

















# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H		<b>CONTRACTOR:</b> Capstar				<b>RIG:</b> Capstar 122			
<b>RPT DATE:</b> August 3, 2018		<b>SPUD DATE:</b> 7/10/18		<b>CASING</b>	<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>
<b>API #:</b> 42475375760000		<b>DFS:</b> 24		Conductor	20	52		93	93
<b>FIELD:</b> Phantom (Wolfcamp)		<b>REPORT NO.:</b> 8		Surface	13-3/8	55	J-55	1,220	1,219
<b>ELEV.:</b>		<b>RKB:</b> 14		<b>DOL:</b> 51					
<b>MD:</b> 1,525		<b>TVD:</b> 1,524		<b>LAST BOP TEST:</b> 8/2/18					
<b>24 HR FTG:</b> 290		<b>HRS DRLG:</b> 3		<b>CSGHD:</b> 19					

<b>DRILLING FLUID</b>															<b>SHOE TEST:</b>							
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)			PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP		
4:00	10.0	31.0		1	2	8.9	1	1	1	1	4	3	171,000		0.10	0.30						
															<b>REDUCED PUMP RATES</b>							
															PUMP		SPM		PRESS		DEPTH	
															#1		38		168		1,450	
															#2		42		215		1,450	

<b>BIT DATA</b>													
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
2	12.25	Reed	PDC (TKC66)	A250637	7-16		1,235	1,525	290	3.0	15	97	96
BIT NO.	INNER	OUTER	DULL	LOC	SEAL	GAUGE	OTHER	RP					

<b>HYDRAULICS DATA</b>														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	Gardner Denver	PZ-10	6.500	10.000	95		389		95					
2	Gardner Denver	PZ10	6.500	10.000	98		402		95					

<b>BHA</b>														
DESCRIPTION:		Vertical												
LENGTH	709.46	BHA WT. AIR						BHA WT. MUD		86,000		HRS. ON JARS		
ROT. WT.		P.U. WT.						S.O. WT.				TORQUE		
TIME MADE UP	20:00	DATE MADE UP		8/3/2018				TIME PULLED				DATE PULLED		

<b>SURVEY DATA</b>													
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS					
1,021	1.10	156.73	1,021		-16.3	7.6	17.9	0.7					
1,106	1.48	128.13	1,106		-17.8	8.8	19.6	0.9					
1,169	1.88	116.67	1,169		-18.7	10.4	21.0	0.8					
1,280	1.99	120.18	1,280		-20.5	13.7	23.7	0.1					

<b>CONSUMABLES</b>		DIESEL FUEL (gal) Rcvd/Used/On Hand:				DRILL H2O (gal) Rcvd/Used/On Hand:			
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<b>OPERATIONS TIME LOG</b>									
FROM	TO	HRS	CODE	DESCRIPTION	Start MD	End MD			
06:00	14:00	8.0	Test B.OP.	Test BOP, Blind rams, pipe rams, hcr,choke floor valves and mudline 250 low and 5000 high tes annular 250 low and 3500 high, casing 1000 for 30 min all tested good	1235	1235			
14:00	14:30	0.5	Other	Install wear bushing	1235	1235			
14:30	17:00	2.5	Rig Up & Tear Down	Install flow line	1235	1235			
17:00	20:00	3.0	Other	Set racks put bha on racks and strap and ID/OD bha	1235	1235			
20:00	00:30	4.5	Trips	P/u BHA, scribe motor, cont p/u bha, install rotating head	1235	1235			
00:30	01:30	1.0	Trips	RIH with 4.5" dp, wash last 2 joints, tag cmt at 1164'	1235	1235			
01:30	03:00	1.5	Reaming	Drill cmt and Shoe track to 1235'	1235	1235			
03:00	06:00	3.0	Drilling	Drig & Slide F/ 1235' - T/ 1525' (290' @ 96' fph) WOB 5-20, Surface Rot 60 , TQ 5-8k, GPM 725, MM-rpm 88, SPP 2200, DIFF 100-200	1235	1525			
<b>TOTAL HRS</b>		<b>24.0</b>							

<b>WEATHER</b>															
<b>GEN. CONDITIONS:</b>		Mostly Clear		<b>WIND SPEED:</b>		13		<b>WIND DIRECTION:</b>		SE		<b>TEMP:</b>		76	







# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H				<b>CONTRACTOR:</b> Capstar				<b>RIG:</b> Capstar 122				
<b>RPT DATE:</b> August 6, 2018				<b>SPUD DATE:</b> 7/10/18		<b>CASING</b>		<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>
<b>API #:</b> 42475375760000				<b>DFS:</b> 27		Conductor		20	52		93	93
				<b>REPORT NO:</b> 11		Surface		13-3/8	55	J-55	1,220	1,219
<b>FIELD:</b> Phantom (Wolfcamp)				<b>DOL:</b> 54								
<b>ELEV:</b>		<b>RKB:</b> 14		<b>LAST BOP TEST:</b> 8/2/18								
<b>MD:</b> 5,101		<b>TVD:</b> 5,086										
<b>24 HR FTG:</b> 506		<b>HRS DRLG:</b> 8		<b>CSGHD:</b> 19								

<b>DRILLING FLUID</b>																<b>SHOE TEST:</b>							
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)			PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP			
16:00	10.8	54.0	20.9			9.1	1	4	6	7	13	14	172,000		0.10	0.40			8.00				
																<b>REDUCED PUMP RATES</b>							
																PUMP		SPM		PRESS		DEPTH	
																#1		40		270		4,594	
																#2		40		280		4,594	

<b>BIT DATA</b>															
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP		
2	12.25	Reed	PDC (TKC66)	A250637	7-16		4,595	5,101	506	8.0	15	97	63		
BIT NO.	2	INNER	1	OUTER	1	DULL	WT	LOC	S	SEAL	GAUGE	N gauge	OTHER	RP	TD

<b>HYDRAULICS DATA</b>														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	Gardner Denver	PZ-10	6.500	10.000	92	3350	377		95					
2	Gardner Denver	PZ10	6.500	10.000	91		373		95					

<b>BHA</b>													
DESCRIPTION:		Vertical											
LENGTH	709.46	BHA WT. AIR			BHA WT. MUD			86,000	HRS. ON JARS				
ROT. WT.	135	P.U. WT.			140	S.O. WT.			125	TORQUE			13,000
TIME MADE UP	20:00	DATE MADE UP			8/3/2018	TIME PULLED			00:00	DATE PULLED			8/6/2018

<b>SURVEY DATA</b>													
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS					
4,782	5.47	100.51	4,770	-38.0	291.6		127.2	0.2					
4,867	5.33	101.65	4,854	-39.6	299.5		131.1	0.2					
4,953	5.03	103.58	4,940	-41.3	307.0		135.1	0.4					
5,032	4.85	103.66	5,019	-42.9	313.7		138.6	0.2					

