INTERMEDIATE	9 5/8	8.835			4.00	1	31.0	35.0	
CASING JOINTS	9 5/8	8.835	40.00	L-80 IC	4,638.94	100	35.0	4,674.0	
DV TOOL	9 5/8	8.835	40.00	L-80 IC	10.79	1	4,674.0	4,684.8	
EXTERNAL CASING PACKER	9 5/8	8.835			17.00	1	4,684.8	4,701.8	
CASING JOINTS	9 5/8	8.835	40.00	L-80 IC	1,208.28	26	4,701.8	5,910.0	
FLOAT COLLAR	9 5/8	8.835	40.00	L-80	1.30	1	5,910.0	5,911.3	
CASING JOINTS	9 5/8	8.835	40.00	L-80 IC	93.17	2	5,911.3	6,004.5	
FLOAT SHOE	9 5/8	8.835	40.00	L-80	1.50	1	6,004.5	6,006.0	

Intermediate Casing Cement							
Type	String	Cementing Start Date	Cementing End Date	Cementing Company		Top (ftKB)	Btm (ftKB)
Casing	INTERMEDIATE, 6,006.0ftKB	8/24/2016	8/24/2016	SCHLUMBERGER		1,202.0	6,020.0

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Class Mud	Amount (sacks) 0	Yield (ft ³ /sack)	Density (lb/gal)
Class CLASS C	Amount (sacks) 886	Yield (ft ³ /sack) 2.56	Density (lb/gal) 11.50
Class CLASS C	Amount (sacks) 262	Yield (ft ³ /sack) 1.33	Density (lb/gal) 14.80
Class Water	Amount (sacks) 0	Yield (ft ³ /sack)	Density (lb/gal) 8.30

Production Casing

Set Depth (ftKB) 19,668.0	Run Date 8/9/2016	Centralizers
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Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	19,668.00	492	0.0	19,668.0

Set Depth (ftKB) 19,713.0	Run Date 9/20/2016	Centralizers 38
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Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
MARKER JOINT	5 1/2	4.778	20.00	P-110 IC TXP	0.00	0	32.6	32.6
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	0.00	0	32.6	32.6
LANDING JOINT - PRODUCTION	5 1/2	4.766			0.00	0	32.6	32.6
CASING HANGER - PRODUCTION	5 1/2	4.766			2.13	1	32.6	34.7
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	87.87	2	34.7	122.6
MARKER JOINT	5 1/2	4.778	20.00	P-110	19.85	1	122.6	142.4
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	265.87	6	142.4	408.3
MARKER JOINT	5 1/2	4.778	20.00	P-110 IC TXP	10.03	1	408.3	418.3
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	8,178.51	193	418.3	8,596.8
MARKER JOINT	5 1/2	4.778	20.00	P-110 IC TXP	19.86	1	8,596.8	8,616.7
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	216.63	5	8,616.7	8,833.3
MARKER JOINT	5 1/2	4.778	20.00	P-110 IC TXP	19.85	1	8,833.3	8,853.2
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	5,930.83	147	8,853.2	14,784.0
MARKER JOINT	5 1/2	4.778	20.00	P-110 IC TXP	19.86	1	14,784.0	14,803.9
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	4,757.33	119	14,803.9	19,561.2
PUP JOINT	5 1/2	4.778	20.00	P-110 IC TXP	9.88	1	19,561.2	19,571.1
TOE SLEEVE - WTF	5 1/2	3.75	26.00	P-110	5.60	1	19,571.1	19,576.7
PUP JOINT	5 1/2	4.778	20.00	P-110 IC TXP	9.92	1	19,576.7	19,586.6
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	40.10	1	19,586.6	19,626.7
FLOAT COLLAR	5 1/2	4.778	20.00	P-110 IC TXP	1.85	1	19,626.7	19,628.6
CASING JOINTS	5 1/2	4.766	20.00	P-110 IC	81.70	2	19,628.6	19,710.3
FLOAT SHOE	5 1/2	4.778	20.00	P-110 IC TXP	2.75	1	19,710.3	19,713.0

