

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/13/2019		
Days Since LTI: 1,426.00				Report #:	9		
Release:				DFS:	7		
Days Since RI: 38.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$126,242.29		

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
13:30	MEETING	JSA	DAY	PJSM w/ PNR, H&P and Gyrodata discussing directional tool pickup operations						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed upcoming operations - tripping in hole, tag DVT and test casing. Drill out DVT, Test casing above float collar, drill out float collar and shoe track while displacing to OBM, drill 10' new formation, C&C, Flow check and perform FIT to 9.5ppg EMW. Drill production vertical per directional plan. Use good communication on fluid transfers and watch hand/body placement while tripping and making connections. Cooler weather here - dress accordingly						
18:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: Date & Time: 10/10/2019; 12:00 Noon Classification: Near Miss (Low) Company/Employee: Pioneer Description: During drilling operations, 33ppm of H2S was detected through the shakers by the monitoring system. Well was shut in and all personnel mustered up while SAT was dispatched to clear the location. Once all clear was given, rig resumed drilling operations. No personal monitors wet off during this event. 3:20pm monitoring system detected 69 ppm of H2S during drilling operations at the shakers. No personal monitors went off during this event. All personnel mustered up while SAT cleared the area. SAT will remain onsite until they complete drilling through formation.						
03:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Stop card: RTM pressure washing without faceshield, stopped him and discussed importance of protecting his eyes and face from debris while pressure washing, he understood, agreed and put on faceshield to continue work						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype	Date	Note					
MILESTONE			ESTIMATED PAD RELEASE	12/9/2019	Drilling 2nd production vertical on 4 well pad. Batch Drilling. (Updated 10-12-19)					
Daily Operations										
Footage/Meterage (ft) 1,078.00		Drilling Hours (hr) 7.25		% Rotating Time (%) 86.21	End Depth (ftKB) 7,377.0		Target Depth (ftKB) 19,316.0	Daily Field Est Total (Cost) 126,242.29	Cum Field Est To Date (Cost) 1,176,353.43	
24 HR ROP (ft/hr) 148.7		Circulating Hours (hr) 1.25		% Sliding Time (%) 13.79	End Depth (TVD) (ftKB) 7,327.2		Target Depth (TVD) (ftKB) 9,141.9	Daily Mud Field Est (Cost) 6,468.80	Cum Mud Field Est (Cost) 29,507.77	Total AFE + Sup (Cost) 3,097,685.89
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 500.0		Daily Goal - Next 24 1,300.0		Goal Comments Goal Met		
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB			Next Casing String PROPOSED PRODUCTION, 19,314.0ftKB			
Avg Connection Gas 60.00		Avg Trip Gas 0.00		Avg Background Gas 52.00		Max Connection Gas 94.00		Max Trip Gas 0.00	Max Drill Gas 96.00	
Operations Summary Skid rig to 116H, N/U BOP & Perform shell test, P/U Dir BHA, TIH, Drill out DV Tool, TIH to FC, Test Casing. Drill out FE & 10' of new formation, Displace to OBM, Perform FIT to 9.5 EMW, Drill 8 3/4" Prod. Vertical f/ 6309' t/ 7377' (13.8% sliding, 9.7' ahead, 0.9' right)										
Operations Next Report Period Drill Prod Vertical to KOP @ 8,590', C&C, TOO, C/O BHA, TIH, Slip & Cut, Change saver sub, Drill 8 1/2" curve t/ 8690'										
Operations at Report Time Drilling 8 3/4" production vertical @ 7377'										
Remarks No Accidents, Incidents, or spills  Rig NPT: 0.5 hours  3rd Party NPT: 0 hours  PNR NPT: 0 hours  Surf:100% Int:100% Prod Vertical: 43% Curve: 0% Lat: 0%  Gen Hours: 1- 19.5 hrs, 2- 24 hrs, 3- 19.5 hrs  Saver Sub footage: 13,426'  Initial Water Meter Reading: 175306										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
10:30	0.5	11:00	PROD, PRE DRL	SKID	NORMAL	Skid rig from 115H to 116H.	6,299.0	6,299.0		
11:00	1	12:00	PROD, PRE DRL	NU_BOPE	NORMAL	Remove TA cap. set stack, N/U BOP - connect mud line, kill line and choke line.	6,299.0	6,299.0		
12:00	1	13:00	PROD, PRE DRL	CONC_BOPE	NORMAL	R/U Battle testing equipment. Fill stack. Perform shell test on broken connection (250 low / 5000 high) and test back to pumps (250 low / 6000 high).	6,299.0	6,299.0		
13:00	0.5	13:30	PROD, PRE DRL	WRBSH	NORMAL	Install wear bushing and mouse hole.	6,299.0	6,299.0		
13:30	0.25	13:45	PROD, PRE DRL	SFTY	NORMAL	PJSM w/ PNR, H&P and Gyrodata discussing directional tool pickup operations	6,299.0	6,299.0		
13:45	2	15:45	PROD, PRE DRL	PU_DIR	NORMAL	M/U 8 3/4" production vertical BHA (including Lodestar sub), scribe tools, M/U bit, install MWD	6,299.0	6,299.0		
15:45	0.5	16:15	PROD, PRE DRL	RIG_SVC	NORMAL	Daily Rig service.	6,299.0	6,299.0		
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Accept: 9/22/2019Release: Days Since LTI: 1,426.00Days Since RI: 38.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 10/13/2019

Report #: 9

DFS: 7

AFE #: 9006568

Total AFE + Sup: \$3,097,685.89

Daily Field Est. (Cost): \$126,242.29

Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
16:15	2.5	18:45	PROD, PRE DRL	TIH_ELEV	NORMAL	Trip in hole F/112' T/4719'. Hole displacing properly	6,299.0	6,299.0			
18:45	0.25	19:00	PROD, PRE DRL	HDL_ROTHTD	NORMAL	Pull trip nipple and install rotating head	6,299.0	6,299.0			
19:00	0.25	19:15	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH f/ 4719' t/ 4939' and tag DVT twice with 35k to confirm tool is closed. Fill pipe	6,299.0	6,299.0			
19:15	0.5	19:45	PROD, PRE DRL	CSG_TEST	NORMAL	Test casing above DVT to 2500psi for 10min	6,299.0	6,299.0			
19:45	0.5	20:15	PROD, PRE DRL	DRL_OUT	NORMAL	Drill out DVT f/ 4939' t/ 4942' with full returns. GPM: 500; WOB: 20; RPM: 40	6,299.0	6,299.0			
20:15	0.5	20:45	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH f/ 4942' t/ 6189' and tag float collar. Hole displacing properly	6,299.0	6,299.0			
20:45	0.75	21:30	PROD, PRE DRL	CSG_TEST	NORMAL	Test casing above float collar to 2500psi for 30min	6,299.0	6,299.0			
21:30	1.25	22:45	PROD, PRE DRL	DRL_OUT	NORMAL	Drill out float collar, shoe track and clean out rat hole while displacing to OBM. Full returns. GPM: 500; WOB: 20; RPM: 40	6,299.0	6,299.0			
22:45	0.25	23:00	PROD, PRE DRL	DRL	NORMAL	Drill 10' new formation f/ 6299' t/ 6309' with full returns	6,299.0	6,309.0			
23:00	0.75	23:45	PROD, PRE DRL	CIRC	NORMAL	Circulate bottoms up and condition mud for FIT. Full returns (MW in = MW out @ 8.1ppg)	6,309.0	6,309.0			
23:45	0.25	00:00	PROD, PRE DRL	FLOW_CHK	NORMAL	Flow check - well static	6,309.0	6,309.0			
00:00	0.25	00:15	PROD, PRE DRL	FIT	NORMAL	Pump through choke and establish returns to trip tank. Close UPR and pump at 0.25bpm and pressure up to 454psi. Hold pressure for 5min. FIT = 9.5ppg	6,309.0	6,309.0			
00:15	4	04:15	PROD, DRL	DRL	NORMAL	Drill F/6309' T/6998' (689' @ 172 fph), 30% complete. 69% Rot @ 228 fph 31% Sldg @ 50 fph MW-8.1 w/ 41 vis, full returns.  Last Survey @ 6837' ? Inc-1.7°, Azm-187.47°, 14.5' ahead & 0.56' right to plan #1	6,309.0	6,998.0			
04:15	0.5	04:45	PROD, DRL	RIG_SVC	NORMAL	Lubricate rig and top drive. Get SPR's. Jet flowline	6,998.0	6,998.0			
04:45	1.25	06:00	PROD, DRL	DRL	NORMAL	Drill F/6998' T/7377' (379' @ 303 fph), 47% complete. MW-8.1 w/ 41 vis, full returns.  Last Survey @ 7026' ? Inc-1.3°, Azm-180.88°, 9.74' ahead & 0.86' right to plan #1	6,998.0	7,377.0			
Drill Strings											
BHA #3 , PRODUCTION - VERTICAL											
Bit Run 3				Drill Bit 8 3/4in, TKC76, A266773			Bit Type PDC		Make NOV		
Nozzles (1/32") 12/12/12/12/12/12				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 7.25		Depth Drilled By Bit (ft) 1,078.00	
BHA Drilling Time (hr) 7.25				BHA Depth Drilled (ft) 1,078.00		BHA ROP (ft/hr) 148.7		Depth In (ftKB) 6,299.0		Depth Out (ftKB) 7,377.0	
Drill String Components											
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
201	DRILL PIPE				5	4.28	6,351.41	7,377.00	123,852.5	170	OTHER (PROVIDE DESCRIPTION)
30	HWDP - SPIRALED				5	3.00	912.99	1,025.59	45,649.5	46	OTHER (PROVIDE DESCRIPTION)
1	DRILL COLLAR - NON MAG				6 5/8	3.25	29.77	112.60		0	STABIL DRILL
1	DRILL COLLAR - NON MAG				6 3/4	3.25	30.97	82.83		0	STABIL DRILL
1	SUB - UBHO				6 11/16	2.75	2.97	51.86		0	GYRODATA
1	STABILIZER				8 1/4	2.75	6.83	48.89		0	STABIL DRILL
1	SUB - DOWNHOLE RECORDING				6 3/4	2.75	8.29	42.06		0	LODESTAR INTERNATIONAL
1	MOTOR - STABILIZER SLEEVE				7	3.00	32.77	33.77		0	GYRODATA
Mud Motors											
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defin Type	
GDM700010		1.5		NOT SEALED		6:7		6.5			
Sensors											
Sensor Type				Sensor-Bit (ft)				Note			
GAMMA				55.00							
DIRECTIONAL				66.00							
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Drilling Parameters																		
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)	
19:45	20:15	6,299.0	0.00	0.0	20	40	200.0	500	1,300.0	0.0	190	195	185	190	7,000.0	3,500.0	0	
21:30	22:45	6,299.0	0.00	0.0	30	40	200.0	450	1,360.0	0.0	190	195	185	190	7,000.0	3,500.0	0	
22:45	23:00	6,299.0	10.00	40.0	20	40	700.0	500	2,000.0	200.0	190	195	185	190	7,000.0	3,500.0	0	
23:00	23:45	6,309.0	0.00		0	40	0.0	500	1,500.0	0.0	190	195	185	190	4,000.0	4,000.0	0	
00:15	00:30	6,309.0	26.00	104.0	30	40	500.0	500	2,000.0	150.0	190	195	185	190	11,000.0	4,000.0	0	
00:30	01:00	6,335.0	105.00	210.0	32	60	550.0	550	2,350.0	230.0	192	195	186	192	11,000.0	4,000.0	0	
01:00	01:30	6,440.0	33.00	66.0	30	0	300.0	600	2,100.0	80.0	192	195	186	192	0.0	0.0	180	
01:30	02:30	6,473.0	257.00	257.0	35	80	750.0	700	3,450.0	300.0	192	195	186	192	13,000.0	4,000.0	0	
02:30	03:00	6,730.0	30.00	60.0	30	0	250.0	600	2,300.0	60.0	192	195	186	192	0.0	0.0	215	
03:00	03:15	6,760.0	48.00	192.0	35	80	700.0	700	3,450.0	400.0	192	195	186	192	13,000.0	4,000.0	0	
03:15	04:15	6,808.0	190.00	190.0	35	80	700.0	750	3,700.0	220.0	200	210	190	200	14,500.0	4,500.0	0	
04:15	04:45	6,998.0	0.00		0	0	0.0	750	3,000.0	0.0	200	210	190	200	0.0	4,500.0	0	
04:45	06:00	6,998.0	379.00	303.2	35	80	700.0	750	3,700.0	220.0	200	210	190	200	14,500.0	4,500.0	0	
Hydraulic Calculations																		
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)								
8.10	8.36	311.0	5.2	311.2	710.7	21.0	2,162.6	121.84	53.09	324.43								
Mud Checks																		
Time 20:00		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 6,309.0		Density (lb/gal) 8.10		Funnel Viscosity (s/qt) 43		T Flowline (°F) 109.0				
PV (cP) 8.0		YP (lb/100ft²) 7.000		Vis 3rpm 4		Vis 6rpm 5		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 12.0		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0				
Solids (%) 11.0				Low Gravity Solids (%) 6.8				Sand (%) 0.2				MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)		
Chlorides (ppm) 213,808.000				Calcium (ppm) 2,800.000				CaCl (ppm) 0		Oil Water Ratio 86.5/13.5		Electric Stab (V) 676.0		Lime (lb/bbl) 2.2		pH 0.0		
Gel 10 sec (lb/100ft²) 5.000						Gel 10 min (lb/100ft²) 8.000						Gel 30 min (lb/100ft²) 9.000						
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume.																		
DRILLING FLUID ACTIVITY LAST 24 HRS: Rig skidded fro 7-43 115H to curent well 7-43 116H having left 892 bbls obm in annulus of 115H due to discontinued cement job. Transferred all remaining obm, diesel and onsite chemicals to current well. Inspected shale shakers and solids equipment and dressed dryer shakers with 120's and 80's.																		
RIG ACTIVITY LAST 24 HOURS: Rig skidded from University 7-43 115H to University 7-43 116H to drill production section with OBM. Received all obm, diesel and onsite chemical from 115H and put in inventory. Rig nippedled up and tested BOP's. Picked up new bit and bha and tripped in hole to DV tool at 4939 ft., Tested casing at 2500 psi and continued in hole tagging cement at 6182 and float collar at 6189. Drilled float equipment and displace water from well with 8.1 ppg obm. Drilled 10 ft new formationto 6309 and ran FIT to 9.5 eq/mw. Began drilling ahead and treating system.																		
Last BOP Test																		
Date		Test Type				Item Tested				Next Test Date		Com						
10/12/2019		BOP				BOP'S, 9/18/2019 03:15, <class>				10/22/2019		Perform shell test after skid 10/12/19. Last FULL BOP test 10/1/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted						
Leak Off and Formation Integrity Tests																		
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)						
FORMATION INTEGRITY						1,959.0						13.00						
FORMATION INTEGRITY						6,286.0						9.50						
Casing Pressure Test																		
Test Type				Test Subtype				Date		Item Tested				Failed?	Time (min)		P (psi)	
CASING				STANDARD				9/6/2019		SURFACE, 1,959.1ftKB				No	30.00		1,000.0	
CASING				STANDARD				10/12/2019		INTERMEDIATE, 6,286.0ftKB				No	30.00		2,500.0	
Kick Offs & Key Depths																		
Date						Type						Top Depth (ftKB)						
						KICK OFF												
						TOE												
						HEEL												
Casing Strings																		
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)				
CONDUCTOR		106.5		106.5		20		H40		78.67								
SURFACE		1,959.1		1,958.4		13 3/8		J55		54.50		BTC		1,322.0				
INTERMEDIATE		6,286.0		6,236.6		9 5/8		L80-IC		40.00		BTC		3,078.3				
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Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	20,667	0	0	Transferred from' UNIVERSITY 7-43 115H'	20,667	0.0
DIESEL	FUEL	GAL	12,423	795	0	Transferred from' UNIVERSITY 7-43 115H'	11,628	10,760.0
WATER	FRESH	BBL	0	0	0	Initial Reading: 175599. Final reading: 175599	0	4,261.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
POLYDRIL OIL BASE MUD RENTAL	OIL MUD ADDITIVE	PER BBL	3,110	3,110	0.0	3,110		
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	6,998.0	04:15	210.0	20	64	95		
1	6,998.0	04:15	310.0	40	129	95		
1	6,998.0	04:15	455.0	60	193	95		
2	6,998.0	04:15	310.0	40	129	95		
2	6,998.0	04:15	455.0	60	193	95		
2	6,998.0	04:15	225.0	20	64	95		
3	6,998.0	04:15	450.0	60	193	95		
3	6,998.0	04:15	310.0	40	129	95		
3	6,998.0	04:15	240.0	20	64	95		
Deviation Surveys								
Date	Description					Job		
8/29/2019	AS DRILL SURVEY					ODR, 8/29/2019 10:30		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
6,363.00	3.05	337.18	6,313.51	591.64	564.10	-183.43	0.93	
6,485.00	1.47	348.46	6,435.41	596.41	568.62	-185.00	1.34	
6,553.00	0.51	48.11	6,503.40	597.42	569.68	-184.95	1.90	
6,647.00	0.74	49.87	6,597.40	597.88	570.35	-184.18	0.25	
6,742.00	0.61	161.03	6,692.39	597.65	570.27	-183.54	1.17	
6,837.00	1.70	187.47	6,787.37	595.84	568.39	-183.56	1.25	
6,932.00	1.31	182.61	6,882.34	593.48	565.91	-183.79	0.43	
7,026.00	1.30	180.88	6,976.32	591.42	563.77	-183.86	0.04	
7,121.00	1.40	164.12	7,071.29	589.22	561.58	-183.56	0.43	
7,216.00	1.59	162.77	7,166.26	586.74	559.20	-182.85	0.20	
Formations								
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)			
267_0_SPBY_U_A1/267_0_SPBY	-5,468.0		8,465.5					
267_5_SPBY_M_A1	-5,760.0		8,757.5					
268_5_SPBY_L_A1	-5,985.0		8,982.5					
268_5_SPBY_L_A2	-6,024.0		9,021.5					
FIRST TAKE POINT (FTP)	-6,123.0		9,120.5					
TARGET #1	-6,168.0		9,165.5					
PBHL/TD	-6,145.0		9,142.5					
Daily Contacts								
Job Contact	Title	Office	Mobile	Email				
FIZER, LARRY, VICE PRESIDENT	VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM				
HARDIN, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM				
DAFFRON, MIKE, SUPERINTENDENT	SUPERINTENDENT	432-360-4057	318-243-5902	MIKE.DAFFRON@PXD.COM				
LONG, TREVOR, ENGINEER	ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM				
HEMBREE, KEVIN, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		580-209-2359	KEVIN.HEMBREE@PXD.COM				
YOHO, RYAN, FIELD ENGINEER	FIELD ENGINEER		432-307-5130	RYAN.YOHO@PXD.COM				
RIG-H&P 601, RIG PHONE	RIG PHONE	432-355-3111	469-866-2439					
Personnel Log								
Company	Count							
PIONEER NATURAL RESOURCES USA INC	2							
HELMERICH & PAYNE INTERNATIONAL DRILLING CO	13							
DWM CONSULTING	1							
GYRODATA INC	4							
STRATAGRAPH INC	2							
DYNAMIC OILFIELD SERVICES INC	1							
CACTUS WELLHEAD LLC	1							
TRIFECTA OILFIELD SERVICES LLC	4							
BATTLE ENERGY SERVICES LLC	1							
Daily Drilling Report								

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Printed: Sunday, October 13, 2019

# Daily Drilling Report

<b>UNIVERSITY 7-43 116H</b>	
<b>H &amp; P #601</b>	
<b>Accept: 9/22/2019</b>	<b>Release:</b>
<b>Days Since LTI:</b>	<b>Days Since RI: 39.00</b>
<b>1,427.00</b>	

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/14/2019
Report #:	10
DFS:	8
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$59,099.78

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY L A3)		Field Name SPRABERRY (TREND AREA)							
SSN ID00038689		Property Sub		KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00		Spud Date 8/29/2019		TD Date			
Safety Checks													
Time	Type	Des		Tour		Com							
06:00	MEETING	PRE-TOUR		DAY		PTSM: Discussed upcoming operations - drill production vertical to KOP, Circulate, TOH for curve assembly. Change out directional tools and TIH. Make sure mind is focused on task at hand. Watch out for snakes and hand/body placement while tripping and working BHA.							
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		DAY		Case#: Date/Time: 10/10/2019 @ 3:30 PM Classification: Contractor – Injury/Illness (Low) Description: While loading forklift on trailer, forklift driver noticed that it was not loaded correctly. As he backed up the forklift, in an attempt to straighten it out, the forklift fell off the trailer and landed on its right side. Shattering the back window and causing a laceration on his right cheek bone. Team member was evaluated by Xtreme md and was treated for first aid only and released (full duty-no restrictions)							
18:00	MEETING	PRE-TOUR		NIGHT		PTSM: Discussed upcoming operations - TOH to pick up curve BHA. Monitor hole fill on trip out. L/D directional tools, P/U curve assembly, Lodestar will be here to download sub memory. TIH, Slip & cut, change saver sub, Finish TIH, Kick off and begin drilling curve per directional plan. Use good communication on fluid transfers, watch hand/body placement while tripping and handling BHA. Scout will also be here to test agitator							
18:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		NIGHT		Case#: Date/Time: 10/10/2019 @ 3:30 PM Classification: Contractor – Injury/Illness (Low) Description: While loading forklift on trailer, forklift driver noticed that it was not loaded correctly. As he backed up the forklift, in an attempt to straighten it out, the forklift fell off the trailer and landed on its right side. Shattering the back window and causing a laceration on his right cheek bone. Team member was evaluated by Xtreme md and was treated for first aid only and released (full duty-no restrictions)							
22:30	MEETING	JSA		NIGHT		PJSM w/ PNR, H&P, Gyrodata, and Lodestar discussing directional tool change out operations							
23:30	PROACTIVE MEASURES	STOP CARD - NON PNR		NIGHT		Stop card: RTM were about to bring hoist line in to rig up tongs to break bit as driller was about to pick up on top drive, driller stopped RTM's and discussed importance of using better communication and being aware of steps in process and not try to work too fast to get job done quickly. Thanked driller for stopping job to prevent hoist line from being caught							
Jobs													
Responsible Grp 2		Responsible Grp 3		Job Type		Start Date		End Date		Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR		8/29/2019 10:30				IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)													
Type			Subtype		Date		Note						
MILESTONE			ESTIMATED PAD RELEASE		12/4/2019		Drilling 2nd curve on 4 well pad. Batch Drilling. (Updated 10-13-19)						
Daily Operations													
Footage/Meterage (ft) 1,213.00		Drilling Hours (hr) 10.25		% Rotating Time (%) 51.22		End Depth (ftKB) 8,590.0		Target Depth (ftKB) 19,316.0		Daily Field Est Total (Cost) 59,099.78		Cum Field Est To Date (Cost) 1,235,453.21	
24 HR ROP (ft/hr) 118.3		Circulating Hours (hr) 1.25		% Sliding Time (%) 48.78		End Depth (TVD) (ftKB) 8,539.6		Target Depth (TVD) (ftKB) 9,141.9		Daily Mud Field Est (Cost) 5,179.06		Cum Mud Field Est (Cost) 34,686.83	Total AFE + Sup (Cost) 3,097,685.89
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 1,200.0				Daily Goal - Next 24 1,200.0				Goal Comments Goal Met		
Backbuild No		Lateral Inclination	Last Casing String INTERMEDIATE, 6,286.0ftKB					Next Casing String PROPOSED PRODUCTION, 19,314.0ftKB					
Avg Connection Gas 342.00		Avg Trip Gas 0.00		Avg Background Gas 272.00		Max Connection Gas 806.00		Max Trip Gas 0.00		Max Drill Gas 932.00			
Operations Summary Drill Prod Vertical to KOP @ 8,590', C&C, C&C, TOO, C/O BHA, Change out saver sub, slip & cut (48.8% sliding, 20.4' behind, 24.6' right)													
Operations Next Report Period TIH, Drill 8 1/2" curve t/ 9500', Land curve and continue drilling lateral t/ 9790'													
Operations at Report Time Slip & cut drill line													
Remarks No Accidents, Incidents, or spills  Rig NPT: 0.5 hours  3rd Party NPT: 0 hours  PNR NPT: 0 hours  Surf:100% Int:100% Prod Vertical: 100% Curve: 0% Lat: 0%  Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 14 hrs  Saver Sub footage: 0'  Initial Water Meter Reading: 175306													





Daily Drilling Report

UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,427.00	Days Since RI: 39.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/14/2019
Report #:	10
DFS:	8
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$59,099.78

Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)				
07:30	09:30	7,519.0	433.00	216.5	45	80	700.0	750	3,700.0	325.0	200	250	190	200	14,500.0	4,500.0	0				
09:30	11:15	7,952.0	40.00	22.9	28	0	200.0	750	3,200.0	25.0	200	250	190	200	0.0	4,500.0	180				
11:15	11:45	7,992.0	53.00	106.0	45	80	700.0	750	3,700.0	325.0	200	250	190	200	14,500.0	4,500.0	0				
11:45	13:15	8,045.0	45.00	30.0	32	0	200.0	750	3,200.0	25.0	200	250	190	200	0.0	4,500.0	180				
13:15	14:45	8,090.0	349.00	232.7	40	80	700.0	750	3,700.0	325.0	200	250	190	200	14,500.0	4,500.0	0				
14:45	15:30	8,439.0	20.00	26.7	32	0	200.0	750	3,200.0	25.0	200	250	190	200	0.0	4,500.0	340				
15:30	16:15	8,459.0	131.00	174.7	40	80	700.0	750	3,700.0	325.0	200	250	190	200	14,500.0	4,500.0	0				
16:15	17:15	8,590.0	0.00		0	80	0.0	750	2,980.0	0.0	200	250	190	200	11,250.0	4,500.0	0				
BHA #4 , PRODUCTION - CURVE/LATERAL																					
Bit Run 4			Drill Bit 8 1/2in, GTD65DM, 13184333								Bit Type PDC			Make HALLIBURTON							
Nozzles (1/32") 13/13/13/13/13			Bit Total Fluid Area (nozzles) (in²) 0.78				IADC Bit Dull -----				Hours Drilled By Bit (hr)			Depth Drilled By Bit (ft)							
BHA Drilling Time (hr)			BHA Depth Drilled (ft)				BHA ROP (ft/hr)				Depth In (ftKB) 8,590.0			Depth Out (ftKB) 8,590.0							
Drill String Components																					
Jts	Item Des					OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make									
178	DRILL PIPE					5	3.50	5,607.62	8,590.00	331,746.8	500	OTHER (PROVIDE DESCRIPTION)									
1	AGITATOR					6 1/2	2.63	26.38	2,982.38		168	SCOUT									
90	DRILL PIPE					5	3.50	2,844.83	2,956.00	168,300.1	168	OTHER (PROVIDE DESCRIPTION)									
1	DRILL COLLAR - FLEX					6 7/8	3.25	30.99	111.17		0	STABIL DRILL									
1	DRILL COLLAR - NON MAG					6 3/4	3.25	30.97	80.18		0	STABIL DRILL									
1	SUB - UBHO					6 11/16	2.75	2.97	49.21		0	GYRODATA									
1	SUB - DOWNHOLE RECORDING					6 3/4	2.75	8.29	46.24		0	LODESTAR INTERNATIONAL									
1	STABILIZER					6 3/4	2.56	4.61	37.95		0	STABIL DRILL									
1	MOTOR - STABILIZER SLEEVE					7	3.00	32.34	33.34		0	GYRODATA									
Mud Motors																					
SN		Bend Angle			Bearing Type		Lobe Config		# Stages		Lwr DefIn Type			Bit To Bend							
GDM700026		2			NOT SEALED		6:7		6.5					4.05							
Sensors																					
Sensor Type				Sensor-Bit (ft)				Note													
GAMMA				52.00																	
DIRECTIONAL				63.00																	
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)				
02:45	03:00	8,590.0	0.00		0	0	0.0	400	850.0	0.0	0	0	0	0	0.0	0.0	0				
Hydraulic Calculations																					
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
8.00		8.21		46.0		0.8		165.0		197.3		11.2		355.7		101.79		113.93		323.98	
Mud Checks																					
Time 20:00		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 8,590.0		Density (lb/gal) 8.00		Funnel Viscosity (s/qt) 39		T Flowline (°F) 109.0							
PV (cP) 8.0		YP (lb/100ft²) 7.000		Vis 3rpm 4		Vis 6rpm 5		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 14.2		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0							
Solids (%) 10.0				Low Gravity Solids (%) 6.0		Sand (%) 0.1		MBT (lb/bbl) 0.0				Pm (mL/mL) 0.000		Pf (mL/mL)							
Chlorides (ppm) 213,808.000		Calcium (ppm) 2,800.000			CaCl (ppm) 0		Oil Water Ratio 86.7/13.3			Electric Stab (V) 682.0			Lime (lb/bbl) 2.7			pH 0.0					
Gel 10 sec (lb/100ft²) 4.000					Gel 10 min (lb/100ft²) 7.000					Gel 30 min (lb/100ft²) 9.000											
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume.																					
DRILLING FLUID ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve properties within mud program specifications. Transferred obm from storage as needed to maintain volume in system while drilling. Received 7399 gallons of mud diesel. Monitored shakers while circulating.																					
RIG ACTIVITY LAST 24 HOURS: Drilled and slid from 6309 to TD called at 8590 with no issues, lowering mud weight to 8.0 and maintaining. At TD, circulated hole clean and flow checked with well static. Pulled 10 stands wet and flow checked. Pumped slug and pulled out of hole laying out vertical assembly.																					
Daily Drilling Report																					