<b>CONSUMABLES</b>				DIESEL FUEL (gal) Rcvd/Used/On Hand:				DRILL H2O (gal) Rcvd/Used/On Hand:			
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<b>OPERATIONS TIME LOG</b>													
FROM	TO	HRS	CODE								Start MD	End MD	
06:00	07:30	1.5	Drilling	Drig F/4595' to 4680 (85' @ 56'fph) WOB 30k, Surface Rot 70 , TQ 7k/15k., GPM 750, MM-rpm 90, SPP 184, DIFF 250, called TRRC on casing run and cement job operator#2, Audrie							4595	4680	
07:30	08:00	0.5	Repair Rig	Replace swab on #1 pump							4680	4680	
08:00	14:30	6.5	Drilling	Drill f/4680' to 5021' (341' @ 55'fph) WOB 30k, Surface Rot 70 , TQ 7k/15k., GPM 750, MM-rpm 90, SPP 184, DIFF 250							4680	5021	
14:30	15:00	0.5	Lubricate Rig	Rig service							5021	5021	
15:00	16:00	1.0	Rig Up & Tear Down	Drill F/5021' to 5101' (80' @ 80'fph) WOB 30k, Surface Rot 70 , TQ 7k/15k., GPM 750, MM-rpm 90, SPP 184, DIFF 250, intermediate casing point							5021	5101	
16:00	16:30	0.5	Cond Mud & Circ	Circulate sweep around							5101	5101	
16:30	19:30	3.0	Trips	Wiper trip to DC, count pipe and strap							5101	5101	
19:30	22:00	2.5	Trips	RIH to TD (5101')							5101	5101	
22:00	00:00	2.0	Cond Mud & Circ	Pump Sweep and circ 3x btms up. (2x 40bbl sweep)							5101	5101	
00:00	05:00	5.0	Trips	Pooh, L/D Bha.							5101	5101	
05:00	05:30	0.5	Other	Retrieve WB.							5101	5101	
05:30	06:00	0.5	Other	Clean and clear rig floor for csg rig up.							5101	5101	
<b>TOTAL HRS</b>		<b>24.0</b>											

<b>WEATHER</b>															
<b>GEN. CONDITIONS:</b>		Clear		<b>WIND SPEED:</b>		12		<b>WIND DIRECTION:</b>		ESE		<b>TEMP:</b>		72	
<b>COMMENTS:</b>															



















# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H				<b>CONTRACTOR:</b> Cactus				<b>RIG:</b> Cactus 138				
<b>RPT DATE:</b> August 24, 2018				<b>SPUD DATE:</b> 8/23/18		<b>CASING</b>		<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>
<b>API #:</b> 42475375760000				<b>DFS:</b> 1		Conductor		20	94		93	93
				<b>REPORT NO:</b> 8		Surface		13-3/8	55	J-55	1,232	1,231
<b>FIELD:</b> Phantom (Wolfcamp)				<b>DOL:</b> 8		Intermediate		10-3/4	46	J-55	5,098	5,083
<b>ELEV:</b>		<b>RKB:</b>		<b>LAST BOP TEST:</b> 8/21/18								
<b>MD:</b>		<b>TVD:</b>										
<b>24 HR FTG:</b>		<b>HRS DRLG:</b> 22		<b>CSGHD:</b>								

<b>DRILLING FLUID</b>														<b>SHOE TEST:</b>							
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)			PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP	
18:00	9.1	41.0		3	4	8.5	1	3	4	5	10	8	59,000		0.10	0.60				1.70	
														<b>REDUCED PUMP RATES</b>							
														PUMP		SPM		PRESS		DEPTH	
														#1		40		310		7,636	
														#2		40		300		7,636	

<b>BIT DATA</b>													
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
1	9.88	REED	TKC66	A245170	6 x 15		5,098	7,764	2,666	17.4	35	120	153
BIT NO.		INNER	OUTER	DULL	LOC	SEAL	GAUGE	OTHER	RP				

<b>HYDRAULICS DATA</b>														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	HHF	1600	6.000	12.000										
2	HHF	1600	6.000	12.000										

<b>BHA</b>													
<b>DESCRIPTION:</b>		2nd Intermediate BHA #1											
LENGTH	1,663.13	BHA WT. AIR				BHA WT. MUD				HRS. ON JARS			
ROT. WT.	230	P.U. WT.		250		S.O. WT.		220		TORQUE		16,000	
TIME MADE UP	03:00	DATE MADE UP		8/22/2018		TIME PULLED				DATE PULLED			

<b>SURVEY DATA</b>													
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS					
7,389	0.68	57.21	7,372		-49.6	403.9	173.2	0.9					
7,484	0.75	91.69	7,467		-49.3	405.0	173.3	0.5					
7,580	1.13	61.21	7,563		-48.9	406.5	173.3	0.6					
7,674	1.44	60.85	7,657		-47.9	408.3	172.9	0.3					

<b>CONSUMABLES</b>				DIESEL FUEL (gal) Rcvd/Used/On Hand:				DRILL H2O (gal) Rcvd/Used/On Hand:			
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<b>OPERATIONS TIME LOG</b>													
FROM	TO	HRS	CODE								Start MD	End MD	
06:00	17:00	11.0	Drilling	Drill F/ 5,171' to 6,491' (1320' @ 120 Ft/Hr) 750 Gpm, 3200 psi, 500-600 Diff, 25-30 WOB, 60 Rpm, 15K Torque. Slide F/ 5,670' To 5,690' = 20' @ 100° Mag (40 Min Slide) Slide F/ 6,130' To 6,140' = 10' @ 270° Mag (20 Min Slide) Slide F/ 6,230' To 6,255' = 25' @ 270° Mag (75 Min Slide) Slide F/ 6,332' To 6,355' = 23' @ 270° Mag (30 Min Slide)							5171	6491	
17:00	18:00	1.0	Lubricate Rig	Rig Service							6491	6491	
18:00	23:30	5.5	Drilling	Drill F/ 6,491' to 7,425' (934' @ 170Ft/Hr) 750 Gpm, 3500 psi, 500-600 Diff, 35 WOB, 55-70 Rpm, 16K Torque.							6491	7385	
23:30	00:30	1.0	Drilling	Slide F/ 7,385' to 7,415' @140° Mag (30' @ 30Ft/Hr) 750 Gpm, 3,300 psi, 150-250 Diff, 10-15 WOB.							7385	7415	
00:30	03:00	2.5	Drilling	Drill F/ 7,415' to 7,615' (200' @ 133 Ft/Hr) 750 Gpm, 3,600 psi, 350-450 Diff, 35 WOB, 55-70 Rpm, 17K Torque.							7415	7615	
03:00	04:00	1.0	Repair Rig	Change out swivel packing on top drive.							7615	7615	
04:00	05:30	1.5	Drilling	Drill F/7,615' to 7,750' (135' @ 90 Ft/Hr) 750 Gpm, 3,600 psi, 300-400 Diff, 35 WOB, 70 Rpm, 16K Torque.							7615	7750	
05:30	06:00	0.5	Drilling	Slide F/ 7,750' to 7,764 @ 240° Mag (28' @ Ft/HR) 750 Gpm, 3,300 psi, 150-200 psi Diff, 15-20 WOB.							7750	7764	
<b>TOTAL HRS</b>		<b>24.0</b>											

<b>WEATHER</b>																	
<b>GEN. CONDITIONS:</b>				Clear		<b>WIND SPEED:</b>		7		<b>WIND DIRECTION:</b>		ESE		<b>TEMP:</b>		74	
<b>COMMENTS:</b>																	



# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H				<b>CONTRACTOR:</b> Cactus				<b>RIG:</b> Cactus 138				
<b>RPT DATE:</b> August 25, 2018				<b>SPUD DATE:</b> 8/23/18		<b>CASING</b>		<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>
<b>API #:</b> 42475375760000				<b>DFS:</b> 2		Conductor		20	94		93	93
<b>FIELD:</b> Phantom (Wolfcamp)				<b>REPORT NO:</b> 9		Surface		13-3/8	55	J-55	1,232	1,231
<b>ELEV:</b>				<b>DOL:</b> 9		Intermediate		10-3/4	46	J-55	5,098	5,083
<b>MD:</b> 8,153		<b>RKB:</b>		<b>TVD:</b> 8,037		<b>LAST BOP TEST:</b> 8/21/18						
<b>24 HR FTG:</b> 2,982		<b>HRS DRLG:</b> 7.5		<b>CSGHD:</b>								

