

University 5-39 West D LS # 1 IH

Piedra Operating, LLC

HOLE DIA	PIPE O.D.	WEIGHT	GRADE	TOP	BTM (MD)	SACKS	TOC	API: 42-603-48389	SURF LOCATION: 290' FSL & 1,575' FWL Section 34, Block 5, Survey UL	ELEVATION: 3,014'
17 1/2	13 3/8	54.5	J-55 BTC	0	1,846'	1,500	SURF	BH LOCATION: 1,320' FWL & 2,540' FNL, Section 10, Block 8, Survey UL	KB: 30' 6"	TD (MD): 22,961'
12 1/4	9 5/8	40	HCL-80 BTC	0	6,786'			COUNTY: Andrews, TX	TD (TVD): 9,628'	
12 1/4	9 5/8	47	HCL-80 BTC	6,786'	8,790'	1,815	SURF	GPS Location: N32°25'37.72" W102°19'47.73"		
8 1/2	5 1/2	20	HCP-110 TCBC	0	22,961'	3,785	SURF			

Spud Date: 8/15/2021	Rig Release: 10/25/2021	Rig: Lasso # 103	DRILLING DATA							
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Hole Size/Casing Program	MD (Red)	TVD (Black)	Geology	Mud	BHA	Drilling Parameters	Logging/Surveys	Cementing	NOTES (DRILLING)
Hole Size: 17 1/2 Surf. Casing Size: 13 3/8 Surf. Casing Grade: J-55 BTC Surf. Casing Weight: 54 1/2 Depth: 1,846'			Surface Casing	WBM 8.4 PPG 28 vis	BHA # 1 - Surface 17.5" Ulterra Bit, CF716, 7x18", 8" Mud Motor 7/8 4.0 1.75" w/ 17.25" NBS, 17.25" Nortrac, 8.5" Shock Sub, 8" NMDC, 8" UBHO, 8" NMDC, 3 - 8" DC's, 8" to 6" X/O, 18 - 6.5" DC's, X/O	WOB 40/45, RPM 0/80, GPM 400/800, SPP 2,440, TQ 6/9	SD 1,624'; INC 0.2", AZM 214.9', TVD 1,623.9', VS 7.2'	HES: Pump 20 BBL FW spacer. Lead 1,055 SX, 12.8 PPG, 1.92 YLD, Class "C" cmt. Tail 445 SX, 14.8 PPG, 1.33 YLD, Class "C" cmt. DP. Disp w/ 278 BBL FW, BP w/ 1,230 PSI. Floats held. Bled back 1.5 BBL. Circulate 225 BBL cement to surface	BHA # 1 - Drill from 105' to 1,846' TD Surface Pump x2 sweeps and circulate hole clean POOH and backream to 940' Run 44 joints 13 3/8" 54.5# J-55 BTC from surface to 1,850' Set "B" section wellhead at ground level
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: 7,790' DV Tool @: 6,786'	1,846'		Seven Rivers Queen Grayburg San Andres DVT/ECF	Disp w/ Slop Mud at 4,200' Slop Mud 9.0 PPG 50 vis	BHA # 2 - Intermediate 12.25" Reed Bit, TKC76, 7x22", 9.625" Combo Mud Motor 7/8 5.9 1.75" FBH w/ 11.75" NBS, 11.75" Nortrac, 8.5" Shock Sub, 8" NMDC, 8" UBHO, 8" NMDC, 8" Filter Sub, 8" to 6" X/O, 12 - 6.5" DC's, 6.75" Jars, 6 - 6.5" DC's, X/O	WOB 35/55, RPM 0/65, GPM 800/825, SPP 2,150/2,628, TQ 6/9	SD 4,902'; INC 1.8", AZM 39.5', TVD 4,901.1', VS -34.2' SD 6,036'; INC 1.9", AZM 26.6', TVD 6,034.5', VS -60.5'	HES: Pump 20 BBL FW spacer. Lead 255 SX, 11.0 PPG, 2.52 YLD, Class "C" cmt. Tail 200 SX, 14.5 PPG, 1.23 YLD, Class "H" cmt. DP. Disp w/ 658 BBL FW, BP w/ 1,452 PSI. Bled back 0.5 BBL. Floats held. DB. Open DVT w/ 535 PSI Second Stage HES: Pump 20 BBL FW spacer. Lead 1,525 SX, 11.5 PPG, 2.11 YLD, Class "C" cmt. Tail 100 SX, 14.8 PPG, 1.33 YLD, Class "C" cmt. DP. Disp w/ 527 BBL FW, BP w/ 800 PSI. Bled back 3 BBL. Circulate 80 BBL cement to surface	BHA # 2 - Drill from 1,846' to 5,087' POOH for Bit Fill pipe, wash down and tag cement. Drill shoe track, tag and drill float collar to 1,846' Circulate and POOH for bit. Bit graded 2-2 broken and dull cutters BHA # 3 - Drill from 5,087' to 8,790' TD ICP P/U tools and RIH filling pipe every 30 stands Circulate and condition, reciprocate pipe and POOH to run pipe Run 200 joints 9 5/8" 40 & 47# HCL-80 BTC from surface to 8,790'
