

## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H				CONTRACTOR: ICD				RIG:		ICD 321		
RPT DATE: November 18, 2018				SPUD DATE: 11/18/18		CASING		OD	WT	GRD	MD	TVD
		API #:	42-475-37718		DFS:							
				REPORT NO: 1								
FIELD:		Phantom (Wolfcamp)		DOL: 6								
ELEV:		2,664	RKB:	25		LAST BOP TEST:						
MD:			TVD:									
24 HR FTG:		HRS DRLG:			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	8.4	28.0		1	2	7.6		1	1	1	2	3	2,500		0.01	0.01			3.50	
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
#2																				

BIT DATA																																	
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN		OUT		FEET		HRS		WOB		RPM		ROP							
BIT NO.				INNER				OUTER				DULL				LOC				SEAL				GAUGE				OTHER				RP	

[illegible]

BHA							
DESCRIPTION:							
LENGTH		BHA WT. AIR		BHA WT. MUD		HRS. ON JARS	
ROT. WT.		P.U. WT.		S.O. WT.		TORQUE	
TIME MADE UP		DATE MADE UP		TIME PULLED		DATE PULLED	

[illegible]

<b>CONSUMABLES</b>	DIESEL FUEL (gal) Rcvd/Used/On Hand:	DRILL H2O (gal) Rcvd/Used/On Hand:
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[illegible]

TOTAL HRS	5.5	
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WEATHER							
GEN. CONDITIONS:	Cloudy	WIND SPEED:	10	WIND DIRECTION:	NNE	TEMP:	35

COMMENTS:	
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# DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321	
RPT DATE: November 19, 2018										SPUD DATE: 11/18/18					CASING		OD	WT	GRD	MD	TVD
API #: 42-475-37718										DFS: 1					Conductor		20		80	80	
										REPORT NO: 2					Surface		13-3/8	55	J-55	943	943
FIELD: Phantom (Wolfcamp)										DOL: 7											
ELEV: 2,664										RKB: 25					LAST BOP TEST:						
MD: 960										TVD: 960											
24 HR FTG: 960										HRS DRLG: 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	8.4	28.0		1	2	7.6		1 1 1	2	3	2,500		0.01	0.01							
										REDUCED PUMP RATES											
										PUMP		SPM		PRESS		DEPTH					
										#1											
										#2											
BIT DATA																					
NO.	SIZE			MAKE		TYPE		SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP				
1	17.50			Ulterra		CF619		29502	9x16		80	960	880		25	171					
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	National Oilwell			12-P-160		5,500	12,000	100	1400	700	.0838	95					1600				
2	National Oilwell			12-P-160		5,500	12,000	100	1400	700	.0838	95					1600				
BHA																					
DESCRIPTION:																					
LENGTH				BHA WT. AIR				BHA WT. MUD				HRS. ON JARS									
ROT. WT.				P.U. WT.				S.O. WT.				TORQUE									
TIME MADE UP				DATE MADE UP				TIME PULLED				DATE PULLED									
SURVEY DATA																					
MD		ANGLE		AZIMUTH		TVD		N/S	COORDINATES		E/W	V. SECTION		DLS							
419		0.52		226.94		419			-0.1		0.9	0.3		0.5							
510		0.41		245.80		510			-0.5		0.3	0.5		0.2							
694		0.86		259.53		694			-1.0		-1.7	0.4		0.3							
896		2.60		258.08		896			-2.2		-7.7	-0.2		0.9							
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	07:30	1.5	Drilling	Drill from 0 to 174' SPM: 170 WOB: 10 GPM: 600 TRQ: 7 k RPM: 50											174						
07:30	08:00	0.5	Repair Rig	C/O Die Blocks In the Top Drive										174	174						
08:00	09:00	1.0	Drilling	Drill from 174' to 290' SPM: 170-200 WOB: 10 GPM: 600-700 TRQ: 7 k RPM: 50-80										174	290						
09:00	09:30	0.5	Dir Work	Recycle pumps for survey signal to strong										290	290						
09:30	10:00	0.5	Drilling	Drill from 290' to 567' SPM: 200 WOB: 10 GPM: 700 TRQ: 7 k RPM: 80-110										290	567						
10:00	10:30	0.5	Cond Mud & Circ	Circulate to swap out HWDP and pick up collars										567	567						
10:30	12:00	1.5	Trips	Trip out and swap out for collars										567	567						
12:00	14:00	2.0	Drilling	Drill from 567' to 960' SPM: 200 WOB: 10-15 GPM: 700 TRQ: 7 k RPM: 80-110										567	960						
14:00	14:30	0.5	Cond Mud & Circ	CM/C, take survey										960	960						
14:30	15:30	1.0	Trips	Wiper trip to first collar										960	960						
15:30	16:00	0.5	Cond Mud & Circ	CM/C sweep out										960	960						
16:00	18:30	2.5	Trips	TOH, pull MWD, break bit and rack back assembly										960	960						
18:30	19:30	1.0	Other	Prep floor for casing run Safety meeting with casers Rig up casers										960	960						
19:30	21:30	2.0	Run Csg & Cement	Make up shoe track Surface test floats Run casing per tally										960	960						
21:30	22:00	0.5	Cond Mud & Circ	CM/C 1.5 X casing volume Hold PJSM with Halliburton										960	960						
22:00	00:30	2.5	Run Csg & Cement	Cement surface casing as follows: Pressure test lines to 3000 psi Mix and pump cement as per design 20 bbl gel spacer with die 240 bbl 12.8# lead 80 bbl 14.8# tail Mixed with cement water @ 400 chloride Displace with fresh water @ 139 bbl actual, calculated was 139 154 bbl cement to surface										960	960						
00:30	04:30	4.0	Wait on Cement	Rig down cementers and wait on cement 4 total hours to cut and weld on well head Held 60 bbls of cement in the cellar for fall back 70 BC was 4 hours 58 minutes (actual wait time 5 hours) While WOC the cement fell approximately 2 feet in the cellar equivalent of 15 bbls when 70 BC was reached Pumped out the cellar, cement continued to fall to a depth of 1' down the conductor @ the end of the 4 hour wait time										960	960						
04:30	06:00	1.5	Other	Cut off casing & Weld well head on										960	960						
TOTAL HRS 24.0																					
WEATHER																					
GEN. CONDITIONS:		Partly Cloudy		WIND SPEED:		4		WIND DIRECTION:		E		TEMP:		34							
COMMENTS:																					
www.wellez.net WellEz Information Management LLC ver_082818cn																					

## DRILLING REPORT

WELL: <a href="#">UL Independence 1718-17 B 2H</a>				CONTRACTOR: <a href="#">ICD</a>					RIG:		<a href="#">ICD 321</a>	
RPT DATE: <a href="#">November 20, 2018</a>				SPUD DATE: <a href="#">11/18/18</a>		CASING		OD	WT	GRD	MD	TVD
		API #:	<a href="#">42-475-37718</a>		DFS: <a href="#">2</a>		<a href="#">Conductor</a>		<a href="#">20</a>		<a href="#">80</a>	<a href="#">80</a>
				REPORT NO: <a href="#">3</a>		<a href="#">Surface</a>		<a href="#">13-3/8</a>	<a href="#">55</a>	<a href="#">J-55</a>	<a href="#">943</a>	<a href="#">943</a>
FIELD: <a href="#">Phantom (Wolfcamp)</a>				DOL: <a href="#">8</a>								
ELEV:		<a href="#">2,664</a>	RKB:	<a href="#">25</a>		LAST BOP TEST:						
MD:		<a href="#">960</a>	TVD:									
24 HR FTG:			HRS DRLG:			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	9.7	27.0		1	2	7.3		1	1	1	2	3	155.357		0.01				3.00	
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
												#2								

BIT DATA																																	
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN		OUT		FEET		HRS		WOB		RPM		ROP							
1		17.50		Ulterra		CF619		29502		9x16				80		960		880				25		171									
BIT NO.				INNER		OUTER				DULL				LOC				SEAL				GAUGE				OTHER				RP			

[illegible]

BHA							
DESCRIPTION:							
LENGTH		BHA WT. AIR		BHA WT. MUD		HRS. ON JARS	
ROT. WT.		P.U. WT.		S.O. WT.		TORQUE	
TIME MADE UP		DATE MADE UP		TIME PULLED		DATE PULLED	

[illegible]

<b>CONSUMABLES</b>	DIESEL FUEL (gal) Rcvd/Used/On Hand:	DRILL H2O (gal) Rcvd/Used/On Hand:
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[illegible]

TOTAL HRS	24.0							
WEATHER								
GEN. CONDITIONS:	Clear	WIND SPEED:	9	WIND DIRECTION:	NE	TEMP:	37	
COMMENTS:								