<b>DRILLING FLUID</b>														<b>SHOE TEST:</b>					
<b>TIME</b>	<b>MW</b>	<b>FV</b>	<b>WL</b>	<b>3RPM</b>	<b>6RPM</b>	<b>PH</b>	<b>CAKE</b>	<b>GELS (10s/10m/30m)</b>	<b>PV</b>	<b>YP</b>	<b>CL</b>	<b>K</b>	<b>Pf</b>	<b>Mf</b>	<b>Ca</b>	<b>OIL</b>	<b>LGS</b>	<b>HTHP</b>	
18:00	9.4	38.0				9.5	2	3	5	6	7	10	70,000		0.90	1.80		3.60	
										<b>REDUCED PUMP RATES</b>									
										<b>PUMP</b>	<b>SPM</b>	<b>PRESS</b>	<b>DEPTH</b>						
										#1	40	400	8,115						
										#2	40	400	8,115						

<b>BIT DATA</b>																		
<b>NO.</b>	<b>SIZE</b>	<b>MAKE</b>	<b>TYPE</b>	<b>SER NO.</b>	<b>NOZZLES</b>	<b>RE-RUN</b>	<b>IN</b>	<b>OUT</b>	<b>FEET</b>	<b>HRS</b>	<b>WOB</b>	<b>RPM</b>	<b>ROP</b>					
2	8.75	SMITH	XS616	JN9985	6 X 14				7,922									
1	9.88	REED	TKC66	A245170	6 x 15	N	5,098	7,922	2,824	19.9	35	120	142					
<b>BIT NO.</b>	1	<b>INNER</b>	1	<b>OUTER</b>	1	<b>DULL</b>	CT	<b>LOC</b>	N	<b>SEAL</b>		<b>GAUGE</b>	I	<b>OTHER</b>	RP	<b>Pressure L</b>		

<b>HYDRAULICS DATA</b>														
<b>PUMP</b>	<b>MAKE</b>	<b>MODEL</b>	<b>LINER</b>	<b>STK</b>	<b>SPM</b>	<b>PSI</b>	<b>GPM</b>	<b>GPS</b>	<b>EFF %</b>	<b>ECD</b>	<b>AV DP</b>	<b>AV DC</b>	<b>BIT HHP</b>	<b>PUMP HHP</b>
1	HHF	1600	6.000	12.000										
2	HHF	1600	6.000	12.000										

<b>BHA</b>													
<b>DESCRIPTION:</b> 2nd Intermediate BHA #1													
<b>LENGTH</b>		1,663.13	<b>BHA WT. AIR</b>			<b>BHA WT. MUD</b>			<b>HRS. ON JARS</b>				
<b>ROT. WT.</b>		260	<b>P.U. WT.</b>		280	<b>S.O. WT.</b>		240	<b>TORQUE</b>		16,000		
<b>TIME MADE UP</b>		03:00	<b>DATE MADE UP</b>		8/22/2018	<b>TIME PULLED</b>		08:30	<b>DATE PULLED</b>		8/24/2018		

<b>SURVEY DATA</b>													
<b>MD</b>	<b>ANGLE</b>	<b>AZIMUTH</b>	<b>TVD</b>	<b>N/S</b>	<b>COORDINATES</b>	<b>E/W</b>	<b>V. SECTION</b>	<b>DLS</b>					
7,769	0.68	97.61	7,752		-47.4	409.9	173.0	1.0					
7,864	0.56	127.50	7,847		-47.7	410.8	173.6	0.4					
7,959	0.29	124.66	7,942		-48.1	411.4	174.2	0.3					
8,054	0.50	65.34	8,037		-48.1	412.0	174.3	0.5					
<b>CONSUMABLES</b>		<b>DIESEL FUEL (gal) Rvcd/Used/On Hand:</b>				<b>DRILL H2O (gal) Rvcd/Used/On Hand:</b>							

<b>OPERATIONS TIME LOG</b>													
<b>FROM</b>	<b>TO</b>	<b>HRS</b>	<b>CODE</b>	<b>Start MD</b>	<b>End MD</b>								
06:00	08:30	2.5	Drilling	7764	7922	Drill F/7,764' to 7,750' (135' @ 90 Ft/Hr) 750 Gpm, 3,600 psi, 300-400 Diff, 35 WOB, 70 Rpm, 16K Torque. Lost 500 Psi							
08:30	09:00	0.5	Other	7922	7922	Trouble Shoot Psi Loss, Test Surface Lines, No Psi Loss At 1650 Psi Take Slow Pump rates, Pressure Was 50 Psi Higher Than Last Slow Pump Rate. Brought Pumps To Full Rate At 775 GPM, Still Had Pressure Loss, This Time 350 Psi. Off BTM Pressure 2900, Before Was 3250 Psi. Office Decision To TOH, Swap Motor And Go To 8 3/4 Bit							
09:00	12:30	3.5	Trips	7922	7922	TOH F/ 7922' To 2600', Blew Air Hose On Draw Works Hole Slick, Max Pull Off Bottom 310k							
12:30	13:30	1.0	Lubricate Rig	7922	7922	Rig Service. Greas and inspect top drive, drawworks, ST-80, and pipecat.							
13:30	15:00	1.5	Repair Rig	7922	7922	Repair Air Hose On Draw Works, Change Out Hyd Cyl On ST-80.							
15:00	18:00	3.0	Trips	7922	7922	Cont To TOH 2600' To Dir BHA. Rack back 8" DC's.							
18:00	19:30	1.5	Dir Work	7922	7922	Lay Down 8" Thruster, 8" Stabilizers, 8" NMDC, MWD probe, and 8" UBHO. Break bit, drain motor, and lay down 8" motor. Lay down Reed TKC66, Graded 1-1 Had A Couple Chipped Cutters.							
19:30	20:30	1.0	Dir Work	7922	7922	Make up 8-3/4" BHA #2 - 8 3/4" - Smith XS616 Axe Blade - 6 X 14 (TFA= 0.902), 6-3/4" JAO (Baker) 5/6 Lobe 3.0 Stage 1.50" Adj 0.16 Rpg Motor, 8-1/2" Stabilizer, UBHO, and Telepacer MWD.							
20:30	21:30	1.0	Dir Work	7922	7922	Surface test MWD tool. Pick up X/O and Cougar 6-3/4" Thruster.							
21:30	01:00	3.5	Trips	7922	7922	Trip in hole with BHA #2. Remove flow nipple and install rotating head.							
01:00	03:30	2.5	Drilling	7922	8049	Drill F/ 7,922' to 8,049' (127' @ 51 Ft/Hr) 600 Gpm, 2600 psi, 300-500 Diff, 20-30 WOB, 50-70 Rpm, 12K Torque							
03:30	04:30	1.0	Drilling	8049	8064	Slide F/ 8,049' to 8,064' @ 240° Mag (15' @ 15 Ft/Hr) 600Gpm, 2400 Psi, 150-250 Diff, 10-15 WOB							
04:30	06:00	1.5	Drilling	8064	8153	Drill F/ 8,064 to 8,153' (89' @ 59 Ft/Hr) 600 Gpm, 2600 Psi, 300 Diff, 30 WOB, 60 Rpm, 12K Torque							
<b>TOTAL HRS</b>		<b>24.0</b>											

<b>WEATHER</b>													
<b>GEN. CONDITIONS:</b>		Clear	<b>WIND SPEED:</b>		8	<b>WIND DIRECTION:</b>		ESE	<b>TEMP:</b>		78		
<b>COMMENTS:</b>													
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# DRILLING REPORT