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: 22,961'	7,790'	8,811'	Clearfork M. Clearfork L. CF shale U. Spraberry Intermediate Csg M. Spraberry	Slop Mud 9.0 PPG 36 - 50 vis Displaced wellbore w/ OBM while drilling shoetrack	BHA # 3 - Intermediate 12.25" Ulterra Bit, RP5716, 2x16" & 5x15", 9.625" Combo Mud Motor 7/8 5.9 1.75" FBH w/ 11.75" NBS, 11.75" Nortrac, 8.5" Shock Sub, 8" NMDC, 8" UBHO, 8" NMDC, 8" Filter Sub, 8" to 6" X/O, 12 - 6.5" DC's, 6.75" Jars, 6 - 6.5" DC's, X/O BHA # 4 - Drill Out & Curve 8.5" Ulterra Bit, CF611, 6x14" & 3x10", 7" Mud Motor 7/8 6.4 2.12" FBH SBTB w/ Slick Sleeve, 6.75" NMDC, 6.75" UBHO, 6.75" NMFC, 6.75" Filter Sub, 20 stands 5" DP, 6.75" NOV Agitator	WOB 30/55, RPM 0/60, GPM 800, SPP 2,725/2,850, TQ 8/12 WOB 15/55, RPM 0/65, GPM 450/630, SPP 1,250/3,650, DIFF 100/700, TQ 3/10	SD 8,790'; INC 1.6", AZM 119.7', TVD 8,786.6', VS -102.5' SD 10,101'; INC 88.6", AZM 180.6', TVD 9,653.1', VS 628.2'	HES: Pump 20 BBL FW spacer. Lead 1,525 SX, 11.5 PPG, 2.11 YLD, Class "C" cmt. Tail 100 SX, 14.8 PPG, 1.33 YLD, Class "C" cmt. DP. Disp w/ 527 BBL FW, BP w/ 800 PSI. Bled back 3 BBL. Circulate 80 BBL cement to surface	BHA # 4 - Drill from 8,790' to 10,162' TD Curve & POOH For Lateral BHA Pump sweeps, work pipe, clean up cycle and POOH for lateral BHA RIH, drill float equipment, teast casing, RIH drill float equipment to 8,790'
KO 100' Higher Than Plan KOP:	8,790'	9,002'		OBM 8.5 PPG 57 - 78 vis	BHA # 5 - Lateral Assembly 8.5" Ulterra Bit, SPL 616, 6x12" & 3x10", 7" NOV ERT Mud Motor 7/8 5.7 1.83" FBH SBTB w/ Slick Sleeve, 8-1/4" Nortrac, 6.75" NMDC, 6.75" UBHO, 6.75" NMFC, 6.75" Filter Sub, 20 stands 5" DP, 6.75" Scout Agitator	WOB 15/50, RPM 0/70, GPM 600/740, SPP 4,075/4,675, DIFF 250/750, TQ 13/25	SD 22,961'; INC 91.9", AZM 169.2', TVD 9,630.2', VS 13,405.9'	HES: Pump 60 BBL 9.0 PPG spacer. Lead 835 SX, 11.0 PPG, 2.72 YLD, Class "C" cmt. Tail 2,950 SX, 13.2 PPG, 1.44 YLD, Class "C" cmt. DP. 20 BBL SW. Disp w/ 508 BBL FW, BP w/ 3,650 PSI. Bled back 6 BBL. Floats held. Circulated 284 SX cement to surface	BHA # 5 - Drill from 10,162' to 22,961' TD Lateral Troubleshoot MWD. Pump cleanup cycle and x3 tandem sweeps Circulate clean up cycle, pump x6 tandem sweeps and POOH to run pipe Run 5.5" 20# P - 110 HC TCBC HT from surface to 22,961'

At base of the curve hold the AZM of 184" from 9,994' to 10,294'. At 10,294' turn AZM from 184" to 167" by 11,138'

LP: 10,101'
9,654'
180.6'
MD
TVD - Lower Spraberry Target
AZM

Hold 90.2" INC from heel to the toe

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

TD: 22,961'
9,628'
13,469'
169'
MD
TVD
VS
AZM