## DRILLING REPORT

WELL: <a href="#">UL Independence 1718-17 B 2H</a>				CONTRACTOR: <a href="#">ICD</a>					RIG:		<a href="#">ICD 321</a>	
RPT DATE: <a href="#">November 21, 2018</a>				SPUD DATE: <a href="#">11/18/18</a>		CASING		OD	WT	GRD	MD	TVD
		API #: <a href="#">42-475-37718</a>		DFS: <a href="#">3</a>		<a href="#">Conductor</a>		<a href="#">20</a>			<a href="#">80</a>	<a href="#">80</a>
				REPORT NO: <a href="#">4</a>		<a href="#">Surface</a>		<a href="#">13-3/8</a>	<a href="#">55</a>	<a href="#">J-55</a>	<a href="#">943</a>	<a href="#">943</a>
FIELD: <a href="#">Phantom (Wolfcamp)</a>				DOL: <a href="#">9</a>								
ELEV: <a href="#">2,664</a>		RKB: <a href="#">25</a>		LAST BOP TEST:								
MD: <a href="#">1,764</a>		TVD: <a href="#">1,763</a>										
24 HR FTG: <a href="#">804</a>		HRS DRLG: <a href="#">10.5</a>		CSGHD: <a href="#">10.5</a>								

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	9.7	27.0		1	2	9.8		1	1	1	2	3	154,500		0.01	0.01			3.00	
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
												#2								

BIT DATA																				
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP
2		12.25		Ulterra		CF619		38684		6x12				960	1,764	804	8.5	25	161	95
1		17.50		Ulterra		CF619		29502		9x16		N		80	960	880		25	171	
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	National Oilwell	12-P-160	5.500	12.000	100	2000	700	.0838	95					1600
2	National Oilwell	12-P-160	5.500	12.000	100	2000	700	.0838	95					1600

BHA						
DESCRIPTION:						
LENGTH		BHA WT. AIR		BHA WT. MUD		HRS. ON JARS
ROT. WT.		P.U. WT.		S.O. WT.		TORQUE
TIME MADE UP		DATE MADE UP	11/20/2018	TIME PULLED		DATE PULLED

SURVEY DATA								
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS
1,333	1.49	155.98	1,332	-10.0	-21.7		3.0	0.9
1,422	1.65	100.02	1,421	-11.3	-20.0		4.7	1.7
1,516	2.48	73.56	1,515	-10.9	-16.7		5.4	1.3
1,609	2.55	77.43	1,608	-9.9	-12.8		5.6	0.2

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

[illegible]

TOTAL HRS	24.0						
WEATHER							
GEN. CONDITIONS:	Mostly Clear	WIND SPEED:	8	WIND DIRECTION:	E	TEMP:	38
COMMENTS:							



WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321											
RPT DATE: November 22, 2018										SPUD DATE: 11/18/18										CASING				OD	WT	GRD	MD	TVD			
API #: 42-475-37718										DFS: 4										Conductor				20			80	80			
										REPORT NO: 5										Surface				13-3/8	55	J-55	943	943			
FIELD: Phantom (Wolfcamp)										DOL: 10																					
ELEV: 2,664										RKB:		25								LAST BOP TEST:											
MD: 3,285										TVD:		3,278																			
24 HR FTG: 1,521										HRS DRLG: 22				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	10.2	27.0	100.0	1	2	9.1		1	1	1	2		3	169,876		0.01	0.01			4.00											
														REDUCED PUMP RATES																	
														PUMP				SPM				PRESS				DEPTH					
														#1																	
														#2																	
BIT DATA																															
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN		OUT		FEET		HRS		WOB		RPM		ROP					
2		12.25		Ulterra		CF619		38684		6x12				1,764		3,285		1,521		16.4		25		161		93					
1		17.50		Ulterra		CF619		29502		9x16		N		80		960		880				25		171							
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		National Oilwell		12-P-160		5.500		12.000		100		2350		700		3.519		95				39.3		61.2				1600			
2		National Oilwell		12-P-160		5.500		12.000		100		2350		700		3.519		95				39.3		61.2				1600			
BHA																															
DESCRIPTION:		Intermediate 1 BHA #1																													
LENGTH		1,482.43		BHA WT. AIR								BHA WT. MUD								HRS. ON JARS											
ROT. WT.		170		P.U. WT.				175				S.O. WT.				165				TORQUE											
TIME MADE UP				DATE MADE UP				11/20/2018				TIME PULLED								DATE PULLED											
SURVEY DATA																															
MD		ANGLE		AZIMUTH		TVD		N/S		COORDINATES		E/W		V. SECTION		DLS															
2,833		5.95		90.68		2,829		2.3		69.5		18.8		0.2																	
2,927		5.79		91.90		2,923		2.0		79.1		21.9		0.2																	
3,021		6.10		90.06		3,016		1.9		88.8		25.0		0.4																	
3,116		6.48		87.64		3,111		2.1		99.2		27.9		0.5																	
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	08:00	2.0	Drilling	Drill int 1 from 1764-1855 (45) ft/hr WOB-25 RPM 75-80 Diff 400 TRQ 9000 GPM 600-700 8 bbl/min losses while drilling ahead pumping 25-30 bbl LCM sweeps to heal up.																		1764	1855								
08:00	09:00	1.0	Cond Mud & Circ	CM/C wait on trucks to build volume back up Mix and pump poly swell and LCM sweeps at reduced rate 400 GPM																		1855	1855								
09:00	09:30	0.5	Other	Open grabber box and use tongs to break out of saver sub, poly sweep in threads making connection to tight to break out with top drive																		1855	1855								
09:30	18:00	8.5	Drilling	Drill int 1 from 1855'-2607' (88.4) ft/hr WOB-25 RPM 75-80 Diff 400 TRQ 9000 GPM 600-700																		1855	2607								
18:00	18:30	0.5	Lubricate Rig	Rig Service																		2607	2607								
18:30	06:00	11.5	Drilling	Drill int 1 from 2607'-3285' (58.9) ft/hr WOB-25-30 RPM 60-80 Diff 375 TRQ 9000 GPM 600-700																		2607	3285								



# DRILLING REPORT

WELL:	UL Independence 1718-17 B 2H				CONTRACTOR:	ICD				RIG:	ICD 321			
RPT DATE:	November 23, 2018				SPUD DATE:	11/18/18		CASING	OD	WT	GRD	MD	TVD	
	API #:	42-475-37718			DFS:	5		Conductor	20			80	80	
					REPORT NO:	6		Surface	13-3/8	55	J-55	943	943	
FIELD:	Phantom (Wolfcamp)				DOL:	11								
ELEV:	2,664	RKB:	25		LAST BOP TEST:									
MD:	4,530	TVD:	4,518											
24 HR FTG:	1,245	HRS DRLG:	24		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	10.5	35.0	100.0	5	7	7.9		1	1	1	2	3	189,000		0.01	0.01			4.40	
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
												#2								

BIT DATA																					
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP	
2		12.25		Ulterra		CF619		38684		6x12				3,285	4,530	1,245	21.5	25	161	58	
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	National Oilwell	12-P-160	5.500	12.000	227	3450	800	3.519	95	10.53	87	135.6	1.17	1600
2	National Oilwell	12-P-160	5.500	12.000	227	3450	800	3.519	95	10.53	87	135.6	1.17	1600

BHA															
DESCRIPTION:	Intermediate 1 BHA #1														
LENGTH	1,482.43		BHA WT. AIR		BHA WT. MUD		HRS. ON JARS								
ROT. WT.	190		P.U. WT.		195		S.O. WT.		185		TORQUE				
TIME MADE UP			DATE MADE UP		11/20/2018		TIME PULLED				DATE PULLED				

SURVEY DATA															
MD	ANGLE		AZIMUTH		TVD		N/S	COORDINATES		E/W	V. SECTION		DLS		
4,055	5.50		94.49		4,044		2.7	198.1			57.1		0.3		
4,150	5.20		92.11		4,139		2.2	206.9			60.3		0.4		
4,244	5.43		90.23		4,233		2.0	215.6			63.1		0.3		
4,339	4.72		90.19		4,327		2.0	224.0			65.6		0.8		

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	06:00	24.0	Drilling	Drill int 1 from 3285'-4530' (51.8) ft/hr WOB-30-40           RPM 80-100 Diff 375               TRQ 9000 GPM 800	3285	4530
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## DRILLING REPORT

[illegible]

## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321													
RPT DATE: November 25, 2018										SPUD DATE: 11/18/18										CASING				OD		WT		GRD		MD		TVD	
API #: 42-475-37718										DFS: 7										Conductor				20				80		80			
										REPORT NO: 8										Surface				13-3/8		55		J-55		943		943	
FIELD: Phantom (Wolfcamp)										DOL: 13										Intermediate				10-3/4		46		J-55		5,080		5,097	
ELEV: 2,664					RKB:					25					LAST BOP TEST:																		
MD: 5,095					TVD: 5,082																												
24 HR FTG:					HRS DRLG:										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	HTH													
18:00	10.7	34.0	45.0	4	5	10.1		5	7	8	4	6	189,000		0.01	0.01			6.10														
												REDUCED PUMP RATES																					
												PUMP				SPM				PRESS				DEPTH									
												#1																					
												#2																					
BIT DATA																																	
NO.		SIZE			MAKE			TYPE			SER NO.		NOZZLES		RE-RUN		IN		OUT		FEET		HRS		WOB		RPM		ROP				
2		12.25			Ulterra			CF619			38684		6x12				4,530		5,095		565		11.6		40		161		49				
BIT NO. 2 INNER 2 OUTER 2 DULL WT LOC All SEAL X GAUGE IN OTHER X RP TD																																	
HYDRAULICS DATA																																	
PUMP		MAKE			MODEL			LINER		STK		SPM		PSI		GPM		GPS		EFF %		ECD		AV DP		AV DC		BIT HHP		PUMP HHP			
1		National Oilwell			12-P-160			5.500		12.000								3.519		95										1600			
2		National Oilwell			12-P-160			5.500		12.000								3.519		95										1600			
BHA																																	
DESCRIPTION:				Intermediate 1 BHA #1																													
LENGTH				1,482.43				BHA WT. AIR								BHA WT. MUD								HRS. ON JARS									
ROT. WT.				205				P.U. WT.				215				S.O. WT.				195				TORQUE				9,000					
TIME MADE UP								DATE MADE UP				11/20/2018				TIME PULLED								DATE PULLED									
SURVEY DATA																																	
MD				ANGLE				AZIMUTH				TVD				N/S		COORDINATES				E/W		V. SECTION				DLS					
CONSUMABLES				DIESEL FUEL (gal) Rvcd/Used/On Hand:										DRILL H2O (gal) Rvcd/Used/On Hand:																			
OPERATIONS TIME LOG																																	
FROM		TO		HRS		CODE																	Start MD		End MD								
06:00		08:30		2.5		Trips		Lay down BHA Bit graded 2/2															5095		5095								
08:30		10:00		1.5		Other		Clean floor, pull wear bushing, prep top drive for casing run Rig up casers															5095		5095								
10:00		19:30		9.5		Run Csg & Cement		Reported casing run to TRRC Michele #12 Make up shoe track torque 11k Pickup CRT Test floats, test was good Continue running casing as per tally Wash and ream from 2034'-2380' Wash down last 2 joints Land mandrel as per GE Rep. Rig down casing crew equipment and rig up to circulate Set depth-5080.64'/Ran 127 joints 10.75" 45.5# J-55 BTC Casing/FS @ 5079.14'/FC-5038.23'/Ran 8 bow spring centralizers from surface shoe to surface															5095		5095								
19:30		21:30		2.0		Cond Mud & Circ		Circulate 1.5 times casing volume 733 bbls-8752 strokes while rigging up Halliburton equipment.															5095		5095								
21:30		02:00		4.5		Run Csg & Cement		Rig up Halliburton and Cement as follows:20 bbls GEL spacer/409 bbls, 930 sacks, 11.9#, 2.494 yield, 14.19 GAL/SK Lead cement followed by 55 bbl, 230 sacks, 14.8#, 1.349 yield, 6.25 GAL/SK Tail cement Drop Plug and displace with 484 bbl of fresh water Bumped plug @ 2073 psi @ 01:23, bled back 4 bbl and floats held, 214 bbl of cement to surface.															5095		5095								
02:00		04:00		2.0		Other		Install pack off as per GE Rep.															5095		5095								
04:00		06:00		2.0		Other		Install wear bushing, inspect saver sub, Load tools on racks, Clean floor and make ready to pick up tools. Change bowl gasket on Rt head.															5095		5095								



## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H				CONTRACTOR: ICD					RIG:		ICD 321	
RPT DATE: November 26, 2018				SPUD DATE: 11/18/18		CASING		OD	WT	GRD	MD	TVD
		API #:	42-475-37718		DFS: 8	Conductor		20			80	80
				REPORT NO: 9	Surface		13-3/8	55	J-55	943	943	
FIELD: Phantom (Wolfcamp)				DOL: 14	Intermediate		10-3/4	46	J-55	5,080	5,097	
ELEV: 2,664		RKB:	25		LAST BOP TEST:							
MD: 6,570		TVD:	6,557									
24 HR FTG: 1,475		HRS DRLG:	13.5		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	9.1	28.0	100.0	1	2	12.0		1	1	1	2	3	70,100		0.60	1.30			1.00	
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
												#2								

BIT DATA																													
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN		OUT		FEET		HRS		WOB		RPM		ROP			
3		9.88		Reed Hycalog		TKC66		A250894		6X11				5,095		6,570		1,475		11.1		30		58.5		133			
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	National Oilwell	12-P-160	5.500	12.000	186	3300	650	3.519	95	9.13	119.5	186.3	5.72	1600
2	National Oilwell	12-P-160	5.500	12.000	186	3300	650	3.519	95	9.13	119.5	186.3	5.72	1600

BHA							
DESCRIPTION:	Intermediate 2 BHA #1						
LENGTH	1,610.29	BHA WT. AIR	183.431	BHA WT. MUD	155.916	HRS. ON JARS	
ROT. WT.	230	P.U. WT.	260	S.O. WT.	200	TORQUE	17,000
TIME MADE UP	09:00	DATE MADE UP	11/25/2018	TIME PULLED		DATE PULLED	

SURVEY DATA		ELEVATION DATA		DISTANCE DATA		AREA DATA		
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS
6,152	0.13	117.68	6,139	-0.7	260.8	79.3	0.9	
6,246	0.28	171.41	6,233	-1.0	260.9	79.6	0.2	
6,340	0.30	200.29	6,327	-1.4	260.9	80.0	0.2	
6,434	0.34	214.18	6,421	-1.9	260.6	80.4	0.1	

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

[illegible]

TOTAL HRS	24.0	
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## WEATHER

WEATHER							
GEN. CONDITIONS:	Clear	WIND SPEED:	3	WIND DIRECTION:	NNE	TEMP:	31

COMMENTS:



# DRILLING REPORT

WELL:	UL Independence 1718-17 B 2H				CONTRACTOR:	ICD				RIG:	ICD 321			
RPT DATE:	November 27, 2018				SPUD DATE:	11/18/18		CASING	OD	WT	GRD	MD	TVD	
	API #:	42-475-37718			DFS:	9		Conductor	20			80	80	
					REPORT NO:	10		Surface	13-3/8	55	J-55	943	943	
FIELD:	Phantom (Wolfcamp)				DOL:	15		Intermediate	10-3/4	46	J-55	5,080	5,097	
ELEV:	2,664	RKB:	25		LAST BOP TEST:									
MD:	8,440	TVD:	8,427											
24 HR FTG:	1,870	HRS DRLG:	24		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	9.1	28.0	100.0	1	2	11.0		1	1	1	2	3	80,000		0.40	0.30			0.30	
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
												#2								

BIT DATA																										
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP						
3		9.88		Reed Hycalog		TKC66		A250894		6X11				6,570	8,440	1,870	19.8	30	58.5	95						
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	National Oilwell	12-P-160	5.500	12.000	200	3425	700	3.519	95	9.14	119.5	186.3	5.72	1600	
2	National Oilwell	12-P-160	5.500	12.000	200	3425	700	3.519	95	9.14	119.5	186.3	5.72	1600	

BHA							
DESCRIPTION:	Intermediate 2 BHA #1						
LENGTH	1,610.29	BHA WT. AIR	234.265	BHA WT. MUD	199,125	HRS. ON JARS	
ROT. WT.	275	P.U. WT.	290	S.O. WT.	260	TORQUE	13
TIME MADE UP	09:00	DATE MADE UP	11/25/2018	TIME PULLED		DATE PULLED	

SURVEY DATA										
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES		E/W	V. SECTION	DLS	
7,940	0.28	330.80	7,927	-0.2	257.0			77.7	0.3	
8,034	0.45	21.05	8,021	0.4	257.0			77.2	0.4	
8,128	0.58	335.82	8,115	1.1	256.9			76.4	0.4	
8,222	0.48	31.22	8,209	1.9	256.9			75.7	0.5	

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

OPERATIONS TIME LOG						
FROM	TO	HRS	CODE		Start MD	End MD
06:00	06:00	24.0	Drilling	Drill Int 2 from: 6570' to 8440' (1870') @ AVG ROP 77.9 FPH WOB: 30-40                      ROT: 30-50 GPM: 700                        TRQ: 13k DIFF: 150-250                OBPSI: 3245	6570	8440
				</		