WELL:	UL Loveland 1920-17 7H	CONTRACTOR:	Cactus	RIG:	Cactus 138
RPT DATE:	August 28, 2018	SPUD DATE:	8/23/18	CASING	OD WT GRD MD TVD
API #:	42475375760000	DFS:	5	Conductor	20 94 93 93
FIELD:	Phantom (Wolfcamp)	REPORT NO.:	12	Surface	13-3/8 55 J-55 1,232 1,231
ELEV.:		DOL.:	12	Intermediate	10-3/4 46 J-55 5,098 5,083
MD:	10,275	LAST BOP TEST:	8/21/18		
24 HR FTG:	697	HRS DRLG:	16.5	CSGHD:	

DRILLING FLUID																SHOE TEST:			
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)	PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP	
18:00	9.4	40.0	30.0	5	6	9.5	2	6 7 8	8	14	91,000		0.10	0.20			1.70		
REDUCED PUMP RATES																			
PUMP		SPM		PRESS		DEPTH													
#1		50		450		10,016													
#2		50		450		10,016													

BIT DATA																
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP			
3	8.75	SECURITY	MMD55DC	12956724	X 16 - 2 X 1		9,578	10,275	697	15.2	35	104	46			
BIT NO.	INNER	OUTER	DULL	LOC	SEAL	GAUGE	OTHER	RP								

HYDRAULICS DATA															
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP	
1	HHF	1600	6.000	12.000											
2	HHF	1600	6.000	12.000											

BHA															
DESCRIPTION:	2nd Intermediate BHA #3														
LENGTH	1,479.56	BHA WT. AIR		BHA WT. MUD		HRS. ON JARS									
ROT. WT.	280	P.U. WT.	305	S.O. WT.	255	TORQUE	7,000								
TIME MADE UP	05:00	DATE MADE UP	8/26/2018	TIME PULLED	04:00	DATE PULLED	8/28/2018								

SURVEY DATA															
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS							
9,953	2.82	177.85	9,935	-75.2	421.6		203.1	1.1							
10,048	2.99	167.91	10,030	-80.0	422.2		207.8	0.6							
10,143	2.40	195.04	10,125	-84.3	422.2		211.9	1.5							
10,212	2.64	220.46	10,194	-86.9	420.8		213.9	1.6							

CONSUMABLES	DIESEL FUEL (gal) Rcvd/Used/On Hand:	DRILL H2O (gal) Rcvd/Used/On Hand:
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### OPERATIONS TIME LOG

FROM	TO	HRS	CODE	Start MD	End MD
06:00	17:00	11.0	Drilling	9578	10016
			Drill F/ 9,578' to 10,016' (438' @ 40 Ft/Hr) 530 Gpm, 2200 Psi, 250-300 Diff, 35 WOB, 40 Rpm, 10K Torque. Note: Increased Pump Rate To 650 Gpm @ 9700'. 3100 Psi.		
17:00	17:30	0.5	Lubricate Rig	10016	10016
			Rig Service		
17:30	23:00	5.5	Drilling	10016	10275
			Drill F/ 10,016' To 10,275' (259' @ 47 Ft/Hr) 650 Gpm, 3100 Psi, 200-300 Diff, 35 WOB, 40 Rpm, 11K Torque. Notified TRRC of setting intermediate casing at 20:45 on 08/27/18 - Operator #2 Audrey		
23:00	00:00	1.0	Cond Mud & Circ	10275	10275
			Circulate bottoms up. Pump pill for short trip.		
00:00	02:30	2.5	Trips	10275	10275
			Short trip out of hole to 7,886'. Trip back in hole to 10,275'.		
02:30	04:00	1.5	Cond Mud & Circ	10275	10275
			Pump two 30 bbl high vis sweeps and circulate out of hole.		
04:00	06:00	2.0	Trips	10275	10275
			Trip out of hole to 4,160' to run 7-5/8" second intermediate casing.		
TOTAL HRS		24.0			

WEATHER															
GEN. CONDITIONS:	Partly Cloudy	WIND SPEED:	6	WIND DIRECTION:	SE	TEMP:	77								
COMMENTS:															









# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H		<b>CONTRACTOR:</b> Cactus				<b>RIG:</b> Cactus 138						
<b>RPT DATE:</b> September 26, 2018		<b>SPUD DATE:</b> 8/23/18		<b>CASING</b>		<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>		
<b>API #:</b> 42475375760000		<b>DFS:</b> 34		Conductor		20	94		93	93		
<b>FIELD:</b> Phantom (Wolfcamp)		<b>REPORT NO:</b> 17		Surface		13-3/8	55	J-55	1,232	1,231		
<b>ELEV:</b>		<b>DOL:</b> 41		Intermediate		10-3/4	46	J-55	5,098	5,083		
<b>MD:</b> 11,235		<b>RKB:</b>		<b>LAST BOP TEST:</b> 9/24/18		Intermediate 2		7-5/8	30	HCL-80	10,258	10,240
<b>24 HR FTG:</b> 936		<b>HRS DRLG:</b> 22		<b>CSGHD:</b>								

<b>DRILLING FLUID</b>													<b>SHOE TEST:</b>							
<b>TIME</b>	<b>MW</b>	<b>FV</b>	<b>WL</b>	<b>3RPM</b>	<b>6RPM</b>	<b>PH</b>	<b>CAKE</b>	<b>GELS (10s/10m/30m)</b>	<b>PV</b>	<b>YP</b>	<b>CL</b>	<b>K</b>	<b>Pf</b>	<b>Mf</b>	<b>Ca</b>	<b>OIL</b>	<b>LGS</b>	<b>HTHP</b>		
18:00	12.0	58.0		5	7		2	7	11	13	21	13	46,000		22,000	57.00	4.20	5.00		
													<b>REDUCED PUMP RATES</b>							
													<b>PUMP</b>		<b>SPM</b>		<b>PRESS</b>		<b>DEPTH</b>	
													#1		50		450		10,016	
													#2		50		450		10,016	

<b>BIT DATA</b>													
<b>NO.</b>	<b>SIZE</b>	<b>MAKE</b>	<b>TYPE</b>	<b>SER NO.</b>	<b>NOZZLES</b>	<b>RE-RUN</b>	<b>IN</b>	<b>OUT</b>	<b>FEET</b>	<b>HRS</b>	<b>WOB</b>	<b>RPM</b>	<b>ROP</b>
4	6.75	Ulterra	CF611	42583	6x14's		10,275	11,235	960	16.8	30	219	57

<b>BIT NO.</b>	<b>INNER</b>	<b>OUTER</b>	<b>DULL</b>	<b>LOC</b>	<b>SEAL</b>	<b>GAUGE</b>	<b>OTHER</b>	<b>RP</b>
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<b>HYDRAULICS DATA</b>														
<b>PUMP</b>	<b>MAKE</b>	<b>MODEL</b>	<b>LINER</b>	<b>STK</b>	<b>SPM</b>	<b>PSI</b>	<b>GPM</b>	<b>GPS</b>	<b>EFF %</b>	<b>ECD</b>	<b>AV DP</b>	<b>AV DC</b>	<b>BIT HHP</b>	<b>PUMP HHP</b>
1	HHF	1600	6.000	12.000										
2	HHF	1600	6.000	12.000										