Production Casing Cement

Type Casing	String PRODUCTION, 19,713.0ftKB	Cementing Start Date 9/21/2016	Cementing End Date 9/21/2016	Cementing Company SCHLUMBERGER	Top (ftKB) 5,250.0	Btm (ftKB) 19,713.0
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Class MUDPUSH	Amount (sacks) 0	Yield (ft ³ /sack)	Density (lb/gal) 9.50
Class CLASS H	Amount (sacks) 354	Yield (ft ³ /sack) 2.47	Density (lb/gal) 11.50
Class CLASS H	Amount (sacks) 1,715	Yield (ft ³ /sack) 1.57	Density (lb/gal) 13.20
Class DISPLACEMENT	Amount (sacks) 0	Yield (ft ³ /sack)	Density (lb/gal) 8.33

Cement Squeeze

Description	Type	String	Cementing Start Date	Cementing End Date	Top (ftKB)	Btm (ftKB)
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Amount (sacks)	Yield (ft ³ /sack)	Dens (lb/gal)
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Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Perforations						
Top (ftKB)	Btm (ftKB)	Linked Zone	Shot Dens (shots/ft)	Entered Shot Total	Com	
19,329.0	19,331.0		4.0			
19,369.0	19,371.0		4.0			
19,409.0	19,411.0		4.0			
19,449.0	19,451.0		4.0			
19,489.0	19,491.0		4.0			
19,529.0	19,531.0		4.0			

Stimulations & Treatments (Actual)

1, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
10/20/2016	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	19,329.0	19,531.0	350,202.0	12,080.00
2, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	19,089.0	19,291.0	0.0	0.00
3, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	18,849.0	19,051.0	0.0	0.00
4, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	18,609.0	18,811.0	0.0	0.00
5, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	18,369.0	18,571.0	0.0	0.00
6, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	18,129.0	18,331.0	0.0	0.00
7, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	17,889.0	18,091.0	0.0	0.00
8, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	17,649.0	17,851.0	0.0	0.00
9, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	17,409.0	17,611.0	0.0	0.00
10, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	17,169.0	17,371.0	0.0	0.00
11, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	16,929.0	17,131.0	0.0	0.00
12, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	16,689.0	16,891.0	0.0	0.00
13, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	16,449.0	16,651.0	0.0	0.00
14, <Zone?>						
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	16,209.0	16,411.0	0.0	0.00

Stimulations & Treatments (Actual)						
15, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	15,969.0	16,171.0	0.0	0.00
16, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	15,729.0	15,931.0	0.0	0.00
17, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	15,489.0	15,691.0	0.0	0.00
18, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	15,249.0	15,451.0	0.0	0.00
19, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	15,009.0	15,211.0	0.0	0.00
20, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	14,769.0	14,971.0	0.0	0.00
21, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	14,529.0	14,731.0	0.0	0.00
22, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	14,289.0	14,491.0	0.0	0.00
23, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	14,049.0	14,251.0	0.0	0.00
24, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	13,809.0	14,011.0	0.0	0.00
25, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	13,569.0	13,771.0	0.0	0.00
26, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	13,329.0	13,531.0	0.0	0.00
27, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	13,089.0	13,291.0	0.0	0.00
28, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	12,849.0	13,051.0	0.0	0.00
29, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	12,609.0	12,811.0	0.0	0.00
30, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	12,369.0	12,571.0	0.0	0.00
31, <Zone?>						
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	12,129.0	12,331.0	0.0	0.00