Last BOP Test								
Date	Test Type	Item Tested	Next Test Date	Com				
10/12/2019	BOP	BOP'S, 9/18/2019 03:15, <class>	10/22/2019	Perform shell test after skid 10/12/19. Last FULL BOP test 10/1/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted				
Leak Off and Formation Integrity Tests								
Test Type		Depth (ftKB)		Dens Fluid (lb/gal)				
FORMATION INTEGRITY		1,959.0		13.00				
FORMATION INTEGRITY		6,286.0		9.50				
Casing Pressure Test								
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)		
CASING	STANDARD	9/6/2019	SURFACE, 1,959.1ftKB	No	30.00	1,000.0		
CASING	STANDARD	10/12/2019	INTERMEDIATE, 6,286.0ftKB	No	30.00	2,500.0		
Kick Offs & Key Depths								
Date		Type		Top Depth (ftKB)				
		KICK OFF						
		TOE						
		HEEL						
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	106.5	106.5	20	H40	78.67			
SURFACE	1,959.1	1,958.4	13 3/8	J55	54.50	BTC	1,322.0	
INTERMEDIATE	6,286.0	6,236.6	9 5/8	L80-IC	40.00	BTC	3,078.3	
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	0	6,204	0	Mud Diesel	14,463	6,204.0
DIESEL	FUEL	GAL	0	2,175	0	Rig Diesel	9,453	12,935.0
WATER	FRESH	BBL	2,851	2,851	0	Initial Reading: 175599. Final reading: 178450	0	7,112.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
CALCIUM CHLORIDE	SALT	LB	0	14	227.0	14		
GILSONITE	FLUID LOSS ADDITIVES	SACK	0	15	72.0	15		
LIME	ALKALINITY CONTROL	LB	0	45	215.0	45		
MUD DIESEL	FUEL	GAL	0	6,204	14,463.0	6,204		
POLYDRIL LEM H60 DRUM	OIL MUD ADDITIVE	GAL	0	2	7.0	2		
POLYDRIL PE 50 DRUM	OIL MUD ADDITIVE	GAL	0	2	6.0	2		
POLYDRIL WA 100 DRUM	OIL MUD ADDITIVE	GAL	0	2	7.0	2		
VG-PLUS	OIL MUD ADDITIVE	LB	0	11	87.0	11		
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
Deviation Surveys								
Date	Description					Job		
8/29/2019	AS DRILL SURVEY					ODR, 8/29/2019 10:30		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
7,406.00	2.10	141.59	7,356.16	581.04	553.99	-180.18	0.62	
7,502.00	1.47	149.55	7,452.12	578.26	551.55	-178.46	0.70	
7,597.00	0.78	154.91	7,547.10	576.46	549.91	-177.57	0.73	
7,692.00	1.52	146.86	7,642.08	574.64	548.27	-176.61	0.80	
7,787.00	1.24	131.85	7,737.05	572.60	546.53	-175.15	0.48	
7,882.00	3.27	131.45	7,831.97	569.52	544.05	-172.36	2.14	
7,977.00	4.55	136.41	7,926.75	564.02	539.53	-167.73	1.39	
8,072.00	1.10	150.15	8,021.62	559.87	536.01	-164.68	3.67	
8,168.00	0.91	131.16	8,117.61	558.36	534.71	-163.64	0.40	
8,262.00	0.98	141.74	8,211.59	557.01	533.59	-162.58	0.20	
8,358.00	1.17	140.29	8,307.58	555.38	532.19	-161.45	0.20	
8,453.00	0.38	64.61	8,402.57	554.57	531.58	-160.54	1.20	
8,524.00	0.30	20.17	8,473.57	554.77	531.85	-160.27	0.38	
Formations								
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
267_5_SPBY_M_A1			-5,760.0		8,757.5			
268_5_SPBY_L_A1			-5,985.0		8,982.5			
268_5_SPBY_L_A2			-6,024.0		9,021.5			
FIRST TAKE POINT (FTP)			-6,123.0		9,120.5			
TARGET #1			-6,168.0		9,165.5			
Daily Drilling Report				Page 4/5		Printed: Monday, October 14, 2019		



# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 39.00
1,427.00	

Job:	ODR
Report Date:	10/14/2019
Report #:	10
DFS:	8
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$59,099.78

[illegible]

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/15/2019		
Days Since LTI: 1,428.00				Report #:	11		
Release:				DFS:	9		
Days Since RI: 40.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$53,429.99		

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	UPCOMING OPERATIONS: TIH, drill curve per directional plan - will get update from geo @ 30-40 deg in curve. Once land curve we will keep drilling ahead, Clean and organize around location. Use good communication on fluid transfers - monitor solids control equipment and catch tanks.						
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46881 Date & Time: 10/11/2019, 2:00 pm Classification: Spill/Release (Low) Company/Employee: H&P Description: After filling a generator, contractor later noticed diesel on the ground. They turned off the generator and removed the fill cap, there was back pressure and approximately 2 gals of diesel came out of the fill and to ground. Rental company for the generator was notified and is having the generator inspected.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed upcoming operations - drilling curve per directional plan. Clean and organize rig/location while building curve and use time to get rig looking good. Complete RM audit. Use good communication on fluid transfers, watch hand/body placement while making connections. Keep eye on shakers and backyard equipment. Post memos on Pason covering centrifuge operations, diesel/water additions, etc.						
18:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46881 Date & Time: 10/11/2019, 2:00 pm Classification: Spill/Release (Low) Company/Employee: H&P Description: After filling a generator, contractor later noticed diesel on the ground. They turned off the generator and removed the fill cap, there was back pressure and approximately 2 gals of diesel came out of the fill and to ground. Rental company for the generator was notified and is having the generator inspected.						
02:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Stop card: Noticed fluid manifold missing bull plug. Stopped RTM and discussed importance of installing bull plug on unused connection. RTM understood and agreed to check his equipment better						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)										
Type		Subtype		Date	Note					
MILESTONE		ESTIMATED PAD RELEASE		12/4/2019	Drilling 2nd curve on 4 well pad. Batch Drilling. (Updated 10-13-19)					
Daily Operations										
Footage/Meterage (ft) 490.00		Drilling Hours (hr) 17.50		% Rotating Time (%) 0.00		End Depth (ftKB) 9,080.0	Target Depth (ftKB) 19,316.0	Daily Field Est Total (Cost) 53,429.99	Cum Field Est To Date (Cost) 1,299,883.20	
24 HR ROP (ft/hr) 28.0		Circulating Hours (hr) 0.50		% Sliding Time (%) 100.00		End Depth (TVD) (ftKB) 8,976.4	Target Depth (TVD) (ftKB) 9,141.9	Daily Mud Field Est (Cost) 3,499.38	Cum Mud Field Est (Cost) 38,186.21	Total AFE + Sup (Cost) 3,097,685.89
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 1,200.0				Daily Goal - Next 24 1,500.0		Goal Comments Goal not achieved (-57%)		
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB			Next Casing String PROPOSED PRODUCTION, 19,314.0ftKB			
Avg Connection Gas 77.00		Avg Trip Gas 469.00		Avg Background Gas 72.00		Max Connection Gas 86.00		Max Trip Gas 469.00		Max Drill Gas 81.00
Operations Summary TIH, Drill 8 1/2" curve f/ 8590' t/ 9080' (100% sliding, Inc: 37.29°, BRN: 10.7°, MY: 9.4°, 12.3' behind, 6.6' right)										
Operations Next Report Period Continue to drill 8 1/2" curve t/ 9500', Land curve, Continue drilling lateral t/ 10580'										
Operations at Report Time Drilling 8 1/2" curve @ 9080'										
Remarks No Accidents, Incidents, or spills										
Rig NPT: 0.5 hours										
3rd Party NPT: 0 hours										
PNR NPT: 0 hours										
Surf:100% Int:100% Prod Vertical: 100% Curve: 54% Lat: 0%										
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs										
Saver Sub footage: 490'										
Initial Water Meter Reading: 175306										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	0.75	06:45	PROD, DRL	SLIP_CUT	NORMAL	Finish slip and cutting drill line.	8,590.0	8,590.0		
06:45	0.5	07:15	PROD, DRL	RIG_SVC	NORMAL	Rig service	8,590.0	8,590.0		
07:15	1.25	08:30	PROD, DRL	TIH_ELEV	NORMAL	TIH f/ 106' t/ 2850'. Hole displacing properly to trip tanks	8,590.0	8,590.0		
08:30	0.25	08:45	PROD, DRL	HDL_ROTHTD	NORMAL	Pull trip nipple and install rotating head.	8,590.0	8,590.0		
Daily Drilling Report										
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Daily Drilling Report

Time Log																					
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #											
08:45	0.5	09:15	PROD, DRL	HDL_AGITATOR	NORMAL	P/U and test agitator @ 700gpm  PSI drop Before 2250 psi After 2800 psi	8,590.0	8,590.0													
09:15	2.75	12:00	PROD, DRL	TIH_ELEV	NORMAL	TIH f/ 2950' t/ 8590'. Hole displacing properly to trip tanks	8,590.0	8,590.0													
12:00	16	04:00	PROD, DRL CURVE	DRL	NORMAL	Drill F/8590' T/9054' (464' @ 29 fph), 51% complete. 100% Sldg @ 29 fph MW-7.95 w/ 42 vis, full returns.  Last Survey @ 8896' ? Inc-28.43°, Azm-343.03°, 11.61' behind & 8.79' right to plan #1	8,590.0	9,054.0													
04:00	0.5	04:30	PROD, DRL CURVE	RIG_SVC	NORMAL	Rig service. Get SPR's	9,054.0	9,054.0													
04:30	1.5	06:00	PROD, DRL CURVE	DRL	NORMAL	Drill F/9054' T/9080' (26' @ 16 fph), 54% complete. 100% Sldg @ 17 fph MW-7.95 w/ 42 vis, full returns.  Last Survey @ 8991' ? Inc-37.29°, Azm-344.01°, 12.31' behind & 6.55' right to plan #1	9,054.0	9,080.0													
Drill Strings																					
BHA #4 , PRODUCTION - CURVE/LATERAL																					
Bit Run 4			Drill Bit 8 1/2in, GTD65DM, 13184333				Bit Type PDC		Make HALLIBURTON												
Nozzles (1/32") 13/13/13/13/13/13			Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull -----		Hours Drilled By Bit (hr) 17.50		Depth Drilled By Bit (ft) 490.00												
BHA Drilling Time (hr) 17.50			BHA Depth Drilled (ft) 490.00		BHA ROP (ft/hr) 28.0		Depth In (ftKB) 8,590.0		Depth Out (ftKB) 9,080.0												
Drill String Components																					
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make										
193	DRILL PIPE				5	3.50	6,097.62	9,080.00	360,735.2	529	OTHER (PROVIDE DESCRIPTION)										
1	AGITATOR				6 1/2	2.63	26.38	2,982.38		168	SCOUT										
90	DRILL PIPE				5	3.50	2,844.83	2,956.00	168,300.1	168	OTHER (PROVIDE DESCRIPTION)										
1	DRILL COLLAR - FLEX				6 7/8	3.25	30.99	111.17		0	STABIL DRILL										
1	DRILL COLLAR - NON MAG				6 3/4	3.25	30.97	80.18		0	STABIL DRILL										
1	SUB - UBHO				6 11/16	2.75	2.97	49.21		0	GYRODATA										
1	SUB - DOWNHOLE RECORDING				6 3/4	2.75	8.29	46.24		0	LODESTAR INTERNATIONAL										
1	STABILIZER				6 3/4	2.56	4.61	37.95		0	STABIL DRILL										
1	MOTOR - STABILIZER SLEEVE				7	3.00	32.34	33.34		0	GYRODATA										
Mud Motors																					
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr DefIn Type		Bit To Bend									
GDM700026		2		NOT SEALED		6:7		6.5				4.05									
Sensors																					
Sensor Type				Sensor-Bit (ft)				Note													
GAMMA				52.00																	
DIRECTIONAL				63.00																	
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)				
12:00	14:45	8,590.0	85.00	30.9	25	0	300.0	675	3,480.0	30.0	200	245	180	200	0.0	6,500.0	340				
14:45	15:45	8,675.0	22.00	22.0	25	0	300.0	700	3,700.0	30.0	200	245	180	200	0.0	6,500.0	340				
15:45	21:00	8,697.0	167.00	31.8	30	0	300.0	650	3,150.0	50.0	200	245	180	200	0.0	6,500.0	0				
21:00	04:00	8,864.0	190.00	27.1	20	0	300.0	700	3,300.0	30.0	200	245	180	200	0.0	6,500.0	0				
04:00	04:30	9,054.0	0.00	0.0	0	0	0.0	700	3,150.0	0.0	200	245	180	200	0.0	0.0	0				
04:30	06:00	9,054.0	26.00	17.3	20	0	300.0	700	3,300.0	30.0	200	245	180	200	0.0	6,500.0	0				
Hydraulic Calculations																					
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
8.00		8.22		246.7		4.3		288.8		604.3		19.6		737.9		107.62		136.42		323.98	
Daily Drilling Report												Page 2/4				Printed: Tuesday, October 15, 2019					

Daily Drilling Report

Mud Checks											
Time 20:00		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 8,952.0		Density (lb/gal) 8.00	Funnel Viscosity (s/qt) 40	T Flowline (°F) 124.0
PV (cP) 8.0	YP (lb/100ft²) 7.000	Vis 3rpm 4	Vis 6rpm 5	Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 13.6		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 10.0		Low Gravity Solids (%) 6.0		Sand (%) 0.1		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)	
Chlorides (ppm) 213,808.000		Calcium (ppm) 2,800.000		CaCl (ppm) 0	Oil Water Ratio 86.7/13.3		Electric Stab (V) 760.0		Lime (lb/bbl) 3.0	pH 0.0	
Gel 10 sec (lb/100ft²) 5.000				Gel 10 min (lb/100ft²) 9.000				Gel 30 min (lb/100ft²) 11.000			
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for addional wetting and emulsion, Soltex for additional fluid loss while building volume.											
DRILLING FLUID ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve properties within mud program specifications. Transferred obm from storage as needed to maintain volume in system while drilling. Monitored displacement while tripping in hole. Ran density, chlorides and retort on cement fresh water frac tank and duck pond per drilling engineer with results listed below.											
RIG ACTIVITY LAST 24 HOURS: Rig changed out saver sub and slipped and cut drill line. Picked up new bit and curve assembly bha and tripped in hole to 8590 and began kicking off drilling curve. Drilling curve and building volume while drilling. Running 1 centrifuge on active system to assist in weight control and polish mud system. Drilling ahead at 8952 at report time.											
Last BOP Test											
Date	Test Type			Item Tested			Next Test Date	Com			
10/12/2019	BOP			BOP'S, 9/18/2019 03:15, <class>			10/22/2019	Perform shell test after skid 10/12/19. Last FULL BOP test 10/1/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted			
Leak Off and Formation Integrity Tests											
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,959.0				13.00			
FORMATION INTEGRITY				6,286.0				9.50			
Casing Pressure Test											
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			9/6/2019		SURFACE, 1,959.1ftKB		No	30.00	1,000.0
CASING		STANDARD			10/12/2019		INTERMEDIATE, 6,286.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths											
Date				Type				Top Depth (ftKB)			
				TOE							
				HEEL							
10/14/2019 12:00				KICK OFF				8,590.0			
Casing Strings											
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)				
CONDUCTOR	106.5	106.5	20	H40	78.67						
SURFACE	1,959.1	1,958.4	13 3/8	J55	54.50	BTC	1,322.0				
INTERMEDIATE	6,286.0	6,236.6	9 5/8	L80-IC	40.00	BTC	3,078.3				
Job Supply Amounts											
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed			
DIESEL	MUD	GAL	0	2,910	0	Mud Diesel	11,553	9,114.0			
DIESEL	FUEL	GAL	0	2,121	0	Rig Diesel	7,332	15,056.0			
WATER	FRESH	BBL	0	0	0	Initial Reading: 178450. Final reading: 178450	0	7,112.0			
Mud Additive Amounts											
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons					
GILSONITE	FLUID LOSS ADDITIVES	SACK	150	10	212.0	25					
LIME	ALKALINITY CONTROL	LB	200	19	396.0	64					
MUD DIESEL	FUEL	GAL	0	2,910	11,553.0	9,114					
OIL DRY	MISCELLANEOUS	LB	100	0	100.0	6					
PALLET	MISCELLANEOUS	EA	16	16	0.0	44					
POLYDRIL LEM H60 DRUM	OIL MUD ADDITIVE	GAL	8	1	14.0	3					
POLYDRIL PE 50 DRUM	OIL MUD ADDITIVE	GAL	8	1	13.0	3					
POLYDRIL SOLTEX	FLUID LOSS ADDITIVES	LB	0	4	24.0	4					
POLYDRIL WA 100 DRUM	OIL MUD ADDITIVE	GAL	8	0	15.0	2					
SHRINK WRAP	MISCELLANEOUS	EA	10	10	0.0	28					
TRUCKING	MISCELLANEOUS	EA	850	850	0.0	2,750					
VG-PLUS	OIL MUD ADDITIVE	LB	35	4	118.0	15					
Pump Operations											
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)					
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0					
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0					
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0					
Daily Drilling Report											

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# Daily Drilling Report

**H & P #601**

**Release:**  
**Days Since RI: 40.00**

Job:	ODR
Report Date:	10/15/2019
Report #:	11
DFS:	9
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$53,429.99

Company	Count
PIONEER NATURAL RESOURCES USA INC	2
HELMERICH & PAYNE INTERNATIONAL DRILLING CO	13
DWM CONSULTING	1
GYRODATA INC	4
STRATAGRAPH INC	2
DYNAMIC OILFIELD SERVICES INC	1
TURBO DRILL INDUSTRIES INC	1



Daily Drilling Report

UNIVERSITY 7-43 116H						PERMIAN ASSET TEAM	
H & P #601						Job:	ODR
Accept: 9/22/2019						Report Date:	10/16/2019
Days Since LTI: 1,429.00						Report #:	12
Release:						DFS:	10
Days Since RI: 41.00						AFE #:	9006568
						Total AFE + Sup:	\$3,097,685.89
						Daily Field Est. (Cost):	\$86,595.29

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	UPCOMING OPERATIONS: Drill curve per directional plan, having build rate issues. Once land curve we will keep drilling ahead, Clean and organize around location. Use good communication on fluid transfers - monitor solids control equipment and catch tanks. Wear all PPE.											
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46881 Date & Time: 10/11/2019, 2:00 pm Classification: Spill/Release (Low) Company/Employee: H&P Description: After filling a generator, contractor later noticed diesel on the ground. They turned off the generator and removed the fill cap, there was back pressure and approximately 2 gals of diesel came out of the fill and to ground. Rental company for the generator was notified and is having the generator inspected.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed upcoming operations - drilling lateral per directional plan. Clean and organize around location - leave rig like you want to see it when you come back. Last night of hitch - stay focused on task at hand. Make sure you are rested for drive home. Watch hand/body placement while making connections. Load of mud diesel being unloaded - another load of diesel arriving in morning. SLB here to continue emptying cement silos.											
18:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46881 Date & Time: 10/11/2019, 2:00 pm Classification: Spill/Release (Low) Company/Employee: H&P Description: After filling a generator, contractor later noticed diesel on the ground. They turned off the generator and removed the fill cap, there was back pressure and approximately 2 gals of diesel came out of the fill and to ground. Rental company for the generator was notified and is having the generator inspected.											
02:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop card: After making connection, RTM went to pull slips by himself, he was stopped and told to wait for assistance to prevent himself from potential injury. He understood and agreed to wait. Another RTM came and helped pull slips											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status								
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS								
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)															
Type			Subtype		Date	Note									
MILESTONE			ESTIMATED PAD RELEASE		12/5/2019	Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)									
Daily Operations															
Footage/Meterage (ft) 1,708.00		Drilling Hours (hr) 23.25		% Rotating Time (%) 53.76		End Depth (ftKB) 10,788.0		Target Depth (ftKB) 19,316.0		Daily Field Est Total (Cost) 86,595.29		Cum Field Est To Date (Cost) 1,387,015.81			
24 HR ROP (ft/hr) 73.5		Circulating Hours (hr) 0.75		% Sliding Time (%) 46.24		End Depth (TVD) (ftKB) 9,125.6		Target Depth (TVD) (ftKB) 9,141.9		Daily Mud Field Est (Cost) 6,851.60		Cum Mud Field Est (Cost) 45,037.81		Total AFE + Sup (Cost) 3,097,685.89	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0				Daily Goal - Next 24 2,200.0				Goal Comments Goal achieved (+42%)			
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB				Next Casing String PROPOSED PRODUCTION, 19,314.0ftKB							
Avg Connection Gas 200.00		Avg Trip Gas 0.00		Avg Background Gas 156.00		Max Connection Gas 254.00		Max Trip Gas 0.00		Max Drill Gas 228.00					
Operations Summary Continue to drill 8 1/2" curve t/ 9424', Land curve, Continue drilling lateral t/ 10788' (46.2% sliding, 1.14° avg lateral DLS, 7' above, 5.5' left)															
Operations Next Report Period Drill 8 1/2" lateral f/ 10788' t/ 12988'															
Operations at Report Time Drilling 8 1/2" lateral @ 10788'															
Remarks No Accidents, Incidents, or spills  Rig NPT: 0.5 hours  3rd Party NPT: 0 hours  PNR NPT: 0 hours  Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 14%  Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs  Saver Sub footage: 2,198'  Initial Water Meter Reading: 175306															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #				
06:00	10.25	16:15	PROD, DRL CURVE	DRL	NORMAL	Drill F/9080' T/9424' (344' @ 35 fph), 100% complete. 5% Rot @ 50 fph 95% Sldg @ 34 fph MW-8 w/ 38 vis, full returns.  Last Survey @ 9371' ? Inc-80.24°, Azm-345.34°, 3.87' high & 0.43' left to plan #1		9,080.0	9,424.0						
Daily Drilling Report															



Daily Drilling Report

UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,429.00	Days Since RI: 41.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/16/2019
Report #:	12
DFS:	10
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$86,595.29

Drilling Parameters																		
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)	
11:15	11:30	9,244.0	15.00	60.0	27	30	350.0	675	3,350.0	100.0	200	245	180	200	11,000.0	6,500.0	0	
11:30	13:45	9,259.0	80.00	35.6	35	0	350.0	675	3,350.0	60.0	200	245	180	200	0.0	0.0	0	
13:45	14:15	9,339.0	10.00	20.0	27	30	350.0	675	3,350.0	100.0	200	245	180	200	13,000.0	6,500.0	0	
14:15	16:15	9,349.0	75.00	37.5	35	0	350.0	675	3,350.0	45.0	200	245	180	200	0.0	0.0	0	
16:15	17:45	9,424.0	105.00	70.0	38	40	500.0	700	3,750.0	100.0	205	245	180	205	15,700.0	6,500.0	0	
17:45	19:00	9,529.0	106.00	84.8	40	60	500.0	700	3,750.0	160.0	205	245	180	205	15,700.0	6,500.0	0	
19:00	19:15	9,635.0	12.00	48.0	35	0	300.0	700	3,550.0	80.0	205	245	180	205	0.0	0.0	20	
19:15	22:30	9,647.0	366.00	112.6	40	60	550.0	700	3,830.0	160.0	205	245	180	205	16,000.0	6,500.0	0	
22:30	23:15	10,013.0	15.00	20.0	35	0	350.0	700	3,600.0	80.0	205	245	180	205	0.0	0.0	60	
23:15	23:30	10,028.0	0.00		0	0	0.0	700	3,400.0	0.0	205	245	180	205	0.0	6,500.0	0	
23:30	03:30	10,028.0	552.00	138.0	40	60	550.0	700	3,850.0	160.0	205	245	180	205	16,000.0	6,500.0	0	
03:30	03:45	10,580.0	6.00	24.0	35	0	350.0	700	3,600.0	80.0	205	245	180	205	0.0	0.0	180	
03:45	04:30	10,586.0	80.00	106.7	40	60	550.0	700	3,850.0	160.0	205	245	180	205	16,000.0	6,500.0	0	
04:30	05:00	10,666.0	0.00	0.0	0	0	0.0	700	3,400.0	0.0	205	245	180	205	0.0	0.0	0	
05:00	06:00	10,666.0	122.00	122.0	40	60	550.0	700	3,850.0	160.0	205	245	180	205	16,000.0	6,500.0	0	
Hydraulic Calculations																		
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
8.00	8.26	246.7		4.3		288.8		604.3		19.6	737.9		127.57		214.38		324.43	
Mud Checks																		
Time 20:00		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE			Depth (ftKB) 10,166.0		Density (lb/gal) 8.00		Funnel Viscosity (s/qt) 42		T Flowline (°F) 132.0			
PV (cP) 8.0		YP (lbf/100ft²) 7.000		Vis 3rpm 4		Vis 6rpm 5		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 12.8		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0				
Solids (%) 10.0				Low Gravity Solids (%) 6.0			Sand (%) 0.1			MBT (lb/bbl) 0.0			Pm (mL/mL) 0.000		Pf (mL/mL)			
Chlorides (ppm) 225,485.000			Calcium (ppm) 2,800.000			CaCl (ppm) 0		Oil Water Ratio 86.7/13.3			Electric Stab (V) 840.0			Lime (lb/bbl) 3.4		pH 0.0		
Gel 10 sec (lbf/100ft²) 5.000						Gel 10 min (lbf/100ft²) 10.000						Gel 30 min (lbf/100ft²) 11.000						
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for addional wetting and emulsion, Soltex for additional fluid loss while building volume.																		
DRILLING FLUID ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve properties within mud program specifications. Transferred obm from storage as needed to maintain volume in system while drilling. Prehydrating dry chemical in slug tank prior to transferring into active system.																		
RIG ACTIVITY LAST 24 HOURS: Drilled and slid building curve to landing point at 9424 ft. Continued drilling into lateral section with curve assembly to 10166. Building and transferring excess volume in frac tanks for storage. Drilling ahead in lateral at report time.																		
Last BOP Test																		
Date		Test Type				Item Tested				Next Test Date		Com						
10/12/2019		BOP				BOP'S, 9/18/2019 03:15, <class>				10/22/2019		Perform shell test after skid 10/12/19. Last FULL BOP test 10/1/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted						
Leak Off and Formation Integrity Tests																		
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)						
FORMATION INTEGRITY						1,959.0						13.00						
FORMATION INTEGRITY						6,286.0						9.50						
Casing Pressure Test																		
Test Type				Test Subtype				Date		Item Tested				Failed?	Time (min)	P (psi)		
CASING				STANDARD				9/6/2019		SURFACE, 1,959.1ftKB				No	30.00	1,000.0		
CASING				STANDARD				10/12/2019		INTERMEDIATE, 6,286.0ftKB				No	30.00	2,500.0		
Kick Offs & Key Depths																		
Date							Type							Top Depth (ftKB)				
							TOE											
10/14/2019 12:00							KICK OFF							8,590.0				
10/15/2019 16:15							HEEL							9,424.0				
Casing Strings																		
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)				
CONDUCTOR		106.5		106.5		20		H40		78.67								
SURFACE		1,959.1		1,958.4		13 3/8		J55		54.50		BTC		1,322.0				
Daily Drilling Report																		
Page 3/5										Printed: Wednesday, October 16, 2019								