# DRILLING REPORT

WELL: UL Independence 1718-17 B 2H		CONTRACTOR: ICD		RIG: ICD 321															
RPT DATE: November 28, 2018		SPUD DATE: 11/18/18		GRD MD TVD															
API #: 42-475-37718		DFS: 10		Conductor 20															
FIELD: Phantom (Wolfcamp)		REPORT NO: 11		Surface 13-3/8 55 J-55 943 943															
ELEV: 2,664		DOL: 16		Intermediate 10-3/4 46 J-55 5,080 5,097															
MD: 8,827		LAST BOP TEST:																	
24 HR FTG: 387		HRS DRLG: 9.5		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	9.1	27.0	100.0	1	2	12.2		1	1	1	2	3	80,000	0.30	0.10			0.30	
REDUCED PUMP RATES																			
PUMP														SPM		PRESS		DEPTH	
#1																			
#2																			
BIT DATA																			
NO.	SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN		OUT		FEET		
4	8.75		Smith		Z619		JN7629		6X11				8,827						
3	9.88		Reed Hycalog		TKC66		A250894		6X11		N		8,440		8,827		387		
BIT NO.		3		INNER		3		OUTER		2		DULL		T/WC/C		LOC		N-S	
SEAL		X		GAUGE		IN		OTHER		ER		RP		ROP					
HYDRAULICS DATA																			
PUMP	MAKE		MODEL		LINER		STK		SPM		PSI		GPM		GPS		EFF %		
1	National Oilwell		12-P-160		5.500		12.000		93		3100		650		3.519		95		
2	National Oilwell		12-P-160		5.500		12.000		93		3100		650		3.519		95		
BHA																			
DESCRIPTION:		Intermediate 2 BHA #1																	
LENGTH		1,610.29		BHA WT. AIR		234,265		BHA WT. MUD		199,125		HRS. ON JARS							
ROT. WT.		275		P.U. WT.		290		S.O. WT.		260		TORQUE				13			
TIME MADE UP		09:00		DATE MADE UP		11/25/2018		TIME PULLED		22:00		DATE PULLED		11/27/2018					
SURVEY DATA																			
MD		ANGLE		AZIMUTH		TVD		N/S		COORDINATES		E/W		V. SECTION		DLS			
8,411		0.25		34.12		8,398		3.2		258.4		74.9		0.7					
8,505		0.40		250.27		8,492		3.3		258.2		74.8		0.7					
8,600		0.33		225.36		8,587		3.0		257.7		74.9		0.2					
8,694		0.29		287.67		8,681		2.8		257.3		74.9		0.3					
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	08:00	2.0	Drilling	Drill Int 2 from: 8440' to 8476' (36') @ AVG ROP 18 FPH WOB: 30-40 ROT: 30-50 GPM: 700 TRQ: 13k DIFF: 150-250 OBPSI: 3245										8440	8476				
08:00	08:30	0.5	Repair Rig	Tighten rod clamps on both mud pumps. Ongoing problem pusher has been asked to get new clamps and bolts										8476	8476				
08:30	16:00	7.5	Drilling	Drill Int 2 from: 8476' to 8827' (351') @ AVG ROP 46.8 FPH WOB: 40-45 ROT: 25-32 GPM: 650 TRQ: 13k DIFF: 150-250 OBPSI: 3000 8500 TR of Chert 8600 5% Chert 8700 10% Chert 8800 10% Chert										8476	8827				
16:00	17:00	1.0	Cond Mud & Circ	CM/C bottoms up due to low ROP Build slug Flow check Pump slug										8827	8827				
17:00	22:00	5.0	Trips	TOOH due to slow ROP while drilling in chert										8827	8827				
22:00	02:00	4.0	Dir Work	Lay down BHA and bit /Clean floor/Hoist subs and bit to floor/Begin picking up 8 3/4 assembly Bit Grade 3-2-BT-N/S-X-I-WT/CT/ER-ROP										8827	8827				
02:00	02:30	0.5	Cond Mud & Circ	Test MWD										8827	8827				
02:30	03:30	1.0	Dir Work	Make up bit and rest of 8 3/4 assembly										8827	8827				
03:30	06:00	2.5	Trips	TIH to drill ahead in Int. 2 section										8827	8827				
TOTAL HRS 24.0																			
WEATHER																			
GEN. CONDITIONS:		Clear		WIND SPEED:		6		WIND DIRECTION:		W		TEMP:		37					
COMMENTS:																			
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## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H		CONTRACTOR: ICD					RIG:		ICD 321	
RPT DATE: November 29, 2018		SPUD DATE: 11/18/18		CASING		OD	WT	GRD	MD	TVD
API #: 42-475-37718		DFS: 11		Conductor		20			80	80
		REPORT NO: 12		Surface		13-3/8	55	J-55	943	943
FIELD: Phantom (Wolfcamp)		DOL: 17		Intermediate		10-3/4	46	J-55	5,080	5,097
ELEV:	2,664	RKB:	25	LAST BOP TEST: 11/20/18						
MD:	9,820	TVD:	9,807							
24 HR FTG:	993	HRS DRLG:	19.5	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	9.1	27.0	100.0	1	2	11.9		1	1	1	2	3	94.00		0.30	0.10			0.10	
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
												#2								

BIT DATA																										
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP						
4		8.75		Smith		Z619		JN7629		6X11				8,827	9,820	993	13.5	35	90	74						
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	National Oilwell	12-P-160	5.500	12.000	172	3235	600	3.519	95	9.22	119.5	148.7	7.37	1600
2	National Oilwell	12-P-160	5.500	12.000	172	3235	600	3.519	95	9.22	119.5	148.7	7.37	1600

BHA						
DESCRIPTION:	Intermediate 2 BHA # 2					
LENGTH	1,419.94	BHA WT. AIR	230,100	BHA WT. MUD	195,585	HRS. ON JARS
ROT. WT.	270	P.U. WT.	310	S.O. WT.	245	TORQUE
TIME MADE UP	03:30	DATE MADE UP	11/28/2018	TIME PULLED		DATE PULLED
						13

SURVEY DATA								
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS
9,452	0.90	56.97	9,439	4.5	254.6		72.5	0.6
9,546	1.03	188.12	9,533	4.0	255.1		73.1	1.9
9,640	3.12	253.79	9,627	2.5	252.6		73.8	3.0
9,735	2.24	260.83	9,722	1.5	248.2		73.5	1.0

<b>CONSUMABLES</b>	DIESEL FUEL (gal) Rcvd/Used/On Hand:	DRILL H2O (gal) Rcvd/Used/On Hand:
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[illegible]

TOTAL HRS	24.0	
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WEATHER	
1	1
2	2
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92	92
93	93
94	94
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98	98
99	99
100	100

GEN. CONDITIONS:	Partly Cloudy	WIND SPEED:	7	WIND DIRECTION:	WSW	TEMP:	42
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## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H		CONTRACTOR: ICD				RIG:		ICD 321	
RPT DATE: November 30, 2018		SPUD DATE: 11/18/18		CASING		OD	WT	GRD	TVD
API #: 42-475-37718		DFS: 12		Conductor		20		80	80
		REPORT NO: 13		Surface		13-3/8	55	J-55	943
FIELD: Phantom (Wolfcamp)		DOL: 18		Intermediate		10-3/4	46	J-55	5,080
ELEV: 2,664		RKB: 25		LAST BOP TEST: 11/20/18					
MD: 10,910		TVD: 10,857							
24 HR FTG: 1,090		HRS DRLG: 24		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	HTH
18:00	9.2	27.0	100.0	1	2	11.6		1	1	1	2	3	68,000		0.40	0.20			1.20	
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
												#2								

BIT DATA																				
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP
4		8.75		Smith		Z619		JN7629		6X11				9,820	10,910	1,090	21.5	35	90	51
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	National Oilwell	12-P-160	5.500	12.000	170	3300	600	3.519	95	9.22	119.5	148.7	7.37	1600
2	National Oilwell	12-P-160	5.500	12.000	170	3300	600	3.519	95	9.22	119.5	148.7	7.37	1600

BHA							
DESCRIPTION:	Intermediate 2 BHA # 2						
LENGTH	1,419.94	BHA WT. AIR	251,356	BHA WT. MUD	213,652	HRS. ON JARS	
ROT. WT.	295	P.U. WT.	350	S.O. WT.	275	TORQUE	14
TIME MADE UP	03:30	DATE MADE UP	11/28/2018	TIME PULLED		DATE PULLED	

SURVEY DATA									
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES		E/W	V. SECTION	DLS
10,392	2.18	67.06	10,379		2.0		246.2	72.3	1.4
10,487	2.04	72.97	10,474		3.2		249.5	72.2	0.3
10,582	1.23	80.89	10,569		3.9		252.1	72.3	0.9
10,676	1.81	83.26	10,663		4.2		254.6	72.7	0.6

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

[illegible][illegible]

WEATHER							
GEN. CONDITIONS:	Partly Cloudy	WIND SPEED:	7	WIND DIRECTION:	ESE	TEMP:	47
COMMENTS:							

## DRILLING REPORT

WELL: <a href="#">UL Independence 1718-17 B 2H</a>				CONTRACTOR: <a href="#">ICD</a>					RIG:	<a href="#">ICD 321</a>	
RPT DATE: <a href="#">December 1, 2018</a>				SPUD DATE: <a href="#">11/18/18</a>		CASING	OD	WT	GRD	MD	TVD
		API #:	<a href="#">42-475-37718</a>		DFS: <a href="#">13</a>	<a href="#">Conductor</a>	<a href="#">20</a>			<a href="#">80</a>	<a href="#">80</a>
					REPORT NO: <a href="#">14</a>	<a href="#">Surface</a>	<a href="#">13-3/8</a>	<a href="#">55</a>	<a href="#">J-55</a>	<a href="#">943</a>	<a href="#">943</a>
FIELD: <a href="#">Phantom (Wolfcamp)</a>				DOL: <a href="#">19</a>		<a href="#">Intermediate</a>	<a href="#">10-3/4</a>	<a href="#">46</a>	<a href="#">J-55</a>	<a href="#">5,080</a>	<a href="#">5,097</a>
ELEV: <a href="#">2,664</a>		RKB:	<a href="#">25</a>		LAST BOP TEST: <a href="#">11/20/18</a>						
MD: <a href="#">10,910</a>		TVD:	<a href="#">10,896</a>								
24 HR FTG:		HRS DRLG:			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	9.2	28.0	100.0	5	7	11.6		1	1	1	2	3	70,000		0.30	0.10			1.50	