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Stimulations & Treatments (Actual)										
32, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	11,889.0	12,091.0	0.0	0.00				
33, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	11,649.0	11,851.0	0.0	0.00				
34, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	11,409.0	11,611.0	0.0	0.00				
35, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	11,169.0	11,371.0	0.0	0.00				
36, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	10,929.0	11,131.0	0.0	0.00				
37, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	10,689.0	10,891.0	0.0	0.00				
38, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	10,449.0	10,651.0	0.0	0.00				
39, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	10,209.0	10,411.0	0.0	0.00				
40, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	9,969.0	10,171.0	0.0	0.00				
41, <Zone?>										
Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)				
	HYDRAULIC FRACTURE	PIONEER PUMPING SERVICES	9,729.0	9,931.0	0.0	0.00				
Zones										
Zone Name					Top (ftKB)					
Tubing Details										
Tubing Description			Set Depth (ftKB)	Run Date						
Tubing Components										
Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)			
Rod Strings										
Rod Description			Set Depth (ftKB)	Run Date						
Rod Components										
Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	Make	Model	SN
Other In Hole										
Des	Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Pull Date	Com	String	Wellbore		
FRAC PLUG	19,311.0	19,313.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL		
FRAC PLUG	19,071.0	19,073.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL		
FRAC PLUG	18,831.0	18,833.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL		
FRAC PLUG	18,591.0	18,593.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL		
FRAC PLUG	18,351.0	18,353.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL		

Other In Hole								
Des	Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Pull Date	Com	String	Wellbore
FRAC PLUG	18,111.0	18,113.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	17,871.0	17,873.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	17,631.0	17,633.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	17,391.0	17,393.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	17,151.0	17,153.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	16,911.0	16,913.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	16,671.0	16,673.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	16,431.0	16,433.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	16,191.0	16,193.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	15,951.0	15,953.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	15,711.0	15,713.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	15,471.0	15,473.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	15,231.0	15,233.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,991.0	14,993.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,751.0	14,753.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,511.0	14,513.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,271.0	14,273.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,031.0	14,033.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	13,791.0	13,793.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	13,551.0	13,553.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	13,311.0	13,313.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	13,071.0	13,073.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	12,831.0	12,833.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	12,591.0	12,593.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	12,351.0	12,353.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	12,111.0	12,113.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	11,871.0	11,873.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	11,631.0	11,633.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	11,391.0	11,393.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	11,151.0	11,153.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	10,911.0	10,913.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL

Other In Hole								
Des	Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Pull Date	Com	String	Wellbore
FRAC PLUG	10,671.0	10,673.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	10,431.0	10,433.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	10,191.0	10,193.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	9,951.0	9,953.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	19,551.0	19,553.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	19,311.0	19,313.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	19,071.0	19,073.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	18,831.0	18,833.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	18,591.0	18,593.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	18,351.0	18,353.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	18,111.0	18,113.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	17,871.0	17,873.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	17,631.0	17,633.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	17,391.0	17,393.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	17,151.0	17,153.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	16,911.0	16,913.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	16,671.0	16,673.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	16,431.0	16,433.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	16,191.0	16,193.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	15,951.0	15,953.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	15,711.0	15,713.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	15,471.0	15,473.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	15,231.0	15,233.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,991.0	14,993.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,751.0	14,753.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,511.0	14,513.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,271.0	14,273.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	14,031.0	14,033.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	13,791.0	13,793.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	13,551.0	13,553.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	13,311.0	13,313.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL

Other In Hole								
Des	Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Pull Date	Com	String	Wellbore
FRAC PLUG	13,071.0	13,073.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	12,831.0	12,833.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	12,591.0	12,593.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	12,351.0	12,353.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	12,111.0	12,113.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	11,871.0	11,873.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	11,631.0	11,633.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	11,391.0	11,393.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	11,151.0	11,153.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	10,911.0	10,913.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	10,671.0	10,673.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	10,431.0	10,433.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	10,191.0	10,193.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	9,951.0	9,953.0	4.38				PRODUCTION, 19,713.0ftKB	ORIGINAL
FRAC PLUG	19,551.0	19,553.0	4.38	10/17/2016			PRODUCTION, 19,713.0ftKB	ORIGINAL

