UNIVERSITY 8-14 H #6LS

Piedra Operating, LLC

HOLE DIA	PIPE O.D.	WEIGHT	GRADE	TOP	BTM (MD)	SACKS	TOC
17 1/2	13 3/8	54.5	J-55 BTC	0	1,840'	1,270	SURF
12 1/4	9 5/8	40	HCL-80 BTC	0	6,697'		
12 1/4	9 5/8	47	HCL-80 BTC	6,697'	8,784'	1,925	SURF
8 1/2	5 1/2	20	HCP-110 TCBC	0	15,064'	2,660	SURF

Spud Date: 8/1/2022 | Rig Release: 11/27/2022 | Rig: H&P #460

API: 42-003-48543
SURF LOCATION: 850 ft. SOUTH & 290 ft. WEST, Section 11, Block 8, Survey UL
BH LOCATION: 440' FWL & 100' FSL, Section 14, Block 8, Survey UL
COUNTY: Andrews, TX
GPS Location: N32°38'7614" W102°31'2091"

ELEVATION: 3,012'
KB: 26'
TD (MD): 15,064'
TD (TVD): 9,584'

DRILLING DATA

Hole Size/Casing Program

Hole Size 17 1/2
Surf. Casing Size: 13 3/8
Surf. Casing Grade: J-55 BTC
Surf. Casing Weight: 54 1/2
Depth: 1,840'

Int. Hole Size: 12 1/4
Int. Casing Size: 9 5/8
Int. Casing Grade: HCL-80
Int. Casing Weight: 40 & 47
Int. Casing Conn: BTC
Depth: 8,784'

Prod. Hole Size: 8 1/2
Prod. Casing Size: 5 1/2
Prod. Casing Grade: HCP-110 TCBC
Prod. Casing Weight: 20
Prod. Casing Conn: TCBC HT
Depth: 15,064'

KO 100' Higher Than Plan
KOP: 8,913'

L. Spraberry 9,120'
L. Spraberry HC Zone 9,353'

MD (Red) TVD (Black)	Geology
GAU 1,750'	
1,840'	Surface Casing
3,621'	Seven Rivers
4,330'	Queen
4,975'	Grayburg
5,219'	San Andres
7,098'	Clearfork
7,886'	M. Clearfork
8,306'	L. CF shale
8,601'	U. Spraberry
8,784'	Intermediate Csg
8,819'	M. Spraberry

LP: 9,974' MD
9,578' TVD - Lower Spraberry Target
153° AZM

TD: 15,064' MD
9,584' TVD
6,128' VS
165° AZM

Lateral Window: 25' above and 25' below plan line. 25' left and 25' right of plan line

Mud	BHA	Drilling Parameters	Logging/Surveys	Cementing	NOTES (DRILLING)
				Surface Cement	Drill from 90' to 1,840' TD Surface
	Preset @ 1,840'			HES: Pump 20 BBL FW spacer. Lead 825 SX, 12.3 PPG, 1.92 YLD, Class "C" cmt. Tail 445 SX, 14.8 PPG, 1.33 YLD, Class "C" cmt. DP. Disp w/ 279 BBL FW. BP w/ 1,290 PSI. Floats held. Bled back 2 BBL. Circulated 352 SX cement to surface	Run 46 joints of 13 3/8" 54.5# J-55 BTC from surface to 1,840'
Drill out w/ 10 PPG Cut Brine 28-30 vis					BHA # 1 - Drill from 1,840' to 8,784' TD ICP
Disp w/ Slop Mud at 4,600'	**BHA # 1 - Intermediate** 12.25" Ulterra Bit, SPL616, 6x13's, 9.625" BICO SSS 100 Mud Motor 7/8 4.8 1.5° FBH w/ 12" NBS, 11" Nortrac, 8.5" Shock Sub, 8" NMDC, 8" UBHO, 8" NMDC, 8" Filter sub, 8" to 6" X/O, 12 - 6.5" DC's, 6.5" Jars, 6-6.5" DC's, X/O	WOB 30/45, RPM 0/55, GPM 650/950, SPP 2,155/3,350, TQ 10/26	SD 8,698': INC 0.5°, AZM 59.6°, TVD 8,677.0', VS 398.7'	**Intermediate Cement** HES: Pump 20 BBL FW spacer. Lead 1,690 SX, 11.0 PPG, 2.72 YLD, Class "H" cmt. Tail 235 SX, 14.5 PPG, 1.23 YLD, Class "H" cmt. DP. Disp w/ 656 BBL FW. BP. Bled back 4 BBL. Floats held. Full returns. Circulate 193 SX cement to surface	Run 9 5/8" 40 & 47# HCL-80 BTC from surface to 8,784'
8.9 - 9.2 PPG 36 - 47 vis					
At KOP begin additions of .05 -1.0 ppb EvoCon II and EvoLube G to achieve 2% by volume before landing the curve	**BHA # 2 - Drill Out & Curve** 8.5" Ulterra Bit, CF611, 6x14's, 6.75" Mud Motor 7/8 5.0 2.0° FBH SBTB w/ 8.125" NBS, 6.75" NMPC, 6.75" MWD, 6.75" NMFC, 6.75" Filter Sub, 5" DP	WOB 32/45, RPM 0/25, GPM 600, SPP 1,850/2,000, DIFF 500/650, TQ 13	SD 9,847': INC 82.2°, AZM 147.1°, TVD 9,572.7', VS 925.7'		BHA # 2 - Drill from 8,784' to 9,901' TD Curve
WBM 9.1 PPG 32 - 35 vis	**BHA # 3 - Lateral Assembly** 8.5" Reed Bit, TKC 66 AD, 6x16's, 7" NOV ERT Mud Motor 7/8 5.7 1.75° FBH SBTB w/ Slick Sleeve, 8-1/4" Nortrac, 6.75" NMDC, 6.75" UBHO, 6.75" NMDC, 6.75" Filter Sub, 28 stands 5" DP, 6.75" NOV Agitator	WOB 45, RPM 0/60, GPM 700, SPP 2,330/3,210, DIFF 270/605, TQ 15/16	SD 11,579': INC 89.4°, AZM 164.3°, TVD 9,565.2', VS 2,645.8'		BHA # 3 - Drill from 9,901' to 11,651' POOH Agitaotr Failure
While drilling the lateral increase lube concentration to 3% - 4% and maintain through TD					
WBM 9.1 PPG 32 vis	**BHA # 4 - Lateral Assembly** 8.5" Reed Bit, TKC 66 AD, 6x16's, 7" NOV ERT Mud Motor 7/8 5.7 1.75° FBH SBTB w/ Slick Sleeve, 8-1/4" Nortrac, 6.75" NMDC, 6.75" UBHO, 6.75" NMDC, 6.75" Filter Sub, 28 stands 5" DP, 6.75" NOV Agitator	WOB 45, RPM 0/60, GPM 700, SPP 3,200/4,050, DIFF 650/750, TQ 24/25	SD 12,805': INC 91.5°, AZM 172.0°, TVD 9,565.3', VS 3,869.8'	**Production Cement** HES: Pump 60 BBL 10.5 PPG spacer. Lead 760 SX, 11.0 PPG, 2.72 YLD, Class "C" cmt. Tail 1,900 SX, 13.2 PPG, 1.44 YLD, Class "C" cmt. DP. 20 BBL SW. Disp w/ 331 BBL FW. BP w/ 2,920 PSI. Bled back 3.5 BBL. Floats held. Circulate 140 BBL cement to surface	BHA # 4 - Drill from 11,651' to 15,064' TD Lateral Run 5.5" 20# P - 110 HC TCBC HT from surface to 15,064'