REDUCED PUMP RATES			
PUMP	SPM	PRESS	DEPTH
#1			
#2			

## BIT DATA

NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
4	8.75	Smith	Z619	JN7629	6X11		9,820	10,910	1,090	21.5	35	90	51

BIT NO.	4	INNER	2	OUTER	2	DULL	BT/CT/W	LOC	ose/Sho	SEAL	X	GAUGE	IN	OTHER		RP	TD
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## HYDRAULICS DATA

PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	National Oilwell	12-P-160	5.500	12.000				3.519	95					1600
2	National Oilwell	12-P-160	5.500	12.000				3.519	95					1600

## BHA

DESCRIPTION:	Intermediate 2 BHA # 2						
LENGTH	1,419.94	BHA WT. AIR	251,356	BHA WT. MUD	213,652	HRS. ON JARS	
ROT. WT.	295	P.U. WT.	350	S.O. WT.	275	TORQUE	14
TIME MADE UP	03:30	DATE MADE UP	11/28/2018	TIME PULLED	21:00	DATE PULLED	11/30/2018

## SURVEY DATA

[illegible]

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

[illegible]

## WEATHER

WEATHER							
GEN. CONDITIONS:	Clear	WIND SPEED:	17	WIND DIRECTION:	W	TEMP:	49

COMMENTS:



WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG:			ICD 321				
RPT DATE: December 2, 2018										SPUD DATE: 11/18/18										CASING			OD	WT	GRD	MD	TVD
API #: 42-475-37718										DFS: 14										Conductor			20			80	80
FIELD: Phantom (Wolfcamp)										REPORT NO: 15										Surface			13-3/8	55	J-55	943	943
ELEV: 2,664										DOL: 20										Intermediate			10-3/4	46	J-55	5,080	5,097
MD: 10,910										LAST BOP TEST: 11/20/18										Intermediate 2			7-5/8	30	HCL-80	10,893	10,879
24 HR FTG:										HRS DRLG:										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	9.3	28.0	100.0	1	2	10.6		1	1	1	2	3	90,000		0.30	0.20			0.70								
REDUCED PUMP RATES																											
																		PUMP		SPM		PRESS		DEPTH			
																		#1									
#2																											
BIT DATA																											
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP							
4		8.75		Smith		Z619		JN7629		6X11				9,820	10,910	1,090	21.5	35	90	51							
BIT NO.		4		INNER		2		OUTER		2		DULL		ST/CT/W	LOC	pse/Sho	SEAL	X	GAUGE	IN	OTHER	RP	TD				
HYDRAULICS DATA																											
PUMP		MAKE		MODEL		LINER		STK		SPM		PSI		GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP						
1		National Oilwell		12-P-160		5,500		12,000		72		270		253	3,519	95	9.37				1600						
2		National Oilwell		12-P-160		5,500		12,000		72		270		253	3,519	95	9.37				1600						
BHA																											
DESCRIPTION:								BHA WT. AIR				BHA WT. MUD				HRS. ON JARS											
LENGTH								P.U. WT.				S.O. WT.				TORQUE											
ROT. WT.								DATE MADE UP				TIME PULLED				DATE PULLED											
SURVEY DATA																											
MD				ANGLE				AZIMUTH				TVD		N/S	COORDINATES		E/W	V. SECTION		DLS							
CONSUMABLES				DIESEL FUEL (gal) Rvcd/Used/On Hand:								DRILL H2O (gal) Rvcd/Used/On Hand:															
OPERATIONS TIME LOG																											
FROM	TO	HRS	CODE															Start MD	End MD								
06:00	12:30	6.5	Run Csg & Cement	Continue running 7.625" 29.7# HCL80 casing, ran total of 247 joints. Shoe depth @ 10893'/ Flt collar @ 10808'/ DV tool @ 5223'														10910	10910								
12:30	13:00	0.5	Run Csg & Cement	Verify landed with GE Rep Rig down casing handling equipment														10910	10910								
13:00	15:00	2.0	Cond Mud & Circ	Circulate 1.5x casing volume @ 750 bbls GPM: 168-257 (4-6 bbl/min) PSI: 130-170 Rig up cement surface lines & HPJSM on cement operations stage 1 Rig down CRT and rig up Cement head.														10910	10910								
15:00	18:00	3.0	Run Csg & Cement	Cement 1st stage as follows : Pressue test lines to 5000' psi , Pump 20 bbl gel spacer, Mix and pump 635 sx of lead followed by 75 sx tail. Drop plug on the fly verify plug has left, Pump 20 bbls fresh water followed by 476 bbl cut brine @ 5 bbl/min monitoring fluid returns Bump plug 500 PSI over final lift pressure of 1250 PSI = 1850 PSI, held for 5 min no bleed off, Bleed off 3 bbl check floats 5 min, test was good Both DSM present for cement operations.														10910	10910								
18:00	18:30	0.5	Other	Drop DV opening tool & let free fall. With Halliburton pump truck Pressure up to 1002 psi to open tool w/ DV tool Rep.														10910	10910								
18:30	00:00	5.5	Cond Mud & Circ	Swap to rig and roll hole: CM/C displace out cement, 85 bbl back to surface. CM/C 6 hours monitor surface sample for curing Monitor gain/loss while circulating Circulating at 6 bbl/min														10910	10910								
00:00	01:30	1.5	Run Csg & Cement	Cement 2nd stage as follows: Pump 20 bbl gel spacer, Mix and pump 186 bbls of 11.9# lead cement, Mix and pump 21 bbls of 14.8# tail cement Drop plug on the fly & Displace with 20 bbls fresh water & 220 bbls cut brine Bumped plug 1500 psi over final circulating pressure of 960 psi=2580 psi (ensuring with DV tool rep, tool is closed) Held 5 minutes no bleed off, Bleed back 2.5 bbls. Both DSM present for cement operations														10910	10910								
01:30	03:00	1.5	Other	Flush BOP of cement. Shut the well in and monitor for pressure (0 pressure was gained) Monitored for 1 hour) Opened the well up checked for flow (No flow)														10910	10910								
03:00	05:30	2.5	Other	Pull landing joint and install and test pack off as per GE REP.														10910	10910								
05:30	06:00	0.5	Nipple Up B.OP.	Nipple down BOPE														10910	10910								

# DRILLING REPORT

[illegible]



## DRILLING REPORT

[illegible]

## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H				CONTRACTOR: ICD					RIG: ICD 321				
RPT DATE: January 6, 2019				SPUD DATE: 11/18/18		CASING		OD	WT	GRD	MD	TVD	
		API #:	42-475-37718		DFS: 49		Conductor		20		80	80	
					REPORT NO: 18		Surface		13-3/8	55	J-55	943	943
FIELD: Phantom (Wolfcamp)				DOL: 55		Intermediate		10-3/4	46	J-55	5,080	5,097	
ELEV: 2,664		RKB:	25		LAST BOP TEST: 1/5/19		Intermediate 2		7-5/8	30	HCL-80	10,893	10,879
MD: 10,920		TVD:	10,906										
24 HR FTG: 10		HRS DRLG: 4.5		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	12.9	72.0		4	5		0/3	9	21	26	27	9	40,000				20,800	54.00	7.90	8.00
												REDUCED PUMP RATES								
												PUMP		SPM		PRESS		DEPTH		
												#1								
												#2								

BIT DATA																
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP			
5	6.75	Smith	MDI611	JP2973	3x16 * 3x11		10.910									
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	National Oilwell	12-P-160	5.500	12.000	65	2000	305	.0560	95					1600
2	National Oilwell	12-P-160	5.500	12.000	65	2000	305	.0560	95					1600

BHA							
DESCRIPTION:	BHA #5 / Curve #1						
LENGTH	1,653.97	BHA WT. AIR	47,370	BHA WT. MUD	37,896	HRS. ON JARS	
ROT. WT.		P.U. WT.		S.O. WT.		TORQUE	
TIME MADE UP		DATE MADE UP		TIME PULLED		DATE PULLED	

[illegible]