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/16/2019
Report #:	12
DFS:	10
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$86,595.29

UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,429.00	Days Since RI: 41.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/16/2019
Report #:	12
DFS:	10
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$86,595.29

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
YOHO, RYAN, FIELD ENGINEER	FIELD ENGINEER		432-307-5130	RYAN.YOHO@PXD.COM
RIG-H&P 601, RIG PHONE	RIG PHONE	432-355-3111	469-866-2439	
Personnel Log				
Company				Count
PIONEER NATURAL RESOURCES USA INC				2
HELMERICH & PAYNE INTERNATIONAL DRILLING CO				13
DWM CONSULTING				1
GYRODATA INC				4
STRATAGRAPH INC				2
DYNAMIC OILFIELD SERVICES INC				1



Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/17/2019		
Days Since LTI: 1,430.00				Report #:	13		
Release:				DFS:	11		
Days Since RI: 42.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$107,930.46		

P/I/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY L A3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00038689		Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019		TD Date							
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations - first day back to work drilling lateral per directional plan. Continue to monitor off bottom pressure. Continue to clean and organize around location. Work on multiple picture audits and get location looking better. Play with parameters and try to make some hole. Watch hand/body placement while making connections, obey buffer zone while bringing PDS to floor. Wear all PPE.											
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46889 Date & Time: 10/11/2019, 3:00 pm Classification: Property Damage (Low) Company/Employee: Rolfson Oil Description: Truck driver had arrived on location to unload mud diesel, driver checked in with all personnel and communicated what he was there for. In the process of backing up spotter and driver communications was neglected, causing driver to drive over three 4" hoses. Incident was reported and hose was replaced immediately.											
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46889 Date & Time: 10/11/2019, 3:00 pm Classification: Property Damage (Low) Company/Employee: Rolfson Oil Description: Truck driver had arrived on location to unload mud diesel, driver checked in with all personnel and communicated what he was there for. In the process of backing up spotter and driver communications was neglected, causing driver to drive over three 4" hoses. Incident was reported and hose was replaced immediately.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Drill production Lateral section,First day back to work, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times											
22:45	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop card: Noticed RTM's following proper LOTO procedure before working on MP. Thanked them for following PNR's R2LB on energy isolation and told them to keep up the good work											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status						
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30				IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype		Date		Note								
MILESTONE			ESTIMATED PAD RELEASE		12/5/2019		Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)								
Daily Operations															
Footage/Meterage (ft) 1,708.00		Drilling Hours (hr) 23.00		% Rotating Time (%) 85.87		End Depth (ftKB) 12,496.0		Target Depth (ftKB) 19,316.0		Daily Field Est Total (Cost) 107,930.46		Cum Field Est To Date (Cost) 1,494,946.27			
24 HR ROP (ft/hr) 74.3		Circulating Hours (hr) 1.00		% Sliding Time (%) 14.13		End Depth (TVD) (ftKB) 9,154.2		Target Depth (TVD) (ftKB) 9,141.9		Daily Mud Field Est (Cost) 4,795.43		Cum Mud Field Est (Cost) 49,833.24		Total AFE + Sup (Cost) 3,097,685.89	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 2,200.0				Daily Goal - Next 24 1,500.0				Goal Comments Goal not achieved (-22%)			
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB						Next Casing String PROPOSED PRODUCTION, 19,314.0ftKB					
Avg Connection Gas 146.00		Avg Trip Gas 0.00			Avg Background Gas 110.00		Max Connection Gas 228.00		Max Trip Gas 0.00		Max Drill Gas 253.00				
Operations Summary Drill 8 1/2" lateral f/ 10788' t/ 12496' (14.13% sliding, 1.54° avg lateral DLS, 4.89' high, 8.97' right)															
Operations Next Report Period Drill 8 1/2" lateral f/ 12496' t/ 13996'															
Operations at Report Time Drilling 8 1/2" lateral @ 12496'															
Remarks No Accidents, Incidents, or spills															
Rig NPT: 0.5 hours															
3rd Party NPT: 0 hours															
PNR NPT: 0 hours															
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 31%															
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs															
Saver Sub footage: 3,906'															
Initial Water Meter Reading: 175306															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	10.5	16:30	PROD, DRL LAT	DRL	NORMAL	Drill F/10788' T/11489' (701' @ 67 fph), 21% complete. 83% Rot @ 75 fph 17% Sldg @ 26 fph MW-8 w/ 39 vis, full returns.  Last Survey @ 11336' ? Inc-90.03°, Azm-4.82°, 7.03' high & 3.31' right to plan #1			10,788.0	11,489.0					
16:30	0.5	17:00	PROD, DRL LAT	RIG_SVC	NORMAL	Daily Rig Service. C/O inline screen.			11,489.0	11,489.0					
Daily Drilling Report															
Page 1/5															
Printed: Thursday, October 17, 2019															

# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 42.00
1,430.00	

Job:	ODR
Report Date:	10/17/2019
Report #:	13
DFS:	11
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$107,930.46

## Drill Strings

### BHA #4 , PRODUCTION - CURVE/LATERAL

## Drill String Components

## Drill String Components

## Mud Motors

Sensors	
1	Temperature sensor
2	Humidity sensor
3	Pressure sensor
4	Light sensor
5	Gas sensor
6	Proximity sensor
7	Accelerometer
8	Gyroscope
9	Magnetometer
10	Ultrasonic sensor
11	Infrared sensor
12	Capacitive touch sensor
13	Optical sensor
14	Force sensor
15	Biometric sensor
16	RFID sensor
17	Barcode sensor
18	Image sensor
19	Video sensor
20	Audio sensor
21	Microphone
22	Speaker
23	Display sensor
24	Touchscreen
25	Keypad
26	Button
27	Switch
28	Relay
29	Motor
30	Actuator
31	Valve
32	Pump
33	Compressor
34	Heater
35	Cooler
36	Lighting
37	Sound system
38	Security system
39	Alarm system
40	Access control system
41	Fire alarm system
42	Gas alarm system
43	Water alarm system
44	Smoke alarm system
45	Carbon monoxide alarm system
46	Door lock system
47	Window lock system
48	Shutter lock system
49	Garage door opener
50	Remote control
51	Wireless remote control
52	Bluetooth remote control
53	Wi-Fi remote control
54	Cellular remote control
55	RF remote control
56	IR remote control
57	Ultrasonic remote control
58	Optical remote control
59	Acoustic remote control
60	Thermal remote control
61	Biometric remote control
62	RFID remote control
63	Barcode remote control
64	Image remote control
65	Video remote control
66	Audio remote control
67	Microphone remote control
68	Speaker remote control
69	Display remote control
70	Touchscreen remote control
71	Keypad remote control
72	Button remote control
73	Switch remote control
74	Relay remote control
75	Motor remote control
76	Actuator remote control
77	Valve remote control
78	Pump remote control
79	Compressor remote control
80	Heater remote control
81	Cooler remote control
82	Lighting remote control
83	Sound system remote control
84	Security system remote control
85	Alarm system remote control
86	Access control system remote control
87	Fire alarm system remote control
88	Gas alarm system remote control
89	Water alarm system remote control
90	Smoke alarm system remote control
91	Carbon monoxide alarm system remote control
92	Door lock system remote control
93	Window lock system remote control
94	Shutter lock system remote control
95	Garage door opener remote control
96	Remote control remote control
97	Wireless remote control remote control
98	Bluetooth remote control remote control
99	Wi-Fi remote control remote control
100	Cellular remote control remote control
101	RF remote control remote control
102	IR remote control remote control
103	Ultrasonic remote control remote control
104	Optical remote control remote control
105	Acoustic remote control remote control
106	Thermal remote control remote control
107	Biometric remote control remote control
108	RFID remote control remote control
109	Barcode remote control remote control
110	Image remote control remote control
111	Video remote control remote control
112	Audio remote control remote control
113	Microphone remote control remote control
114	Speaker remote control remote control
115	Display remote control remote control
116	Touchscreen remote control remote control
117	Keypad remote control remote control
118	Button remote control remote control
119	Switch remote control remote control
120	Relay remote control remote control
121	Motor remote control remote control
122	Actuator remote control remote control
123	Valve remote control remote control
124	Pump remote control remote control
125	Compressor remote control remote control
126	Heater remote control remote control
127	Cooler remote control remote control
128	Lighting remote control remote control
129	Sound system remote control remote control
130	Security system remote control remote control
131	Alarm system remote control remote control
132	Access control system remote control remote control
133	Fire alarm system remote control remote control
134	Gas alarm system remote control remote control
135	Water alarm system remote control remote control
136	Smoke alarm system remote control remote control
137	Carbon monoxide alarm system remote control remote control
138	Door lock system remote control remote control
139	Window lock system remote control remote control
140	Shutter lock system remote control remote control
141	Garage door opener remote control remote control
142	Remote control remote control remote control
143	Wireless remote control remote control remote control
144	Bluetooth remote control remote control remote control
145	Wi-Fi remote control remote control remote control
146	Cellular remote control remote control remote control
147	RF remote control remote control remote control
148	IR remote control remote control remote control
149	Ultrasonic remote control remote control remote control
150	Optical remote control remote control remote control
151	Acoustic remote control remote control remote control
152	Thermal remote control remote control remote control
153	Biometric remote control remote control remote control
154	RFID remote control remote control remote control
155	Barcode remote control remote control remote control
156	Image remote control remote control remote control
157	Video remote control remote control remote control
158	Audio remote control remote

10/10/2014

Drilling Parameters									
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[illegible]

Daily Drilling Report

UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,430.00	Days Since RI: 42.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/17/2019
Report #:	13
DFS:	11
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$107,930.46

Drilling Parameters																		
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)	
15:45	16:15	11,418.0	71.00	142.0	40	70	500.0	725	4,400.0	125.0	238	265	210	238	17,800.0	9,500.0	0	
16:15	16:45	11,489.0	0.00		0	0	0.0	725	3,900.0	0.0	238	265	210	238	0.0	9,500.0	0	
16:45	17:45	11,489.0	100.00	100.0	40	70	500.0	725	4,400.0	125.0	238	265	210	238	17,800.0	9,500.0	0	
17:45	18:00	11,589.0	8.00	32.0	30	0	250.0	725	4,250.0	40.0	238	265	210	238	0.0	9,500.0	180	
18:00	19:45	11,597.0	183.00	104.6	40	70	500.0	725	4,400.0	125.0	238	265	210	238	17,800.0	9,500.0	0	
19:45	20:00	11,780.0	8.00	32.0	50	0	300.0	725	4,250.0	60.0	238	265	210	238	0.0	9,500.0	340	
20:00	21:00	11,788.0	85.00	85.0	40	70	500.0	725	4,400.0	125.0	238	265	210	238	17,800.0	9,500.0	0	
21:00	21:15	11,873.0	10.00	40.0	50	0	300.0	725	4,250.0	60.0	238	265	210	238	0.0	9,500.0	180	
21:15	22:00	11,883.0	40.00	53.3	40	70	500.0	725	4,400.0	125.0	238	265	210	238	17,800.0	9,500.0	0	
22:00	22:30	11,923.0	50.00	100.0	40	70	500.0	670	4,000.0	120.0	238	265	210	238	19,500.0	9,500.0	0	
22:30	23:00	11,973.0	16.00	32.0	42	0	250.0	670	3,750.0	45.0	238	265	210	238	0.0	9,500.0	180	
23:00	00:30	11,989.0	113.00	75.3	40	70	500.0	670	4,000.0	120.0	238	265	210	238	19,500.0	9,500.0	0	
00:30	02:15	12,102.0	142.00	81.1	40	70	450.0	720	4,250.0	100.0	238	265	210	238	16,000.0	9,500.0	0	
02:15	02:45	12,244.0	0.00	0.0	0	0	0.0	670	3,900.0	0.0	238	265	210	238	0.0	0.0	0	
02:45	03:00	12,244.0	10.00	40.0	40	70	450.0	720	4,250.0	100.0	238	265	210	238	16,000.0	9,500.0	0	
03:00	03:30	12,254.0	8.00	16.0	42	0	300.0	670	3,750.0	45.0	238	265	210	238	0.0	9,500.0	0	
03:30	06:00	12,262.0	234.00	93.6	40	70	450.0	720	4,250.0	100.0	238	265	210	238	16,000.0	9,500.0	0	
Hydraulic Calculations																		
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)
8.00	8.49	268.5		4.7		297.0		639.3		20.2		759.0		147.89		292.77		324.43
Mud Checks																		
Time 20:00		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 12,071.0		Density (lb/gal) 8.00		Funnel Viscosity (s/qt) 40		T Flowline (°F) 136.0				
PV (cP) 8.0		YP (lbf/100ft²) 7.000		Vis 3rpm 4		Vis 6rpm 5		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 13.2		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 250.0				
Solids (%) 11.0				Low Gravity Solids (%) 6.4				Sand (%) 0.0		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)				
Chlorides (ppm) 213,808.000				Calcium (ppm) 0.000		CaCl (ppm) 0		Oil Water Ratio 86.5/13.5		Electric Stab (V) 765.0		Lime (lb/bbl) 3.4		pH 0.0				
Gel 10 sec (lbf/100ft²) 5.000						Gel 10 min (lbf/100ft²) 9.000						Gel 30 min (lbf/100ft²) 11.000						
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for addional wetting and emulsion, Soltex for additional fluid loss while building volume. DRILLING FLUID ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve properties within mud program specifications. Transferred obm from storage as needed to maintain volume in system while drilling. Prehydrating dry chemical in slug tank prior to transferring into active system.Received 7203 gallons of mud diesel RIG ACTIVITY LAST 24 HOURS: Drilled and slid in lateral section while building and transferring excess volume in frac tanks for storage. Drilling ahead in lateral at report time. Drilling in 80% shale and 20% limestone, maintaining 8.0 in system by dilution and running centrifuges. Drilling ahead at 12071 at report time.																		
Last BOP Test																		
Date		Test Type				Item Tested				Next Test Date		Com						
10/12/2019		BOP				BOP'S, 9/18/2019 03:15, <class>				10/22/2019		Perform shell test after skid 10/12/19. Last FULL BOP test 10/1/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted						
Leak Off and Formation Integrity Tests																		
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)						
FORMATION INTEGRITY						1,959.0						13.00						
FORMATION INTEGRITY						6,286.0						9.50						
Casing Pressure Test																		
Test Type				Test Subtype				Date		Item Tested				Failed?	Time (min)		P (psi)	
CASING				STANDARD				9/6/2019		SURFACE, 1,959.1ftKB				No	30.00		1,000.0	
CASING				STANDARD				10/12/2019		INTERMEDIATE, 6,286.0ftKB				No	30.00		2,500.0	
Kick Offs & Key Depths																		
Date								Type						Top Depth (ftKB)				
								TOE										
10/14/2019 12:00								KICK OFF						8,590.0				
10/15/2019 16:15								HEEL						9,424.0				
Daily Drilling Report																		

Daily Drilling Report

UNIVERSITY 7-43 116H

H & P #601

Accept: 9/22/2019      Release:  
Days Since LTI:      Days Since RI: 42.00  
1,430.00

PERMIAN ASSET TEAM

Job:      ODR  
Report Date:      10/17/2019  
Report #:      13  
DFS:      11  
AFE #:      9006568  
Total AFE + Sup:      \$3,097,685.89  
Daily Field Est. (Cost):      \$107,930.46

Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	106.5	106.5	20	H40	78.67			
SURFACE	1,959.1	1,958.4	13 3/8	J55	54.50	BTC	1,322.0	
INTERMEDIATE	6,286.0	6,236.6	9 5/8	L80-IC	40.00	BTC	3,078.3	
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	14,202	10,546	0	Mud Diesel	14,814	27,452.0
DIESEL	FUEL	GAL	7,301	3,461	0	Rig Diesel	8,303	21,386.0
WATER	FRESH	BBL	3,896	3,896	0	Initial Reading: 178450. Final reading: 182346	0	11,008.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc		Cum Cons	
CALCIUM CHLORIDE	SALT	LB		20	187.0		54	
GILSONITE	FLUID LOSS ADDITIVES	SACK		16	178.0		59	
LIME	ALKALINITY CONTROL	LB		24	288.0		172	
POLYDRIL LEM H60 DRUM	OIL MUD ADDITIVE	GAL		1	11.0		6	
POLYDRIL SE 50 DRUM	OIL MUD ADDITIVE	GAL		2	7.0		4	
POLYDRIL SOLTEX	FLUID LOSS ADDITIVES	LB		8	8.0		20	
VG-PLUS	OIL MUD ADDITIVE	LB		20	80.0		53	
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	11,209.0	13:00	325.0	20	64	95		
1	11,209.0	13:01	440.0	40	129	95		
1	11,209.0	13:02	620.0	60	193	95		
1	12,244.0	02:30	330.0	20	64	95		
1	12,244.0	02:31	426.0	40	129	95		
1	12,244.0	02:32	591.0	60	193	95		
2	11,209.0	13:03	325.0	20	64	95		
2	11,209.0	13:04	420.0	40	129	95		
2	11,209.0	13:05	565.0	60	193	95		
2	12,244.0	02:33	352.0	20	64	95		
2	12,244.0	02:34	441.0	40	129	95		
2	12,244.0	02:35	606.0	60	193	95		
3	11,209.0	13:06	315.0	20	64	95		
3	11,209.0	13:07	420.0	40	129	95		
3	11,209.0	13:08	590.0	60	193	95		
3	12,244.0	02:36	348.0	20	64	95		
3	12,244.0	02:37	441.0	40	129	95		
3	12,244.0	02:38	611.0	60	193	95		
Deviation Surveys								
Date 8/29/2019		Description AS DRILL SURVEY				Job ODR, 8/29/2019 10:30		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
10,877.00	88.47	347.19	9,128.08	2,511.06	2,425.54	-651.68	1.91	
10,968.00	87.45	347.28	9,131.32	2,601.98	2,514.24	-671.77	1.13	
11,059.00	89.21	346.76	9,133.97	2,692.93	2,602.87	-692.20	2.02	
11,151.00	90.08	346.67	9,134.54	2,784.92	2,692.41	-713.34	0.95	
11,244.00	89.07	346.69	9,135.23	2,877.91	2,782.90	-734.77	1.09	
11,336.00	90.03	346.92	9,135.95	2,969.90	2,872.47	-755.77	1.07	
11,426.00	89.43	346.46	9,136.38	3,059.89	2,960.05	-776.49	0.84	
11,516.00	90.06	346.84	9,136.78	3,149.89	3,047.62	-797.27	0.82	
11,611.00	88.39	347.02	9,138.06	3,244.87	3,140.14	-818.75	1.77	
11,706.00	88.53	347.05	9,140.62	3,339.82	3,232.69	-840.05	0.15	
11,801.00	92.35	346.64	9,139.89	3,434.79	3,325.17	-861.67	4.04	
11,896.00	91.36	346.25	9,136.81	3,529.74	3,417.48	-883.92	1.12	
11,991.00	89.21	346.26	9,136.34	3,624.73	3,509.75	-906.50	2.26	
12,086.00	89.01	346.58	9,137.81	3,719.72	3,602.08	-928.80	0.40	
12,181.00	87.54	345.57	9,140.67	3,814.67	3,694.25	-951.65	1.88	
Formations								
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
TARGET #1			-6,168.0		9,165.5			
Daily Contacts								
Job Contact		Title	Office	Mobile	Email			
FIZER, LARRY, VICE PRESIDENT		VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM			
Daily Drilling Report			Page 4/5			Printed: Thursday, October 17, 2019		

# Daily Drilling Report

**H & P #601**

**Release:**

Days Since RI: 42.00

**1,430.00**

**Daily Field Est. (Cost):** \$107,930.46

## Personnel Log

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Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/18/2019		
Days Since LTI: 1,431.00				Report #:	14		
Release:				DFS:	12		
Days Since RI: 43.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$390,094.88		

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case # 46888 Date: 10-12-19 Classification: Near Miss (Low) Description: While circulating a bottoms up after landing casing, the mounted H2S sensor at the shakers alerted and recorded 100 PPM. Pioneer H2S protocol was followed. Operations continued after 3rd party technician gave the all clear. There were no personal monitors affected during the event						
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations - Drilling lateral per directional plan. Continue to monitor off bottom pressure. Continue to clean and organize around location. Have prod. casing coming in today, alot of traffic, Work on multiple picture audits and get location looking better. Play with parameters and try to make some hole. Watch hand/body placement while making connections, obey buffer zone while bringing PDS to floor. Wear all PPE.						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case # 46888 Date: 10-12-19 Classification: Near Miss (Low) Description: While circulating a bottoms up after landing casing, the mounted H2S sensor at the shakers alerted and recorded 100 PPM. Pioneer H2S protocol was followed. Operations continued after 3rd party technician gave the all clear. There were no personal monitors affected during the event						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Drill production Lateral section,First day back to work, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
22:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop card: Witnessed RTM attempt to pull slips by himself while TOOHO, he was stopped and told to wait for assistance to prevent potential injury to himself. Proper lifting techniques were also re-visited with both RTM's. Both RTM's agreed to work together and take the time to do the job safely						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype	Date	Note					
MILESTONE			ESTIMATED PAD RELEASE	12/5/2019	Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)					
Daily Operations										
Footage/Meterage (ft) 757.00		Drilling Hours (hr) 14.00		% Rotating Time (%) 80.36	End Depth (ftKB) 13,253.0	Target Depth (ftKB) 19,316.0	Daily Field Est Total (Cost) 390,094.88	Cum Field Est To Date (Cost) 1,885,041.15		
24 HR ROP (ft/hr) 54.1		Circulating Hours (hr) 0.50		% Sliding Time (%) 19.64	End Depth (TVD) (ftKB) 9,171.4	Target Depth (TVD) (ftKB) 9,141.9	Daily Mud Field Est (Cost) 6,007.71	Cum Mud Field Est (Cost) 55,840.95	Total AFE + Sup (Cost) 3,097,685.89	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0		Daily Goal - Next 24 400.0		Goal Comments Goal not achieved (-50%)		
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB			Next Casing String PROPOSED PRODUCTION, 19,314.0ftKB			
Avg Connection Gas 190.00		Avg Trip Gas 0.00		Avg Background Gas 183.00		Max Connection Gas 225.00		Max Trip Gas 0.00	Max Drill Gas 304.00	
Operations Summary Drill 8 1/2" lateral f/ 12496' t/ 13253', TOOHO, L/D Dir BHA, (19.64% sliding, 1.65° avg lateral DLS, 13.8' low, 4.43' left)										
Operations Next Report Period L/D Dir BHA, Full BOP test, P/U Dir BHA, TIH w/ survey management, Drill 8 1/2" lateral f/ 13253' t/ 13653'										
Operations at Report Time L/D Directional BHA										
Remarks No Accidents, Incidents, or spills										
Rig NPT: 0.5 hours										
3rd Party NPT: 0 hours										
PNR NPT: 0 hours										
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 39%										
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs										
Saver Sub footage: 4,663'										
Initial Water Meter Reading: 175306										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	11.5	17:30	PROD, DRL LAT	DRL	NORMAL	Drill F/12496' T/13097' (601' @ 51 fph), 37% complete. 79% Rot @ 60 fph 21% Sldg @ 19 fph MW-8 w/ 40 vis, full returns.  Last Survey @ 13034' ? Inc-88.56°, Azm-345.43°, 13.45' low & 0.99' left to plan #1	12,496.0	13,097.0		
17:30	0.5	18:00	PROD, DRL LAT	RIG_SVC	NORMAL	Daily Rig Service	13,097.0	13,097.0		
Daily Drilling Report										
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Printed: Friday, October 18, 2019										

Daily Drilling Report

UNIVERSITY 7-43 116H

H & P #601

Accept: 9/22/2019      Release:  
Days Since LTI:      Days Since RI: 43.00  
1,431.00

PERMIAN ASSET TEAM

Job:      ODR  
Report Date:      10/18/2019  
Report #:      14  
DFS:      12  
AFE #:      9006568  
Total AFE + Sup:      \$3,097,685.89  
Daily Field Est. (Cost):      \$390,094.88

