

Daily Drilling Report

UNIVERSITY W2-34D 4H				PERMIAN - JV SOUTHERN WOLFCAMP	
PATTERSON - UTI - 804				Job:	ODR
Accept: 4/27/2021				Report Date:	4/28/2021
Days Since LTI: 214.00				Report #:	3
Release:				DFS:	2
Days Since RI: 214.00				AFE #:	9011466
				Total AFE + Sup:	\$2,596,759.42
				Daily Field Est. (Cost):	\$25,953.81

P/I/UWI 42-383-40906-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)								
SSN ID00020510		Property Sub		KB-Grd (ft) 28.00		Orig KB Elev (ft) 2,670.00		Ground Elevation (ft) 2,642.00		Spud Date 11/19/2020		TD Date		
Jobs														
Responsible Grp 2		Responsible Grp 3			Job Type		Start Date			End Date		Job Status		
DRL ENG - KEITH SPACEK		AREA TEAM 4			ODR		11/19/2020 20:00					IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)														
Type				Subtype			Date			Note				
MILESTONE				ESTIMATED PAD RELEASE			5/14/2021			Drilling 7th Int on a 7 well pad (4-28-21)				
Daily Operations														
Footage/Meterage (ft) 396.00		Drilling Hours (hr) 3.50		% Rotating Time (%) 35.71		End Depth (ftKB) 1,500.0		Target Depth (ftKB) 18,794.0		Daily Field Est Total (Cost) 25,953.81		Cum Field Est To Date (Cost) 290,562.01		
24 HR ROP (ft/hr) 113.1		Circulating Hours (hr)		% Sliding Time (%) 64.29		End Depth (TVD) (ftKB) 1,499.5		Target Depth (TVD) (ftKB) 8,859.9		Daily Mud Field Est (Cost) 6,475.68		Cum Mud Field Est (Cost) 6,475.68		Total AFE + Sup (Cost) 2,596,759.42
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 4,000.0				Goal Comments Goal Met		
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,084.2ftKB						Next Casing String PROPOSED INTERMEDIATE, 8,489.0ftKB				
Avg Connection Gas 2.00		Avg Trip Gas 0.00			Avg Background Gas 2.00			Max Connection Gas 2.00			Max Trip Gas 0.00		Max Drill Gas 2.00	
Operations Summary Skid F/University W2-34E 5H, Center Over Hole, N/U & Test BOPE, P/U Dir Tools & DC/HWDP, Slip/Cut Drill Line, Drill Out FE + 10' F/1,104' - T/1,114', Perform FIT T/12.5 EMW, Drill F/1,114' - T/1,500'														
Operations Next Report Period Drill Int F/ 1,500' - T/ 5,500' Per Plan #1 w/No HSE Events														
Operations at Report Time Drilling Int @ 1,500'														
Remarks TD Inter: 4-17-21 @ 06:00 AM TD Production: 4-24-21 @ 09:30 AM April. NPT: Cum: 28 hrs; Dly: 0 hrs Surf: 100% Int. 1: xxxx% Prod Vert: 0% Prod. Curve: 0% Prod. Lateral: 0% No Incidents or Spills Reported														
Time Log														
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #		
13:30	0.75	14:15	MOB, RIG UP	SKID	NORMAL	Skid rig and center over wellhead			1,104.0	1,104.0				
14:15	0.5	14:45	MOB, RIG UP	NU_BOPE	NORMAL	Nipple up BOPE.			1,104.0	1,104.0				
14:45	5	19:45	MOB, RIG UP	TEST_BOPE	NORMAL	Perform BOP Test - Test Blinds, Uppers, Loweres, HCR, Kill Line to 250 psi Low and 5000 psi High. Test Annular to 250 psi Low and 3500 psi High. **2 hrs spent trouble shooting low test pressure loss** While picking up BHA Test back to pumps T/ 6000 psi.			1,104.0	1,104.0				
19:45	0.5	20:15	INT, PRE DRL	WRBSH	NORMAL	Install wear bushings			1,104.0	1,104.0				
20:15	0.25	20:30	INT, PRE DRL	SFTY	NORMAL	Clean & organize rig floor prior to picking up BHA			1,104.0	1,104.0				
20:30	0.25	20:45	INT, PRE DRL	SFTY	NORMAL	PJSM with Intrepid, Patterson & PNR on picking up BHA			1,104.0	1,104.0				
20:45	1.5	22:15	INT, PRE DRL	PU_DIR	NORMAL	P/U 9 5/8" MM 1.5 w/12" NBS, 11.5" Stab, Pony, UBHO and 2 x 8" NMDC. Bit - Baker 12.25" 507 TWX Test back to pumps T/ 6000.			1,104.0	1,104.0				
22:15	0.75	23:00	INT, PRE DRL	HDL_BHA	NORMAL	TIH 8" DC & 5" HWDP T/1,101' Note: Tag Cmt @ 1,101'			1,104.0	1,104.0				
23:00	1	00:00	INT, PRE DRL	SLIP_CUT	NORMAL	Slip/cut drill line			1,104.0	1,104.0				
00:00	0.5	00:30	INT, PRE DRL	RIG_SVC	NORMAL	Rig service			1,104.0	1,104.0				
00:30	0.75	01:15	INT, PRE DRL	DRL_OUT	NORMAL	Drill out cement and float equipment F/1,036' - T/1,100', 700 GPM, 20 RPM,			1,104.0	1,104.0				