<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	08:30	2.5	Rig Up & Tear Down	Change out saver sub & swivel pkg Test mud lines to 6k for 5 min	10910	10910
08:30	11:30	3.0	Cut off Drill Line	Slip & Cut drill line	10910	10910
11:30	13:30	2.0	Trips	TIH w/ Ulterra U711 bit & bit sub w/ float, 17 stands HWDP & DP to 5200'	10910	10910
13:30	14:30	1.0	Other	Fill pipe @ 5200' & Test above DV tool 1500 psi/ 10 min Tagged cement @ 5200'	10910	10910
14:30	15:30	1.0	Drilling	Drill out DV tool with brine water @ 5223' GPM: 300 RPM: 100-140 WOB: 2-11 TRQ: 6k	10910	10910
15:30	16:30	1.0	Other	Test casing 1500 psi/ 30 min	10910	10910
16:30	19:00	2.5	Trips	TIH to top of float collar @ 10893' Tagged cement @ 10786'	10910	10910
19:00	22:30	3.5	Drilling	Drill out shoe track: Float collar @ 10808', Shoe @ 10893' Drill 10" new formation from 10910'-10920' GPM: 220-300 RPM: 60-120 WOB: 5-33 TRQ: 7k	10910	10920
22:30	23:00	0.5	Other	Perform FIT to 14# equivalent w/ 12.7# mud @ 737 psi for 10 min	10920	10920
23:00	23:30	0.5	Cond Mud & Circ	Flow Check, Pump 20 bbl 2# over slug @ 14.7# TOOH for curve assembly.	10920	10920
23:30	03:30	4.0	Trips	TOOH for curve assembly. Filling hole every 5 stands	10920	10920
03:30	05:30	2.0	Dir Work	M/U curve assembly, test MWD & M/U bit	10920	10920
05:30	06:00	0.5	Trips	TIH to 1200'	10920	10920
TOTAL HRS		24.0				

TOTAL TMS		240								
WEATHER										
GEN. CONDITIONS:		Clear	WIND SPEED:		9	WIND DIRECTION:		SE	TEMP:	43
COMMENTS:										



# DRILLING REPORT

WELL: UL Independence 1718-17 B 2H				CONTRACTOR: ICD				RIG: ICD 321	
RPT DATE: January 7, 2019				SPUD DATE: 11/18/18		CASING	OD	WT	GRD
API #: 42-475-37718				DFS: 50		Conductor	20		80
				REPORT NO: 19		Surface	13-3/8	55	J-55 943
FIELD: Phantom (Wolfcamp)				DOL: 56		Intermediate	10-3/4	46	J-55 5,080
ELEV: 2,664		RKB: 25		LAST BOP TEST: 1/5/19		Intermediate 2	7-5/8	30	HCL-80 10,893
MD: 11,700		TVD: 11,556							10,879
24 HR FTG: 780		HRS DRLG: 15		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
18:00	12.8	77.0		4	5		0/3	9 21 24	25	9	50,000				19,200	53.00	10.00
														REDUCED PUMP RATES			
														PUMP	SPM	PRESS	DEPTH
														#1			
														#2			

BIT DATA																										
NO.	SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP								
5	6.75		Smith		MDI611		JP2973		3x16 * 3x11			10,910	11,700	790	13.7	25	218	58								
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	National Oilwell	12-P-160	5.500	12.000	55	4100	258	.0560	95					1600			
2	National Oilwell	12-P-160	5.500	12.000	55	4100	258	.0560	95					1600			

BHA																	
DESCRIPTION:		BHA #5 / Curve #1															
LENGTH		1,653.97		BHA WT. AIR		47,370		BHA WT. MUD		37,896		HRS. ON JARS					
ROT. WT.				P.U. WT.				S.O. WT.				TORQUE					
TIME MADE UP		05:00		DATE MADE UP		1/6/2019		TIME PULLED				DATE PULLED					

SURVEY DATA																	
MD		ANGLE		AZIMUTH		TVD		N/S		COORDINATES		E/W		V. SECTION		DLS	
11,457		49.42		153.75		11,376		-198.0		321.4		285.7		10.2			
11,505		53.48		157.47		11,406		-232.2		336.4		322.9		10.4			
11,553		57.50		162.07		11,433		-269.3		350.5		362.4		11.5			
11,600		63.81		163.60		11,456		-308.4		362.6		403.4		13.7			