Time Log																	
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #							
18:00	2.5	20:30	PROD, DRL LAT	DRL	NORMAL	Drill F/13097' T/13253' (156' @ 62 fph), 39% complete. 90% Rot @ 66 fph 10% Sldg @ 32 fph MW-8 w/ 40 vis, full returns.  Last Survey @ 13129' ? Inc-89.18°, Azm-344.23°, 13.8' low & 4.43' left to plan #1 Note: Gained 1300 psi in SPP	13,097.0	13,253.0									
20:30	0.5	21:00	PROD, DRL LAT	FLOW_CHK	NORMAL	Flow check - Well static Note: Checked in line screen it was good	13,253.0	13,253.0									
21:00	8.5	05:30	PROD, DRL LAT	TOOH_ELEV	NORMAL	TOOH f/13253' t/111' , Hole taking proper fill from trip tanks	13,253.0	13,253.0									
05:30	0.25	05:45	PROD, DRL LAT	SFTY	NORMAL	PJSM w/ PNR, H&P, Gyrodata, and discussing L/D directional tools	13,253.0	13,253.0									
05:45	0.25	06:00	PROD, DRL LAT	LD_DIR	NORMAL	L/D Directional BHA	13,253.0	13,253.0									
Drill Strings																	
BHA #4 , PRODUCTION - CURVE/LATERAL																	
Bit Run 4			Drill Bit 8 1/2in, GTD65DM, 13184333			Bit Type PDC		Make HALLIBURTON									
Nozzles (1/32") 13/13/13/13/13/13			Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull -----		Hours Drilled By Bit (hr) 77.75		Depth Drilled By Bit (ft) 4,663.00								
BHA Drilling Time (hr) 77.75			BHA Depth Drilled (ft) 4,663.00		BHA ROP (ft/hr) 60.0		Depth In (ftKB) 8,590.0		Depth Out (ftKB) 13,253.0								
Drill String Components																	
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make							
78	DRILL PIPE			5	3.50	2,465.00	13,253.00	145,829.4	775	OTHER (PROVIDE DESCRIPTION)							
4	HWDP - SPIRALED			5	3.00	121.02	10,788.00	6,051.0	629	OTHER (PROVIDE DESCRIPTION)							
243	DRILL PIPE			5	3.50	7,684.60	10,666.98	454,620.9	623	OTHER (PROVIDE DESCRIPTION)							
1	AGITATOR			6 1/2	2.63	26.38	2,982.38		168	SCOUT							
90	DRILL PIPE			5	3.50	2,844.83	2,956.00	168,300.1	168	OTHER (PROVIDE DESCRIPTION)							
1	DRILL COLLAR - FLEX			6 7/8	3.25	30.99	111.17		0	STABIL DRILL							
1	DRILL COLLAR - NON MAG			6 3/4	3.25	30.97	80.18		0	STABIL DRILL							
1	SUB - UBHO			6 11/16	2.75	2.97	49.21		0	GYRODATA							
1	SUB - DOWNHOLE RECORDING			6 3/4	2.75	8.29	46.24		0	LODESTAR INTERNATIONAL							
1	STABILIZER			6 3/4	2.56	4.61	37.95		0	STABIL DRILL							
1	MOTOR - STABILIZER SLEEVE			7	3.00	32.34	33.34		0	GYRODATA							
Mud Motors																	
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defln Type							
GDM700026		2		NOT SEALED		6:7		6.5									
Sensors																	
Sensor Type				Sensor-Bit (ft)				Note									
GAMMA				52.00													
DIRECTIONAL				63.00													
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	07:15	12,496.0	49.00	39.2	40	70	500.0	725	4,500.0	90.0	235	255	205	235	17,800.0	9,500.0	0
07:15	07:30	12,545.0	6.00	24.0	32	0	250.0	725	4,250.0	40.0	235	255	205	235	0.0	9,500.0	180
07:30	08:30	12,551.0	72.00	72.0	40	70	500.0	725	4,500.0	80.0	235	255	205	235	17,800.0	9,500.0	0
08:30	10:30	12,623.0	125.00	62.5	40	70	500.0	750	4,750.0	70.0	235	255	205	235	20,200.0	9,500.0	0
10:30	11:00	12,748.0	7.00	14.0	42	0	125.0	750	4,375.0	30.0	235	255	205	235	0.0	9,500.0	180
11:00	12:30	12,755.0	68.00	45.3	40	70	250.0	750	4,500.0	60.0	235	255	205	235	20,200.0	9,500.0	0
12:30	13:00	12,823.0	10.00	20.0	42	0	200.0	750	4,400.0	30.0	235	255	205	235	0.0	9,500.0	170
13:00	13:45	12,833.0	59.00	78.7	40	70	350.0	750	4,550.0	60.0	235	255	205	235	20,200.0	9,500.0	0
13:45	14:30	12,892.0	12.00	16.0	42	0	200.0	750	4,400.0	30.0	235	255	205	235	0.0	9,500.0	20
Daily Drilling Report																	
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Daily Drilling Report

Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
14:30	16:30	12,904.0	109.00	54.5	40	70	350.0	750	4,550.0	85.0	235	255	205	235	20,200.0	9,500.0	0
16:30	16:45	13,013.0	10.00	40.0	42	0	200.0	750	4,400.0	35.0	235	255	205	235	0.0	9,500.0	0
16:45	17:30	13,023.0	74.00	98.7	40	70	400.0	750	4,600.0	90.0	235	255	205	235	20,200.0	9,500.0	0
17:30	18:00	13,097.0	0.00	0.0	0	0	0.0	750	4,200.0	0.0	236	255	205	235	0.0	9,500.0	0
18:00	19:30	13,097.0	108.00	72.0	40	70	400.0	750	4,600.0	90.0	235	255	205	235	20,200.0	9,500.0	0
19:30	20:00	13,205.0	8.00	16.0	50	0	200.0	750	4,400.0	40.0	235	255	205	235	0.0	9,500.0	75
20:00	20:30	13,213.0	40.00	80.0	40	70	450.0	750	4,600.0	90.0	235	255	205	235	20,200.0	9,500.0	0
Hydraulic Calculations																	
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)							
8.00	8.56	303.5	5.3	309.4	693.7	21.0	790.6	156.90	327.52	324.43							
Mud Checks																	
Time 20:00		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 13,253.0		Density (lb/gal) 8.00		Funnel Viscosity (s/qt) 42		T Flowline (°F) 144.0			
PV (cP) 8.0	YP (lbf/100ft²) 7.000	Vis 3rpm 4	Vis 6rpm 5	Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 14.0		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 250.0							
Solids (%) 11.0		Low Gravity Solids (%) 6.2		Sand (%) 0.0		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)							
Chlorides (ppm) 220,214,000.000		Calcium (ppm) 0.000		CaCl (ppm) 0		Oil Water Ratio 85.4/14.6		Electric Stab (V) 780.0		Lime (lb/bbl) 3.5		pH 0.0					
Gel 10 sec (lbf/100ft²) 5.000				Gel 10 min (lbf/100ft²) 9.000				Gel 30 min (lbf/100ft²) 10.000									
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for addional wetting and emulsion, Soltex for additional fluid loss while building volume.  DRILLING FLUIDS ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve properties within mud program specifications. Transferred obm from active system to storage as needed to maintain volume in system while drilling. Prehydrating dry chemical in slug tank prior to transferring into active system. Received 6999 gallons of mud diesel. Running 2 centrifuges and changed out 5 shaker screens.  RIG ACTIVITY LAST 24 HOURS: Drilled and slid in lateral section while building and transferring excess volume in frac tanks for storage. Drilling ahead in lateral at report time. Drilling in 60% shale and 20% limestone and 20% shale, maintaining 8.0 in system by dilution and running 2 centrifuges and changed out 5 shaker screens to control mud weight. Drilling to 13253 when decision made to POOH for lateral assembly. Pulling out of hole at report time.																	
Last BOP Test																	
Date		Test Type		Item Tested			Next Test Date		Com								
10/12/2019		BOP		BOP'S, 9/18/2019 03:15, <class>			10/22/2019		Perform shell test after skid 10/12/19. Last FULL BOP test 10/1/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted								
Leak Off and Formation Integrity Tests																	
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)									
FORMATION INTEGRITY				1,959.0				13.00									
FORMATION INTEGRITY				6,286.0				9.50									
Casing Pressure Test																	
Test Type		Test Subtype			Date		Item Tested			Failed?	Time (min)		P (psi)				
CASING		STANDARD			9/6/2019		SURFACE, 1,959.1ftKB			No	30.00		1,000.0				
CASING		STANDARD			10/12/2019		INTERMEDIATE, 6,286.0ftKB			No	30.00		2,500.0				
Kick Offs & Key Depths																	
Date					Type					Top Depth (ftKB)							
					TOE												
10/14/2019 12:00					KICK OFF					8,590.0							
10/15/2019 16:15					HEEL					9,424.0							
Casing Strings																	
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)			
CONDUCTOR		106.5		106.5		20		H40		78.67							
SURFACE		1,959.1		1,958.4		13 3/8		J55		54.50		BTC		1,322.0			
INTERMEDIATE		6,286.0		6,236.6		9 5/8		L80-IC		40.00		BTC		3,078.3			
Job Supply Amounts																	
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note				Cum On Loc		Cum Consumed				
DIESEL		MUD	GAL		6,999	0	Mud Diesel				7,815		34,451.0				
DIESEL		FUEL	GAL		2,711	0	Rig Diesel				5,592		24,097.0				
WATER		FRESH	BBL	1,601	1,601	0	Initial Reading: 182346. Final reading: 183947				0		12,609.0				
Mud Additive Amounts																	
Des			Type		Units		Rec		Consumed		On Loc		Cum Cons				
CALCIUM CHLORIDE			SALT		LB				20		167.0		74				
GILSONITE			FLUID LOSS ADDITIVES		SACK				16		162.0		75				
LIME			ALKALINITY CONTROL		LB				49		239.0		221				
POLYDRIL LEM H60 DRUM			OIL MUD ADDITIVE		GAL				2		9.0		8				
Daily Drilling Report																	
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# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 43.00
1,431.00	

Job:	ODR
Report Date:	10/18/2019
Report #:	14
DFS:	12
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$390,094.88

Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0

Deviation Surveys		
Date	Description	Job
8/29/2019	AS DRILL SURVEY	ODR, 8/29/2019 10:30

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
FIZER, LARRY, VICE PRESIDENT	VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM
HARDIN, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM
DAFFRON, MIKE, SUPERINTENDENT	SUPERINTENDENT	432-360-4057	318-243-5902	MIKE.DAFFRON@PXD.COM
LONG, TREVOR, ENGINEER	ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM
HEMBREE, KEVIN, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		580-209-2359	KEVIN.HEMBREE@PXD.COM
KELLEY, TERRY, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		903-799-0323	TERRY.KELLEY@PXD.COM
RIG-H&P 601, RIG PHONE	RIG PHONE	432-355-3111	469-866-2439	

[illegible]

Daily Drilling Report

UNIVERSITY 7-43 116H

H & P #601

Accept: 9/22/2019      Release:

Days Since LTI: 1,432.00      Days Since RI: 44.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 10/19/2019

Report #: 15

DFS: 13

AFE #: 9006568

Total AFE + Sup: \$3,097,685.89

Daily Field Est. (Cost): \$113,976.72

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY L A3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations: L/D directional tools. Also discussed downloading memory from data subs, Test BOP, P/U bha, TIH, Cut and slip drill line, TIH, Finish re-logging gamma per directional. TIH t/ bottom - watch for tight spots. Wash last stand or 2 to bottom. Resume drilling lateral per directional plan. Continue to clean/organize around rig. May have load of diesel for mud.											
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: Date: 10-13-19 Classification: Near Miss Description: While drilling rig crew was in the process of making a connection. Driller was using the top drive to spin up a connection. When making up the connection the system went from connection mode to drill mode. This caused the blocks to come down faster causing the stand of pipe to bow out. There was no property damage or injuries.											
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: Date: 10-13-19 Classification: Near Miss Description: While drilling rig crew was in the process of making a connection. Driller was using the top drive to spin up a connection. When making up the connection the system went from connection mode to drill mode. This caused the blocks to come down faster causing the stand of pipe to bow out. There was no property damage or injuries.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Slip & Cut drilling line, TIH with survey management,Drill production Lateral section, Get rig cleaned up from the trip,Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times											
03:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop Card: While out walking around, noticed RTM pressure washing shaker screens without a face shield. Stopped him and asked him to put on face shield. He did and made the commitment to wear it while washing off the shakers.											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status							
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30			IN PROGRESS							
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype		Date	Note									
MILESTONE			ESTIMATED PAD RELEASE		12/5/2019	Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)									
Daily Operations															
Footage/Meterage (ft) 254.00		Drilling Hours (hr) 3.25		% Rotating Time (%) 76.92		End Depth (ftKB) 13,507.0		Target Depth (ftKB) 19,316.0		Daily Field Est Total (Cost) 113,976.72		Cum Field Est To Date (Cost) 1,999,017.87			
24 HR ROP (ft/hr) 78.2		Circulating Hours (hr)		% Sliding Time (%) 23.08		End Depth (TVD) (ftKB) 9,167.2		Target Depth (TVD) (ftKB) 9,141.9		Daily Mud Field Est (Cost) 2,043.03		Cum Mud Field Est (Cost) 57,883.98		Total AFE + Sup (Cost) 3,097,685.89	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 400.0				Daily Goal - Next 24 1,500.0				Goal Comments Goal not achieved (-36%)			
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB				Next Casing String PRODUCTION, 19,314.0ftKB							
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00					
Operations Summary L/D Dir BHA, Full BOP test, P/U Dir BHA, TIH w/ survey management, Drill 8 1/2" lateral f/ 13253' t/ 13507' (23.08% sliding, 1.66° avg lateral DLS, 10.04' low, 3.46' left)															
Operations Next Report Period Drill 8 1/2" lateral f/ 13507' t/ 15507'															
Operations at Report Time Drilling 8 1/2" lateral @ 13507'															
Remarks No Accidents, Incidents, or spills															
Rig NPT: 0.5 hours															
3rd Party NPT: 30.25 hours															
PNR NPT: 0 hours															
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 41%															
Gen Hours: 1- 24 hrs, 2- 21 hrs, 3- 9.5 hrs															
Saver Sub footage: 4,917'															
Initial Water Meter Reading: 175306															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #					
06:00	0.25	06:15	PROD, DRL LAT	SFTY	NORMAL	PJSM on L/D tools.	13,253.0	13,253.0	0.25	5					
06:15	0.75	07:00	PROD, DRL LAT	LD_DIR	NORMAL	Finish L/D Directional tools and lode sub.  After on surface found that the lower end of the MWD tool failed, piston cap backed off allowing the popit to come to rest in the orface blocking off the flow in the mule shoe.	13,253.0	13,253.0	0.75	5					
07:00	0.5	07:30	PROD, DRL LAT	SFTY	NORMAL	Clean rig floor of OBM and send down subs and bit.	13,253.0	13,253.0	0.50	5					
07:30	0.5	08:00	PROD, DRL LAT	WRBSH	NORMAL	Pull wearbushing, install test plug and fill stack.	13,253.0	13,253.0	0.50	5					
Daily Drilling Report															
Page 1/4															
Printed: Saturday, October 19, 2019															



Daily Drilling Report

Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
08:00	0.25	08:15	PROD, DRL LAT	SFTY	NORMAL	PJSM on testing BOP.	13,253.0	13,253.0	0.25	5
08:15	3	11:15	PROD, DRL LAT	TEST_BOPE	NORMAL	Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted  Tested choke off line.	13,253.0	13,253.0	3.00	5
11:15	0.25	11:30	PROD, DRL LAT	WRBSH	NORMAL	Install wearbushing.	13,253.0	13,253.0	0.25	5
11:30	0.25	11:45	PROD, DRL LAT	SFTY	NORMAL	PJSM w/ PNR, H&P, Lodestar and Gyrodata discussing directional tool handling operations.	13,253.0	13,253.0	0.25	5
11:45	1.75	13:30	PROD, DRL LAT	PU_DIR	NORMAL	M/U new motor, stab. lode star sub and NMDC. Scribe tools. M/U bit, install MWD, P/U top NMDC.	13,253.0	13,253.0	1.75	5
13:30	1.5	15:00	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/110' t/2955'. Hole displacing properly to trip tanks.	13,253.0	13,253.0	1.50	5
15:00	1	16:00	PROD, DRL LAT	HDL_AGITATOR	NORMAL	P/U and test Scout agitator  Before: 2400psi After: 2900psi	13,253.0	13,253.0	1.00	5
16:00	1.25	17:15	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/2982' t/6014'. Hole displacing properly to trip tanks.	13,253.0	13,253.0	1.25	5
17:15	0.25	17:30	PROD, DRL LAT	HDL_ROT HD	NORMAL	Remove Trip Nipple and Install Rotating head element.	13,253.0	13,253.0	0.25	5
17:30	0.25	17:45	PROD, DRL LAT	SFTY	NORMAL	PJSM on cutting and slipping drill line.	13,253.0	13,253.0	0.25	5
17:45	1.25	19:00	PROD, DRL LAT	SLIP_CUT	NORMAL	Slip and Cut 5 wraps of Drill line.	13,253.0	13,253.0	1.25	5
19:00	0.5	19:30	PROD, DRL LAT	RIG_SVC	NORMAL	Service rig	13,253.0	13,253.0	0.50	5
19:30	1.25	20:45	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/6014' t/8674'. Hole displacing properly to trip tanks.	13,253.0	13,253.0	1.25	5
20:45	0.5	21:15	PROD, DRL LAT	LWD_ GAMMA	NORMAL	Re-Log Gamma f/8674' t/8724'	13,253.0	13,253.0	0.50	5
21:15	0.75	22:00	PROD, DRL LAT	SRVY_MGMT	NORMAL	6-Axis survey's f/8724' t/9149'	13,253.0	13,253.0	0.75	5
22:00	0.25	22:15	PROD, DRL LAT	TIH_NONELEV	NORMAL	TIH f/9149' t/9262'. Hole displacing properly to trip tanks.	13,253.0	13,253.0	0.25	5
22:15	0.75	23:00	PROD, DRL LAT	TIH_NONELEV	NORMAL	TIH washing f/9262' t/9424' Full returns	13,253.0	13,253.0	0.75	5
23:00	0.25	23:15	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/9424' t/9639'. Hole displacing properly to trip tanks.	13,253.0	13,253.0	0.25	5
23:15	0.25	23:30	PROD, DRL LAT	TIH_NONELEV	NORMAL	TIH washing f/9639' t/9701' Full returns	13,253.0	13,253.0	0.25	5
23:30	0.5	00:00	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/9701' t/10591'. Hole displacing properly to trip tanks.	13,253.0	13,253.0	0.50	5
00:00	0.25	00:15	PROD, DRL LAT	TIH_NONELEV	NORMAL	TIH washing f/10591' t/10662' Full returns	13,253.0	13,253.0	0.25	5
00:15	0.5	00:45	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/10662' t/11870'. Hole displacing properly to trip tanks.	13,253.0	13,253.0	0.50	5
00:45	0.75	01:30	PROD, DRL LAT	TIH_NONELEV	NORMAL	TIH washing f/11870' t/12331' Full returns	13,253.0	13,253.0	0.75	5
01:30	0.25	01:45	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/12331' t/12746'. Hole displacing properly to trip tanks.	13,253.0	13,253.0	0.25	5
01:45	1	02:45	PROD, DRL LAT	TIH_NONELEV	NORMAL	TIH washing f/12746' t/13253' Full returns	13,253.0	13,253.0	1.00	5
02:45	3.25	06:00	PROD, DRL LAT	DRL	NORMAL	Drill F/13253' T/13507' (254' @ 78 fph), 41% complete. 77% Rot @ 96 fph 23% Sldg @ 19 fph MW-8 w/ 40 vis, full returns.  Last Survey @ 13316' ? Inc-90.57°, Azm-346.94°, 10.04' low & 3.46' left to plan #1	13,253.0	13,507.0		
Interval Problems										
DIRECTIONAL, 13,253.0ftKB, 10/17/2019 20:30										
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment			
5	30.25	No	MWD / LWD	DOWNHOLE EQUIPMENT	90,750.00	GYRODATA INC	While drilling we had a pressure gain if 1300 psi. After on surface found that the lower end of the MWD tool failed, piston cap backed off allowing the popit to come to rest in the orface blocking off the flow in the mule shoe.			
Drill Strings										
BHA #5 , PRODUCTION - LATERAL										
Bit Run 5				Drill Bit 8 1/2in, DD506TX, 5295147			Bit Type PDC		Make GE/BAKER HUGHES	
Nozzles (1/32") 13/13/13/13/13				Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull -----		Hours Drilled By Bit (hr) 3.25		Depth Drilled By Bit (ft) 254.00
BHA Drilling Time (hr) 3.25				BHA Depth Drilled (ft) 254.00		BHA ROP (ft/hr) 78.2		Depth In (ftKB) 13,253.0		Depth Out (ftKB) 13,507.0
Daily Drilling Report										
Page 2/4					Printed: Saturday, October 19, 2019					

# Daily Drilling Report

<b>UNIVERSITY 7-43 116H</b>	
<b>H &amp; P #601</b>	
<b>Accept: 9/22/2019</b>	<b>Release:</b>
<b>Days Since LTI:</b>	<b>Days Since RI: 44.00</b>
<b>1,432.00</b>	

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/19/2019
Report #:	15
DFS:	13
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$113,976.72

Drill String Components								
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
61	DRILL PIPE	5	3.50	1,927.43	13,507.00	114,026.8	791	RIG
1	HWDP	5	3.00	912.99	11,579.57	54,012.5	677	RIG
243	DRILL PIPE	5	3.50	7,684.60	10,666.58	454,620.9	623	RIG
1	AGITATOR	6 1/2	2.63	26.38	2,981.98		168	SCOUT
90	DRILL PIPE	5	3.50	2,844.83	2,955.60	168,300.1	168	RIG
1	DRILL COLLAR - FLEX	6 7/8	3.25	29.99	110.77		0	STABIL DRILL
1	DRILL COLLAR - NON MAG	6 3/4	3.25	30.97	80.78		0	STABIL DRILL
1	SUB - UBHO	6 11/16	2.75	2.97	49.81		0	GYRODATA
1	SUB (OTHER)	6 3/4	2.75	8.29	46.84		0	LODESTAR INTERNATIONAL
1	STABILIZER	6 3/4	2.56	4.61	38.55		0	STABIL DRILL
1	MOTOR - STABILIZER SLEEVE	7	3.00	32.94	33.94		0	GYRODATA

Mud Motors						
SN	Bend Angle	Bearing Type	Lobe Config	# Stages	Lwr Defln Type	Bit To Bend
GDM700026	1.75	NOT SEALED	6:7	6.5		4.67

Sensors		
Sensor Type	Sensor-Bit (ft)	Note
GAMMA	54.00	
D&I (INC/AZI)	66.00	

Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
02:45	03:15	13,253.0	59.00	118.0	40	70	530.0	675	4,400.0	170.0	238	300	190	238	21,000.0	9,000.0	0
03:15	03:30	13,312.0	6.00	24.0	45	0	250.0	675	4,180.0	40.0	238	300	190	238	0.0	0.0	160
03:30	03:45	13,318.0	21.00	84.0	40	70	575.0	675	4,400.0	150.0	238	300	190	238	21,000.0	9,000.0	0
03:45	04:30	13,339.0	61.00	81.3	40	70	550.0	750	5,100.0	150.0	238	300	190	238	21,000.0	9,000.0	0
04:30	05:00	13,400.0	8.00	16.0	45	0	250.0	750	4,750.0	40.0	238	300	190	238	0.0	0.0	180
05:00	06:00	13,408.0	99.00	99.0	40	70	550.0	750	5,100.0	150.0	238	300	190	238	21,000.0	9,000.0	0

Hydraulic Calculations										
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in <sup>2</sup> )	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
8.20	8.78	311.1	5.5	309.4	711.0	21.0	790.6	157.42	339.19	324.43

Mud Checks														
Time 20:00		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 13,253.0		Density (lb/gal) 8.20		Funnel Viscosity (s/qt) 44		T Flowline (°F) 0.0
PV (cP) 8.0	YP (lb/100ft²) 8.000	Vis 3rpm 4	Vis 6rpm 5	Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 13.2		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 250.0				
Solids (%) 11.0		Low Gravity Solids (%) 7.1		Sand (%) 0.0		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)				
Chlorides (ppm) 210,751,000.000		Calcium (ppm) 0.000		CaCl (ppm) 0	Oil Water Ratio 85.4/14.6		Electric Stab (V) 691.0		Lime (lb/bbl) 3.2		pH 0.0			
Gel 10 sec (lb/100ft²) 6.000				Gel 10 min (lb/100ft²) 11.000				Gel 30 min (lb/100ft²) 12.000						

Comment
<p><b>RECOMMENDED FLUID TREATMENT:</b> While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for additional wetting and emulsion, Soltex for additional fluid loss while building volume. No treatment added while tripping.</p>

DRILLING FLUIDS ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve properties within mud program specifications. Prehydrating dry chemical in slug tank prior to transferring into active system. Received 14647 gallons of mud diesel. Did not pump slug due to inability to circulate.