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					
9/11/2016		MAIN HOLE SURVEY					
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company	
9/18/2016	0.00	0.00	0.00	0.00	0.00	0.00	LEAM DRILLING SYSTEMS, INC.
9/18/2016	219.00	0.20	331.70	219.00	0.38	0.38	LEAM DRILLING SYSTEMS, INC.
9/18/2016	309.00	0.20	340.60	309.00	0.70	0.70	LEAM DRILLING SYSTEMS, INC.
9/18/2016	398.00	0.30	329.10	398.00	1.08	1.08	LEAM DRILLING SYSTEMS, INC.
9/18/2016	488.00	0.10	10.40	488.00	1.38	1.38	LEAM DRILLING SYSTEMS, INC.
9/18/2016	578.00	0.10	318.40	578.00	1.52	1.52	LEAM DRILLING SYSTEMS, INC.
9/18/2016	668.00	0.10	296.70	668.00	1.68	1.68	LEAM DRILLING SYSTEMS, INC.
9/18/2016	759.00	0.20	318.70	759.00	1.91	1.91	LEAM DRILLING SYSTEMS, INC.
9/18/2016	852.00	0.10	317.00	852.00	2.15	2.15	LEAM DRILLING SYSTEMS, INC.
9/18/2016	946.00	0.10	15.70	946.00	2.30	2.30	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,040.00	0.00	138.10	1,040.00	2.38	2.38	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,134.00	0.00	97.50	1,134.00	2.38	2.38	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,228.00	0.10	257.90	1,228.00	2.46	2.46	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,321.00	0.10	207.80	1,321.00	2.61	2.61	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,415.00	0.10	240.70	1,415.00	2.77	2.77	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,509.00	0.10	178.10	1,509.00	2.91	2.91	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,603.00	0.10	245.70	1,603.00	3.04	3.04	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,697.00	0.30	223.10	1,697.00	3.37	3.37	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,790.00	0.10	277.50	1,789.99	3.66	3.66	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,884.00	0.10	155.10	1,883.99	3.74	3.74	LEAM DRILLING SYSTEMS, INC.
9/18/2016	1,978.00	0.10	209.20	1,977.99	3.89	3.89	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,080.00	0.30	247.00	2,079.99	4.23	4.23	LEAM DRILLING SYSTEMS, INC.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
9/18/2016	2,174.00	0.50	243.40	2,173.99	4.89	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,268.00	0.80	238.60	2,267.99	5.95	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,361.00	1.00	247.80	2,360.97	7.41	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,455.00	0.80	229.80	2,454.96	8.87	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,549.00	0.80	223.90	2,548.95	10.18	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,642.00	0.80	217.00	2,641.94	11.47	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,736.00	0.70	216.60	2,735.94	12.70	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,830.00	0.60	214.30	2,829.93	13.77	LEAM DRILLING SYSTEMS, INC.
9/18/2016	2,923.00	0.40	212.40	2,922.93	14.58	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,016.00	0.20	254.10	3,015.93	15.04	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,110.00	0.50	257.40	3,109.92	15.61	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,203.00	0.40	262.10	3,202.92	16.34	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,297.00	1.30	157.90	3,296.91	17.38	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,391.00	1.60	154.80	3,390.88	19.76	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,484.00	2.50	150.30	3,483.82	23.08	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,578.00	4.60	148.30	3,577.64	28.90	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,672.00	5.20	150.60	3,671.29	36.93	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,766.00	5.20	150.70	3,764.91	45.45	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,860.00	5.00	150.20	3,858.53	53.80	LEAM DRILLING SYSTEMS, INC.
9/18/2016	3,953.00	5.10	163.00	3,951.18	61.94	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,047.00	5.10	168.60	4,044.80	70.29	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,141.00	4.80	168.30	4,138.45	78.40	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,234.00	4.90	165.20	4,231.12	86.26	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,328.00	4.60	164.50	4,324.80	94.04	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,422.00	4.40	163.50	4,418.51	101.42	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,515.00	4.40	164.20	4,511.23	108.55	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,609.00	4.00	160.90	4,604.98	115.43	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,702.00	3.60	163.50	4,697.78	121.59	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,796.00	3.00	166.30	4,791.62	127.00	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,890.00	2.70	170.80	4,885.50	131.67	LEAM DRILLING SYSTEMS, INC.
9/18/2016	4,984.00	2.60	169.50	4,979.40	136.02	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,078.00	2.40	170.50	5,073.31	140.12	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,172.00	2.10	167.80	5,167.24	143.81	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,265.00	2.20	171.40	5,260.18	147.30	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,359.00	2.20	168.60	5,354.11	150.90	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,453.00	2.20	167.10	5,448.04	154.51	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,547.00	1.90	159.90	5,541.98	157.87	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,640.00	1.80	155.10	5,634.93	160.87	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,734.00	1.80	149.80	5,728.88	163.82	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,828.00	1.70	144.10	5,822.84	166.68	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,922.00	1.70	144.40	5,916.80	169.47	LEAM DRILLING SYSTEMS, INC.