01:15	0.25	01:30	INT, PRE DRL	DRL	NORMAL	Drill 10' formation F/1,104' - T/1,114' with full returns			1,104.0	1,114.0				
01:30	0.25	01:45	INT, PRE DRL	CIRC	NORMAL	Circulate and balance MW in and out at 9.2 lb/gal prior to FIT			1,114.0	1,114.0				
01:45	0.25	02:00	INT, PRE DRL	FIT	NORMAL	Perform FIT Test to 12.5 EMW			1,114.0	1,114.0				
02:00	0.5	02:30	INT, PRE DRL	HDL_ROTHTD	NORMAL	Install rotating head			1,114.0	1,114.0				
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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 #							
02:30	3.5	06:00	INT, DRL	DRL	NORMAL	Drill F/ 1,114' - T/ 1,500' . (386' @ 110 fph) with full returns				1,114.0	1,500.0									
Drill Strings																				
BHA #2 , INTERMEDIATE																				
Bit Run 2			Drill Bit 12 1/4in, D506TWX, 5319083					Bit Type PDC			Make GE/BAKER HUGHES									
Nozzles (1/32") 10/10/10/10/11/11/11/11/11			Bit Total Fluid Area (nozzles) (in²) 0.77			IADC Bit Dull -----			Hours Drilled By Bit (hr) 3.50			Depth Drilled By Bit (ft) 396.00								
BHA Drilling Time (hr) 3.50			BHA Depth Drilled (ft) 396.00			BHA ROP (ft/hr) 113.1			Depth In (ftKB) 1,104.0			Depth Out (ftKB) 1,500.0								
Drill String Components																				
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make									
11	DRILL PIPE				5	4.27	350.81	1,500.00	6,840.8	44	RIG									
4	HWDP				5	3.00	121.19	1,149.19	7,029.0	37	RIG									
1	DRILLING JARS - HYDRAULIC				7	2.75	31.41	1,028.00		30	WEATHERFORD									
17	HWDP				5	3.00	512.39	996.59	29,718.6	30	RIG									
1	SUB - XO				6 15/16	2.88	3.85	484.20		0	INTREPID									
12	DRILL COLLAR				8	2.88	359.61	480.35		0	RIG									
1	DRILL COLLAR - NON MAG				8	3.25	29.30	120.74		0	INTREPID									
1	DRILL COLLAR - NON MAG				8	3.25	29.98	91.44		0	INTREPID									
1	SUB - UBHO				8	2.75	3.30	61.46		0	INTREPID									
1	DRILL COLLAR - PONY, NON MAG				8 1/8	3.25	11.06	58.16		0	INTREPID									
1	STABILIZER				8	2.88	7.42	47.10		0	INTREPID									
1	MOTOR - STABILIZER SLEEVE				9 5/8	2.50	38.18	39.68		0	INTREPID									
Mud Motors																				
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defln Type		Bit To Bend								
GDM962030 / GD962-017		1.5		NOT SEALED		7:8		6.5				6.25								
Sensors																				
Sensor Type				Sensor-Bit (ft)				Note												
GAMMA				70.00																
DIRECTIONAL				83.00																
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 (°)			
02:30	02:45	1,104.0	10.00	40.0	30	60	475.0	700	1,900.0	230.0	125	140	115	125	12,500.0	3,000.0	0			
02:45	03:45	1,114.0	129.00	129.0	30	60	475.0	700	1,900.0	230.0	125	140	115	125	12,500.0	3,000.0	0			
03:45	06:00	1,243.0	257.00	114.2	15	0	300.0	700	1,700.0	130.0	125	140	115	125	0.0	0.0	350			
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)	
9.50	12.48		298.3		2.5		291.4		730.5		19.6		298.8		15.95		36.56		135.07	
Mud Checks																				
Time 21:00		Mud Company PIONEER DRILLING FLUIDS				Type WATER BASE		Depth (ftKB) 1,082.0		Density (lb/gal) 9.50		Funnel Viscosity (s/qt) 28		T Flowline (°F) 0.0						
PV (cP) 1.0		YP (lb/100ft²) 1.000		Vis 3rpm 1		Vis 6rpm 1		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)						
Solids (%) 4.0			Low Gravity Solids (%) 2.0			Sand (%) 0.0			MBT (lb/bbl) 0.0			Pm (mL/mL) 0.100			Pf (mL/mL)					
Chlorides (ppm) 55,000,000.000			Calcium (ppm)			CaCl (ppm)		Oil Water Ratio 0/100			Electric Stab (V)			Lime (lb/bbl)		pH 8.0				
Gel 10 sec (lb/100ft²) 1.000					Gel 10 min (lb/100ft²) 1.000					Gel 30 min (lb/100ft²) 2.000										
Comment Recommended Fluid Treatment: No treatment at present time.																				
Drilling Fluid Activity Last 24 hrs: Filled pits with reserve water. No MOC to report. Built gel/lig WBM and filled WBM frac tanks.																				
Last BOP Test																				
Date		Test Type			Item Tested				Next Test Date		Com									