<b>BHA</b>													
<b>DESCRIPTION:</b>		6.75" Curve Assembly											
<b>LENGTH</b>	1,657.81	<b>BHA WT. AIR</b>		54	<b>BHA WT. MUD</b>		44	<b>HRS. ON JARS</b>					
<b>ROT. WT.</b>	220	<b>P.U. WT.</b>		250	<b>S.O. WT.</b>		200	<b>TORQUE</b>		7			
<b>TIME MADE UP</b>	18:00	<b>DATE MADE UP</b>		9/24/2018	<b>TIME PULLED</b>		05:00	<b>DATE PULLED</b>		9/26/2018			

<b>SURVEY DATA</b>									
<b>MD</b>	<b>ANGLE</b>	<b>AZIMUTH</b>	<b>TVD</b>	<b>N/S</b>	<b>COORDINATES</b>	<b>E/W</b>	<b>V. SECTION</b>	<b>DLS</b>	
11,062	82.10	161.97	10,811	-517.0	543.3		660.7	11.1	
11,110	87.45	162.26	10,815	-562.4	558.0		708.5	11.2	
11,157	91.62	163.23	10,815	-607.3	571.9		755.5	9.1	
11,185	94.33	163.14	10,814	-634.1	580.0		783.4	9.7	

<b>CONSUMABLES</b>	<b>DIESEL FUEL (gal) Rvcd/Used/On Hand:</b>	<b>DRILL H2O (gal) Rvcd/Used/On Hand:</b>
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<b>OPERATIONS TIME LOG</b>									
<b>FROM</b>	<b>TO</b>	<b>HRS</b>	<b>CODE</b>	<b>DESCRIPTION</b>	<b>Start MD</b>	<b>End MD</b>			
06:00	07:30	1.5	Drilling	Drig. 6.75" Vertical Hole to KOP F/10,299' to 10,357' (58' @ 39 Fph) GPM-270, SPP-4000 psi, Diff.-500 psi, WOB- 25, RPM-30, Torque-4-5K	10299	10357			
07:30	14:00	6.5	Drilling	Drig. 6.75" Curve F/10,357' to 10,580' (223' @ 34' Ft/Hr) GPM-275, SPP-4400 Psi, Diff.-600 Diff, WOB-22-30K, RPM-25, Torque-5-6K Kicked off holding 163" MTF Rotate F/10,397'-10,404' (7) Rotate F/10,447'-10,451' (4) Rotate F/10,493'-10,500' (7) Rotate F/10,541'-10,550' (9)	10357	10580			
14:00	23:00	9.0	Drilling	Drig. 6.75" Curve F/10,580' to 10,971' (391' @ 43 Ft/Hr) GPM-275-280, SPP-3600-4200 Psi, Diff.-700-800, WOB-20-37K, RPM-30, Torque-7K  Rotate F/10,676'-10,691' (15) Rotate F/10,732'-10,740' (8) Rotate F/10,778'-10,788' (10) Rotate F/10,824'-10,838' (14) Rotate F/10,874'-10,885' (11) Rotate F/10,916'-10,942' (26)	10580	10971			
23:00	03:00	4.0	Drilling	Drig. 6.75" Curve F/10,971' to 11,172' (201' @ 50 Ft/Hr) GPM-280, SPP-4100-4300 Psi, Diff.-700-800 Diff, WOB-28-38K, RPM-30, Torque-7K Rotate F/10,971'-10,995' (24) Rotate F/11,017'-11,037' (20) Rotate F/11,066'-11,085' (19) Rotate F/11,112'-11,160' (48)  Note: Total Rotating footage throughout curve 242', Bit Hours: 16.5, Rig Time: 19.5 hours, Landed 17' High & 2.6' Left.	10971	11172			
03:00	04:00	1.0	Drilling	Drig. 6.75" Lateral Hole F/11,172' to 11,235' (63' @ 50 Ft/Hr) GPM-280, SPP-4200-4300 Psi, Diff.-700-800 Diff, WOB-26K, RPM-30, Torque-7K	11172	11235			
04:00	05:30	1.5	Cond Mud & Circ	Circulate Bottoms Up while Working Pipe.	11235	11235			
05:30	06:00	0.5	Trips	Wiper Trip to 10,300' MD and Back to Bottom.	11235	11235			
<b>TOTAL HRS</b>		<b>24.0</b>							

<b>WEATHER</b>															
<b>GEN. CONDITIONS:</b>		Mostly Cloudy		<b>WIND SPEED:</b>		18		<b>WIND DIRECTION:</b>		NNE		<b>TEMP:</b>		71	



# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H				<b>CONTRACTOR:</b> Cactus				<b>RIG:</b> Cactus 138				
<b>RPT DATE:</b> September 27, 2018				<b>SPUD DATE:</b> 8/23/18		<b>CASING</b>		<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>
<b>API #:</b> 42475375760000		<b>DFS:</b> 35		Conductor		20	94			93	93	
<b>FIELD:</b> Phantom (Wolfcamp)				<b>REPORT NO.:</b> 18		Surface		13-3/8	55	J-55	1,232	1,231
<b>ELEV.:</b>				<b>DOL:</b> 42		Intermediate		10-3/4	46	J-55	5,098	5,083
<b>MD:</b> 11,571		<b>TVD:</b> 10,809		<b>LAST BOP TEST:</b> 9/24/18		Intermediate 2		7-5/8	30	HCL-80	10,258	10,240
<b>24 HR FTG:</b> 336		<b>HRS DRLG:</b> 7.5		<b>CSGHD:</b>								

DRILLING FLUID														SHOE TEST:							
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)				PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP
18:00	12.2	70.0		5	6		2	6	11	12	22	14	46,000					22,000	56.00	4.10	5.00
<b>REDUCED PUMP RATES</b>																					
				<b>PUMP</b>				<b>SPM</b>				<b>PRESS</b>				<b>DEPTH</b>					
#1				50				450				10,016									
#2				50				450				10,016									

BIT DATA													
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
5	6.75	REED	TKC63	A242192	6x9		11,235	11,571	336	7.5	25	175	45
4	6.75	Ulterra	CF611	42583	6x14's	N	11,235	11,235			30	219	

HYDRAULICS DATA														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	HHF	1600	6.000	12.000										
2	HHF	1600	6.000	12.000	86	4400	250	2.9072	95					1600

BHA														
DESCRIPTION: 6.75" Lateral Assembly, Real Time SLB RSS														
LENGTH	13,133.32			BHA WT. AIR	328			BHA WT. MUD	220			HRS. ON JARS		
ROT. WT.	220			P.U. WT.	250			S.O. WT.	200			TORQUE	7	
TIME MADE UP	15:00			DATE MADE UP	9/26/2018			TIME PULLED				DATE PULLED		

SURVEY DATA													
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS					
11,231	93.27	161.85	10,811		-677.8	593.8	829.3	3.6					
11,327	89.97	161.14	10,808		-768.8	624.3	925.3	3.5					
11,423	89.35	164.37	10,809		-860.5	652.7	1,021.3	3.4					