9/18/2016	5,967.00	1.70	146.10	5,961.78	170.81	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,112.00	1.20	125.40	6,106.73	174.42	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,206.00	1.10	121.00	6,200.71	176.30	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,299.00	1.20	127.70	6,293.69	178.17	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,393.00	1.10	127.30	6,387.67	180.05	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,487.00	0.30	159.10	6,481.67	181.17	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,581.00	0.40	195.50	6,575.67	181.72	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,674.00	0.40	177.80	6,668.66	182.36	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,768.00	0.10	154.20	6,762.66	182.76	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,862.00	0.30	163.20	6,856.66	183.09	LEAM DRILLING SYSTEMS, INC.
9/18/2016	6,956.00	0.30	136.30	6,950.66	183.57	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,050.00	0.20	94.60	7,044.66	183.96	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,143.00	0.40	101.10	7,137.66	184.44	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,237.00	0.40	83.70	7,231.66	185.09	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,331.00	0.60	85.50	7,325.65	185.91	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,424.00	0.40	191.30	7,418.65	186.42	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,518.00	0.50	219.10	7,512.65	187.13	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,612.00	0.60	257.10	7,606.64	187.99	LEAM DRILLING SYSTEMS, INC.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
9/18/2016	7,706.00	0.30	241.60	7,700.64	188.72	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,799.00	0.40	156.30	7,793.64	189.14	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,893.00	0.90	111.30	7,887.63	190.14	LEAM DRILLING SYSTEMS, INC.
9/18/2016	7,987.00	1.70	109.10	7,981.61	192.27	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,081.00	0.80	57.90	8,075.59	194.15	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,175.00	0.30	66.30	8,169.58	195.05	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,268.00	0.20	99.90	8,262.58	195.44	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,362.00	0.40	192.20	8,356.58	195.80	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,455.00	0.70	185.90	8,449.58	196.69	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,549.00	1.00	184.80	8,543.57	198.08	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,643.00	1.10	184.50	8,637.55	199.81	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,737.00	1.00	176.40	8,731.53	201.52	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,800.00	1.10	173.40	8,794.52	202.68	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,854.00	1.20	183.72	8,848.51	203.76	LEAM DRILLING SYSTEMS, INC.
9/18/2016	8,947.00	9.90	340.53	8,941.10	210.89	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,041.00	17.80	339.79	9,032.29	233.37	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,135.00	25.30	345.69	9,119.67	267.84	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,229.00	33.10	343.87	9,201.66	313.65	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,323.00	40.00	339.94	9,277.14	369.57	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,416.00	49.00	340.63	9,343.40	434.69	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,510.00	60.00	342.66	9,397.91	511.09	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,604.00	72.40	346.51	9,435.78	596.91	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,697.00	86.50	344.46	9,452.77	688.10	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,791.00	87.30	343.55	9,457.85	781.96	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,884.00	89.50	346.06	9,460.45	874.91	LEAM DRILLING SYSTEMS, INC.
9/18/2016	9,994.00	91.40	348.24	9,459.58	984.90	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,088.00	88.40	349.22	9,459.75	1,078.89	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,182.00	88.20	349.95	9,462.54	1,172.85	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,276.00	88.40	348.19	9,465.33	1,266.80	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,369.00	90.10	346.40	9,466.54	1,359.79	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,463.00	90.90	346.26	9,465.72	1,453.78	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,557.00	90.50	346.64	9,464.57	1,547.77	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,651.00	89.50	343.54	9,464.57	1,641.76	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,744.00	89.30	343.94	9,465.55	1,734.76	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,838.00	89.60	345.89	9,466.45	1,828.75	LEAM DRILLING SYSTEMS, INC.
9/18/2016	10,932.00	89.60	342.24	9,467.11	1,922.73	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,025.00	89.50	343.41	9,467.84	2,015.72	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,119.00	89.40	345.74	9,468.74	2,109.71	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,213.00	89.30	347.07	9,469.81	2,203.71	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,306.00	88.80	347.56	9,471.35	2,296.69	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,400.00	88.70	347.58	9,473.40	2,390.67	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,494.00	88.80	348.17	9,475.45	2,484.65	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,587.00	89.00	347.74	9,477.23	2,577.63	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,681.00	88.10	347.15	9,479.61	2,671.60	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,775.00	88.30	347.00	9,482.57	2,765.55	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,868.00	89.20	347.76	9,484.59	2,858.53	LEAM DRILLING SYSTEMS, INC.
9/18/2016	11,962.00	89.10	347.24	9,485.99	2,952.52	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,055.00	90.60	349.98	9,486.23	3,045.50	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,149.00	91.90	350.89	9,484.18	3,139.48	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,243.00	92.40	350.37	9,480.66	3,233.41	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,343.00	91.90	348.60	9,476.90	3,333.34	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,437.00	91.10	344.91	9,474.44	3,427.29	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,530.00	88.50	342.17	9,474.77	3,520.27	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,624.00	90.00	343.87	9,476.00	3,614.26	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,718.00	89.30	340.53	9,476.57	3,708.24	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,811.00	88.90	341.28	9,478.03	3,801.23	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,905.00	88.10	340.98	9,480.49	3,895.20	LEAM DRILLING SYSTEMS, INC.