4/27/2021		BOP			BOP'S, 4/27/2021 13:30, <class>				5/18/2021		Full BOP test									
Leak Off and Formation Integrity Tests																				
Test Type					Depth (ftKB)					Dens Fluid (lb/gal)										
FORMATION INTEGRITY					1,104.0					12.43										
Casing Pressure Test																				
Test Type				Test Subtype				Date		Item Tested			Failed?	Time (min)	P (psi)					
CASING				STANDARD				11/27/2020		SURFACE, 1,084.2ftKB			No	30.00	1,000.0					
Kick Offs & Key Depths																				
Date					Type					Top Depth (ftKB)				Depth Top (TVD) (ftKB)						
Casing Strings																				
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)						
CONDUCTOR		128.0				20		H40		78.67										
SURFACE		1,084.2		1,083.9		13 3/8		K55		54.50		BTC		712.8						
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Gas Emissions - Flare								
Type	Method	Dur (min)	Amount	Units	Com			
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	1,372			Transferred from' UNIVERSITY W2-34E 5H'	1,372	0.0
DIESEL	MUD	GAL	16,087			Transferred from' UNIVERSITY W2-34E 5H'	16,087	0.0
DIESEL	FUEL	GAL	112			Transferred from' UNIVERSITY W2-34E 5H'	112	0.0
WATER	FRESH	BBL	0			Transferred from' UNIVERSITY W2-34E 5H'	0	4,232.0
WATER	FRESH	BBL	0			Transferred from' UNIVERSITY W2-34E 5H'	0	0.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
BENTONITE - BULK	VISCOSIFIER	TON	47	22	25.0	22		
LIGNITE	DISPERSANTS/T HINNER	LB	145	50	95.0	50		
PAC LV	FLUID LOSS ADDITIVES	LB	103	21	82.0	21		
SODA ASH	ALKALINITY CONTROL	LB	102	30	72.0	30		
ZINC OXIDE	SPECIALITY	LB	29	6	23.0	6		
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	BOMCO	F1600	5 1/2	12.00	0.088	5,556.0		
2	BOMCO	F1600	5 1/2	12.00	0.088	5,556.0		
3	BOMCO	F1600	5 1/2	12.00	0.088	5,556.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
Deviation Surveys								
Date	Description					Job		
	FINAL SURVEY							
Date	Description					Job		
11/19/2020	AS DRILL SURVEY					ODR, 11/19/2020 20:00		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
1,160.00	2.09	356.75	1,159.69	15.80	15.70	-1.76	0.44	
1,243.00	2.09	356.75	1,242.63	18.83	18.73	-1.93	0.00	
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)	
258_0_QUEEN			-209.0		2,879.0			
259_0_GRAYBURG			-549.0		3,219.0			
261_0_SAN ANDRES			-791.0		3,461.0			
263_0_SAN_ANDRES_SHALE			-1,977.0		4,647.0			
265_0_CLEARFORK/POP			-2,889.0		5,559.0			
267_0_SPBY_U_A1/267_0_SPBY			-3,727.0		6,397.0			
267_5_SPBY_M_A1			-3,966.3		6,636.3			
268_5_SPBY_L_A1			-4,292.4		6,962.4			
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE			-4,682.0		7,352.0			
269_0_DEAN			-5,118.0		7,788.0			
270_0_WFMP_A1			-5,300.0		7,970.0			
272_0_WFMP_A2			-5,401.0		8,071.0			
275_0_WFMP_B1			-5,651.0		8,321.0			
276_0_WFMP_B2			-5,745.0		8,415.0			
278_0_WFMP_B3			-5,964.1		8,634.1			
ILP			-6,100.0		8,770.0			
TARGET_1			-6,175.0		8,845.0			
PBHL/TD			-6,190.0		8,860.0			
Daily Contacts								
Job Contact		Title	Office	Mobile	Email			
POLYA, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-413-6147	432-352-3155	JOE.POLYA@PXD.COM			
DAFFRON, MIKE, SUPERINTENDENT		SUPERINTENDENT	432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM			
JAY, JON, SUPERINTENDENT		SUPERINTENDENT	432-571-2454	432-234-2702	JON.JAY@PXD.COM			
SPACEK, KEITH, ENGINEER		ENGINEER	972-969-5932	972-741-1753	KEITH.SPACEK@PXD.COM			
ROGERS, WILL, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		806-549-1545	WILL.ROGERS@PXD.COM			
STAGGS, DUNCAN, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-816-8914	DUNCAN.STAGGS@PXD.COM			
JACKSON, MATTHEW, MUD ENGINEER		MUD ENGINEER	512-393-4397		MATTHEW.JACKSON@PXD.COM			
RIG-PATTERSON 804, RIG PHONE		RIG PHONE	432-355-3141	432-238-4084				
Personnel Log								
Company							Count	
PIONEER NATURAL RESOURCES USA INC							2	
PATTERSON-UTI DRILLING COMPANY LLC							13	
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Daily Drilling Report