<b>CONSUMABLES</b>	DIESEL FUEL (gal) Rcvd/Used/On Hand:	DRILL H2O (gal) Rcvd/Used/On Hand:
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OPERATIONS TIME LOG													
FROM	TO	HRS	CODE								Start MD	End MD	
06:00	07:00	1.0	Trips	Continue Wiper TIH F/ 10,300' Tripping In Hole. Reamed Where We Saw Bobbles On Way Out @ 10,630 To 10,825, 290 Gpm, 3600 Psi, 25 Rpm, 4-4800 Torque. Went To Bottom With No Issues.							11235	11235	
07:00	08:00	1.0	Cond Mud & Circ	Circulate Hole Clean 286 Gpm, 3570 Psi, 25 Rpm, 5300 Torque. 245k Up, 218k Down							11235	11235	
08:00	11:30	3.5	Trips	TOH For Lateral BHA, Max Pull Off Bottom 273k, Hole Slick							11235	11235	
11:30	12:30	1.0	Trips	Lay Down Dir Curve BHA, Bit In Good Condition Graded 1-2							11235	11235	
12:30	13:00	0.5	Lubricate Rig	Rig Service							11235	11235	
13:00	15:00	2.0	Trips	P/U SLB Realtime RSS Lateral Assembly. Motor: 5" DynaForce 7/8 Lobe, 8.4 Stage, 0.70 Rpg, 0.0", Bit: 6.75" Reed, TKC63, 6x9's TFA = 0.373 (Drill & Ream 5 Stand Back) Note: When Well Was Shut In Built 108 Psi On Annular. Test MWD, Good Test							11235	11235	
15:00	20:30	5.5	Trips	TIH W/ BHA #5, Lateral BHA #1. Fill Pipe Half Way In Hole & @ Shoe, Get Full MWD Test. Good Test.							11235	11235	
20:30	22:30	2.0	Dir Work	Downlink SLB PowerDrive to HIA mode x2							11235	11235	
22:30	06:00	7.5	Drilling	Drig. 6.75" Lateral Hole F11,235' to 11,571' (336' @ 45 Fph) GPM: 250, SPP: 4400, Diff. 300-650, WOB: 18-28K, RPM: 60, TRQ: 8K Note: Control Drill for direction 20-80 FPH instantaneous ROP  Downlink @ 11,239' (Hold TF @ 180° w/50% Steerforce) Downlink @ 11,358' (Hold Inc./Azi. Mode, 89.25° Inc. 158.48° Azi.) Downlink @ 11,360' (Inc. Up 0.5") Downlink @ 11,367' (Azi. Right 2") Downlink @ 11,373' (Inc. Up 0.5") Downlink @ 11,385' (Azi. Right 2")							11235	11571	
<b>TOTAL HRS</b>		<b>24.0</b>											

WEATHER															
<b>GEN. CONDITIONS:</b>		Cloudy		<b>WIND SPEED:</b>		7		<b>WIND DIRECTION:</b>		ENE		<b>TEMP:</b>		57	
<b>COMMENTS:</b>		Forecast: Sunny skies. High 83F. Winds SSE at 5 to 10 mph.													
<a href="http://www.wellez.net">www.wellez.net</a> <span style="margin-left: 100px;">WellEz Information Management LLC</span> <span style="float: right;">ver_082818cn</span>															



# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H				<b>CONTRACTOR:</b> Cactus				<b>RIG:</b> Cactus 138				
<b>RPT DATE:</b> September 28, 2018				<b>SPUD DATE:</b> 8/23/18		<b>CASING</b>		<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>
<b>API #:</b> 42475375760000				<b>DFS:</b> 36		Conductor		20	94		93	93
<b>FIELD:</b> Phantom (Wolfcamp)				<b>REPORT NO.:</b> 19		Surface		13-3/8	55	J-55	1,232	1,231
<b>ELEV.:</b>				<b>DOL:</b> 43		Intermediate		10-3/4	46	J-55	5,098	5,083
<b>MD:</b> 13,236		<b>RKB:</b>		<b>LAST BOP TEST:</b> 9/24/18		Intermediate 2		7-5/8	30	HCL-80	10,258	10,240
<b>24 HR FTG:</b> 1,665		<b>TVD:</b> 10,796		<b>CSGHD:</b>								
<b>HRS DRLG:</b>		23										

DRILLING FLUID														SHOE TEST:							
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)				PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP
19:40	12.2	63.0		5	7		2	7	11	13	21	14	47,000					22,500	56.00	4.30	4.80

REDUCED PUMP RATES			
PUMP	SPM	PRESS	DEPTH
#1	30	1,160	13,228
#2	30	1,180	13,228

BIT DATA													
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
5	6.75	REED	TKC63	A242192	6x9		11,571	13,236	1,665	20.5	28	175	81
BIT NO.	INNER	OUTER	DULL	LOC	SEAL	GAUGE	OTHER	RP					

HYDRAULICS DATA														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	HHF	1600	5.000	12.000	86	5000	250	2.9072	95					1600
2	HHF	1600	5.000	12.000										

BHA														
<b>DESCRIPTION:</b>		6.75" Lateral Assembly, Real Time SLB RSS												
<b>LENGTH</b>		13,133.32		<b>BHA WT. AIR</b>		328		<b>BHA WT. MUD</b>		220		<b>HRS. ON JARS</b>		
<b>ROT. WT.</b>		220		<b>P.U. WT.</b>		260		<b>S.O. WT.</b>		190		<b>TORQUE</b>		10
<b>TIME MADE UP</b>		15:00		<b>DATE MADE UP</b>		9/26/2018		<b>TIME PULLED</b>				<b>DATE PULLED</b>		

SURVEY DATA													
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES		E/W	V. SECTION	DLS				
12,896	89.04	161.84	10,798		-2,279.0		1,048.2	2,492.4	0.5				
12,988	90.72	162.75	10,798		-2,366.7		1,076.2	2,584.4	2.1				
13,080	90.72	162.86	10,797		-2,454.6		1,103.4	2,676.3	0.1				
13,175	90.52	162.92	10,796		-2,545.4		1,131.3	2,771.3	0.2				

<b>CONSUMABLES</b>	DIESEL FUEL (gal) Rcvd/Used/On Hand:	DRILL H2O (gal) Rcvd/Used/On Hand:
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### OPERATIONS TIME LOG

FROM	TO	HRS	CODE		Start MD	End MD
06:00	17:30	11.5	Drilling	Drig. 6.75" Lateral Hole F/ 11,571' To 12,336' (765" @ 66 Fph) GPM: 250, SPP: 4700, Diff. 300-650, WOB: 18-28K, RPM: 60, TRQ: 8K Downlink @ 11,668' (Inc. Up 0.5°) Downlink @ 11,732' (Inc. Up 0.5°) Downlink @ 12,221' (Inc. Down 0.5°)	11571	12336
17:30	18:00	0.5	Lubricate Rig	Rig Service	12336	12336
18:00	05:30	11.5	Drilling	Drig. 6.75" Lateral Hole F/ 12,336' to 13,236' (900' @ 78 Fph) GPM: 250, SPP: 5000, Diff. 500-800, WOB: 18-28K, RPM: 50-70, TRQ: 10K Downlink @ 12,526' (Azi. Right 2°)	12336	13236
05:30	06:00	0.5	Lubricate Rig	Perform General Rig Maintenance, Gather SPR's	13236	13236
<b>TOTAL HRS</b> 24.0						

WEATHER											
<b>GEN. CONDITIONS:</b>		Clear		<b>WIND SPEED:</b>	7		<b>WIND DIRECTION:</b>	ESE	<b>TEMP:</b>	65	
<b>COMMENTS:</b>		Forecast: Sunny. High 92F. Winds SE at 10 to 15 mph.									
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# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H				<b>CONTRACTOR:</b> Cactus				<b>RIG:</b> Cactus 138				
<b>RPT DATE:</b> September 30, 2018				<b>SPUD DATE:</b> 8/23/18		<b>CASING</b>		<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>
<b>API #:</b> 42475375760000		<b>DFS:</b> 38		Conductor		20	94			93	93	
<b>FIELD:</b> Phantom (Wolfcamp)				<b>REPORT NO:</b> 21		Surface		13-3/8	55	J-55	1,232	1,231
<b>ELEV:</b> 16,445				<b>DOL:</b> 45		Intermediate		10-3/4	46	J-55	5,098	5,083
<b>MD:</b> 16,445		<b>RKB:</b>		<b>LAST BOP TEST:</b> 9/24/18		Intermediate 2		7-5/8	30	HCL-80	10,258	10,240
<b>TVD:</b> 10,828		<b>HRS DRLG:</b> 23		<b>CSGHD:</b>								
<b>24 HR FTG:</b> 1,517												