9/18/2016	12,998.00	90.50	344.66	9,481.63	3,988.17	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,092.00	90.50	343.60	9,480.81	4,082.16	LEAM DRILLING SYSTEMS, INC.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
9/18/2016	13,186.00	89.70	345.52	9,480.65	4,176.16	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,279.00	89.50	344.11	9,481.29	4,269.15	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,373.00	88.60	345.60	9,482.85	4,363.14	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,467.00	88.10	345.52	9,485.56	4,457.10	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,560.00	90.20	346.44	9,486.94	4,550.08	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,654.00	91.90	347.40	9,485.22	4,644.06	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,748.00	91.00	347.33	9,482.84	4,738.03	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,842.00	91.20	346.71	9,481.03	4,832.01	LEAM DRILLING SYSTEMS, INC.
9/18/2016	13,935.00	90.40	347.37	9,479.74	4,925.00	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,029.00	88.90	347.03	9,480.31	5,019.00	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,123.00	89.50	347.75	9,481.62	5,112.98	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,217.00	89.80	346.85	9,482.20	5,206.98	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,311.00	91.50	347.49	9,481.13	5,300.97	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,404.00	88.00	345.49	9,481.54	5,393.95	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,498.00	86.60	344.68	9,485.96	5,487.84	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,592.00	87.60	344.64	9,490.72	5,581.72	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,686.00	88.40	344.67	9,494.00	5,675.67	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,779.00	88.60	344.19	9,496.43	5,768.63	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,873.00	88.10	345.30	9,499.14	5,862.59	LEAM DRILLING SYSTEMS, INC.
9/18/2016	14,967.00	88.00	344.98	9,502.34	5,956.54	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,061.00	88.60	345.42	9,505.13	6,050.50	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,154.00	89.40	345.16	9,506.75	6,143.48	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,248.00	88.50	342.61	9,508.47	6,237.46	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,342.00	90.20	347.33	9,509.54	6,331.42	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,436.00	89.10	345.70	9,510.12	6,425.41	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,529.00	90.20	345.68	9,510.68	6,518.41	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,623.00	91.60	343.78	9,509.21	6,612.39	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,717.00	92.60	346.69	9,505.76	6,706.32	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,810.00	90.60	346.77	9,503.17	6,799.28	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,904.00	89.90	346.33	9,502.75	6,893.28	LEAM DRILLING SYSTEMS, INC.
9/18/2016	15,997.00	90.00	346.08	9,502.84	6,986.27	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,091.00	90.90	345.80	9,502.10	7,080.27	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,185.00	89.70	346.60	9,501.61	7,174.27	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,278.00	91.70	346.21	9,500.47	7,267.26	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,372.00	88.70	346.32	9,500.14	7,361.24	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,466.00	88.20	346.78	9,502.68	7,455.21	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,560.00	90.80	348.72	9,503.50	7,549.19	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,653.00	89.20	347.74	9,503.50	7,642.19	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,747.00	88.30	348.00	9,505.55	7,736.17	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,841.00	88.20	345.51	9,508.43	7,830.11	LEAM DRILLING SYSTEMS, INC.
9/18/2016	16,935.00	90.10	345.74	9,509.82	7,924.10	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,029.00	86.90	343.02	9,512.28	8,018.05	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,123.00	86.90	343.24	9,517.36	8,111.91	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,216.00	86.60	342.93	9,522.64	8,204.76	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,310.00	90.20	343.96	9,525.26	8,298.71	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,404.00	90.30	343.66	9,524.85	8,392.70	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,497.00	89.10	342.72	9,525.34	8,485.70	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,591.00	90.10	346.00	9,525.99	8,579.68	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,685.00	89.90	348.12	9,525.99	8,673.68	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,778.00	91.50	348.32	9,524.86	8,766.67	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,872.00	92.80	348.71	9,521.33	8,860.60	LEAM DRILLING SYSTEMS, INC.
9/18/2016	17,966.00	90.40	347.96	9,518.71	8,954.56	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,059.00	90.60	347.00	9,517.90	9,047.55	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,153.00	92.00	348.23	9,515.76	9,141.52	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,247.00	89.90	347.18	9,514.20	9,235.50	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,340.00	89.30	348.17	9,514.85	9,328.50	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,434.00	87.60	345.51	9,517.40	9,422.45	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,527.00	86.10	343.49	9,522.51	9,515.31	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,621.00	89.70	347.58	9,525.95	9,609.21	LEAM DRILLING SYSTEMS, INC.

Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 7-43 46H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
9/18/2016	18,715.00	91.60	348.97	9,524.89	9,703.19	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,808.00	89.90	347.40	9,523.67	9,796.18	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,902.00	91.50	349.77	9,522.52	9,890.16	LEAM DRILLING SYSTEMS, INC.
9/18/2016	18,996.00	88.10	345.68	9,522.85	9,984.13	LEAM DRILLING SYSTEMS, INC.
9/18/2016	19,089.00	87.40	345.61	9,526.50	10,077.06	LEAM DRILLING SYSTEMS, INC.
9/18/2016	19,183.00	86.80	344.91	9,531.26	10,170.94	LEAM DRILLING SYSTEMS, INC.
9/18/2016	19,277.00	88.90	344.15	9,534.78	10,264.86	LEAM DRILLING SYSTEMS, INC.
9/18/2016	19,370.00	89.20	343.45	9,536.32	10,357.85	LEAM DRILLING SYSTEMS, INC.
9/18/2016	19,464.00	89.40	342.87	9,537.47	10,451.84	LEAM DRILLING SYSTEMS, INC.
9/18/2016	19,558.00	89.40	342.20	9,538.46	10,545.84	LEAM DRILLING SYSTEMS, INC.
9/18/2016	19,651.00	89.90	342.20	9,539.03	10,638.83	LEAM DRILLING SYSTEMS, INC.
9/18/2016	19,715.00	89.90	342.20	9,539.14	10,702.83	LEAM DRILLING SYSTEMS, INC.