PATTERSON - UTI - 804	
Accept: 4/27/2021	Release:
Days Since LTI: 214.00	Days Since RI: 214.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	4/28/2021
Report #:	3
DFS:	2
AFE #:	9011466
Total AFE + Sup:	\$2,596,759.42
Daily Field Est. (Cost):	\$25,953.81

Personnel Log	
Company	Count
INTREPID DIRECTIONAL DRILLING SPECIALISTS	3
GISLER BROTHERS LOGGING CO INC	2
CRESCENT DRILLING FOREMAN INC	1

Daily Drilling Report

UNIVERSITY W2-34D 4H				PERMIAN - JV SOUTHERN WOLFCAMP	
PATTERSON - UTI - 804				Job:	ODR
Accept: 4/27/2021				Report Date:	4/29/2021
Days Since LTI: 215.00				Report #:	4
Release:				DFS:	3
Days Since RI: 215.00				AFE #:	9011466
				Total AFE + Sup:	\$2,596,759.42
				Daily Field Est. (Cost):	\$208,814.43

P/I/UWI 42-383-40906-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020510		Property Sub		KB-Grd (ft) 28.00		Orig KB Elev (ft) 2,670.00		Ground Elevation (ft) 2,642.00		Spud Date 11/19/2020		TD Date			
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type		Start Date		End Date		Job Status					
DRL ENG - KEITH SPACEK		AREA TEAM 4		ODR		11/19/2020 20:00				IN PROGRESS					
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type				Subtype		Date		Note							
MILESTONE				ESTIMATED PAD RELEASE		5/12/2021		Drilling 7th Int on a 7 well pad (4-28-21)							
Daily Operations															
Footage/Meterage (ft) 3,679.00		Drilling Hours (hr) 23.25		% Rotating Time (%) 80.65		End Depth (ftKB) 5,179.0		Target Depth (ftKB) 18,794.0		Daily Field Est Total (Cost) 208,814.43		Cum Field Est To Date (Cost) 507,813.76			
24 HR ROP (ft/hr) 158.2		Circulating Hours (hr) 0.75		% Sliding Time (%) 19.35		End Depth (TVD) (ftKB) 5,122.8		Target Depth (TVD) (ftKB) 8,859.9		Daily Mud Field Est (Cost) 5,364.80		Cum Mud Field Est (Cost) 11,840.48		Total AFE + Sup (Cost) 2,596,759.42	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 4,000.0				Daily Goal - Next 24 2,987.0				Goal Comments Not Met			
Backbuild Yes		Lateral Inclination		Last Casing String SURFACE, 1,084.2ftKB						Next Casing String PROPOSED INTERMEDIATE, 8,489.0ftKB					
Avg Connection Gas 14.00		Avg Trip Gas 0.00		Avg Background Gas 25.00		Max Connection Gas 29.00		Max Trip Gas 0.00		Max Drill Gas 114.00					
Operations Summary Drill Int F/1,500' - T/5,179' (19.25% sliding, 9.84° tangent, 9.7' above, 6.1' right)															
Operations Next Report Period Drill Int 1 T/Csg Pt +/- 8,166', Perform CUC, TOO H T/Run Int Csg															
Operations at Report Time Drilling Int @ 5,179'															
Remarks TD Inter: TD Production: April. NPT: Cum: 28 hrs; Dly: 0 hrs Surf: 100% Int. 1: 59% Prod Vert: 0% Prod. Curve: 0% Prod. Lateral: 0% No Incidents or Spills Reported															