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	10:30	4.5	Trips	TIH from 1200' to 10920'	10920	10920
10:30	11:00	0.5	Lubricate Rig	Rig Service: Inspect drilling equipment, grease & check all fluids.	10920	10920
11:00	15:00	4.0	Repair Rig	Attempting to wash down to bottom, mud pumps would not stay running. Fault codes were being thrown for low power percentage . Wait on electrician to trouble shoot from 11:00 to 12:00 put load limiter in SCR house to bypass from manual to offset false readings. Electricians are on location waiting to see if problem persists.	10920	10920
15:00	18:30	3.5	Drilling	Drill ahead to KOP from 10920' to 11025' (105') @ AVG ROP 36 FPH WOB: 10-30 ROT: 0-30 GPM: 260 TRQ: 8k DIFF: 200-400 OBPSI: 3500	10920	11025
18:30	06:00	11.5	Drilling	Drill ahead in curve from 11025' to 11700' (635') @ AVG ROP 57 FPH Current INC. 70 degrees WOB: 10-30 ROT: 0-30 GPM: 260 TRQ: 8k DIFF: 200-400 OBPSI: 3500	11025	11700
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## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321																															
RPT DATE: January 8, 2019										SPUD DATE: 11/18/18										CASING										OD		WT		GRD		MD		TVD													
API #: 42-475-37718										DFS: 51										Conductor										20				80		80															
FIELD: Phantom (Wolfcamp)										REPORT NO: 20										Surface										13-3/8		55		J-55		943		943													
ELEV: 2,664										RKB: 25										DOL: 57										Intermediate										10-3/4		46		J-55		5,080		5,097			
MD: 12,141										TVD: 11,491										LAST BOP TEST: 1/5/19										Intermediate 2										7-5/8		30		HCL-80		10,893		10,879			
24 HR FTG: 441										HRS DRLG: 10.5										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	12.8	62.0		5	6		0/3	10	18	23	24	12	48,000		22,400	54.00	8.30	6.00																																	
REDUCED PUMP RATES																																																			
PUMP										SPM					PRESS					DEPTH																															
#1																																																			
#2																																																			
BIT DATA																																																			
NO.	SIZE			MAKE			TYPE			SER NO.			NOZZLES			RE-RUN			IN			OUT			FEET			HRS			WOB			RPM			ROP														
5	6.75			Smith			MDi611			JP2973			3x16 * 3x11						11,700			12,141			441			8.3			25			218			53														
BIT NO. 5																				INNER		2		OUTER		2		DULL		CT		LOC		Nose		SEAL		X		GAUGE		IN		OTHER		WC		RP		ROP	
HYDRAULICS DATA																																																			
PUMP	MAKE			MODEL			LINER			STK			SPM			PSI			GPM			GPS			EFF %			ECD			AV DP			AV DC			BIT HHP			PUMP HHP											
1	National Oilwell			12-P-160			5.500			12.000			55			4700			260			.0560			95			15.15									1600														
2	National Oilwell			12-P-160			5.500			12.000			55			4700			260			.0560			95			15.15									1600														
BHA																																																			
DESCRIPTION: BHA #5 / Curve #1																																																			
LENGTH 1,653.97										BHA WT. AIR 47,370										BHA WT. MUD 37,896										HRS. ON JARS																					
ROT. WT.										P.U. WT.										S.O. WT.										TORQUE																					
TIME MADE UP 05:00										DATE MADE UP 1/6/2019										TIME PULLED 17:30										DATE PULLED 1/7/2019																					
SURVEY DATA																																																			
MD			ANGLE			AZIMUTH			TVD			N/S			COORDINATES			E/W			V. SECTION			DLS																											
11,792			92.06			164.42			11,495			-485.9			418.1			589.4			14.2																														
11,887			90.10			165.16			11,493			-577.6			443.0			684.3			2.2																														
11,982			92.72			165.12			11,491			-669.4			467.3			779.1			2.8																														
12,077			90.52			163.57			11,488			-760.8			493.0			874.0			2.8																														
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	07:30	1.5	Drilling	Drill ahead in curve 11700' to 11768' (68') @ AVG ROP 45 FPH WOB: 10-30 ROT: 0-30 GPM: 260 TRQ: 9k DIFF: 200-500 OBPSI: 3500 Landed curve @ 11768' INC. 88.15 degrees, AZM 162.75 ( 10' high & 14 left)														11700	11768																																
07:30	16:30	9.0	Drilling	Drill ahead in Lateral 11768' to 12141' (373') @ AVG ROP 41 FPH ( sliding as need to control INC.) WOB: 15-30 ROT: 40-70 GPM: 260 TRQ: 9k DIFF: 200-500 OBPSI: 3500 Target change: 11532' KBTVD @ 0'VS @ 92.1 degrees Decision was made to POOH for real time due to slow ROP.														11768	12141																																
16:30	17:30	1.0	Cond Mud & Circ	Circulate Bottoms up while working pipe. Flow check Pump 30 bbl 2# over dry job														12141	12141																																
17:30	19:30	2.0	Trips	POOH from 12141' to 6628' filling every 5 stands.														12141	12141																																
19:30	20:00	0.5	Lubricate Rig	Service rig														12141	12141																																
20:00	23:00	3.0	Trips	POOH from 6628' to BHA'														12141	12141																																
23:00	02:00	3.0	Dir Work	L/D curve assembly P/U real time assembly & surface test														12141	12141																																
02:00	06:00	4.0	Trips	TIH with 5 stands of drill pipe & pickup Drill N Ream Continue TIH with drill pipe to 8500' Monitoring for proper displacement														12141	12141																																
TOTAL HRS																	24.0																																		
WEATHER																																																			
GEN. CONDITIONS: Partly Cloudy										WIND SPEED: 5										WIND DIRECTION: WSW										TEMP: 38																					
COMMENTS:																																																			
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## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H		CONTRACTOR: ICD		RIG: ICD 321																							
RPT DATE: January 9, 2019		SPUD DATE: 11/18/18		CASING		OD	WT	GRD	MD	TVD																	
API #: 42-475-37718		DFS: 52		Conductor		20			80	80																	
FIELD: Phantom (Wolfcamp)		REPORT NO: 21		Surface		13-3/8	55	J-55	943	943																	
ELEV: 2,664		RKB: 25		DOL: 58		Intermediate		10-3/4	46	J-55	5,080	5,097															
MD: 12,931		TVD: 11,478		LAST BOP TEST: 1/5/19		Intermediate 2		7-5/8	30	HCL-80	10,893	10,879															
24 HR FTG: 790		HRS DRLG: 12		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	12.8	65.0		5	6		0/3	9	19	23	23	12	47,000			23,600	54.00	6.50	7.00								
REDUCED PUMP RATES																											
PUMP												SPM		PRESS		DEPTH											
#1																											
#2																											
BIT DATA																											
NO.	SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP								
6	6.75		Smith		XS513		JP3527		5x10				12,141	12,931	790	10.4			76								
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	National Oilwell		12-P-160		5.500		12.000		55		4700		260	.0560	95	15.58				1600							
2	National Oilwell		12-P-160		5.500		12.000		55		4700		260	.0560	95	15.58				1600							
BHA																											
DESCRIPTION:		BHA #6/ Lateral #1																									
LENGTH		BHA WT. AIR		BHA WT. MUD		HRS. ON JARS																					
ROT. WT.		P.U. WT.		S.O. WT.		TORQUE																					
TIME MADE UP		02:00		DATE MADE UP		1/8/2019		TIME PULLED		22:30		DATE PULLED		1/8/2019													
SURVEY DATA																											
MD		ANGLE		AZIMUTH		TVD		N/S		COORDINATES		E/W		V. SECTION		DLS											
12,588		91.55		163.76		11,484		-1,253.4		628.4		1,384.6		0.6													
12,679		91.58		164.11		11,481		-1,340.8		653.6		1,475.5		0.4													
12,772		92.89		165.12		11,478		-1,430.4		678.3		1,568.4		1.8													
12,863		91.72		164.37		11,474		-1,518.1		702.2		1,659.2		1.5													
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	08:00	2.0	Trips	TIH to bottom @ 12141'												12141	12141										
08:00	09:00	1.0	Dir Work	Fill pipe & break circulation Down Link power drive into HIA @ 92.1 degrees & 163.72 AZM												12141	12141										
09:00	21:00	12.0	Drilling	Drill ahead in Lateral 12141' to 12931' (780') @ AVG ROP 66 FPH WOB: 15-30 ROT: 40-70 GPM: 260 TRQ: 9k DIFF: 200-500 OBPSI: 3500												12141	12931										
21:00	22:30	1.5	Cond Mud & Circ	Circulate bottoms up Flow check Pump slug												12931	12931										
22:30	00:30	2.0	Trips	TOOH from 12931 to 8984' Monitoring hole fill every 5 stands Tripping out due to broken driveshaft												12931	12931										
00:30	01:30	1.0	Repair Rig	C/O a hose on the ST-80												12931	12931										
01:30	05:00	3.5	Trips	TOOH from 8984' to BHA'												12931	12931										
05:00	06:00	1.0	Dir Work	C/O motor & bit												12931	12931										
TOTAL HRS												24.0															
WEATHER																											
GEN. CONDITIONS:		Clear		WIND SPEED:		8		WIND DIRECTION:		NE		TEMP:		42													
COMMENTS:																											
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## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD					RIG: ICD 321														
RPT DATE: January 10, 2019										SPUD DATE: 11/18/18					CASING			OD	WT	GRD	MD	TVD							
API #: 42-475-37718										DFS: 53					Conductor			20			80	80							
										REPORT NO: 22					Surface			13-3/8	55	J-55	943	943							
FIELD: Phantom (Wolfcamp)										DOL: 59					Intermediate			10-3/4	46	J-55	5,080	5,097							
ELEV: 2,664		RKB:		25						LAST BOP TEST: 1/5/19					Intermediate 2			7-5/8	30	HCL-80	10,893	10,879							
MD: 13,765		TVD:		11,438																									
24 HR FTG: 834		HRS DRLG:		15.5						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	12.7	68.0		5	6		0/3	9	17	25	22	14	45,000		21,200	54.00	7.20	3.00											
												REDUCED PUMP RATES																	
												PUMP		SPM		PRESS		DEPTH											
												#1																	
#2																													
BIT DATA																													
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN		OUT		FEET		HRS		WOB		RPM		ROP			
7		6.75		Ulterra		SPL613		45042		6x9				12,931		13,765		834		13.3		30		231		63			
6		6.75		Smith		XS513		JP3527		5x10		N		12,141		12,931		790		10.4		30		180		76			
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		National Oilwell		12-P-160		4.500		12.000		52		4850		245		.0560		95										1600	
2		National Oilwell		12-P-160		4.500		12.000		52		4850		243		.0560		95										1600	
BHA																													
DESCRIPTION:			BHA #6/ Lateral #2																										
LENGTH			104.99			BHA WT. AIR						BHA WT. MUD						HRS. ON JARS											
ROT. WT.			230,000			P.U. WT.			270,000			S.O. WT.			190,000			TORQUE			10,000								
TIME MADE UP			06:00			DATE MADE UP			1/10/2019			TIME PULLED						DATE PULLED											
SURVEY DATA																													
MD			ANGLE			AZIMUTH			TVD			N/S		COORDINATES			E/W		V. SECTION			DLS							
13,425			91.65			162.93			11,448			-2,058.4		854.5					2,220.2			1.1							
13,521			92.79			163.50			11,444			-2,150.2		882.2					2,316.2			1.3							
13,616			91.82			162.94			11,440			-2,241.1		909.6					2,411.1			1.2							
13,711			90.65			162.22			11,438			-2,331.7		938.0					2,506.1			1.5							
CONSUMABLES				DIESEL FUEL (gal) Rvcd/Used/On Hand:								DRILL H2O (gal) Rcvd/Used/On Hand:																	
OPERATIONS TIME LOG																													
FROM	TO	HRS	CODE															Start MD	End MD										
06:00	07:30	1.5	Other	Pick up BHA, test MWD, Pick up remaining BHA														12931	12931										
07:30	12:00	4.5	Trips	Trip in 5 stands Pick up Drill N Ream Trip in hole, install rotating head Fill pipe every 30 stands														12931	12931										
12:00	12:30	0.5	Cond Mud & Circ	Fill pipe and test MWD out side of shoe														12931	12931										
12:30	13:30	1.0	Trips	TIH to 12,920'														12931	12931										
13:30	14:00	0.5	Dir Work	Attempt to establish comms ( Real time not working at this time) Downlink														12931	12931										
14:00	05:30	15.5	Drilling	Drill ahead in Lateral 12931' to 13765' (834') WOB: 15-30                      ROT: 40-70 GPM: 235                        TRQ: 9k DIFF: 800 MAX                OBPSI: 3900														12931	13765										
05:30	06:00	0.5	Repair Rig	Service Rig														13765	13765										



WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321															
RPT DATE: January 11, 2019										SPUD DATE: 11/18/18										CASING					OD	WT	GRD	MD	TVD						
API #: 42-475-37718										DFS: 54										Conductor					20			80	80						
										REPORT NO: 23										Surface					13-3/8	55	J-55	943	943						
FIELD: Phantom (Wolfcamp)										DOL: 60										Intermediate					10-3/4	46	J-55	5,080	5,097						
ELEV: 2,664 RKB: 25										LAST BOP TEST: 1/5/19										Intermediate 2					7-5/8	30	HCL-80	10,893	10,879						
MD: 14,880 TVD: 11,395																																			
24 HR FTG: 1,115 HRS DRLG: 20										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	HTHR															
18:00	12.9	58.0		5	6		0/3	10	19	24	24	13	49,000				24,000	55.00	5.50	3.00															
												REDUCED PUMP RATES																							
												PUMP					SPM					PRESS					DEPTH								
												#1																							
												#2																							
BIT DATA																																			
NO.		SIZE			MAKE			TYPE			SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP												
7		6.75			Ulterra			SPL613			45042		6x9				13,765	14,880	1,115	17.4	30	258	64												
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		National Oilwell			12-P-160			4.500			12.000	51	4700	240	.0560	95	16.23				1600														
2		National Oilwell			12-P-160			4.500			12.000	51	4700	240	.0560	95	16.23				1600														
BHA																																			
DESCRIPTION:				BHA #7/ Lateral #2																															
LENGTH				104.99			BHA WT. AIR						BHA WT. MUD						HRS. ON JARS																
ROT. WT.				230,000			P.U. WT.			270,000			S.O. WT.			190,000			TORQUE			10,000													
TIME MADE UP				06:00			DATE MADE UP			1/10/2019			TIME PULLED						DATE PULLED																
SURVEY DATA																																			
MD				ANGLE				AZIMUTH				TVD				N/S		COORDINATES				E/W	V. SECTION				DLS								
14,473				93.92				164.27				11,408				-3,060.8		1,157.1					3,267.2				2.3								
14,568				92.10				162.95				11,403				-3,151.8		1,183.9					3,362.1				2.4								
14,664				92.99				164.48				11,399				-3,243.9		1,210.8					3,458.0				1.8								
14,759				91.82				164.52				11,395				-3,335.3		1,236.2					3,552.8				1.2								
CONSUMABLES				DIESEL FUEL (gal) Rvcd/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		Drill ahead in Lateral 13765' to 14,370' (605') 55 avg WOB: 20-40 ROT: 40-90 GPM: 235-245 TRQ: 10-11k DIFF:950 MAX OBPSI: 4000												13765		14730													
17:00		18:00		1.0		Repair Rig		Both pumps down swapped to one pump to replace swab due to rod washer being plugged and before job complete lost swab and liner gasket on second pump												14730		14370													
18:00		19:00		1.0		Drilling		Drill ahead in Lateral 14,370' to 14425' (55') WOB: 20-40 ROT: 40-90 GPM: 235 TRQ: 9k DIFF:950 MAX OBPSI: 4000												14370		14425													
19:00		22:00		3.0		Repair Rig		Changing 2 swabs on pump while replacing wear plate on the other												14425		14425													
22:00		06:00		8.0		Drilling		Drill ahead in Lateral 14,370' to 14880' 510' (63.8 FT/HR) WOB: 20-40 ROT: 40-90 GPM: 235 TRQ: 9k DIFF:950 MAX OBPSI: 4000												14425		14880													