RIG ACTIVITY LAST 24 HOURS: Drilled and to 13253 where string pressured up. Shut down and pulled out of hole determining the inability to pump due to MWD failure making it unable to pump. Rig tested BOP's back to mud pumps. Picked up new bit and lateral bha and began tripping in hole to 6067 and slipped and cut drill line. Continued tripping in hole to 10843 at report time

Last BOP Test				
Date	Test Type	Item Tested	Next Test Date	Com
10/18/2019	BOP	BOP'S, 9/18/2019 03:15, <class>	11/8/2019	Last FULL BOP test 10/18/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted

Leak Off and Formation Integrity Tests		
Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	1,959.0	13.00
FORMATION INTEGRITY	6,286.0	9.50

Casing Pressure Test						
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	9/6/2019	SURFACE, 1,959.1ftKB	No	30.00	1,000.0
CASING	STANDARD	10/12/2019	INTERMEDIATE, 6,286.0ftKB	No	30.00	2,500.0

Kick Offs & Key Depths		
Date	Type	Top Depth (ftKB)
	TOE	
10/14/2019 12:00	KICK OFF	8,590.0
10/15/2019 16:15	HEEL	9,424.0

# Daily Drilling Report

H &amp; P #601

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 44.00
1,432.00	

Job:	ODR
Report Date:	10/19/2019
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DFS:	13
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## Daily Drilling Report

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/20/2019		
Days Since LTI: 1,433.00				Report #:	16		
Release:				DFS:	14		
Days Since RI: 45.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$52,760.18		

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed, Drill production Lateral section, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: Date & Time: 10-17-19/ 2:00 PM Classification: Near Miss (Low) Description: While removing the TPA cap from wellhead with forklift the 3-way sling parted, and a small piece of the strap hit a crew member on his safety glasses. No injuries and no medical attention.						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: Date & Time: 10-17-19/ 2:00 PM Classification: Near Miss (Low) Description: While removing the TPA cap from wellhead with forklift the 3-way sling parted, and a small piece of the strap hit a crew member on his safety glasses. No injuries and no medical attention.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Drill production Lateral section, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
21:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop Card: Observed RTM washing staircase to dog house from the man basket. He was properly tied off and all PPE was being worn. I did see him take off his face shield but only to clean it due to low visibility. Later I thanked him for taking the time to take his face shield off and clean it instead of leaving it halfway up. Told him to keep up the good work.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype		Date	Note				
MILESTONE			ESTIMATED PAD RELEASE		12/5/2019	Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)				
Daily Operations										
Footage/Meterage (ft) 1,128.00		Drilling Hours (hr) 23.00		% Rotating Time (%) 85.87	End Depth (ftKB) 14,635.0	Target Depth (ftKB) 19,316.0	Daily Field Est Total (Cost) 52,760.18	Cum Field Est To Date (Cost) 2,051,778.05		
24 HR ROP (ft/hr) 49.0		Circulating Hours (hr) 1.00		% Sliding Time (%) 14.13	End Depth (TVD) (ftKB) 9,158.0	Target Depth (TVD) (ftKB) 9,141.9	Daily Mud Field Est (Cost) 3,429.57	Cum Mud Field Est (Cost) 61,313.55	Total AFE + Sup (Cost) 3,097,685.89	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0		Daily Goal - Next 24 1,200.0		Goal Comments Goal not achieved (-22%)		
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB			Next Casing String PRODUCTION, 19,314.0ftKB			
Avg Connection Gas 144.00		Avg Trip Gas 0.00		Avg Background Gas 110.00		Max Connection Gas 239.00		Max Trip Gas 0.00	Max Drill Gas 183.00	
Operations Summary Drill 8 1/2" lateral f/ 13507' t/ 14635' (14.13% sliding, 1.46° avg lateral DLS, 3.11' high, 0.47' left)										
Operations Next Report Period Drill 8 1/2" lateral f/ 14635' t/ 15835'										
Operations at Report Time Drilling 8 1/2" lateral @ 14635'										
Remarks No Accidents, Incidents, or spills										
Rig NPT: 0.5 hours										
3rd Party NPT: 30.25 hours										
PNR NPT: 0 hours										
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 53%										
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs										
Saver Sub footage: 6,045'										
Initial Water Meter Reading: 175306										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	11.5	17:30	PROD, DRL LAT	DRL	NORMAL	Drill F/13507" T/14140" (633' @ 55 fph), 48% complete. 87% Rot @ 61 fph 13% Sldg @ 15 fph MW-8 w/ 42 vis, full returns.  Last Survey @ 13979' ? Inc-90.57°, Azm-345.76°, 4.91' low & 3.52' left to plan #1	13,507.0	14,140.0		
17:30	0.5	18:00	PROD, DRL LAT	RIG_SVC	NORMAL	Daily Rig Service. C/O inline screen.	14,140.0	14,140.0		
Daily Drilling Report										
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Daily Drilling Report

Time Log																	
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #							
18:00	8.75	02:45	PROD, DRL LAT	DRL	NORMAL	Drill F/14140' T/14519' (379' @ 43 fph), 52% complete. 74% Rot @ 55 fph 26% Sldg @ 10 fph MW-8 w/ 42 vis, full returns.  Last Survey @ 14453' ? Inc-91.19°, Azm-347.21°, 3.11' high & 0.47' left to plan #1	14,140.0	14,519.0									
02:45	0.5	03:15	PROD, DRL LAT	RIG_SVC	NORMAL	Daily Rig Service. C/O inline screen.	14,519.0	14,519.0									
03:15	2.75	06:00	PROD, DRL LAT	DRL	NORMAL	Drill F/14519' T/14635' (116' @ 42 fph), 53% complete. MW-8 w/ 42 vis, full returns.  Last Survey @ 14453' ? Inc-91.19°, Azm-347.21°, 3.11' high & 0.47' left to plan #1	14,519.0	14,635.0									
Drill Strings																	
BHA #5 , PRODUCTION - LATERAL																	
Bit Run 5			Drill Bit 8 1/2in, DD506TX, 5295147			Bit Type PDC		Make GE/BAKER HUGHES									
Nozzles (1/32") 13/13/13/13/13/13			Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull -----		Hours Drilled By Bit (hr) 26.25		Depth Drilled By Bit (ft) 1,382.00								
BHA Drilling Time (hr) 26.25			BHA Depth Drilled (ft) 1,382.00		BHA ROP (ft/hr) 52.6		Depth In (ftKB) 13,253.0		Depth Out (ftKB) 14,635.0								
Drill String Components																	
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make							
98	DRILL PIPE			5	3.50	3,055.43	14,635.00	180,759.2	858	RIG							
1	HWDP			5	3.00	912.99	11,579.57	54,012.5	677	RIG							
243	DRILL PIPE			5	3.50	7,684.60	10,666.58	454,620.9	623	RIG							
1	AGITATOR			6 1/2	2.63	26.38	2,981.98		168	SCOUT							
90	DRILL PIPE			5	3.50	2,844.83	2,955.60	168,300.1	168	RIG							
1	DRILL COLLAR - FLEX			6 7/8	3.25	29.99	110.77		0	STABIL DRILL							
1	DRILL COLLAR - NON MAG			6 3/4	3.25	30.97	80.78		0	STABIL DRILL							
1	SUB - UBHO			6 11/16	2.75	2.97	49.81		0	GYRODATA							
1	SUB (OTHER)			6 3/4	2.75	8.29	46.84		0	LODESTAR INTERNATIONAL							
1	STABILIZER			6 3/4	2.56	4.61	38.55		0	STABIL DRILL							
1	MOTOR - STABILIZER SLEEVE			7	3.00	32.94	33.94		0	GYRODATA							
Mud Motors																	
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr DefIn Type							
GDM700026		1.75		NOT SEALED		6:7		6.5									
Sensors																	
Sensor Type			Sensor-Bit (ft)			Note											
GAMMA			54.00														
D&I (INC/AZI)			66.00														
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	07:15	13,507.0	64.00	51.2	40	70	500.0	675	4,400.0	170.0	238	300	190	238	21,000.0	11,500.0	0
07:15	07:45	13,571.0	46.00	92.0	40	70	500.0	725	4,850.0	145.0	238	300	190	238	24,150.0	11,500.0	0
07:45	08:00	13,617.0	7.00	28.0	45	0	150.0	725	4,500.0	35.0	238	300	190	238	0.0	11,500.0	140
08:00	09:45	13,624.0	82.00	46.9	40	70	500.0	725	4,850.0	145.0	238	300	190	238	24,150.0	11,500.0	0
09:45	10:15	13,706.0	0.00	0.0	0	0	0.0	725	4,350.0	0.0	238	300	190	238	0.0	11,500.0	0
10:15	10:30	13,706.0	8.00	32.0	40	70	500.0	725	4,850.0	145.0	238	300	190	238	24,150.0	11,500.0	0
10:30	10:45	13,714.0	8.00	32.0	45	0	250.0	725	4,650.0	35.0	238	300	190	238	0.0	11,500.0	140
10:45	16:00	13,722.0	336.00	64.0	40	70	500.0	725	4,850.0	145.0	238	300	190	238	24,150.0	11,500.0	0
16:00	16:30	14,058.0	8.00	16.0	60	0	200.0	725	4,600.0	30.0	240	305	188	240	0.0	11,500.0	100
16:30	17:30	14,066.0	74.00	74.0	40	70	500.0	725	4,850.0	145.0	240	305	190	240	24,150.0	11,500.0	0
17:30	18:00	14,140.0	0.00	0.0	0	0	0.0	725	4,000.0	0.0	240	305	190	240	0.0	0.0	0
18:00	19:45	14,140.0	105.00	60.0	40	70	500.0	725	4,850.0	80.0	240	308	190	240	24,500.0	12,000.0	0
Daily Drilling Report																	
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Daily Drilling Report

Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
19:45	20:30	14,245.0	8.00	10.7	42	0	200.0	725	4,500.0	20.0	240	308	190	240	0.0	0.0	20
20:30	22:00	14,253.0	87.00	58.0	40	70	500.0	725	4,850.0	80.0	240	308	190	240	24,500.0	12,000.0	0
22:00	22:45	14,340.0	8.00	10.7	45	0	200.0	725	4,500.0	20.0	240	308	190	240	0.0	0.0	140
22:45	00:30	14,348.0	93.00	53.1	40	70	500.0	725	4,850.0	80.0	240	308	190	240	24,500.0	12,000.0	0
00:30	01:15	14,441.0	6.00	8.0	45	0	200.0	725	4,500.0	20.0	240	308	190	240	0.0	0.0	180
01:15	06:00	14,447.0	188.00	39.6	40	70	500.0	725	4,850.0	80.0	240	308	190	240	24,500.0	12,000.0	0
Hydraulic Calculations																	
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)							
8.00	8.59	274.1	4.8	299.1	648.2	20.3	764.3	170.84	390.96	324.43							
Mud Checks																	
Time		Mud Company				Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)		T Flowline (°F)			
20:00		PIONEER DRILLING FLUIDS				OIL BASE		14,414.0		8.00		42		137.0			
PV (cP)	YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)				HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)					
8.0	8.000	4	5	0.0				12.4		250.0		250.0					
Solids (%)		Low Gravity Solids (%)		Sand (%)				MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)					
11.0		6.3		0.0				0.0		0.000							
Chlorides (ppm)		Calcium (ppm)		CaCl (ppm)		Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)		pH					
205,605,000.000		0.000		0		84.3/15.7		688.0		3.5		0.0					
Gel 10 sec (lb/100ft²)				Gel 10 min (lb/100ft²)						Gel 30 min (lb/100ft²)							
6.000				11.000						13.000							
Comment																	
RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for addional wetting and emulsion, Gilsonite for fluid loss while drilling.																	
DRILLING FLUIDS ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve properties within mud program specifications. Prehydrating dry chemical in slug tank prior to transferring into active system. While tripping and washing to bottom monitored displacement and cuttings load across shakers. Changed out 3 shaker screens due to damage (API 200's).																	
RIG ACTIVITY LAST 24 HOURS: At 10843 started pumps and washed to bottom due to cuttings load in well from not circulating prior to pulling out of hole. At 13253 began drilling and sliding for correction. Drilled ahead from 13253 to current depth at 14414 ft. Running both centrifuges to polish mud and control mud weight.																	
Last BOP Test																	
Date		Test Type		Item Tested				Next Test Date		Com							
10/18/2019		BOP		BOP'S, 9/18/2019 03:15, <class>				11/8/2019		Last FULL BOP test 10/18/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted							
Leak Off and Formation Integrity Tests																	
Test Type				Depth (ftKB)						Dens Fluid (lb/gal)							
FORMATION INTEGRITY				1,959.0						13.00							
FORMATION INTEGRITY				6,286.0						9.50							
Casing Pressure Test																	
Test Type		Test Subtype				Date		Item Tested				Failed?	Time (min)		P (psi)		
CASING		STANDARD				9/6/2019		SURFACE, 1,959.1ftKB				No	30.00		1,000.0		
CASING		STANDARD				10/12/2019		INTERMEDIATE, 6,286.0ftKB				No	30.00		2,500.0		
Kick Offs & Key Depths																	
Date						Type						Top Depth (ftKB)					
						TOE											
10/14/2019 12:00						KICK OFF						8,590.0					
10/15/2019 16:15						HEEL						9,424.0					
Casing Strings																	
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)			
CONDUCTOR		106.5		106.5		20		H40		78.67							
SURFACE		1,959.1		1,958.4		13 3/8		J55		54.50		BTC		1,322.0			
INTERMEDIATE		6,286.0		6,236.6		9 5/8		L80-IC		40.00		BTC		3,078.3			
Job Supply Amounts																	
Supply Item Des		Type		Unit Label		Received		Consumed		Returned		Note		Cum On Loc		Cum Consumed	
DIESEL		MUD		GAL				5,861		0		Mud Diesel		11,707		45,206.0	
DIESEL		FUEL		GAL				3,561		0		Rig Diesel		7,721		28,972.0	
WATER		FRESH		BBL		0		0		0		Initial Reading: 183947. Final reading: 183947		0		12,609.0	
Mud Additive Amounts																	
Des				Type		Units		Rec		Consumed		On Loc		Cum Cons			
CALCIUM CHLORIDE				SALT		LB				12		146.0		95			
LIME				ALKALINITY CONTROL		LB				30		189.0		271			
POLYDRIL LEM H60 DRUM				OIL MUD ADDITIVE		GAL				1		8.0		9			
POLYDRIL PE 50 DRUM				OIL MUD ADDITIVE		GAL				1		11.0		5			
POLYDRIL SE 50 DRUM				OIL MUD ADDITIVE		GAL				1		6.0		5			
Daily Drilling Report																	

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Printed: Sunday, October 20, 2019

# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 45.00
1,433.00	

## PERMIAN ASSET TEAM

Job:	ODR
Report Date:	10/20/2019
Report #:	16
DFS:	14
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$52,760.18

## Daily Drilling Report

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601 Accept: 9/22/2019 Days Since LTI: 1,434.00				Job:		ODR	
				Report Date:		10/21/2019	
				Report #:		17	
				DFS:		15	
				AFE #:		9006568	
				Total AFE + Sup:		\$3,097,685.89	
				Daily Field Est. (Cost):		\$102,982.64	

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case # 46916 Date: 10-15-19 Classification: Spill / Release (Low) Description: During a rig move, a small amount of drilling fluids sloshed out of the shaker tank through the trough line on to a public road in two places. Remediation was initiated immediately. There was zero impact to the environment.						
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations - drilling lateral per plan. Continue cleaning and organizing around the rig, prep what we can for skid. Weather getting cooler, stay hydrated and watch for snakes. Use good communication on any fluid transfers and watch hand/body placement while making connections. Wear all PPE.						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case # 46916 Date: 10-15-19 Classification: Spill / Release (Low) Description: During a rig move, a small amount of drilling fluids sloshed out of the shaker tank through the trough line on to a public road in two places. Remediation was initiated immediately. There was zero impact to the environment.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Drill production Lateral section, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
23:15	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop card: Observed RTM going down stairs without using 3 points of contact, stopped RTM and discussed with him the importance of using 3 points of contact when going up or down stairs. He said he understood and gave me his commitment that he would use 3 points of contact when using stairs.Later seen RTM going up stairs using 3 points of contact.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type		Subtype		Date	Note					
MILESTONE		ESTIMATED PAD RELEASE		12/5/2019	Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)					
Daily Operations										
Footage/Meterage (ft) 533.00		Drilling Hours (hr) 11.50		% Rotating Time (%) 86.96		End Depth (ftKB) 15,168.0				
Target Depth (ftKB) 19,316.0		Daily Field Est Total (Cost) 102,982.64		Cum Field Est To Date (Cost) 2,154,760.69						
24 HR ROP (ft/hr) 46.3		Circulating Hours (hr) 0.25		% Sliding Time (%) 13.04		End Depth (TVD) (ftKB) 9,161.5				
Target Depth (TVD) (ftKB) 9,141.9		Daily Mud Field Est (Cost) 6,045.97		Cum Mud Field Est (Cost) 67,359.52		Total AFE + Sup (Cost) 3,097,685.89				
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 1,200.0		Daily Goal - Next 24 600.0		Goal Comments Goal not achieved (-44%)				
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB		Next Casing String PRODUCTION, 19,297.0ftKB				
Avg Connection Gas 156.00		Avg Trip Gas 0.00		Avg Background Gas 156.00		Max Connection Gas 206.00				
Max Trip Gas 0.00		Max Drill Gas 207.00								
Operations Summary Drill 8 1/2" lateral f/ 14635' t/ 15168', TOO H, C/O BHA, (13.04% sliding, 1.47° avg lateral DLS, 1.04' high, 10.21' right)										
Operations Next Report Period TIH to shoe, Slip & Cut Drlg line,TIH w/ Survey management, Drill 8 1/2" lateral f/ 15168' t/ 15768'										
Operations at Report Time P/U Dir BHA										
Remarks No Accidents, Incidents, or spills										
Rig NPT: 0.5 hours										
3rd Party NPT: 30.25 hours										
PNR NPT: 0 hours										
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 58%										
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs										
Saver Sub footage: 6,578'										
Initial Water Meter Reading: 175306										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	11.5	17:30	PROD, DRL LAT	DRL	NORMAL	Drill F/14635' T/15168' (533' @ 46 fph), 58% complete. 85% Rot @ 52 fph 15% Sldg @ 14 fph MW-8 w/ 42 vis, full returns.  Last Survey @ 15023' ? Inc-88.9°, Azm-346.39°, 1.04' high & 10.21' right to plan #1  Note: Gained 500 psi in SPP	14,635.0	15,168.0		
17:30	0.5	18:00	PROD, DRL LAT	FLOW_CHK	NORMAL	Flow Check well static, Checked in line screen good	15,168.0	15,168.0		
Daily Drilling Report										
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Printed: Monday, October 21, 2019										

Daily Drilling Report

UNIVERSITY 7-43 116H

H & P #601

Accept: 9/22/2019      Release:  
Days Since LTI:      Days Since RI: 46.00  
1,434.00

PERMIAN ASSET TEAM

Job:      ODR  
Report Date:      10/21/2019  
Report #:      17  
DFS:      15  
AFE #:      9006568  
Total AFE + Sup:      \$3,097,685.89  
Daily Field Est. (Cost):      \$102,982.64

Time Log																	
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #							
18:00	4.5	22:30	PROD, DRL LAT	TOOH_ELEV	NORMAL	TOOH f/15168' t/6300' , Hole taking proper fill from trip tanks	15,168.0	15,168.0									
22:30	0.5	23:00	PROD, DRL LAT	HDL_ROTHTD	NORMAL	Remove rotating head and install trip nipple	15,168.0	15,168.0									
23:00	3	02:00	PROD, DRL LAT	TOOH_ELEV	NORMAL	TOOH f/6300' t/111' , Hole taking proper fill from trip tanks	15,168.0	15,168.0									
02:00	0.25	02:15	PROD, DRL LAT	SFTY	NORMAL	PJSM w/ PNR, H&P, Gyro Data discussing L/D & P/U BHA.	15,168.0	15,168.0									
02:15	0.75	03:00	PROD, DRL LAT	LD_DIR	NORMAL	L/D top NMDC, pull MWD, drain motor and break bit. L/D motor  Note: MWD & MM looked good & no jets plugged	15,168.0	15,168.0									
03:00	2.25	05:15	PROD, DRL LAT	PU_DIR	NORMAL	P/U new motor. Scribe tools. Witnessed by PNR Rep, Download loadstar information  NOTE: Perform rig service offline	15,168.0	15,168.0									
05:15	0.25	05:30	PROD, DRL LAT	LD_DIR	NORMAL	L/D Loadstar sub The loadstar sub has wear and they did not want to run it again.	15,168.0	15,168.0									
05:30	0.5	06:00	PROD, DRL LAT	PU_DIR	NORMAL	P/U MWD, M/U Bit, P/U NM DC	15,168.0	15,168.0									
Drill Strings																	
BHA #5 , PRODUCTION - LATERAL																	
Bit Run 5			Drill Bit 8 1/2in, DD506TX, 5295147				Bit Type PDC		Make GE/BAKER HUGHES								
Nozzles (1/32") 13/13/13/13/13			Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull 1-2-BT-S-X-0-BT-DTF		Hours Drilled By Bit (hr) 37.75		Depth Drilled By Bit (ft) 1,915.00								
BHA Drilling Time (hr) 37.75			BHA Depth Drilled (ft) 1,915.00		BHA ROP (ft/hr) 50.7		Depth In (ftKB) 13,253.0		Depth Out (ftKB) 15,168.0								
Drill String Components																	
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make						
113	DRILL PIPE				5	3.50	3,588.43	15,168.00	212,291.5	889	RIG						
1	HWDP				5	3.00	912.99	11,579.57	54,012.5	677	RIG						
243	DRILL PIPE				5	3.50	7,684.60	10,666.58	454,620.9	623	RIG						
1	AGITATOR				6 1/2	2.63	26.38	2,981.98		168	SCOUT						
90	DRILL PIPE				5	3.50	2,844.83	2,955.60	168,300.1	168	RIG						
1	DRILL COLLAR - FLEX				6 7/8	3.25	29.99	110.77		0	STABIL DRILL						
1	DRILL COLLAR - NON MAG				6 3/4	3.25	30.97	80.78		0	STABIL DRILL						
1	SUB - UBHO				6 11/16	2.75	2.97	49.81		0	GYRODATA						
1	SUB (OTHER)				6 3/4	2.75	8.29	46.84		0	LODESTAR INTERNATIONAL						
1	STABILIZER				6 3/4	2.56	4.61	38.55		0	STABIL DRILL						
1	MOTOR - STABILIZER SLEEVE				7	3.00	32.94	33.94		0	GYRODATA						
Mud Motors																	
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr DefIn Type		Bit To Bend					
GDM700026		1.75		NOT SEALED		6:7		6.5				4.67					
Sensors																	
Sensor Type			Sensor-Bit (ft)				Note										
GAMMA			54.00														
D&I (INC/AZI)			66.00														
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	07:30	14,635.0	80.00	53.3	40	70	400.0	725	4,600.0	60.0	239	308	175	239	21,500.0	12,000.0	0
07:30	07:45	14,715.0	5.00	20.0	60	0	200.0	725	4,350.0	30.0	239	308	175	239	0.0	0.0	200
07:45	10:00	14,720.0	132.00	58.7	40	70	400.0	725	4,600.0	60.0	239	308	175	239	21,500.0	12,000.0	0
10:00	10:30	14,852.0	10.00	20.0	65	0	200.0	725	4,350.0	30.0	239	308	175	239	0.0	0.0	200
10:30	13:15	14,862.0	136.00	49.5	40	70	400.0	725	4,600.0	60.0	239	308	175	239	21,500.0	12,000.0	0
13:15	14:00	14,998.0	10.00	13.3	65	0	200.0	725	4,350.0	30.0	240	320	170	240	0.0	0.0	330
14:00	17:30	15,008.0	160.00	45.7	40	70	400.0	725	4,600.0	60.0	240	320	170	240	24,000.0	12,000.0	0
BHA #6 , PRODUCTION - LATERAL																	
Bit Run 6			Drill Bit 8 1/2in, GT65DH, 13023808				Bit Type PDC		Make HALLIBURTON								
Nozzles (1/32") 13/13/13/13/13			Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull -----		Hours Drilled By Bit (hr)		Depth Drilled By Bit (ft)								
BHA Drilling Time (hr)			BHA Depth Drilled (ft)		BHA ROP (ft/hr)		Depth In (ftKB) 15,168.0		Depth Out (ftKB) 15,168.0								
Drill String Components																	
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make						
113	DRILL PIPE				5	3.50	3,596.70	15,168.00	212,780.8	890	RIG						
Daily Drilling Report																	
Page 2/4							Printed: Monday, October 21, 2019										

# Daily Drilling Report

H &amp; P #601

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 46.00
1,434.00	

Job:	ODR
Report Date:	10/21/2019
Report #:	17
DFS:	15
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$102,982.64

## Daily Drilling Report



Daily Drilling Report

UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,434.00	Days Since RI: 46.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/21/2019
Report #:	17
DFS:	15
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$102,982.64

Job Supply Amounts									
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed	
WATER	FRESH	BBL	0	0	0	Initial Reading: 183947. Final reading: 183947	0	12,609.0	
Mud Additive Amounts									
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons			
CALCIUM CHLORIDE	SALT	LB		20	126.0	115			
GILSONITE	FLUID LOSS ADDITIVES	SACK		55	97.0	140			
LIME	ALKALINITY CONTROL	LB		40	149.0	311			
POLYDRIL LEM H60 DRUM	OIL MUD ADDITIVE	GAL		1	7.0	10			
POLYDRIL PE 50 DRUM	OIL MUD ADDITIVE	GAL		1	10.0	6			
POLYDRIL SE 50 DRUM	OIL MUD ADDITIVE	GAL		1	5.0	6			
POLYDRIL WA 100 DRUM	OIL MUD ADDITIVE	GAL		1	9.0	8			
VG-PLUS	OIL MUD ADDITIVE	LB		16	23.0	110			
Pump Operations									
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)			
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0			
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0			
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0			
Pump Checks									
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)			
Deviation Surveys									
Date 8/29/2019		Description AS DRILL SURVEY				Job ODR, 8/29/2019 10:30			
Survey Data - All surveys for 24 hr reporting period									
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
14,653.00	90.62	347.86	9,159.84	6,285.69	6,091.47	-1,551.04	0.51		
14,738.00	90.42	347.06	9,159.07	6,370.66	6,174.44	-1,569.49	0.97		
14,833.00	92.32	347.31	9,156.80	6,465.61	6,267.05	-1,590.56	2.02		
14,928.00	88.25	347.15	9,156.33	6,560.57	6,359.67	-1,611.55	4.29		
15,023.00	88.90	346.39	9,158.69	6,655.54	6,452.12	-1,633.28	1.05		
Formations									
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)		
TARGET #1			-6,168.0		9,165.5				
Daily Contacts									
Job Contact		Title	Office	Mobile	Email				
FIZER, LARRY, VICE PRESIDENT		VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM				
HARDIN, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM				
DAFFRON, MIKE, SUPERINTENDENT		SUPERINTENDENT	432-360-4057	318-243-5902	MIKE.DAFFRON@PXD.COM				
LONG, TREVOR, ENGINEER		ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM				
HEMBREE, KEVIN, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		580-209-2359	KEVIN.HEMBREE@PXD.COM				
KELLEY, TERRY, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		903-799-0323	TERRY.KELLEY@PXD.COM				
RIG-H&P 601, RIG PHONE		RIG PHONE	432-355-3111	469-866-2439					
Personnel Log									
Company							Count		
PIONEER NATURAL RESOURCES USA INC							2		
HELMERICH & PAYNE INTERNATIONAL DRILLING CO							13		
DWM CONSULTING							1		
GYRODATA INC							4		
STRATAGRAPH INC							2		
DYNAMIC OILFIELD SERVICES INC							1		

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/22/2019		
Days Since LTI: 1,435.00				Report #:	18		
Release:				DFS:	16		
Days Since RI: 47.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$73,461.36		

API/UWI 42-003-481150000			Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub		KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019		TD Date			
Safety Checks											
Time	Type	Des		Tour	Com						
06:00	MEETING	PRE-TOUR		DAY	PTSM: Discussed, TIH, Slip & Cut drilling line, TIH with survey management,Drill production Lateral section, Get rig cleaned up from the trip,Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		DAY	Case#: 46,922 Date: 10-15-19 Classification: Fire Description: While circulating surface to surface through the choke, after burping production casing, and 2000 strokes past bottoms up, trapped air and gas came to surface overloading the separator. This caused a half gallon of oil-based mud to burp out of flare stack. When the flare ignited it also ignited the oil-based mud and created a very small fire on the ground. The fire was extinguished with a fire extinguisher and the air and gas was circulated out until well was under control.						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		NIGHT	Case#: 46,922 Date: 10-15-19 Classification: Fire Description: While circulating surface to surface through the choke, after burping production casing, and 2000 strokes past bottoms up, trapped air and gas came to surface overloading the separator. This caused a half gallon of oil-based mud to burp out of flare stack. When the flare ignited it also ignited the oil-based mud and created a very small fire on the ground. The fire was extinguished with a fire extinguisher and the air and gas was circulated out until well was under control.						
18:00	MEETING	PRE-TOUR		NIGHT	PTSM: Discussed, Drill production Lateral section, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
22:00	PROACTIVE MEASURES	STOP CARD - NON PNR		NIGHT	Stop Card: Observed RTM pressure washing doghouse with face shield lifted up. Got his attention and signaled for him to pull face shield down over face. Spoke with RTM later and reminded him of the possible dangers that are associated with pressure washing and how the face shield worn properly can mitigate those risks. He understood and thanked me for reminding him.						
Jobs											
Responsible Grp 2		Responsible Grp 3			Job Type	Start Date		End Date	Job Status		
DRL ENG - TREVOR LONG		AREA TEAM 1			ODR	8/29/2019 10:30			IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)											
Type				Subtype		Date		Note			
MILESTONE				ESTIMATED PAD RELEASE		12/5/2019		Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)			
Daily Operations											
Footage/Meterage (ft) 797.00		Drilling Hours (hr) 12.00		% Rotating Time (%) 79.17		End Depth (ftKB) 15,965.0		Target Depth (ftKB) 19,316.0			
24 HR ROP (ft/hr) 66.4		Circulating Hours (hr) 0.50		% Sliding Time (%) 20.83		End Depth (TVD) (ftKB) 9,148.2		Target Depth (TVD) (ftKB) 9,141.9			
						Daily Mud Field Est (Cost) 67,359.52		Cum Mud Field Est (Cost) 3,097,685.89			
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 600.0			Daily Goal - Next 24 1,200.0		Goal Comments Goal achieved (+32%)		
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB				Next Casing String PRODUCTION, 19,297.0ftKB			
Avg Connection Gas 92.00		Avg Trip Gas 91.00		Avg Background Gas 80.00		Max Connection Gas 114.00		Max Trip Gas 91.00			
								Max Drill Gas 221.00			
Operations Summary TIH to shoe, Slip & Cut Drlg line,TIH w/ Survey management, Drill 8 1/2" lateral f/ 15168' t/ 15965' (20.83% sliding, 1.49° avg lateral DLS, 9.41' high, 1.85' right)											
Operations Next Report Period Drill 8 1/2" lateral f/ 15965' t/ 17165'											
Operations at Report Time Drilling 8 1/2" lateral @ 15965'											
Remarks No Accidents, Incidents, or spills											
Rig NPT: 0.5 hours											
3rd Party NPT: 54.25 hours											
PNR NPT: 0 hours											
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 67%											
Gen Hours: 1- 24 hrs, 2- 13 hrs, 3- 24 hrs											
Saver Sub footage: 7,407'											
Initial Water Meter Reading: 175306											
Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	0.25	06:15	PROD, DRL LAT	SFTY	NORMAL	PJSM on tripping in hole.		15,168.0	15,168.0	0.25	6
06:15	1.25	07:30	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 102' t/ 2947'. Hole displacing properly to trip tanks		15,168.0	15,168.0	1.25	6
Daily Drilling Report											