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	8.25	14:15	INT, DRL	DRL	NORMAL	Drill F/ 1,500' - T/ 3,118' (1,618' @ 196 fph) with full returns WOB 40-45, GPM 750-900, SPP 2700-2900, DIFF 400-500, TORQ 12-20k. Note: Sliding to build/maintain 9.84 deg tangent			1,500.0	3,118.0					
14:15	0.5	14:45	INT, DRL	RIG_SVC	NORMAL	Rig service			3,118.0	3,118.0					
14:45	10.75	01:30	INT, DRL	DRL	NORMAL	Drill F/ 3,118' - T/4,428' (1,310' @ 122 fph) with full returns. WOB 48-50, GPM 750-920, SPP 2800-3000, DIFF 400-600, TORQ 18-22k. Note: Sliding to build/maintain 9.84 deg tangent			3,118.0	4,428.0					
01:30	0.25	01:45	INT, DRL	CIRC	NORMAL	Get SCR's and P/U & S/O weights			4,428.0	4,428.0					
01:45	4.25	06:00	INT, DRL	DRL	NORMAL	Drill F/4,428' - T/5,179 (751' @ 177 fph) with full returns. WOB 48-50, GPM 920 - 960, SPP 3000-3200, DIFF 550-600, TORQ 18-22k. Note: Sliding to maintain 9.84 deg tangent			4,428.0	5,179.0					
Interval Problems															
RIG, 3,680.0ftKB, 4/28/2021 18:45															
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party			Comment						
1	4.25	Yes	CIRCULATING SYSTEM	MUD PUMPS		PATTERSON-UTI DRILLING COMPANY LLC			Drilling with diminished capacity (2 Mud Pumps) due to washed gasket on #1 MP 4" valve						
Drill Strings															
BHA #2 , INTERMEDIATE															
Bit Run 2				Drill Bit 12 1/4in, D507TWX, 5319083				Bit Type PDC		Make GE/BAKER HUGHES					
Nozzles (1/32") 10/10/10/10/11/11/11/11				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 26.75		Depth Drilled By Bit (ft) 4,075.00					
BHA Drilling Time (hr) 26.75				BHA Depth Drilled (ft) 4,075.00		BHA ROP (ft/hr) 152.3		Depth In (ftKB) 1,104.0		Depth Out (ftKB) 5,179.0					
Drill String Components															
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make				
129	DRILL PIPE				5	4.27	4,029.81	5,179.00	78,581.3	115	RIG				
4	HWDP				5	3.00	121.19	1,149.19	7,029.0	37	RIG				
1	DRILLING JARS - HYDRAULIC				7	2.75	31.41	1,028.00		30	WEATHERFORD				
17	HWDP				5	3.00	512.39	996.59	29,718.6	30	RIG				
1	SUB - XO				6 15/16	2.88	3.85	484.20		0	INTREPID				
12	DRILL COLLAR				8	2.88	359.61	480.35		0	RIG				
1	DRILL COLLAR - NON MAG				8	3.25	29.30	120.74		0	INTREPID				
1	DRILL COLLAR - NON MAG				8	3.25	29.98	91.44		0	INTREPID				
1	SUB - UBHO				8	2.75	3.30	61.46		0	INTREPID				
1	DRILL COLLAR - PONY, NON MAG				8 1/8	3.25	11.06	58.16		0	INTREPID				
1	STABILIZER				8	2.88	7.42	47.10		0	INTREPID				
Daily Drilling Report															
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Daily Drilling Report

UNIVERSITY W2-34D 4H

PATTERSON - UTI - 804

Accept: 4/27/2021 Release:

Days Since LTI: 215.00 Days Since RI: 215.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 4/29/2021