DRILLING FLUID														SHOE TEST:						
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)			PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP
18:00	12.3	58.0		6	7		2	7	12	13	22	16	50,000				24,500	55.50	6.00	4.80
REDUCED PUMP RATES																				
PUMP		SPM		PRESS		DEPTH														
#1		30		1,200		15,711														
#2		30		1,240		15,711														

BIT DATA													
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
5	6.75	REED	TKC63	A242192	6x9		14,928	16,445	1,517	20.9	25	175	73
BIT NO.	INNER	OUTER	DULL	LOC	SEAL	GAUGE	OTHER	RP					

HYDRAULICS DATA														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	HHF	1600	5.000	12.000										
2	HHF	1600	5.000	12.000	86	5250	250	2.9072	95	13.74	224.2			1600

BHA													
DESCRIPTION: 6.75" Lateral Assembly, Real Time SLB RSS													
LENGTH	13,133.32	BHA WT. AIR	328	BHA WT. MUD	220	HRS. ON JARS							
ROT. WT.	210	P.U. WT.	280	S.O. WT.	170	TORQUE	12						
TIME MADE UP	15:00	DATE MADE UP	9/26/2018	TIME PULLED									

SURVEY DATA													
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS					
15,849	89.20	163.61	10,817		-5,106.1	1,898.6	5,443.6	1.2					
15,945	89.58	164.12	10,818		-5,198.3	1,925.3	5,539.6	0.7					
16,041	89.45	165.24	10,819		-5,290.9	1,950.7	5,635.4	1.2					
16,136	88.45	164.29	10,821		-5,382.6	1,975.6	5,730.3	1.5					

<b>CONSUMABLES</b>				DIESEL FUEL (gal) Rcvd/Used/On Hand:				DRILL H2O (gal) Rcvd/Used/On Hand:			
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OPERATIONS TIME LOG													
FROM	TO	HRS	CODE								Start MD	End MD	
06:00	17:30	11.5	Drilling	Drig. 6.75" Lateral Hole F/ 14,928' to 15,711' (783' @ 68 Fph) GPM: 250, SPP: 5100, Diff. 500-800, WOB: 18-28K, RPM: 55-65, TRQ: 10.5K Downlink @ 15,374' (Inc. Up 0.5") Downlink @ 15,445' (Inc. Up 0.5") Downlink @ 15,636' (Inc. Down 0.5")							14928	15711	
17:30	18:00	0.5	Lubricate Rig	Rig Service, Gather SPR's							15711	15711	
18:00	05:30	11.5	Drilling	Drig. 6.75" Lateral Hole F/ 15,711' to 16,445' (734' @ 64 Fph) GPM: 250, SPP: 5250, Diff. 500-800, WOB: 18-28K, RPM: 55-65, TRQ: 11.5K Note: H2S Drill conducted @ 18:45 hrs., All Personnel Accounted for, Time to Full Muster 45 Seconds Downlink @ 15,740' (Inc. Down 0.5") Downlink @ 15,988' (Inc. Down 0.5") Downlink @ 16,064' (Inc. Down 0.5", PD Inc. now @ 88.75") *Updated Geo Target Line: 10,799 KBTVD @ 89.7", Update shifts wellbore from 8' below target to 10' above target line. Downlink @ 16,433' (Inc. Up 0.5")							15711	16445	
05:30	06:00	0.5	Lubricate Rig	Perform general rig maintenance.							16445	16445	
<b>TOTAL HRS</b>		<b>24.0</b>											

WEATHER													
GEN. CONDITIONS:		Clear	WIND SPEED:		8	WIND DIRECTION:		ESE	TEMP:		65		
<b>COMMENTS:</b>		Forecast: Mainly sunny. High 89F. Winds SE at 10 to 20 mph.											
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# DRILLING REPORT

WELL: UL Loveland 1920-17 7H				CONTRACTOR: Cactus				RIG: Cactus 138				
RPT DATE: October 3, 2018				SPUD DATE: 8/23/18		CASING		OD	WT	GRD	MD	TVD
API #: 42475375760000				DFS: 41		Conductor		20	94		93	93
FIELD: Phantom (Wolfcamp)				REPORT NO: 24		Surface		13-3/8	55	J-55	1,232	1,231
ELEV: 19,110				DOL: 48		Intermediate		10-3/4	46	J-55	5,098	5,083
MD: 19,110				LAST BOP TEST: 9/24/18		Intermediate 2		7-5/8	30	HCL-80	10,258	10,240
24 HR FTG: 1,297				HRS DRLG: 17		CSGHD:						

DRILLING FLUID													SHOE TEST:						
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)	PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HHP	
18:00	12.3	61.0		7	8		2	8	13	14	21	17	52,500			26,000	56.00	6.40	4.40
REDUCED PUMP RATES																			
PUMP		SPM	PRESS	DEPTH															
#1		30	1,200	16,955															
#2		30	1,180	16,955															

BIT DATA													
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
6	6.75	Reed	TKC63	A243553	6x9		17,813	19,110	1,297	15.9	25	168	82
BIT NO.	INNER	OUTER	DULL	LOC	SEAL	GAUGE	OTHER	RP					

HYDRAULICS DATA														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	HHF	1600	5.000	12.000	83	5700	240	2.9072	95	13.5				1600
2	HHF	1600	5.000	12.000										

BHA												
DESCRIPTION: 6.75" Lateral Assembly, SLB Vortex PowerDrive RSS												
LENGTH	BHA WT. AIR			328	BHA WT. MUD			220	HRS. ON JARS			
ROT. WT.	P.U. WT.			210	S.O. WT.			170	TORQUE			12
TIME MADE UP	DATE MADE UP			02:00	TIME PULLED			10/2/2018	DATE PULLED			

SURVEY DATA												
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS				
18,682	90.45	159.01	10,833		-7,831.0	2,667.2	8,272.2	0.2				
18,777	90.76	159.30	10,832		-7,919.7	2,701.0	8,367.1	0.5				
18,873	90.65	161.62	10,831		-8,010.2	2,733.1	8,463.1	2.4				
18,968	90.51	161.62	10,830		-8,100.3	2,763.1	8,558.1	0.2				