Daily Drilling Report

UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,435.00	Days Since RI: 47.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/22/2019
Report #:	18
DFS:	16
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$73,461.36

Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
07:30	1.25	08:45	PROD, DRL LAT	HDL_AGITATOR	NORMAL	P/U and test old agitator and found the PSI was 500 over than before and it was not shaking. L/D old tool.  P/U and test new Scout agitator, rejetted tool to get a good PSI drop.  Before: 2000 psi After: 2560 psi PSI drop 560 psi	15,168.0	15,168.0	1.25	6	
08:45	1.5	10:15	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 2973' t/ 6006'. Hole displacing properly to trip tanks	15,168.0	15,168.0	1.50	6	
10:15	0.25	10:30	PROD, DRL LAT	HDL_ROTHD	NORMAL	Pull trip nipple and install rotating head	15,168.0	15,168.0	0.25	6	
10:30	0.25	10:45	PROD, DRL LAT	SFTY	NORMAL	PJSM on cutting and slipping drill line	15,168.0	15,168.0	0.25	6	
10:45	1.25	12:00	PROD, DRL LAT	SLIP_CUT	NORMAL	Slip and cut drill line (4 wraps - 24')	15,168.0	15,168.0	1.25	6	
12:00	1	13:00	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 6006' t/ 8655'. Hole displacing properly to trip tanks	15,168.0	15,168.0	1.00	6	
13:00	1	14:00	PROD, DRL LAT	LWD_GAMMA	NORMAL	Re-log gamma f/ 8666' t/ 8716' with full returns	15,168.0	15,168.0	1.00	6	
14:00	1	15:00	PROD, DRL LAT	SRVY_MGMT	NORMAL	Perform six axis checkshots @ 8666', 8761', 8855', 8950', 9045', 9140'. Full returns	15,168.0	15,168.0	1.00	6	
15:00	2.5	17:30	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 9140' t/ 15168'. Hole displacing properly to trip tanks  Wash last two stands for precautionary. Full returns	15,168.0	15,168.0	2.50	6	
17:30	9.25	02:45	PROD, DRL LAT	DRL	NORMAL	Drill F/15168' T/15839' (671' @ 73 fph), 65% complete. 78% Rot @ 88 fph 22% Sldg @ 17 fph MW-8 w/ 42 vis, full returns.  Last Survey @ 15781' ? Inc-90.03°, Azm-345.09°, 9.41' high & 1.85' right to plan #	15,168.0	15,839.0			
02:45	0.5	03:15	PROD, DRL LAT	RIG_SVC	NORMAL	Daily Rig Service	15,839.0	15,839.0			
03:15	2.75	06:00	PROD, DRL LAT	DRL	NORMAL	Drill F/15839' T/15965' (126' @ 46 fph), 67% complete. 82% Rot @ 71 fph 18% Sldg @ 16 fph MW-8 w/ 42 vis, full returns.  Last Survey @ 15781' ? Inc-90.03°, Azm-345.09°, 9.41' high & 1.85' right to plan #1	15,839.0	15,965.0			
Interval Problems											
3RD PARTY, 15,168.0ftKB, 10/20/2019 17:30											
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript..	Est Cost OR (Cost)	Accountable Party	Comment				
6	24.00	No	DRILL STRING	AGITATOR	72,000.00	TURBO DRILL INDUSTRIES INC	While drilling ahead we had a 500 psi increase and the same off bottom. After trip out we tested the agitator and found the pressure gain and it was not hitting at all.				
Drill Strings											
BHA #6 , PRODUCTION - LATERAL											
Bit Run 6				Drill Bit 8 1/2in, GT65DH, 13023808			Bit Type PDC		Make HALLIBURTON		
Nozzles (1/32") 13/13/13/13/13				Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull -----		Hours Drilled By Bit (hr) 12.00		Depth Drilled By Bit (ft) 797.00	
BHA Drilling Time (hr) 12.00				BHA Depth Drilled (ft) 797.00		BHA ROP (ft/hr) 66.4		Depth In (ftKB) 15,168.0		Depth Out (ftKB) 15,965.0	
Drill String Components											
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
139	DRILL PIPE				5	3.50	4,394.08	15,965.00	259,953.8	937	RIG
1	HWDP				5	3.00	912.99	11,570.92	54,012.5	677	OTHER (PROVIDE DESCRIPTION)
243	DRILL PIPE				5	3.50	7,684.60	10,657.93	454,620.9	623	OTHER (PROVIDE DESCRIPTION)
1	AGITATOR				6 1/2	2.63	26.00	2,973.33		168	SCOUT
90	DRILL PIPE				5	3.50	2,844.83	2,947.33	168,300.1	168	OTHER (PROVIDE DESCRIPTION)
1	DRILL COLLAR - FLEX				6 7/8	3.25	29.99	102.50		0	STABIL DRILL
1	DRILL COLLAR - NON MAG				6 3/4	3.25	30.97	72.51		0	STABIL DRILL
Daily Drilling Report											
Page 2/5						Printed: Tuesday, October 22, 2019					

Daily Drilling Report

UNIVERSITY 7-43 116H

H & P #601

Accept: 9/22/2019      Release:

Days Since LTI:      Days Since RI: 47.00

1,435.00

PERMIAN ASSET TEAM

Job:      ODR

Report Date:      10/22/2019

Report #:      18

DFS:      16

AFE #:      9006568

Total AFE + Sup:      \$3,097,685.89

Daily Field Est. (Cost):      \$73,461.36

Drill String Components																				
Jts	Item Des				OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lbf)		Cum Wt (1000lbf)		Make			
1	SUB - UBHO				6 11/16		2.75		2.97		41.54				0		GYRODATA			
1	STABILIZER				6 3/4		2.56		4.61		38.57				0		STABIL DRILL			
1	MOTOR - STABILIZER SLEEVE				7		3.00		32.96		33.96				0		GYRODATA			
Mud Motors																				
SN		Bend Angle			Bearing Type			Lobe Config			# Stages			Lwr Defln Type			Bit To Bend			
GDM700033		1.75			NOT SEALED			6:7			6.5						4.71			
Sensors																				
Sensor Type				Sensor-Bit (ft)						Note										
GAMMA				46.00																
DIRECTIONAL				58.00																
Drilling Parameters																				
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)			
17:30	18:00	15,168.0	17.00	34.0	35	70	500.0	700	5,000.0	100.0	235	300	180	235	24,500.0	15,000.0	0			
18:00	18:30	15,185.0	6.00	12.0	30	0	200.0	700	4,700.0	25.0	235	300	180	235	0.0	0.0	180			
18:30	19:30	15,191.0	93.00	93.0	35	70	500.0	700	5,000.0	100.0	235	300	180	235	24,500.0	15,000.0	0			
19:30	20:00	15,284.0	7.00	14.0	35	0	200.0	700	4,700.0	25.0	235	300	180	235	0.0	0.0	200			
20:00	20:45	15,291.0	88.00	117.3	35	70	500.0	700	5,000.0	100.0	235	300	180	235	24,500.0	15,000.0	0			
20:45	21:15	15,379.0	8.00	16.0	40	0	200.0	700	4,700.0	25.0	235	300	180	235	0.0	0.0	200			
21:15	01:30	15,387.0	367.00	86.4	35	70	500.0	700	4,800.0	100.0	235	300	180	235	25,000.0	17,000.0	0			
01:30	02:00	15,754.0	12.00	24.0	45	0	200.0	700	4,700.0	25.0	235	300	180	235	0.0	0.0	165			
02:00	02:45	15,766.0	73.00	97.3	35	70	500.0	700	4,800.0	100.0	235	300	180	235	25,000.0	17,000.0	0			
02:45	03:15	15,839.0	0.00		0	0	0.0	700	4,300.0	0.0	235	300	180	235	0.0	0.0	0			
03:15	03:45	15,839.0	22.00	44.0	35	70	500.0	700	4,800.0	100.0	235	300	180	235	25,000.0	17,000.0	0			
03:45	04:15	15,861.0	8.00	16.0	45	0	200.0	700	4,700.0	25.0	235	300	180	235	0.0	0.0	165			
04:15	06:00	15,869.0	96.00	54.9	35	70	500.0	700	4,800.0	100.0	235	300	180	235	25,000.0	17,000.0	0			
Hydraulic Calculations																				
Dens Mud (lb/gal)	ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
8.00	8.64		246.7		4.3		288.8		604.3		19.6		737.9		186.71		452.18		324.43	
Mud Checks																				
Time		Mud Company				Type			Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)		T Flowline (°F)					
20:00		PIONEER DRILLING FLUIDS				OIL BASE			15,647.0		8.00		44		0.0					
PV (cP)		YP (lbf/100ft²)		Vis 3rpm		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)						
9.0		7.000		5		6		0.0		11.6		250.0		250.0						
Solids (%)				Low Gravity Solids (%)			Sand (%)			MBT (lb/bbl)			Pm (mL/mL)			Pf (mL/mL)				
11.0				6.0			0.0			0.0			0.000							
Chlorides (ppm)				Calcium (ppm)			CaCl (ppm)		Oil Water Ratio			Electric Stab (V)			Lime (lb/bbl)			pH		
202,312,000.000				0.000			0		83.1/16.9			723.0			3.1			0.0		
Gel 10 sec (lbf/100ft²)						Gel 10 min (lbf/100ft²)						Gel 30 min (lbf/100ft²)								
6.000						11.000						13.000								
Comment																				
RECOMMENDED FLUID TREATMENT: No treatment while out or tripping in hole. While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for addional wetting and emulsion, Gilsonite for fluid loss while drilling.																				
DRILLING FLUIDS ACTIVITY LAST 24 HRS: While tripping, monitored hole fill and displacement with no issues. Added treatment as described to maintain and improve properties within mud program specifications. Prehydrating dry chemical in slug tank prior to transferring into active system. Running 1 centrifuge to polish mud system while drilling in heavy sand area. Running degasser in lateral section.																				
RIG ACTIVITY LAST 24 HOURS: Drilled and slid for correction from 15168 to 15647 with no mud issues, drilling in 20% shale, 70% sand and 10% limestone. Running one centrifuge to polish mud and control mud weight while drilling in heavy sand formation. Drilling ahead at 15647 at report time.																				
Last BOP Test																				
Date		Test Type				Item Tested				Next Test Date		Com								
10/18/2019		BOP				BOP'S, 9/18/2019 03:15, <class>				11/8/2019		Last FULL BOP test 10/18/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted								
Leak Off and Formation Integrity Tests																				
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)								
FORMATION INTEGRITY						1,959.0						13.00								
FORMATION INTEGRITY						6,286.0						9.50								
Casing Pressure Test																				
Test Type				Test Subtype				Date			Item Tested				Failed?	Time (min)		P (psi)		
CASING				STANDARD				9/6/2019			SURFACE, 1,959.1ftKB				No	30.00		1,000.0		
CASING				STANDARD				10/12/2019			INTERMEDIATE, 6,286.0ftKB				No	30.00		2,500.0		
Daily Drilling Report																				

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Daily Drilling Report

Kick Offs & Key Depths								
Date	Type	Top Depth (ftKB)						
	TOE							
10/14/2019 12:00	KICK OFF	8,590.0						
10/15/2019 16:15	HEEL	9,424.0						
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	106.5	106.5	20	H40	78.67			
SURFACE	1,959.1	1,958.4	13 3/8	J55	54.50	BTC	1,322.0	
INTERMEDIATE	6,286.0	6,236.6	9 5/8	L80-IC	40.00	BTC	3,078.3	
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL		293	0	Mud Diesel	12,243	51,673.0
DIESEL	FUEL	GAL		2,435	0	Rig Diesel	10,016	34,105.0
WATER	FRESH	BBL	0	0	0	Initial Reading: 183947. Final reading: 183947	0	12,609.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	15,269.0	18:30	364.0	20	64	95		
1	15,269.0	18:31	474.0	40	129	95		
1	15,269.0	18:32	682.0	60	193	95		
1	15,839.0	02:45	324.0	20	64	95		
1	15,839.0	02:46	444.0	40	129	95		
1	15,839.0	02:47	656.0	60	193	95		
2	15,269.0	18:33	367.0	20	64	95		
2	15,269.0	18:34	465.0	40	129	95		
2	15,269.0	18:35	665.0	60	193	95		
2	15,839.0	02:48	330.0	20	64	95		
2	15,839.0	02:49	429.0	40	129	95		
2	15,839.0	02:50	649.0	60	193	95		
3	15,269.0	18:33	333.0	20	64	95		
3	15,269.0	18:34	443.0	40	129	95		
3	15,269.0	18:35	651.0	60	193	95		
3	15,839.0	02:51	333.0	20	64	95		
3	15,839.0	02:52	439.0	40	129	95		
3	15,839.0	02:53	644.0	60	193	95		
Deviation Surveys								
Date 8/29/2019	Description AS DRILL SURVEY					Job ODR, 8/29/2019 10:30		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
15,211.00	91.36	346.83	9,156.34	6,843.50	6,634.98	-1,676.80	0.23	
15,306.00	91.08	346.48	9,154.32	6,938.47	6,727.40	-1,698.72	0.47	
15,401.00	90.03	345.14	9,153.40	7,033.46	6,819.49	-1,722.01	1.79	
15,496.00	89.32	344.39	9,153.94	7,128.43	6,911.15	-1,746.97	1.09	
15,591.00	91.05	344.60	9,153.63	7,223.39	7,002.69	-1,772.36	1.83	
15,686.00	92.69	344.91	9,150.53	7,318.31	7,094.29	-1,797.33	1.76	
15,781.00	90.03	345.09	9,148.28	7,413.26	7,186.02	-1,821.91	2.81	
Formations								
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
TARGET #1			-6,168.0		9,165.5			
Daily Contacts								
Job Contact		Title	Office	Mobile	Email			
FIZER, LARRY, VICE PRESIDENT		VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM			
HARDIN, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM			
DAFFRON, MIKE, SUPERINTENDENT		SUPERINTENDENT	432-360-4057	318-243-5902	MIKE.DAFFRON@PXD.COM			
LONG, TREVOR, ENGINEER		ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM			
HEMBREE, KEVIN, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		580-209-2359	KEVIN.HEMBREE@PXD.COM			
KELLEY, TERRY, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		903-799-0323	TERRY.KELLEY@PXD.COM			
RIG-H&P 601, RIG PHONE		RIG PHONE	432-355-3111	469-866-2439				
Personnel Log								
Company						Count		
PIONEER NATURAL RESOURCES USA INC						2		
HELMERICH & PAYNE INTERNATIONAL DRILLING CO						13		
DWM CONSULTING						1		
GYRODATA INC						4		
Daily Drilling Report				Page 4/5		Printed: Tuesday, October 22, 2019		



# Daily Drilling Report

**H & P #601**

**Release:**  
**Days Since RI: 47.00**

Job:	ODR
Report Date:	10/22/2019
Report #:	18
DFS:	16
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$73,461.36

Personnel Log	
Company	Count
STRATAGRAPH INC	2
DYNAMIC OILFIELD SERVICES INC	1

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/23/2019		
Days Since LTI: 1,436.00				Report #:	19		
Release:				DFS:	17		
Days Since RI: 48.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$101,967.61		

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations - drilling production lateral per plan. Watch hand/body placement while making connections, cleaning on rig, electrician may be here to work on solids control equipment - keep shakers clean. Use good communication, Wear all PPE.						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46492 Date & Time: 10/18/2019, 11:00 pm Classification: Injury/Illness (Low) Company/Employee: Patterson UTI Description: While tripping in the hole, a contractor had an insect fly into his right ear. Incident was reported, and contractor was transported to Xtreme MD to get irrigation flush with saline. Individual returned to full duty with no restrictions						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46492 Date & Time: 10/18/2019, 11:00 pm Classification: Injury/Illness (Low) Company/Employee: Patterson UTI Description: While tripping in the hole, a contractor had an insect fly into his right ear. Incident was reported, and contractor was transported to Xtreme MD to get irrigation flush with saline. Individual returned to full duty with no restrictions						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Drill production Lateral section, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
23:15	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop Card: After making connection in rotary, RTM grabbed slip handle before the driller picked up off of slips. Driller stopped the job and explained to RTM that it was good practice to wait until he picked up to pull slips due to there might be trapped torque causing the slip handles to strike his hands or fingers. RTM understood and preceded with job task without incident.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype	Date	Note					
MILESTONE			ESTIMATED PAD RELEASE	12/5/2019	Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)					
Daily Operations										
Footage/Meterage (ft) 1,106.00	Drilling Hours (hr) 23.00	% Rotating Time (%) 67.39	End Depth (ftKB) 17,071.0	Target Depth (ftKB) 19,316.0	Daily Field Est Total (Cost) 101,967.61	Cum Field Est To Date (Cost) 2,329,689.66				
24 HR ROP (ft/hr) 48.1	Circulating Hours (hr) 1.00	% Sliding Time (%) 32.61	End Depth (TVD) (ftKB) 9,135.5	Target Depth (TVD) (ftKB) 9,141.9	Daily Mud Field Est (Cost) 7,323.30	Cum Mud Field Est (Cost) 74,682.82	Total AFE + Sup (Cost) 3,097,685.89			
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 1,200.0		Daily Goal - Next 24 1,200.0		Goal Comments Goal not achieved (-.07%)				
Backbuild No	Lateral Inclination	Last Casing String INTERMEDIATE, 6,286.0ftKB			Next Casing String PRODUCTION, 19,297.0ftKB					
Avg Connection Gas 141.00	Avg Trip Gas 0.00	Avg Background Gas 110.00	Max Connection Gas 200.00	Max Trip Gas 0.00	Max Drill Gas 216.00					
Operations Summary Drill 8 1/2" lateral f/ 15965' t/ 17071' (32.61% sliding, 1.46° avg lateral DLS, 14.79' high, 1.58' right)										
Operations Next Report Period Drill 8 1/2" lateral f/ 17071' t/ 18271'										
Operations at Report Time Drilling 8 1/2" lateral @ 17071'										
Remarks No Accidents, Incidents, or spills										
Rig NPT: 0.5 hours										
3rd Party NPT: 54.25 hours										
PNR NPT: 0 hours										
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 77%										
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs										
Saver Sub footage: 8,513'										
Initial Water Meter Reading: 175306										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	10.75	16:45	PROD, DRL LAT	DRL	NORMAL	Drill F/15965' T/16408' (443' @ 41 fph), 71% complete. 84% Rot @ 47 fph 16% Sldg @ 10 fph MW-8 w/ 44 vis, full returns.  Last Survey @ 16350' ? Inc-89.69°, Azm-345.81°, 8.49' high & 2.26' right to plan #1	15,965.0	16,408.0		
16:45	0.5	17:15	PROD, DRL LAT	RIG_SVC	NORMAL	Daily Rig Service	16,408.0	16,408.0		
Daily Drilling Report										
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Printed: Wednesday, October 23, 2019										

# Daily Drilling Report

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 48.00
1,436.00	

Job:	ODR
Report Date:	10/23/2019
Report #:	19
DFS:	17
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$101,967.61

## Daily Drilling Report

# Daily Drilling Report

<b>UNIVERSITY 7-43 116H</b>	
<b>H &amp; P #601</b>	
<b>Accept: 9/22/2019</b>	<b>Release:</b>
<b>Days Since LTI:</b>	<b>Days Since RI: 48.00</b>
<b>1,436.00</b>	

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/23/2019
Report #:	19
DFS:	17
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$101,967.61

Drilling Parameters																			
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)		
21:00	22:15	16,608.0	10.00	8.0	40	0	150.0	700	4,350.0	15.0	235	300	180	235	0.0	0.0	170		
22:15	01:30	16,618.0	274.00	84.3	42	65	500.0	700	4,700.0	100.0	235	310	170	235	28,000.0	19,000.0	0		
01:30	03:00	16,892.0	15.00	10.0	50	0	100.0	700	4,400.0	15.0	235	310	170	235	0.0	0.0	195		
03:00	03:30	16,907.0	70.00	140.0	42	65	500.0	700	4,700.0	100.0	235	310	170	235	28,000.0	19,000.0	0		
03:30	04:00	16,977.0	0.00		0	0	0.0	700	4,400.0	0.0	235	300	180	235	0.0	0.0	0		
04:00	04:15	16,977.0	10.00	40.0	42	65	500.0	700	4,700.0	100.0	235	310	170	235	28,000.0	19,000.0	0		
04:15	05:15	16,987.0	10.00	10.0	50	0	100.0	700	4,400.0	15.0	235	310	170	235	0.0	0.0	180		
05:15	06:00	16,997.0	74.00	98.7	42	65	500.0	700	4,700.0	100.0	235	310	170	235	28,000.0	19,000.0	0		
Hydraulic Calculations																			
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)									
8.00	8.69	246.7	4.3	288.8	604.3	19.6	737.9	199.87	502.94	324.43									
Mud Checks																			
Time 20:00		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 16,770.0		Density (lb/gal) 8.00		Funnel Viscosity (s/qt) 43		T Flowline (°F) 0.0					
PV (cP) 9.0		YP (lb/100ft²) 8.000		Vis 3rpm 6		Vis 6rpm 7		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 13.2		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 250.0					
Solids (%) 10.0				Low Gravity Solids (%) 5.5		Sand (%) 0.0		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)							
Chlorides (ppm) 199,425,000.000				Calcium (ppm) 0.000		CaCl (ppm) 0		Oil Water Ratio 82.2/17.8		Electric Stab (V) 690.0		Lime (lb/bbl) 3.4		pH 0.0					
Gel 10 sec (lb/100ft²) 6.000						Gel 10 min (lb/100ft²) 11.000						Gel 30 min (lb/100ft²) 13.000							
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for additional wetting and emulsion, Gilsonite for fluid loss while drilling.																			
DRILLING FLUIDS ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve properties within mud program specifications. Prehydrating dry chemical in slug tank prior to transferring into active system. Running 1 centrifuge to polish mud system while drilling in heavy sand area. Running degasser in lateral section. Changed out 5 shaker screens on primary shakers and received 11157 gallons mud diesel.																			
RIG ACTIVITY LAST 24 HOURS: Drilled and slid for correction from 15647 to 16770 with no mud issues, drilling in 10% shale, 75% sand and 15% limestone. Running both centrifuges to polish mud and control mud weight while drilling in heavy sand formation. Drilling ahead at 16770 at report time. Running 2 centrifuges, degasser on mud system. Changed out all shaker screens on drying shakers due to excessive wear and deterioration.																			
Last BOP Test																			
Date		Test Type				Item Tested				Next Test Date		Com							
10/18/2019		BOP				BOP'S, 9/18/2019 03:15, <class>				11/8/2019		Last FULL BOP test 10/18/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted							
Leak Off and Formation Integrity Tests																			
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)							
FORMATION INTEGRITY						1,959.0						13.00							
FORMATION INTEGRITY						6,286.0						9.50							
Casing Pressure Test																			
Test Type				Test Subtype				Date		Item Tested				Failed?		Time (min)		P (psi)	
CASING				STANDARD				9/6/2019		SURFACE, 1,959.1ftKB				No		30.00		1,000.0	
CASING				STANDARD				10/12/2019		INTERMEDIATE, 6,286.0ftKB				No		30.00		2,500.0	
Kick Offs & Key Depths																			
Date							Type							Top Depth (ftKB)					
							TOE												
10/14/2019 12:00							KICK OFF							8,590.0					
10/15/2019 16:15							HEEL							9,424.0					
Casing Strings																			
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)					
CONDUCTOR		106.5		106.5		20		H40		78.67									
SURFACE		1,959.1		1,958.4		13 3/8		J55		54.50		BTC		1,322.0					
INTERMEDIATE		6,286.0		6,236.6		9 5/8		L80-IC		40.00		BTC		3,078.3					
Job Supply Amounts																			
Supply Item Des			Type	Unit Label	Received	Consumed	Returned	Note				Cum On Loc		Cum Consumed					
DIESEL			MUD	GAL	11,157	9,316	0	Mud Diesel				14,084		60,989.0					
DIESEL			FUEL	GAL	3,700	3,330	0	Rig Diesel				10,386		37,435.0					
WATER			FRESH	BBL	0	0	0	Initial Reading: 183947. Final reading: 183947				0		12,609.0					
Mud Additive Amounts																			
Des			Type		Units		Rec		Consumed		On Loc		Cum Cons						
CALCIUM CHLORIDE			SALT		LB				20		106.0		135						
GILSONITE			FLUID LOSS ADDITIVES		SACK		100		40		157.0		180						
LIME			ALKALINITY CONTROL		LB		150		40		259.0		351						
Daily Drilling Report																			
Page 3/5										Printed: Wednesday, October 23, 2019									