Report #: 4

DFS: 3

AFE #: 9011466

Total AFE + Sup: \$2,596,759.42

Daily Field Est. (Cost): \$208,814.43

Drill String Components																			
Jts	Item Des					OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lb)		Cum Wt (1000lb)		Make	
1	MOTOR - STABILIZER SLEEVE					9 5/8		2.50		38.18		39.68				0		INTREPID	
Mud Motors																			
SN			Bend Angle			Bearing Type			Lobe Config			# Stages			Lwr Defln Type			Bit To Bend	
GDM962030 / GD962-017			1.5			NOT SEALED			7:8			6.5						6.25	
Sensors																			
Sensor Type					Sensor-Bit (ft)					Note									
GAMMA					70.00														
DIRECTIONAL					83.00														
Drilling Parameters																			
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lb)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lb)	PU Str Wt (1000lb)	SO Str Wt (1000lb)	Off-Btm Str Wt (1000lb)	Drill Tq	Off Btm Tq	TFO (°)		
06:00	09:15	1,500.0	792.00	243.7	55	50	800.0	905	3,650.0	243.0	140	155	130	140	22,000.0	3,000.0	0		
09:15	09:45	2,292.0	15.00	30.0	25	0	250.0	905	3,300.0	30.0	142	165	123	142	0.0	0.0	180		
09:45	13:15	2,307.0	735.00	210.0	48	55	750.0	905	3,880.0	210.0	142	165	123	142	22,100.0	3,000.0	0		
13:15	13:45	3,042.0	17.00	34.0	25	0	300.0	905	3,420.0	34.0	145	167	125	145	0.0	0.0	300		
13:45	14:15	3,059.0	59.00	118.0	48	50	770.0	905	3,875.0	118.0	155	175	130	155	21,600.0	3,800.0	0		
14:15	14:45	3,118.0	0.00	0.0	0	0	0.0	700	2,200.0	0.0	155	175	130	155	0.0	0.0	0		
14:45	15:30	3,118.0	109.00	145.3	47	55	800.0	905	3,920.0	145.3	155	175	130	155	22,000.0	4,800.0	0		
15:30	16:15	3,227.0	20.00	26.7	20	0	275.0	905	3,450.0	26.7	155	175	130	155	0.0	0.0	300		
16:15	19:45	3,247.0	632.00	180.6	47	55	825.0	905	3,930.0	180.6	170	190	150	170	22,100.0	5,000.0	0		
19:45	20:30	3,879.0	20.00	26.7	20	0	250.0	905	3,450.0	26.7	170	190	150	170	0.0	0.0	180		
20:30	21:45	3,899.0	162.00	129.6	47	55	850.0	905	3,930.0	129.6	185	205	165	185	20,100.0	7,100.0	0		
21:45	23:00	4,061.0	25.00	20.0	20	0	250.0	905	3,450.0	20.0	185	205	165	185	0.0	0.0	210		
23:00	00:15	4,086.0	169.00	135.2	47	55	650.0	918	3,800.0	135.2	185	205	165	185	20,100.0	7,100.0	0		
00:15	01:00	4,255.0	30.00	40.0	20	0	250.0	905	3,450.0	40.0	185	205	165	185	0.0	0.0	240		
01:00	01:30	4,285.0	143.00	286.0	47	55	650.0	918	3,800.0	286.0	185	205	165	185	20,100.0	7,100.0	0		
01:30	01:45	4,428.0	0.00		0	0	0.0	700	2,200.0	0.0	155	175	130	155	0.0	0.0	0		
01:45	06:00	4,428.0	751.00	176.7	47	55	650.0	918	3,800.0	177.0	185	205	165	185	20,100.0	7,100.0	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)
8.80		9.28		623.2		5.3		382.1		1,163.8		25.7		391.8		81.11		480.25	138.33
Mud Checks																			
Time		Mud Company					Type			Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)		T Flowline (°F)			
23:00		PIONEER DRILLING FLUIDS					WATER BASE			4,075.0		8.80		40		92.0			
PV (cP)		YP (lb/100ft²)		Vis 3rpm		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)					
10.0		9.000		5		6		25.0		0.0		0.0		0.0					
Solids (%)				Low Gravity Solids (%)			Sand (%)			MBT (lb/bbl)			Pm (mL/mL)			Pf (mL/mL)			
2.5				1.1			0.1			15.0			0.200						
Chlorides (ppm)				Calcium (ppm)			CaCl (ppm)		Oil Water Ratio			Electric Stab (V)			Lime (lb/bbl)			pH	
28,000,000.000				28,000,000.000					0/100						0.0			9.0	
Gel 10 sec (lb/100ft²)						Gel 10 min (lb/100ft²)						Gel 30 min (lb/100ft²)							
6.000						12.000						14.000							
Comment																			
RECOMMENDED FLUID TREATMENT																			
Maintain MW below 9.3. Running centrifuge to lower MW and solids. Dump and dilute as needed. Chemical usage: Lignite .96 ppb, Soda Ash .88 ppb, Zinc .12 ppb, Pac-LV .87 ppb.																			
DRILLING FLUID ACTIVITY LAST 24 HRS																			
Displace hole with Lignite mud. Building additional Lignite mud in premix. Avg. MOC @ 56%.																			
Last BOP Test																			
Date		Test Type				Item Tested				Next Test Date		Com							
4/27/2021		BOP				BOP'S, 4/27/2021 13:30, <class>				5/18/2021		Full BOP test							
Leak Off and Formation Integrity Tests																			
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)							
FORMATION INTEGRITY						1,104.0						12.43							
Casing Pressure Test																			
Test Type				Test Subtype				Date		Item Tested				Failed?	Time (min)		P (psi)		
CASING				STANDARD				11/27/2020		SURFACE, 1,084.2ftKB				No	30.00		1,000.0		
Daily Drilling Report																			