CONSUMABLES				DIESEL FUEL (gal) Rvcd/Used/On Hand:				DRILL H2O (gal) Rvcd/Used/On Hand:			
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OPERATIONS TIME LOG												
FROM	TO	HRS	CODE								Start MD	End MD
06:00	07:00	1.0	Cut off Drill Line	Finish Slip And Cut Drill Line.							17813	17813
07:00	11:00	4.0	Trips	TIH F/ Shoe To Bottom, Precautionary Wash Last Stand To Bottom. Note: Did See Tight Spot At 15,000' Worked Pipe Through It, Did Not Ream.							17813	17813
11:00	12:30	1.5	Cond Mud & Circ	Fill Pipe, Precautionary Ream Last Stand To Bottom. Establish Dir Parameters, Down Link To To HIA Mode. Did See Gas At Surface At 1200 Strokes With A 20Ft Flare.							17813	17813
12:30	18:00	5.5	Drilling	Drig. 6.75" Lateral Hole F/ 17,813' to 18,274' (461' @ 84 Fph) GPM: 240, SPP: 5350, Diff. 300-550, WOB: 8-10K, RPM: 55, TRQ: 11.5K Note: ROP Limited to 100 Fph for Directional Control Downlink @ 17,916' (Azi. 2° Left) Downlink @ 18,092' (Azi. 2° Left)							17813	18274
18:00	20:30	2.5	Drilling	Drig. 6.75" Lateral Hole F/ 18,274' to 18,464' (190' @ 76 Fph) GPM: 245, SPP: 5500, Diff. 250-500, WOB: 8-10K, RPM: 55, TRQ: 11.5K Note: ROP Limited to 50-100 Fph for Directional Control Downlink @ 18,289' (Azi. 2° Left) Downlink @ 18,380' (Azi. 2° Left) Downlink @ 18,383' (Azi. 2° Left) Note: PowerDrive Now Steering @ 90.75° Inc. & 159° Azi							18274	18464
20:30	05:30	9.0	Drilling	Drig. 6.75" Lateral Hole F/ 18,464' to 19,110' (646' @ 72 Fph) GPM: 240, SPP: 5700, Diff. 500-700, WOB: 18-25K, RPM: 55-65, TRQ: 13K Downlink @ 18,592' (Inc. 0.5° Down) Downlink @ 18,761' (Azi. 2° Right) Downlink @ 18,857' (Azi. 2° Right) Downlink @ 19,068' (Inc. 0.5° Up)							18464	19110
05:30	06:00	0.5	Lubricate Rig	Perform General Rig Maintenance							19110	19110
TOTAL HRS		24.0										

WEATHER																
GEN. CONDITIONS:			Partly Cloudy		WIND SPEED:		10		WIND DIRECTION:		SE		TEMP:		71	
COMMENTS: Forecast: Partly cloudy. High near 95F. Winds SSE at 10 to 15 mph.																
<a href="http://www.wellez.net">www.wellez.net</a> <span style="margin-left: 100px;">WellEz Information Management LLC</span> <span style="float: right;">ver_082818cn</span>																



# DRILLING REPORT

<b>WELL:</b> UL Loveland 1920-17 7H				<b>CONTRACTOR:</b> Cactus				<b>RIG:</b> Cactus 138				
<b>RPT DATE:</b> October 4, 2018				<b>SPUD DATE:</b> 8/23/18		<b>CASING</b>		<b>OD</b>	<b>WT</b>	<b>GRD</b>	<b>MD</b>	<b>TVD</b>
<b>API #:</b> 42475375760000		<b>DFS:</b> 42		Conductor		20	94			93	93	
<b>FIELD:</b> Phantom (Wolfcamp)				<b>REPORT NO:</b> 25		Surface		13-3/8	55	J-55	1,232	1,231
<b>ELEV:</b>				<b>DOL:</b> 49		Intermediate		10-3/4	46	J-55	5,098	5,083
<b>MD:</b> 20,515		<b>RKB:</b>		<b>LAST BOP TEST:</b> 9/24/18		Intermediate 2		7-5/8	30	HCL-80	10,258	10,240
<b>TVD:</b> 10,794		<b>HRS DRLG:</b> 23.5		<b>CSGHD:</b>								
<b>24 HR FTG:</b> 1,405												

DRILLING FLUID														SHOE TEST:						
TIME	MW	FV	WL	3RPM	6RPM	PH	CAKE	GELS (10s/10m/30m)			PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP
18:00	12.3	60.0		7	8		2	7	12	13	23	18	48,700				23,900	55.00	7.00	4.00
REDUCED PUMP RATES																				
PUMP		SPM		PRESS		DEPTH														
#1		30		1,530		19,897														
#2		30		1,575		19,897														

BIT DATA													
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
6	6.75	Reed	TKC63	A243553	6x9		19,110	20,515	1,405	21.1	25	168	67

BIT NO.	INNER	OUTER	DULL	LOC	SEAL	GAUGE	OTHER	RP

HYDRAULICS DATA														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	HHF	1600	5.000	12.000										
2	HHF	1600	5.000	12.000	83	5750	240	2,9072	95	13.5				1600

BHA														
DESCRIPTION:														
6.75" Lateral Assembly, SLB Vortex PowerDrive RSS														
LENGTH		13,117.54		BHA WT. AIR		328		BHA WT. MUD		220		HRS. ON JARS		
ROT. WT.		210		P.U. WT.		300		S.O. WT.		140		TORQUE		13
TIME MADE UP		02:00		DATE MADE UP		10/2/2018		TIME PULLED				DATE PULLED		

SURVEY DATA													
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES		E/W	V. SECTION	DLS				
20,018	90.82	163.10	10,817		-9,106.3	3,063.6		9,607.6	0.5				
20,113	92.41	163.57	10,814		-9,197.3	3,090.9		9,702.5	1.8				
20,209	94.48	159.93	10,808		-9,288.2	3,120.9		9,798.3	4.4				
20,304	92.21	159.78	10,803		-9,377.3	3,153.5		9,893.1	2.4				

CONSUMABLES													
DIESEL FUEL (gal) Rcvd/Used/On Hand:							DRILL H2O (gal) Rcvd/Used/On Hand:						

### OPERATIONS TIME LOG

FROM	TO	HRS	CODE		Start MD	End MD
06:00	17:00	11.0	Drilling	Drig. 6.75" Lateral Hole F/ 19,110' to 19,890' (780' @ 71 Fph) GPM: 240, SPP: 5700, Diff. 500-700, WOB: 18-25K, RPM: 55-65, TRQ: 13K	19110	19890
17:00	17:30	0.5	Lubricate Rig	Service rig and top drive	19890	19890
17:30	22:00	4.5	Drilling	Drig. 6.75" Lateral Hole F/ 19,890' to 20,180' (290' @ 65 Fph) GPM: 240, SPP: 5700, Diff. 500-700, WOB: 18-25K, RPM: 55-65, TRQ: 13K	19890	20180
22:00	06:00	8.0	Drilling	Drig. 6.75" Lateral Hole F/ 20,180' to 20,515' (335' @ 42 Fph) GPM: 240, SPP: 5400, Diff. 400, WOB: 8-18K, RPM: 55, TRQ: 9.5K	20180	20515
				Note: Survey @ 20,112', 92.41° Inc. 163.57° RSS had been Steering at 90.75° Inc. previously, Slowed Instantaneous ROP to 50 Fph & Monitor Running Inc. & Azi. @ 20,263' MD Svy. Senso (69.5' behind bit) shows 94.41° & 180.5° Azi. Decision by SLB to Downlink RSS to Absolute (TF=162°R, w/75% SteerForce), After 30' & seeing Inc. go from 94.5° to 93.75° Downlinked to HIA Mode @ 20,297'. Seeing all of the 30' Inc. shows 92.21°, Assembly Yielding 6"/100'. Downlink @ 20,381' to Absolute (TF=162°R w/75% SF) for 60'. Prior to seeing the 162° slide the assembly had built back up to 94.1° while in HIA Mode due to Improper Downlinking Procedure, Downlink to HIA Mode @ 20,441', @ 20,473' Downlink to Absolute (TF=126° w/75% SF) for 25', @ 20,498' Downlink to HIA Mode, Downlink @ 20,515' (Azi. Right 2°)		
<b>TOTAL HRS</b>		<b>24.0</b>				

WEATHER															
GEN. CONDITIONS:															
Mostly Cloudy				WIND SPEED:		11		WIND DIRECTION:		SE		TEMP:		76	
COMMENTS:															
Forecast: Mostly sunny skies. High 94F. Winds SE at 10 to 20 mph.															
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