Daily Drilling Report

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
PALLET	MISCELLANEOUS	EA	15	15	0.0	59	
POLYDRIL LEM H60 DRUM	OIL MUD ADDITIVE	GAL	12	2	17.0	12	
POLYDRIL PE 50 DRUM	OIL MUD ADDITIVE	GAL	4	1	13.0	7	
POLYDRIL SE 50 DRUM	OIL MUD ADDITIVE	GAL	4	1	8.0	7	
POLYDRIL WA 100 DRUM	OIL MUD ADDITIVE	GAL		1	8.0	9	
SHRINK WRAP	MISCELLANEOUS	EA	10	10	0.0	38	
TRUCKING	MISCELLANEOUS	EA	850	850	0.0	3,600	
VG-PLUS	OIL MUD ADDITIVE	LB	175	16	182.0	126	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0	
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0	
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	16,408.0	17:00	315.0	20	64	95	
1	16,408.0	17:01	430.0	40	129	95	
1	16,408.0	17:02	650.0	60	193	95	
1	16,882.0	03:30	390.0	20	64	95	
1	16,882.0	03:31	456.0	40	129	95	
1	16,882.0	03:32	664.0	60	193	95	
2	16,408.0	17:03	305.0	20	64	95	
2	16,408.0	17:04	435.0	40	129	95	
2	16,408.0	17:05	680.0	60	193	95	
2	16,882.0	03:33	373.0	20	64	95	
2	16,882.0	03:34	442.0	40	129	95	
2	16,882.0	03:35	664.0	60	193	95	
3	16,408.0	17:06	325.0	20	64	95	
3	16,408.0	17:07	445.0	40	129	95	
3	16,408.0	17:08	680.0	60	193	95	
3	16,882.0	03:36	363.0	20	64	95	
3	16,882.0	03:37	439.0	40	129	95	
3	16,882.0	03:38	665.0	60	193	95	
Deviation Surveys							
Date 8/29/2019		Description AS DRILL SURVEY			Job ODR, 8/29/2019 10:30		
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
15,970.00	89.63	346.47	9,148.74	7,602.24	7,368.99	-1,869.25	1.37
16,065.00	90.45	346.75	9,148.67	7,697.24	7,461.41	-1,891.25	0.91
16,160.00	91.24	346.63	9,147.27	7,792.22	7,553.85	-1,913.12	0.84
16,255.00	90.11	345.97	9,146.15	7,887.21	7,646.13	-1,935.62	1.38
16,350.00	89.69	345.81	9,146.32	7,982.21	7,738.27	-1,958.78	0.47
16,445.00	91.78	346.23	9,145.10	8,077.20	7,830.44	-1,981.72	2.24
16,540.00	90.62	345.59	9,143.11	8,172.17	7,922.56	-2,004.84	1.39
16,634.00	89.29	346.06	9,143.18	8,266.17	8,013.70	-2,027.86	1.50
16,729.00	89.41	345.66	9,144.26	8,361.16	8,105.81	-2,051.07	0.44
16,824.00	92.66	346.63	9,142.54	8,456.13	8,198.02	-2,073.81	3.57
16,919.00	91.39	346.07	9,139.19	8,551.07	8,290.28	-2,096.22	1.46
Formations							
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
TARGET #1			-6,168.0		9,165.5		
PBHL/TD			-6,145.0		9,142.5		
Daily Contacts							
Job Contact		Title	Office	Mobile	Email		
FIZER, LARRY, VICE PRESIDENT		VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM		
HARDIN, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM		
DAFFRON, MIKE, SUPERINTENDENT		SUPERINTENDENT	432-360-4057	318-243-5902	MIKE.DAFFRON@PXD.COM		
LONG, TREVOR, ENGINEER		ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM		
HEMBREE, KEVIN, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		580-209-2359	KEVIN.HEMBREE@PXD.COM		
KELLEY, TERRY, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		903-799-0323	TERRY.KELLEY@PXD.COM		
RIG-H&P 601, RIG PHONE		RIG PHONE	432-355-3111	469-866-2439			
Personnel Log							
Company						Count	
PIONEER NATURAL RESOURCES USA INC						2	
Daily Drilling Report				Page 4/5		Printed: Wednesday, October 23, 2019	



# Daily Drilling Report

**H & P #601**

**Release:**  
**Days Since RI: 48.00**

Job:	ODR
Report Date:	10/23/2019
Report #:	19
DFS:	17
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$101,967.61

Personnel Log	
Company	Count
HELMERICH & PAYNE INTERNATIONAL DRILLING CO	13
DWM CONSULTING	1
GYRODATA INC	4
STRATAGRAPH INC	2
DYNAMIC OILFIELD SERVICES INC	1

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/24/2019		
Days Since LTI: 1,437.00				Report #:	20		
Release:				DFS:	18		
Days Since RI: 49.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$56,465.24		

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations - drilling production lateral per plan. Watch hand/body placement while making connections, cleaning on rig, electrician may be here to work on solids control equipment - keep shakers clean. Use good communication, Wear all PPE.						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46982 Date/Time: 10/22/2019 – 8:50 am Classification: Contractor – Spill/Release Description: While pumping stage #24, an intermediate casing pop-off released causing a 3bbl spill of oil-based fluid to ground. Spill was quickly mitigated with vac trailer and shovels.						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46982 Date/Time: 10/22/2019 – 8:50 am Classification: Contractor – Spill/Release Description: While pumping stage #24, an intermediate casing pop-off released causing a 3bbl spill of oil-based fluid to ground. Spill was quickly mitigated with vac trailer and shovels.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Drill production Lateral section, Discussed cold weather that is headed our way, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
23:45	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop Card: Observed RTM walking across the rig floor under the extended elevators while the driller was Coming Down With Blocks stopped him and explained to him the hazards of crossing under or within reach of the elevators . He gave me his commitment to stay clear and continued working safely.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype	Date	Note					
MILESTONE			ESTIMATED PAD RELEASE	12/5/2019	Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)					
Daily Operations										
Footage/Meterage (ft) 1,144.00	Drilling Hours (hr) 16.00	% Rotating Time (%) 84.37	End Depth (ftKB) 18,215.0	Target Depth (ftKB) 19,316.0	Daily Field Est Total (Cost) 56,465.24	Cum Field Est To Date (Cost) 2,385,889.90				
24 HR ROP (ft/hr) 71.5	Circulating Hours (hr) 1.00	% Sliding Time (%) 15.63	End Depth (TVD) (ftKB) 9,142.9	Target Depth (TVD) (ftKB) 9,141.9	Daily Mud Field Est (Cost) 4,439.53	Cum Mud Field Est (Cost) 79,122.35	Total AFE + Sup (Cost) 3,097,685.89			
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 1,200.0		Daily Goal - Next 24 600.0		Goal Comments Goal not achieved (-.04%)				
Backbuild No	Lateral Inclination	Last Casing String INTERMEDIATE, 6,286.0ftKB			Next Casing String PRODUCTION, 19,297.0ftKB					
Avg Connection Gas 197.00	Avg Trip Gas 0.00	Avg Background Gas 180.00		Max Connection Gas 229.00	Max Trip Gas 0.00	Max Drill Gas 257.00				
Operations Summary Drill 8 1/2" lateral f/ 17071' t/ 18215', Lost Diff psi TOO H t/4400' (15.63% sliding, 1.43° avg lateral DLS, 4.27' high, 3.15' leftt)										
Operations Next Report Period TOOH, C/O Dir BHA, TIH w/ Survey management,Drill 8 1/2" lateral f/ 18215' t/ 18815'										
Operations at Report Time TOOH @ 4400'										
Remarks No Accidents, Incidents, or spills										
Rig NPT: 0.5 hours										
3rd Party NPT: 54.25 hours										
PNR NPT: 0 hours										
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 89%										
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs										
Saver Sub footage: 9,657'										
Initial Water Meter Reading: 175306										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	11.25	17:15	PROD, DRL LAT	DRL	NORMAL	Drill F/17071' T/17925' (854' @ 76 fph), 86% complete. 91% Rot @ 82 fph 9% Sldg @ 16 fph MW-8 w/ 44 vis, full returns.  Last Survey @ 17867' ? Inc-90.03°, Azm-345.2°, 6.93' high & 2.06' left to plan #1	17,071.0	17,925.0		
17:15	0.5	17:45	PROD, DRL LAT	RIG_SVC	NORMAL	Daily Rig Service	17,925.0	17,925.0		
Daily Drilling Report										
Page 1/4				Printed: Thursday, October 24, 2019						





# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 49.00
1,437.00	

Job:	ODR
Report Date:	10/24/2019
Report #:	20
DFS:	18
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$56,465.24

## Deviation Surveys

Survey Data - All surveys for 24 hr reporting period

Formations
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## Daily Contacts

Job Contact	Title	Office	Mobile	Email
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Personnel Log									
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Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/25/2019		
Days Since LTI: 1,438.00				Report #:	21		
Release:				DFS:	19		
Days Since RI: 50.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$103,883.81		

P/I/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY L A3)		Field Name SPRABERRY (TREND AREA)						
SSN ID00038689		Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00		Spud Date 8/29/2019	TD Date				
Safety Checks												
Time	Type	Des	Tour	Com								
06:00	MEETING	PRE-TOUR	DAY	UPCOMING OPERATIONS: TOOHH C/O Directional BHA. TIH and Re-Log 50' of Gamma as per MWD. Perform 6 Axis Survey's as per MWD								
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46990 Date/Time: 10/23/2019 – 9:00 am Classification: Contractor – Spill/Release (low) Description: While attempting to change out faulty water flow meter, 5bbls of treated water spilled onto ground. Spill was quickly mitigated with vac trailer and absorbent diapers. Spill was immediately reported								
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46990 Date/Time: 10/23/2019 – 9:00 am Classification: Contractor – Spill/Release (low) Description: While attempting to change out faulty water flow meter, 5bbls of treated water spilled onto ground. Spill was quickly mitigated with vac trailer and absorbent diapers. Spill was immediately reported								
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Drill production Lateral section, Discussed cold weather that is headed our way, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times								
23:15	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop Card: Observed Drill Crew tripping in the hole. Proper hand, foot and body placement utilized by personnel working on the floor as well as good communication and teamwork throughout entire task. Observed RTM utilized tail rope on every stand of pipe coming in.								
Jobs												
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30				IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)												
Type			Subtype		Date		Note					
MILESTONE			ESTIMATED PAD RELEASE		12/5/2019		Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)					
Daily Operations												
Footage/Meterage (ft) 280.00		Drilling Hours (hr) 4.25		% Rotating Time (%) 64.71		End Depth (ftKB) 18,495.0		Target Depth (ftKB) 19,316.0		Daily Field Est Total (Cost) 103,883.81	Cum Field Est To Date (Cost) 2,489,816.21	
24 HR ROP (ft/hr) 65.9		Circulating Hours (hr) 3.25		% Sliding Time (%) 35.29		End Depth (TVD) (ftKB) 9,146.3		Target Depth (TVD) (ftKB) 9,141.9		Daily Mud Field Est (Cost) 2,382.81	Cum Mud Field Est (Cost) 81,505.16	Total AFE + Sup (Cost) 3,097,685.89
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 600.0				Daily Goal - Next 24 818.0		Goal Comments Goal not achieved (- 46%)		
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB				Next Casing String PRODUCTION, 19,297.0ftKB				
Avg Connection Gas 59.00		Avg Trip Gas 155.00		Avg Background Gas 60.00		Max Connection Gas 59.00		Max Trip Gas 155.00		Max Drill Gas 189.00		
Operations Summary TOOH, C/O Dir BHA, TIH w/ Survey management,Drill 8 1/2" lateral f/ 18,215' t/ 18,495' (35.29% sliding, 1.44° avg lateral DLS, 2.81' high, 4.56' leftt)												
Operations Next Report Period Drill 8 1/2" lateral f/ 18,495' t/ 19,313', K&M CUC, TOOHH												
Operations at Report Time Drilling 8 1/2" lateral @ 18,495'												
Remarks No Accidents, Incidents, or spills												
Rig NPT: 0.5 hours												
3rd Party NPT: 80.0 hours												
PNR NPT: 0 hours												
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 92%												
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs												
Saver Sub footage: 9,937'												
Initial Water Meter Reading: 175306												
Time Log												
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
06:00	2.5	08:30	PROD, DRL LAT	TOOH_ELEV	NORMAL	Trip out of Hole F/5,075' T/103'		18,215.0	18,215.0	2.50	7	
08:30	0.25	08:45	PROD, DRL LAT	SFTY	NORMAL	PJSM with crews on laying down the BHA.		18,215.0	18,215.0	0.25	7	
08:45	0.75	09:30	PROD, DRL LAT	LD_DIR	NORMAL	Retrieve MWD tools. Lay down Motor and Bit. Motor had no squat and appears to have a broken drive shaft.		18,215.0	18,215.0	0.75	7	
09:30	0.75	10:15	PROD, DRL LAT	PU_DIR	NORMAL	Make up New bit and motor. Scribe same and install MWD tool.		18,215.0	18,215.0	0.75	7	
10:15	1.25	11:30	PROD, DRL LAT	TIH_ELEV	NORMAL	Trip in hole T/2,947', Hole displacing properly to trip tanks		18,215.0	18,215.0	1.25	7	
11:30	1.75	13:15	PROD, DRL LAT	HDL_AGITATOR	NORMAL	Test Agitator and found tool bad. Change out Agitator with new one from pipe rack. Test new Agitator 550 psi drop. Note: Old Agitator was washed out in nozzle area.		18,215.0	18,215.0	1.75	7, 8	
Daily Drilling Report												
Page 1/5												
Printed: Friday, October 25, 2019												

Daily Drilling Report

UNIVERSITY 7-43 116H			
H & P #601			
Accept: 9/22/2019		Release:	
Days Since LTI: 1,438.00		Days Since RI: 50.00	

PERMIAN ASSET TEAM		Job:	ODR
		Report Date:	10/25/2019
		Report #:	21
		DFS:	19
		AFE #:	9006568
		Total AFE + Sup:	\$3,097,685.89
		Daily Field Est. (Cost):	\$103,883.81

Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
13:15	1.25	14:30	PROD, DRL LAT	TIH_ELEV	NORMAL	Trip in hole F/2,947' T/6,196', Hole displacing properly to trip tanks	18,215.0	18,215.0	1.25	7	
14:30	0.25	14:45	PROD, DRL LAT	HDL_ROTHD	NORMAL	Remove Trip Nipple and Install Rotating head element	18,215.0	18,215.0	0.25	7	
14:45	1.5	16:15	PROD, DRL LAT	SLIP_CUT	NORMAL	Slip and Cut Drill Line. Perform 2-point Calibration.	18,215.0	18,215.0	1.50	7	
16:15	0.5	16:45	PROD, DRL LAT	RIG_SVC	NORMAL	Service Rig	18,215.0	18,215.0	0.50	7	
16:45	1	17:45	PROD, DRL LAT	TIH_ELEV	NORMAL	Trip in hole F/6,196' T/8,666', Hole displacing properly to trip tanks	18,215.0	18,215.0	1.00	7	
17:45	0.5	18:15	PROD, DRL LAT	LWD_ GAMMA	NORMAL	Re-Log Gamma f/8,666' t/8,717	18,215.0	18,215.0	0.50	7	
18:15	1	19:15	PROD, DRL LAT	SRVY_MGMT	NORMAL	Take 6 Axis survey's @ 8,758', 8,853', 8,947', 9,041', 9,138'	18,215.0	18,215.0	1.00	7	
19:15	5.25	00:30	PROD, DRL LAT	TIH_ELEV	NORMAL	Trip in hole F/9,140' T/17,989', Hole displacing properly to trip tanks	18,215.0	18,215.0	5.25	7	
00:30	0.5	01:00	PROD, DRL LAT	TIH_NONELEV	NORMAL	Wash & Ream f/17,989' t18,215' Full returns	18,215.0	18,215.0	0.50	7	
01:00	2	03:00	PROD, DRL LAT	DRL	NORMAL	Drill F/18215' T/18305' (90' @ 45 fph), 90% complete. 38% Rot @ 101 fph 63% Sldg @ 11 fph MW-8 w/ 44 vis, full returns.  Last Survey @ 18247' ? Inc-89.26°, Azm-345.33°, 2.81' high & 4.56' left to plan #1	18,215.0	18,305.0			
03:00	0.5	03:30	PROD, DRL LAT	RIG_SVC	NORMAL	Daily rig service	18,305.0	18,305.0			
03:30	2.5	06:00	PROD, DRL LAT	DRL	NORMAL	Drill F/18305' T/18495' (190' @ 76 fph), 92% complete. 80% Rot @ 92 fph 20% Sldg @ 14 fph MW-8 w/ 44 vis, full returns.  Last Survey @ 18247' ? Inc-89.26°, Azm-345.33°, 2.81' high & 4.56' left to plan #1	18,305.0	18,495.0			
Interval Problems											
DIRECTIONAL, 18,215.0ftKB, 10/23/2019 23:15											
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment				
7	25.75	No	MOTOR	DOWNHOLE EQUIPMENT	77,250.00	GYRODATA INC	Lost all Diff pressure and ROP dropped to 0. Decision made to Trip out of hole. Motor appears to have a broken shaft.				
3RD PARTY, 18,215.0ftKB, 10/24/2019 11:30											
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment				
8	1.75	No	DRILL STRING	AGITATOR	1,000.00	TURBO DRILL INDUSTRIES INC	Test Agitator and found tool bad. Change out Agitator with new one from pipe rack. Test new Agitator 550 psi drop. Note: Old Agitator was washed out in nozzle area.				
Drill Strings											
BHA #6 , PRODUCTION - LATERAL											
Bit Run 6				Drill Bit 8 1/2in, GT65DH, 13023808			Bit Type PDC		Make HALLIBURTON		
Nozzles (1/32") 13/13/13/13/13				Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull 1-1-BT-M-X-0-BT-DTF		Hours Drilled By Bit (hr) 51.00		Depth Drilled By Bit (ft) 3,047.00	
BHA Drilling Time (hr) 51.00				BHA Depth Drilled (ft) 3,047.00		BHA ROP (ft/hr) 59.7		Depth In (ftKB) 15,168.0		Depth Out (ftKB) 18,215.0	
Drill String Components											
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
210	DRILL PIPE				5	3.50	6,644.08	18,215.00	393,063.8	1,070	RIG
1	HWDP				5	3.00	912.99	11,570.92	54,012.5	677	OTHER (PROVIDE DESCRIPTION)
243	DRILL PIPE				5	3.50	7,684.60	10,657.93	454,620.9	623	OTHER (PROVIDE DESCRIPTION)
1	AGITATOR				6 1/2	2.63	26.00	2,973.33		168	SCOUT
90	DRILL PIPE				5	3.50	2,844.83	2,947.33	168,300.1	168	OTHER (PROVIDE DESCRIPTION)
1	DRILL COLLAR - FLEX				6 7/8	3.25	29.99	102.50		0	STABIL DRILL
1	DRILL COLLAR - NON MAG				6 3/4	3.25	30.97	72.51		0	STABIL DRILL
1	SUB - UBHO				6 11/16	2.75	2.97	41.54		0	GYRODATA
1	STABILIZER				6 3/4	2.56	4.61	38.57		0	STABIL DRILL
1	MOTOR - STABILIZER SLEEVE				7	3.00	32.96	33.96		0	GYRODATA
Mud Motors											
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defin Type	
GDM700033		1.75		NOT SEALED		6:7		6.5			
										4.71	
Daily Drilling Report											
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Printed: Friday, October 25, 2019											

Daily Drilling Report

Sensors																		
Sensor Type				Sensor-Bit (ft)						Note								
GAMMA				46.00														
DIRECTIONAL				58.00														
Drilling Parameters																		
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)	
07:00	07:30	18,215.0	0.00		0	0	0.0	700	4,400.0		235	310	175	235	0.0	17,000.0	0	
BHA #7 , PRODUCTION - LATERAL																		
Bit Run 7				Drill Bit 8 1/2in, GT65DH, 13304917							Bit Type PDC				Make HALLIBURTON			
Nozzles (1/32") 13/13/13/13/13/13				Bit Total Fluid Area (nozzles) (in²) 0.78				IADC Bit Dull -----				Hours Drilled By Bit (hr) 4.25				Depth Drilled By Bit (ft) 280.00		
BHA Drilling Time (hr) 4.25				BHA Depth Drilled (ft) 280.00				BHA ROP (ft/hr) 65.9				Depth In (ftKB) 18,215.0				Depth Out (ftKB) 18,495.0		
Drill String Components																		
Jts	Item Des					OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make						
219	DRILL PIPE					5	3.50	6,923.70	18,495.00	409,606.1	669	RIG						
1	HWDP					5	3.00	912.99	11,571.30	54,012.5	259	OTHER (PROVIDE DESCRIPTION)						
243	DRILL PIPE					5	3.50	7,684.60	10,658.31	149,849.7	205	OTHER (PROVIDE DESCRIPTION)						
1	AGITATOR					6 1/2	2.56	26.40	2,973.71		55	SCOUT						
90	DRILL PIPE					5	3.50	2,844.83	2,947.31	55,474.2	55	OTHER (PROVIDE DESCRIPTION)						
1	DRILL COLLAR - NON MAG					6 7/8	3.25	29.99	102.48		0	STABIL DRILL						
1	DRILL COLLAR - NON MAG					6 3/4	3.25	30.97	72.49		0	STABIL DRILL						
1	SUB - UBHO					6 11/16	2.75	2.97	41.52		0	GYRODATA						
1	STABILIZER					6 3/4	2.56	4.61	38.55		0	STABIL DRILL						
1	MOTOR - STABILIZER SLEEVE					7	3.00	32.94	33.94		0	GYRODATA						
Mud Motors																		
SN		Bend Angle			Bearing Type		Lobe Config		# Stages		Lwr Defln Type			Bit To Bend				
GDM700039		1.75			NOT SEALED		6:7		6.5					4.67				
Sensors																		
Sensor Type				Sensor-Bit (ft)						Note								
GAMMA				46.00														
DIRECTIONAL				58.00														
Drilling Parameters																		
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)	
17:45	19:15	18,215.0	0.00		0	0	0.0	500	2,300.0	0.0	235	300	175	235	0.0	0.0	0	
00:30	01:15	18,215.0	0.00		0	30	0.0	670	4,800.0	0.0	235	320	165	235	28,000.0	17,000.0	0	
01:15	01:30	18,215.0	10.00	40.0	30	70	500.0	670	5,300.0	100.0	235	320	165	235	28,000.0	17,000.0	0	
01:30	02:30	18,225.0	7.00	7.0	15	0	100.0	670	4,900.0	20.0	235	320	165	235	0.0	0.0	20	
02:30	03:00	18,232.0	73.00	146.0	30	70	500.0	670	5,300.0	100.0	235	320	165	235	28,000.0	17,000.0	0	
03:00	03:30	18,305.0	0.00	0.0	0	0	0.0	670	4,800.0	0.0	235	320	165	235	0.0	0.0	0	
03:30	03:45	18,305.0	31.00	124.0	30	70	500.0	670	5,300.0	100.0	235	320	165	235	28,000.0	17,000.0	0	
03:45	04:15	18,336.0	7.00	14.0	20	0	100.0	670	4,900.0	20.0	235	320	165	235	0.0	0.0	35	
04:15	06:00	18,343.0	152.00	86.9	30	70	500.0	670	5,300.0	100.0	235	320	165	235	28,000.0	17,000.0	0	
Hydraulic Calculations																		
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)								
8.00	8.73	216.4	3.8	276.4	553.6	18.8	706.3	216.81	568.30	324.43								

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/25/2019		
Days Since LTI: 1,438.00				Report #:	21		
Release:				DFS:	19		
Days Since RI: 50.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$103,883.81		

Mud Checks											
Time 20:00		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 18,215.0	Density (lb/gal) 8.00	Funnel Viscosity (s/qt) 46	T Flowline (°F) 0.0	
PV (cP) 10.0	YP (lb/100ft²) 6.000	Vis 3rpm 4	Vis 6rpm 5	Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 15.4		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 250.0	
Solids (%) 10.0		Low Gravity Solids (%) 5.5		Sand (%) 0.0		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)	
Chlorides (ppm) 208,288,000.000		Calcium (ppm) 0.000		CaCl (ppm) 0	Oil Water Ratio 82.2/17.8		Electric Stab (V) 600.0		Lime (lb/bbl) 2.7	pH 0.0	
Gel 10 sec (lb/100ft²) 4.000				Gel 10 min (lb/100ft²) 7.000				Gel 30 min (lb/100ft²) 9.000			
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, Wetting Agent, Primary Emulsifier 50, diesel and water for dilution and to build volume. Secondary Emulsifier for additional wetting and emulsion, Gilsonite & Soltex for fluid loss while drilling.											
DRILLING FLUIDS ACTIVITY LAST 24 HRS: no treatment while POOH and tripping in hole. Changed out 3 shaker screens due to screen tear											
RIG ACTIVITY LAST 24 HOURS: finished POOH for motor. Changed out motor and new bit and RIH to 2,947' and tested agitator with bad test laid out agitator and picked up new agitator. TIH to 6196 and cut and slipped drill line. And TIH and relogged from 8666 /8717. Continue to TIH @ 17069 at report time											
Last BOP Test											
Date	Test Type		Item Tested			Next Test Date		Com			
10/18/2019	BOP		BOP'S, 9/18/2019 03:15, <class>			11/8/2019		Last FULL BOP test 10/18/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted			
Leak Off and Formation Integrity Tests											
Test Type			Depth (ftKB)				Dens Fluid (lb/gal)				
FORMATION INTEGRITY			1,959.0				13.00				
FORMATION INTEGRITY			6,286.0				9.50				
Casing Pressure Test											
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			9/6/2019		SURFACE, 1,959.1ftKB		No	30.00	1,000.0
CASING		STANDARD			10/12/2019		INTERMEDIATE, 6,286.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths											
Date				Type				Top Depth (ftKB)			
				TOE							
10/14/2019 12:00				KICK OFF				8,590.0			
10/15/2019 16:15				HEEL				9,424.0			
Casing Strings											
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)		Grade	Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)	
CONDUCTOR	106.5	106.5	20		H40	78.67					
SURFACE	1,959.1	1,958.4	13 3/8		J55	54.50		BTC	1,322.0		
INTERMEDIATE	6,286.0	6,236.6	9 5/8		L80-IC	40.00		BTC	3,078.3		
Job Supply Amounts											
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc	Cum Consumed	
DIESEL		MUD	GAL	7,203	1,203	0	Mud Diesel		16,000	66,276.0	
DIESEL		FUEL	GAL		1,354	0	Rig Diesel		5,784	42,037.0	
WATER		FRESH	BBL	0	0	0	Initial Reading: 183947. Final reading: 183947		0	12,609.0	
Mud Additive Amounts											
Des		Type	Units		Rec	Consumed		On Loc		Cum Cons	
CALCIUM CHLORIDE		SALT	LB		150	16		240.0		151	
LIME		ALKALINITY CONTROL	LB		100	29		300.0		410	
POLYDRIL SE 50 DRUM		OIL MUD ADDITIVE	GAL		4	1		10.0		9	
POLYDRIL WA 100 DRUM		OIL MUD ADDITIVE	GAL			1		7.0		10	
TRUCKING		MISCELLANEOUS	EA		850	850		0.0		4,450	
Pump Operations											
Pump #	Make			Model	Liner Size (in)		Stroke (in)		Vol/Stk (bbl/stk)		P Max (psi)
1	GARDNER-DENVER			PZ-11-1600	5 1/2		11.00		0.081		6,300.0
2	GARDNER-DENVER			PZ-11-1600	5 1/2		11.00		0.081		6,300.0
3	GARDNER-DENVER			PZ-11-1600	5 1/2		11.00		0.081		6,300.0
Pump Checks											
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)		Q Flow (gpm)		Eff (%)			
1	18,305.0	03:00	463.0	20		64		95			
1	18,305.0	03:01	555.0	40		129		95			
1	18,305.0	03:02	799.0	60		193		95			
2	18,305.0	03:03	451.0	20		64		95			
2	18,305.0	03:04	538.0	40		129		95			
2	18,305.0	03:05	784.0	60		193		95			
3	18,305.0	03:06	440.0	20		64		95			
3	18,305.0	03:07	533.0	40		129		95			
3	18,305.0	03:08	775.0	60		193		95			
Deviation Surveys											
Date 8/29/2019		Description AS DRILL SURVEY							Job ODR, 8/29/2019 10:30		
Survey Data - All surveys for 24 hr reporting period											
MD (ftKB)		Incl (°)		Azim (°)		TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
18,247.00		89.26		345.33		9,143.09	9,878.90	9,578.00	-2,420.14	1.24	
Daily Drilling Report											

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Printed: Friday, October 25, 2019

# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 50.00
1,438.00	

Job:	ODR
Report Date:	10/25/2019
Report #:	21
DFS:	19
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$103,883.81

[illegible]



Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/26/2019		
Days Since LTI: 1,439.00				Report #:	22		
Release:				DFS:	20		
Days Since RI: 51.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$97,043.76		