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Daily Drilling Report

Kick Offs & Key Depths								
Date			Type		Top Depth (ftKB)		Depth Top (TVD) (ftKB)	
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	128.0		20	H40	78.67			
SURFACE	1,084.2	1,083.9	13 3/8	K55	54.50	BTC	712.8	
Gas Emissions - Flare								
Type	Method	Dur (min)	Amount	Units	Com			
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	0	4,237		Rig Fuel	8,480	5,609.0
DIESEL	MUD	GAL	0	0		Mud Diesel	16,087	0.0
DIESEL	FUEL	GAL	0	0		Emergency tank	112	0.0
WATER	FRESH	BBL	1,311	1,311		Beginning: 246,984 End 248,295	0	4,980.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
BENTONITE - BULK	VISCOSIFIER	TON		18	7.03	40		
LIGNITE	DISPERSANTS/T HINNER	LB		23	72.0	73		
PAC LV	FLUID LOSS ADDITIVES	LB		2	0.0	23		
PAC LV	FLUID LOSS ADDITIVES	LB	80	14	66.0	14		
SODA ASH	ALKALINITY CONTROL	LB		21	51.0	51		
WC DEFOAMER	DEFOAMER	GAL		6	31.0	6		
ZINC OXIDE	SPECIALITY	LB		3	20.0	9		
Pump Operations								
Pump #	Make		Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO		F1600	5 1/2	12.00	0.088	5,556.0	
2	BOMCO		F1600	5 1/2	12.00	0.088	5,556.0	
3	BOMCO		F1600	5 1/2	12.00	0.088	5,556.0	
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	4,428.0	03:00	206.0	30	106	95		
1	4,428.0	03:00	317.0	50	176	95		
1	4,428.0	03:00	244.0	40	141	95		
2	4,428.0	03:00	205.0	30	106	95		
2	4,428.0	03:00	241.0	40	141	95		
2	4,428.0	03:00	305.0	50	176	95		
3	4,428.0	03:00	237.0	40	141	95		
3	4,428.0	03:00	295.0	50	176	95		
3	4,428.0	03:00	203.0	30	106	95		
Deviation Surveys								
Date		Description				Job		
		FINAL SURVEY						
Date		Description				Job		
11/19/2020		AS DRILL SURVEY				ODR, 11/19/2020 20:00		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
1,535.00	8.41	349.58	1,532.56	53.01	52.47	-7.63	0.43	
1,629.00	10.12	350.14	1,625.33	68.14	67.37	-10.29	1.82	
1,723.00	10.56	353.20	1,717.80	85.01	84.06	-12.72	0.75	
1,816.00	10.58	352.86	1,809.22	102.05	101.00	-14.79	0.07	
1,910.00	10.71	354.24	1,901.61	119.38	118.25	-16.74	0.30	
2,004.00	10.75	353.69	1,993.96	136.85	135.65	-18.58	0.12	
2,098.00	11.00	353.76	2,086.27	154.55	153.28	-20.52	0.27	
2,192.00	10.89	353.75	2,178.56	172.37	171.02	-22.46	0.12	
2,285.00	10.66	353.05	2,269.92	189.73	188.29	-24.46	0.28	
2,379.00	9.53	350.33	2,362.47	206.20	204.59	-26.82	1.30	
2,473.00	9.49	351.69	2,455.18	221.73	219.93	-29.24	0.24	
2,568.00	9.55	350.87	2,548.87	237.44	235.46	-31.63	0.16	
2,663.00	9.33	351.00	2,642.58	253.02	250.85	-34.08	0.23	
2,756.00	9.44	352.39	2,734.34	268.18	265.86	-36.27	0.27	
2,849.00	9.20	352.91	2,826.11	283.23	280.79	-38.20	0.27	
2,943.00	9.08	353.31	2,918.92	298.14	295.62	-39.99	0.14	
3,036.00	9.31	354.92	3,010.72	312.97	310.40	-41.51	0.37	
3,130.00	9.30	354.48	3,103.48	328.12	325.53	-42.92	0.08	
3,224.00	9.70	350.40	3,196.20	343.62	340.90	-44.97	0.83	
3,317.00	10.06	347.61	3,287.82	359.57	356.56	-48.02	0.64	
3,411.00	10.08	346.97	3,380.37	375.98	372.59	-51.63	0.12	
3,504.00	9.98	347.44	3,471.95	392.15	388.39	-55.22	0.14	
3,598.00	10.15	347.88	3,564.50	408.56	404.44	-58.73	0.20	
3,691.00	10.54	347.45	3,655.99	425.24	420.75	-62.30	0.43	
3,785.00	11.19	348.27	3,748.30	442.94	438.07	-66.02	0.71	
3,878.00	11.40	350.74	3,839.50	461.15	455.98	-69.33	0.57	
Daily Drilling Report								
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Daily Drilling Report

Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,972.00	11.11	351.76	3,931.69	479.50	474.11	-72.13	0.37
4,066.00	11.17	351.20	4,023.92	497.65	492.07	-74.82	0.13
4,160.00	10.88	351.22	4,116.19	515.63	509.84	-77.57	0.31
4,253.00	10.64	350.58	4,207.55	532.99	526.98	-80.31	0.29
4,347.00	9.27	344.70	4,300.14	549.20	542.85	-83.73	1.81
4,440.00	9.67	345.87	4,391.87	564.44	557.65	-87.61	0.48
4,534.00	8.94	345.07	4,484.63	579.59	572.36	-91.42	0.79
4,628.00	8.52	347.23	4,577.54	593.81	586.21	-94.84	0.57
4,721.00	8.36	346.34	4,669.54	607.44	599.50	-97.96	0.22
4,815.00	8.24	347.66	4,762.55	620.98	612.72	-101.01	0.24

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)
265_0_CLEARFORK/POP	-2,889.0		5,559.0		
267_0_SPBY_U_A1/267_0_SPBY	-3,727.0		6,397.0		
267_5_SPBY_M_A1	-3,966.3		6,636.3		
268_5_SPBY_L_A1	-4,292.4		6,962.4		
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-4,682.0		7,352.0		
269_0_DEAN	-5,118.0		7,788.0		
270_0_WFMP_A1	-5,300.0		7,970.0		
272_0_WFMP_A2	-5,401.0		8,071.0		
275_0_WFMP_B1	-5,651.0		8,321.0		
276_0_WFMP_B2	-5,745.0		8,415.0		
278_0_WFMP_B3	-5,964.1		8,634.1		
ILP	-6,100.0		8,770.0		
TARGET_1	-6,175.0		8,845.0		
PBHL/TD	-6,190.0		8,860.0		

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
HARDIN, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM
DAFFRON, MIKE, SUPERINTENDENT	SUPERINTENDENT	432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM
HAHN, MICHAEL, SUPERINTENDENT	SUPERINTENDENT	281-532-5976	361-564-8443	MICHAEL.HAHN@PXD.COM
SPACEK, KEITH, ENGINEER	ENGINEER	972-969-5932	972-741-1753	KEITH.SPACEK@PXD.COM
ROGERS, WILL, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		806-549-1545	WILL.ROGERS@PXD.COM
BORLAND, TOBY, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		432-305-6058	TOBY.BORLAND@PXD.COM
JACKSON, MATTHEW, MUD ENGINEER	MUD ENGINEER	512-393-4397		MATTHEW.JACKSON@PXD.COM
RIG-PATTERSON 804, RIG PHONE	RIG PHONE	432-355-3141	432-238-4084	

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
PATTERSON-UTI DRILLING COMPANY LLC	13
INTREPID DIRECTIONAL DRILLING SPECIALISTS	3
GISLER BROTHERS LOGGING CO INC	2
CRESCENT DRILLING FOREMAN INC	2
HALLIBURTON ENERGY SERVICES INC	1