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY L A3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date 10/25/2019									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	UPCOMING OPERATIONS: Drill Lateral to TD @ 19,313'. Perform K&M Clean up. Keep an eye on the back yard equipment. Clean and organize location											
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 47004 Date: 10/24/2019 Classification: Contractor – Injury/Illness (Low) Description: While tripping out of the hole, a floor hand was pulling slips and strained a muscle on the Left-side of his chest. The incident was reported and followed up with a doctor visit. He was released to full duty with first aid treatment											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, K&M CUC, TOO H, Discussed cold weather that is here, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times											
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 47004 Date: 10/24/2019 Classification: Contractor – Injury/Illness (Low) Description: While tripping out of the hole, a floor hand was pulling slips and strained a muscle on the Left-side of his chest. The incident was reported and followed up with a doctor visit. He was released to full duty with first aid treatment											
01:30	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop Card: Observed RTM get between ST-80 and stump while tripping pipe.Stop the job explained that it is not a good thing to be in a pinch point and he could get pinched in between the stump and ST-80, he agreed to not stand in between in a pinch point.											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status								
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30		IN PROGRESS								
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)															
Type			Subtype		Date	Note									
MILESTONE			ESTIMATED PAD RELEASE		12/5/2019	Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)									
Type TXRRRC CALL			Subtype CEMENT PROD		Date 10/25/2019	Note Linda Opp #8									
Daily Operations															
Footage/Meterage (ft) 843.00		Drilling Hours (hr) 11.00		% Rotating Time (%) 81.82		End Depth (ftKB) 19,338.0		Target Depth (ftKB) 19,316.0		Daily Field Est Total (Cost) 97,043.76		Cum Field Est To Date (Cost) 2,586,859.97			
24 HR ROP (ft/hr) 76.6		Circulating Hours (hr) 6.00		% Sliding Time (%) 18.18		End Depth (TVD) (ftKB) 9,136.8		Target Depth (TVD) (ftKB) 9,141.9		Daily Mud Field Est (Cost) 15,353.32		Cum Mud Field Est (Cost) 96,858.48		Total AFE + Sup (Cost) 3,097,685.89	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 818.0				Daily Goal - Next 24 0.0				Goal Comments Goal achieved TD			
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,286.0ftKB				Next Casing String PRODUCTION, 19,325.2ftKB							
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 125.00		Max Connection Gas 230.00		Max Trip Gas 0.00		Max Drill Gas 240.00					
Operations Summary Drill 8 1/2" lateral f/ 18,495' t/ 19,338' TD, K&M CUC, TOO H t/ 6,000' (18.18% sliding, 1.39° avg lateral DLS, 5.21' high, 19.20' leftt)															
Operations Next Report Period TOOH, L/D Dir tools, R/U csg tools, M/U shoe track & run 5.5" Prod csg															
Operations at Report Time TOOH @ 6,000'															
Remarks No Accidents, Incidents, or spills  Rig NPT: 0.5 hours  3rd Party NPT: 80.0 hours  PNR NPT: 0 hours  Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 100%  Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs  Saver Sub footage: 10,780'  Initial Water Meter Reading: 175306															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	11	17:00	PROD, DRL LAT	DRL	NORMAL	Drill F/18495' T/19338' (843' @ 77 fph), 100% complete. 80% Rot @ 89 fph 20% Sldg @ 27 fph MW-8 w/ 48 vis, full returns.  Last Survey @ 19280' ? Inc-92.06°, Azm-344.73°, 5.21' high & 19.2' left to plan #1			18,495.0	19,338.0					

# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 51.00
1,439.00	

Job:	ODR
Report Date:	10/26/2019
Report #:	22
DFS:	20
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$97,043.76

## Drill Strings

## BHA #7 , PRODUCTION - LATERAL

## Drill String Components

## Mud Motors

## Sensors

## Drilling Parameters

## Hydraulic Calculations

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Daily Drilling Report

UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,439.00	Days Since RI: 51.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/26/2019
Report #:	22
DFS:	20
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$97,043.76

Mud Checks											
Time 20:00		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 19,338.0		Density (lb/gal) 8.00	Funnel Viscosity (s/qt) 48	T Flowline (°F) 0.0
PV (cP) 9.0	YP (lb/100ft²) 7.000	Vis 3rpm 3	Vis 6rpm 7	Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 14.8		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 250.0	
Solids (%) 10.0		Low Gravity Solids (%) 5.3		Sand (%) 0.0		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)	
Chlorides (ppm) 205,419,000.000		Calcium (ppm) 0.000		CaCl (ppm) 0	Oil Water Ratio 81.1/18.9		Electric Stab (V) 880.0		Lime (lb/bbl) 3.1	pH 0.0	
Gel 10 sec (lb/100ft²) 4.000				Gel 10 min (lb/100ft²) 7.000				Gel 30 min (lb/100ft²) 9.000			
Comment RECOMMENDED FLUID TREATMENT: While drilling or circulating, adding LEM, VG Plus, Lime, diesel and water, Calcium Chloride , Gilsonite & Soltex for fluid loss while drilling.											
DRILLING FLUIDS ACTIVITY LAST 24 HRS: Added treatment as described to maintain and improve mud properties. Prehydrating dry chemical in slug tank prior to transferring into active system. Running 2 centrifuge to maintain mud weight and reduce low gravity solids. received 1 load of Diesel to mud diesel tank. continue mixing and running 2 centrifuges on K&M clean up cycle											
RIG ACTIVITY LAST 24 HOURS: finished TIH and resume drilling with no issues RIH. Drill and slie as needed for direction plan to 19,338 Well TD. Perform well clean up cycle with 6 bottoms up. B/U percentage coverage 1 ST 70% 2nd B/U 45,3rd B/U 18%. 4th 5% and 5&6 5% performed flow check and POOH											
Last BOP Test											
Date		Test Type		Item Tested		Next Test Date		Com			
10/18/2019		BOP		BOP'S, 9/18/2019 03:15, <class>		11/8/2019		Last FULL BOP test 10/18/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted			
Leak Off and Formation Integrity Tests											
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,959.0				13.00			
FORMATION INTEGRITY				6,286.0				9.50			
Casing Pressure Test											
Test Type		Test Subtype		Date		Item Tested		Failed?	Time (min)	P (psi)	
CASING		STANDARD		9/6/2019		SURFACE, 1,959.1ftKB		No	30.00	1,000.0	
CASING		STANDARD		10/12/2019		INTERMEDIATE, 6,286.0ftKB		No	30.00	2,500.0	
Kick Offs & Key Depths											
Date				Type				Top Depth (ftKB)			
10/14/2019 12:00				KICK OFF				8,590.0			
10/15/2019 16:15				HEEL				9,424.0			
10/25/2019 17:00				TOE				19,338.0			
Casing Strings											
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade	Wt/Len (lb/ft)		P LeakOff (psi)
CONDUCTOR		106.5		106.5		20		H40	78.67		
SURFACE		1,959.1		1,958.4		13 3/8		J55	54.50		BTC 1,322.0
INTERMEDIATE		6,286.0		6,236.6		9 5/8		L80-IC	40.00		BTC 3,078.3
Job Supply Amounts											
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc	Cum Consumed	
DIESEL		MUD	GAL	7,189	6,189	0	Mud Diesel		17,000	72,465.0	
DIESEL		FUEL	GAL	7,492	3,260	0	Rig Diesel		10,016	45,297.0	
WATER		FRESH	BBL	0	0	0	Initial Reading: 183947. Final reading: 183947		0	12,609.0	
Mud Additive Amounts											
Des		Type		Units		Rec		Consumed		On Loc	Cum Cons
BARITE-BULK		WEIGHTING MATERIAL		TON				6		65.0	43
CALCIUM CHLORIDE		SALT		LB				20		220.0	171
GILSONITE		FLUID LOSS ADDITIVES		SACK				52		175.0	262
LIME		ALKALINITY CONTROL		LB				40		260.0	450
PALLET		MISCELLANEOUS		EA		15		15		0.0	74
POLYDRIL LEM H60 DRUM		OIL MUD ADDITIVE		GAL				4		12.0	17
POLYDRIL PE 50 DRUM		OIL MUD ADDITIVE		GAL				2		14.0	10
POLYDRIL SE 50 DRUM		OIL MUD ADDITIVE		GAL				1		9.0	10
POLYDRIL SOLTEX		FLUID LOSS ADDITIVES		LB				40		80.0	68
SHRINK WRAP		MISCELLANEOUS		EA		13		13		0.0	51
VG-PLUS		OIL MUD ADDITIVE		LB				57		210.0	203
Pump Operations											
Pump #		Make		Model		Liner Size (in)		Stroke (in)		Vol/Stk (bbl/stk)	P Max (psi)
1		GARDNER-DENVER		PZ-11-1600		5 1/2		11.00		0.081	6,300.0
2		GARDNER-DENVER		PZ-11-1600		5 1/2		11.00		0.081	6,300.0
3		GARDNER-DENVER		PZ-11-1600		5 1/2		11.00		0.081	6,300.0
Pump Checks											
Pump #		Depth (ftKB)		Time	P (psi)		Strokes (spm)		Q Flow (gpm)		Eff (%)
1		19,063.0		16:00	430.0		20		64		95
1		19,063.0		16:01	560.0		40		129		95
Daily Drilling Report											

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Printed: Saturday, October 26, 2019

Daily Drilling Report

UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,439.00	Days Since RI: 51.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/26/2019
Report #:	22
DFS:	20
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$97,043.76

Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	19,063.0	16:02	815.0	60	193	95	
2	19,063.0	16:03	455.0	20	64	95	
2	19,063.0	16:04	565.0	40	129	95	
2	19,063.0	16:05	830.0	60	193	95	
Deviation Surveys							
Date 8/29/2019		Description AS DRILL SURVEY				Job ODR, 8/29/2019 10:30	
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
18,532.00	91.67	345.74	9,139.68	10,163.84	9,853.92	-2,491.33	0.62
18,626.00	90.99	345.25	9,137.50	10,257.81	9,944.90	-2,514.87	0.89
18,721.00	91.42	345.68	9,135.50	10,352.78	10,036.84	-2,538.71	0.64
18,816.00	89.46	345.93	9,134.77	10,447.77	10,128.93	-2,562.00	2.08
18,911.00	88.61	344.77	9,136.37	10,542.75	10,220.83	-2,586.02	1.51
19,005.00	88.41	344.74	9,138.82	10,636.69	10,311.49	-2,610.73	0.22
19,100.00	88.53	344.83	9,141.35	10,731.63	10,403.12	-2,635.66	0.16
19,195.00	91.36	345.63	9,141.45	10,826.61	10,494.98	-2,659.87	3.10
19,280.00	92.06	344.73	9,138.91	10,911.56	10,577.11	-2,681.60	1.34
Formations							
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
TARGET #1			-6,168.0		9,165.5		
PBHL/TD			-6,145.0		9,142.5		
Daily Contacts							
Job Contact		Title	Office	Mobile	Email		
FIZER, LARRY, VICE PRESIDENT		VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM		
POLYA, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-413-6147	432-352-3155	JOE.POLYA@PXD.COM		
PARSELL, VIC, SUPERINTENDENT		SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM		
LONG, TREVOR, ENGINEER		ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM		
HUTTO, PAUL, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		318-381-5026	PAUL.HUTTO@PXD.COM		
KELLEY, TERRY, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		903-799-0323	TERRY.KELLEY@PXD.COM		
DETTORE, DON, MUD ENGINEER		MUD ENGINEER		850-572-6351	DONALD.DETTORE@PXD.COM		
RIG-H&P 601, RIG PHONE		RIG PHONE	432-355-3111	469-866-2439			
Personnel Log							
Company						Count	
PIONEER NATURAL RESOURCES USA INC						2	
HELMERICH & PAYNE INTERNATIONAL DRILLING CO						13	
DWM CONSULTING						1	
GYRODATA INC						4	
STRATAGRAPH INC						2	
DYNAMIC OILFIELD SERVICES INC						1	

Daily Drilling Report

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Printed: Saturday, October 26, 2019

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601 Accept: 9/22/2019 Days Since LTI: 1,440.00 Release: Days Since RI: 52.00				Job:	ODR		
				Report Date:	10/27/2019		
				Report #:	23		
				DFS:	21		
				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$51,583.11		

P/I/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY L A3)		Field Name SPRABERRY (TREND AREA)					
SSN ID00038689		Property Sub		KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date 10/25/2019			
Safety Checks											
Time	Type	Des	Tour	Com							
06:00	MEETING	PRE-TOUR	DAY	UPCOMING OPERATIONS: TOO H @ 160 fpm from 8000' to surface. Monitor hole fill and adjust run speed. Lay down Directional tools. R/U casing equipment & M/U shoe track & pump through floats. Float casing at 140 fpm to 8000' MD and 80 fpm from 8000' to TD. Monitor displacement and adjust run speed accordingly. Get everything we can ready for the skid while running casing.Post everything you do on passon							
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46994 Date/Time: 10/23/2019 – 16:20 pm Classification: Contractor – Injury/Illness (Low) Description: While attempting to hook up suction hose to chemical tank, team-member slipped and fell. No injuries sustained by event. Report only.							
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Running Prod casing, All the 3rd party hands on location, Honoring the buffer zone, Getting everything ready for the skid that we can, Discussed cold weather that is here, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times							
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46994 Date/Time: 10/23/2019 – 16:20 pm Classification: Contractor – Injury/Illness (Low) Description: While attempting to hook up suction hose to chemical tank, team-member slipped and fell. No injuries sustained by event. Report only.							
21:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Observed 3rd party personnel picking up and running Production casing on rig floor. PJSM was held between all involved in task. All necessary PPE, tools and equipment for the job were in place. Tail rope was being utilized when bringing in the joints, and area was kept clear when bringing joints up to the drill floor on the PDS as well as being hoisted in the derrick. Commended the personnel for performing the job safely and efficiently.							
Jobs											
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status		
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30				IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)											
Type			Subtype		Date		Note				
MILESTONE			ESTIMATED PAD RELEASE		12/5/2019		Drilling 2nd lateral on 4 well pad. Batch Drilling. (Updated 10-15-19)				
Daily Operations											
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 19,338.0		Target Depth (ftKB) 19,316.0		Daily Field Est Total (Cost) 51,583.11	Cum Field Est To Date (Cost) 2,638,443.08	
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)	End Depth (TVD) (ftKB) 9,136.8		Target Depth (TVD) (ftKB) 9,141.9		Daily Mud Field Est (Cost)	Cum Mud Field Est (Cost) 96,858.48	Total AFE + Sup (Cost) 3,097,685.89
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0			Daily Goal - Next 24 0.0			Goal Comments Ops Goal Met	
Backbuild No		Lateral Inclination Toe Up		Last Casing String INTERMEDIATE, 6,286.0ftKB				Next Casing String			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00	
Operations Summary TOOH, L/D Dir tools, R/U csg tools, M/U shoe track & run 5.5" Prod csg t/11,500'											
Operations Next Report Period Run Prod csg t/19,326', Burp csg, Circ STS, R/U Cmt head & Cement Prod csg, R/D cmt equip, L/D landing joint, Install pack off & test, Install BPV, N/D BOPE & Install TA cap & test, Release rig to University 7-43 117H											
Operations at Report Time Run Prod csg @ 11,500'											
Remarks No Accidents, Incidents, or spills											
Rig NPT: 0.5 hours											
3rd Party NPT: 80.0 hours											
PNR NPT: 0 hours											
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 100%											
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 0 hrs											
Saver Sub footage: 10,780'											
Initial Water Meter Reading: 175306											
Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	3.25	09:15	PROD, POST DRL	TOOH_ELEV	NORMAL	Trip out of hole F/6,195' T/102'. Correct pipe displacement on trip.		19,338.0	19,338.0		
09:15	0.25	09:30	PROD, POST DRL	SFTY	NORMAL	PJSM with crews on laying down Directional BHA.		19,338.0	19,338.0		
09:30	1	10:30	PROD, POST DRL	LD_DIR	NORMAL	Lay down Directional BHA and Bit.		19,338.0	19,338.0		
10:30	0.5	11:00	PROD, POST DRL	SFTY	NORMAL	Clean OBM residue from rig floor.		19,338.0	19,338.0		
Daily Drilling Report				Page 1/3				Printed: Sunday, October 27, 2019			



UNIVERSITY 7-43 116H	
H & P #601	
Accept: 9/22/2019	Release:
Days Since LTI: 1,440.00	Days Since RI: 52.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	10/27/2019
Report #:	23
DFS:	21
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$51,583.11

Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
11:00	0.25	11:15	PROD, POST DRL	WRBSH	NORMAL	Pull and remove wear bushing from well head.		19,338.0	19,338.0		
11:15	0.5	11:45	PROD, POST DRL	RIG_RPR	NORMAL	Change out leaking swivel packing		19,338.0	19,338.0		
11:45	0.25	12:00	PROD, CASE & CMT	SFTY	NORMAL	PJSM with crews on Rigging up and Running 5.5" Production casing		19,338.0	19,338.0		
12:00	1	13:00	PROD, CASE & CMT	RU_CSG	NORMAL	Rig up Byrd's Casing tools and CRT equipment		19,338.0	19,338.0		
13:00	0.5	13:30	PROD, CASE & CMT	MU_SHOE_TR K	NORMAL	Make up 5.5" Production shoe track; single valve float shoe, double valve float collar, 10' marker joint and latch collar (wet shoe). Pump thru same and confirm correct operation.		19,338.0	19,338.0		
13:30	16.5	06:00	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	RIH w/ 5.5" 20# P-110 IC TXPBTC casing t/ 11,500', Run speeds: 140 fpm t/ 8,000' and 80 fpm f/ 8,000' t/ 19,326', Hole displacing properly to trip tanks.		19,338.0	19,338.0		
Interval Problems											
RIG, 19,338.0ftKB, 10/26/2019 11:15											
Ref #	Dur (N...)	Ex... Ye...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party		Comment			
9	0.50	Yes	CIRCULATING SYSTEM	HOSES	0.00	HELMERICH & PAYNE INTERNATIONAL DRILLING CO		Change out leaking swivel packing			
Hydraulic Calculations											
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)		HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
Mud Checks											
Time 20:00		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 19,338.0	Density (lb/gal) 8.00	Funnel Viscosity (s/qt) 49	T Flowline (°F) 0.0	
PV (cP) 9.0	YP (lb/100ft²) 7.000	Vis 3rpm 3	Vis 6rpm 7	Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 14.8		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 250.0	
Solids (%) 10.0		Low Gravity Solids (%) 5.3		Sand (%) 0.0		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)	
Chlorides (ppm) 209,573,000.000		Calcium (ppm) 0.000		CaCl (ppm) 0	Oil Water Ratio 81.1/18.9		Electric Stab (V) 780.0		Lime (lb/bbl) 3.1	pH 0.0	
Gel 10 sec (lb/100ft²) 4.000				Gel 10 min (lb/100ft²) 7.000				Gel 30 min (lb/100ft²) 8.000			
Comment RECOMMENDED FLUID TREATMENT: no treatment while POOH and running production casing											
DRILLING FLUIDS ACTIVITY LAST 24 HRS: Transferred 200 bbl of 8.15 PPG OBM from University 116H to Patterson 253 well McClintic O'Daniel 60 M 13 H to make room for upcoming cementing job.											
RIG ACTIVITY LAST 24 HOURS: finished POOH with no issues had safety meeting rigged up casing running tools and running production casing											
Last BOP Test											
Date	Test Type			Item Tested		Next Test Date		Com			
10/18/2019	BOP			BOP'S, 9/18/2019 03:15, <class>		11/8/2019		Last FULL BOP test 10/18/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted			
Leak Off and Formation Integrity Tests											
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,959.0				13.00			
FORMATION INTEGRITY				6,286.0				9.50			
Casing Pressure Test											
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			9/6/2019		SURFACE, 1,959.1ftKB		No	30.00	1,000.0
CASING		STANDARD			10/12/2019		INTERMEDIATE, 6,286.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths											
Date					Type				Top Depth (ftKB)		
10/14/2019 12:00					KICK OFF				8,590.0		
10/15/2019 16:15					HEEL				9,424.0		
10/25/2019 17:00					TOE				19,338.0		
Casing Strings											
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)		Grade	Wt/Len (lb/ft)		Top Thread	P LeakOff (psi)		
CONDUCTOR	106.5	106.5	20		H40	78.67					
SURFACE	1,959.1	1,958.4	13 3/8		J55	54.50		BTC	1,322.0		
INTERMEDIATE	6,286.0	6,236.6	9 5/8		L80-IC	40.00		BTC	3,078.3		
Job Supply Amounts											
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc	Cum Consumed	
DIESEL		MUD	GAL		0	0	Mud Diesel		17,000	72,465.0	
DIESEL		FUEL	GAL		753	0	Rig Diesel		9,263	46,050.0	
WATER		FRESH	BBL	0	0	0	Initial Reading: 183947. Final reading: 183947		0	12,609.0	
Mud Additive Amounts											
Des		Type		Units		Rec	Consumed		On Loc	Cum Cons	
Daily Drilling Report											

# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release:
Days Since LTI:	Days Since RI: 52.00
1,440.00	

Job:	ODR
Report Date:	10/27/2019
Report #:	23
DFS:	21
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$51,583.11

Pump Operations						
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0
Pump Checks						
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)
Deviation Surveys						
Date 8/29/2019	Description AS DRILL SURVEY					Job ODR, 8/29/2019 10:30
Formations						
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
TARGET #1	-6,168.0		9,165.5			
PBHL/TD	-6,145.0		9,142.5			
Daily Contacts						
Job Contact	Title	Office	Mobile	Email		
FIZER, LARRY, VICE PRESIDENT	VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM		
POLYA, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-413-6147	432-352-3155	JOE.POLYA@PXD.COM		
PARSELL, VIC, SUPERINTENDENT	SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM		
LONG, TREVOR, ENGINEER	ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM		
HUTTO, PAUL, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		318-381-5026	PAUL.HUTTO@PXD.COM		
KELLEY, TERRY, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		903-799-0323	TERRY.KELLEY@PXD.COM		
DETTORE, DON, MUD ENGINEER	MUD ENGINEER		850-572-6351	DONALD.DETTORE@PXD.COM		
RIG-H&P 601, RIG PHONE	RIG PHONE	432-355-3111	469-866-2439			
Personnel Log						
Company					Count	
PIONEER NATURAL RESOURCES USA INC					2	
HELMERICH & PAYNE INTERNATIONAL DRILLING CO					13	
DWM CONSULTING					1	
GYRODATA INC					4	
STRATAGRAPH INC					2	
DYNAMIC OILFIELD SERVICES INC					1	
Daily Drilling ReportPage 3/3Printed: Sunday, October 27, 2019						

Daily Drilling Report

UNIVERSITY 7-43 116H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/22/2019				Report Date:	10/28/2019		
Days Since LTI: 1,441.00				Report #:	24		
Release: 10/28/2019				DFS:	22		
Days Since RI: 53.00				AFE #:	9006568		
				Total AFE + Sup:	\$3,097,685.89		
				Daily Field Est. (Cost):	\$182,691.22		

API/UWI 42-003-481150000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038689	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 8/29/2019	TD Date 10/25/2019				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	UPCOMING OPERATIONS: Float casing at 80 fpm to TD. Monitor displacement and adjust run speed accordingly. Get everything we can ready for the skid while running casing.Top Fill casing every 10-15 joints. Land casing with Cactus hand. Burp casing as per Weatherford hand. Circulate STS. Post everything you do on passoning you do on passon						
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46983 Date/Time: 10/22/2019 – 9:15 am Classification: Contractor – Injury/Illness Description: While setting down a 4-inch bull-plug, team-member experienced a slight strain in his back. Team-member did not want to be evaluated at this time. Report only. Team-member returned to work, after discussion with case management						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed, Landing casing, Circulating STS, Cementing casing, Getting everything ready for the skid that we can, Discussed cold weather that is here, Keep cleaning on the rig, Clean and organize location. Stay hydrated, Good house keeping and wear proper PPE at all times						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46983 Date/Time: 10/22/2019 – 9:15 am Classification: Contractor – Injury/Illness Description: While setting down a 4-inch bull-plug, team-member experienced a slight strain in his back. Team-member did not want to be evaluated at this time. Report only. Team-member returned to work, after discussion with case management						
22:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop card: 3rd party hands came to rig floor for PJSM not wearing H2S monitor's. Asked them where there monitor's were and they said in there truck,We discussed the importance of wearing the correct PPE when on PNR locations and having monitor inside breathing zone. They said they would do better to pay more attention and ensure the proper PPE was in place when they get out of there truck going forward.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	8/29/2019 10:30	10/28/2019 06:00	COMPLETE			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype		Date	Note				
MILESTONE			ESTIMATED PAD RELEASE		12/4/2019	Completed 2nd lateral on 4 well pad. Batch Drilling. (Updated10-28-19)				
Daily Operations										
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 19,338.0	Target Depth (ftKB) 19,316.0	Daily Field Est Total (Cost) 182,691.22	Cum Field Est To Date (Cost) 2,821,134.30		
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)	End Depth (TVD) (ftKB) 9,136.8	Target Depth (TVD) (ftKB) 9,141.9	Daily Mud Field Est (Cost)	Cum Mud Field Est (Cost) 96,858.48	Total AFE + Sup (Cost) 3,097,685.89	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0		Daily Goal - Next 24 0.0		Goal Comments Ops Goal Met		
Backbuild No		Lateral Inclination Toe Up		Last Casing String PRODUCTION, 19,323.1ftKB			Next Casing String			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00	Max Drill Gas 0.00	
Operations Summary Run Prod csg t/19,323', Burp csg, Circ STS, R/U Cmt head & Cement Prod csg, R/D cmt equip, L/D landing joint, Install pack off & test, Install BPV, N/D BOPE & Install TA cap & test, Release rig to University 7-43 117H @ 06:00 hrs 10/28/2019										
Operations Next Report Period Release rig to University 7-43 117H										
Operations at Report Time Release rig to University 7-43 117H										
Remarks No Accidents, Incidents, or spills										
Rig NPT: 0.5 hours										
3rd Party NPT: 80.0 hours										
PNR NPT: 0 hours										
Surf:100% Int:100% Prod Vertical: 100% Curve: 100% Lat: 100%										
Gen Hours: 1- 2 hrs, 2- 12 hrs, 3- 14 hrs										
Saver Sub footage: 10,780'										
Initial Water Meter Reading: 175306										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	12.5	18:30	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	Run 5.5", 20# P-110 IC TXP casing F/11,557' T/19,323, Land casing w/ Cactus hand, Run speeds: 80 fpm t/ 19,326', Hole displacing properly to trip tanks.	19,338.0	19,338.0		
18:30	0.25	18:45	PROD, CASE & CMT	SFTY	NORMAL	PJSM w/ RTM's, Byrd casing crew, PNR rep on R/D casing equipment	19,338.0	19,338.0		
18:45	0.5	19:15	PROD, CASE & CMT	RD_CSG	NORMAL	R/D casing equipment	19,338.0	19,338.0		
Daily Drilling Report										
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Printed: Monday, October 28, 2019										



# Daily Drilling Report

**H & P #601**

Accept: 9/22/2019	Release: 10/28/2019
Days Since LTI:	Days Since RI: 53.00
1,441.00	

Job:	ODR
Report Date:	10/28/2019
Report #:	24
DFS:	22
AFE #:	9006568
Total AFE + Sup:	\$3,097,685.89
Daily Field Est. (Cost):	\$182,691.22

## Daily Drilling Report