## DRILLING REPORT

[illegible]



## DRILLING REPORT

[illegible]

# DRILLING REPORT

WELL: <a href="#">UL Independence 1718-17 B 2H</a>				CONTRACTOR: <a href="#">ICD</a>					RIG:		<a href="#">ICD 321</a>	
RPT DATE: <a href="#">January 14, 2019</a>				SPUD DATE: <a href="#">11/18/18</a>		CASING		OD	WT	GRD	MD	TVD
		API #:	<a href="#">42-475-37718</a>	DFS: <a href="#">57</a>		<a href="#">Conductor</a>		<a href="#">20</a>			<a href="#">80</a>	<a href="#">80</a>
				REPORT NO: <a href="#">26</a>		<a href="#">Surface</a>		<a href="#">13-3/8</a>	<a href="#">55</a>	<a href="#">J-55</a>	<a href="#">943</a>	<a href="#">943</a>
FIELD: <a href="#">Phantom (Wolfcamp)</a>				DOL: <a href="#">63</a>		<a href="#">Intermediate</a>		<a href="#">10-3/4</a>	<a href="#">46</a>	<a href="#">J-55</a>	<a href="#">5,080</a>	<a href="#">5,097</a>
ELEV: <a href="#">2,664</a>		RKB:	<a href="#">25</a>	LAST BOP TEST: <a href="#">1/5/19</a>		<a href="#">Intermediate 2</a>		<a href="#">7-5/8</a>	<a href="#">30</a>	<a href="#">HCL-80</a>	<a href="#">10,893</a>	<a href="#">10,879</a>
MD: <a href="#">17,000</a>		TVD:	<a href="#">11,381</a>									
24 HR FTG: <a href="#">564</a>		HRS DRLG:	<a href="#">11</a>	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	13.2	75.0		4	5		0/3	9	19	20	23	12	43,000				24,800	53.50	5.90	3.00

REDUCED PUMP RATES			
PUMP	SPM	PRESS	DEPTH
#1	40	1,280	15,482
#2			15,482

BIT DATA													
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
8	6.75	REED	TKC63	A242191	6x9		16,436	17,000	564	10.5	28	246	54

BIT NO.		INNER		OUTER		DULL		LOC		SEAL		GAUGE		OTHER		RP
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HYDRAULICS DATA														
PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	National Oilwell	12-P-160	4.500	12.000	52	5000	245	.0560	95					1600
2	National Oilwell	12-P-160	4.500	12.000	52	5000	245	.0560						1600

BHA							
DESCRIPTION:	Lateral #3						
LENGTH	99.35	BHA WT. AIR		BHA WT. MUD		HRS. ON JARS	
ROT. WT.	230,000	P.U. WT.	290,000	S.O. WT.	195,000	TORQUE	11,000
TIME MADE UP	06:00	DATE MADE UP	1/13/2019	TIME PULLED		DATE PULLED	

SURVEY DATA								
MD	ANGLE	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS
16,574	88.76	165.93	11,377	-5,075.1	1,746.6		5,365.5	1.1
16,669	88.83	165.98	11,379	-5,167.2	1,769.6		5,460.3	0.1
16,765	89.48	165.62	11,380	-5,260.3	1,793.2		5,556.2	0.8
16,860	90.07	166.19	11,381	-5,352.4	1,816.3		5,651.0	0.9

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

[illegible]

TOTAL HRS	24.0
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WEATHER							
GEN. CONDITIONS:	Clear	WIND SPEED:	11	WIND DIRECTION:	E	TEMP:	34

[illegible]



# DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321	
RPT DATE: January 16, 2019										SPUD DATE: 11/18/18					CASING		OD	WT	GRD	MD	TVD
API #: 42-475-37718										DFS: 59					Conductor		20		80	80	
										REPORT NO: 28					Surface		13-3/8	55	J-55	943	943
FIELD: Phantom (Wolfcamp)										DOL: 65					Intermediate		10-3/4	46	J-55	5,080	5,097
ELEV: 2,664					RKB: 25					LAST BOP TEST: 1/5/19					Intermediate 2		7-5/8	30	HCL-80	10,893	10,879
MD: 19,205					TVD: 11,417																
24 HR FTG: 859					HRS DRLG: 22					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	12.8	60.0		5	6		0/3	8	19	20	23	14	44,000		26,000	54.30	5.90	3.00			
										REDUCED PUMP RATES											
										PUMP		SPM		PRESS		DEPTH					
										#1		40		1,700		19,205					
										#2		40		1,840		19,205					
BIT DATA																					
NO.	SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP		
8	6.75		REED		TKC63		A242191		6x9				18,346	19,205	859	18.4	28	246	47		
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	National Oilwell		12-P-160		4.500		12.000		53		5200		245	3.519	95	17.3				1600	
2	National Oilwell		12-P-160		4.500		12.000		103		5200		245	3.519	95	17.3	230	230	571	1600	
BHA																					
DESCRIPTION:		Lateral #3																			
LENGTH		99.35		BHA WT. AIR				BHA WT. MUD				HRS. ON JARS									
ROT. WT.		230,000		P.U. WT.		290,000		S.O. WT.		195,000		TORQUE		11,000							
TIME MADE UP		06:00		DATE MADE UP		1/13/2019		TIME PULLED		06:00		DATE PULLED		1/16/2019							
SURVEY DATA																					
MD		ANGLE		AZIMUTH		TVD		N/S		COORDINATES		E/W		V. SECTION		DLS					
18,772		88.04		165.34		11,406		-7,184.3		2,361.8		7,562.1		0.6							
18,868		88.11		165.54		11,410		-7,277.2		2,385.9		7,657.9		0.2							
18,963		88.07		165.44		11,413		-7,369.1		2,409.7		7,752.7		0.1							
19,059		88.28		165.77		11,416		-7,462.0		2,433.6		7,848.5		0.4							
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	08:00	2.0	Drilling	Drill Lateral from: 18,346' to 18,439' (93') @ AVG ROP 46 FPH WOB: 25 ROT: 45-80 GPM: 245 TRQ: 13k DIFF:1000 OBPSI: 4100												18346	18439				
08:00	08:30	0.5	Lubricate Rig	Rig service												18439	18439				
08:30	12:30	4.0	Drilling	Drill Lateral from: 18,439' to 18,631' (192') @ AVG ROP 48 FPH WOB: 25 ROT: 45-80 GPM: 245 TRQ: 13k DIFF:1000 OBPSI: 4100												18439	18631				
12:30	13:00	0.5	Repair Rig	Change out OLM comms box in drillers cabin to fix pump strokes problems												18631	18631				
13:00	05:00	16.0	Drilling	Drill Lateral from: 18,631' to 19,205' (574') @ AVG ROP 35 FPH WOB: 25 ROT: 45-80 GPM: 245 TRQ: 13k DIFF:1000 OBPSI: 4100 3 motor stalls back to back and slow ROP												18631	19205				
05:00	06:00	1.0	Cond Mud & Circ	CM/C for tripping out due to ROP, stalls Flow check Pump slug												19205	19205				
TOTAL HRS 24.0																					
WEATHER																					
GEN. CONDITIONS:		Clear		WIND SPEED:		6		WIND DIRECTION:		ESE		TEMP:		39							
COMMENTS:																					
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## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321											
RPT DATE: January 17, 2019										SPUD DATE: 11/18/18										CASING					OD	WT	GRD	MD	TVD		
API #: 42-475-37718										DFS: 60										Conductor					20			80	80		
FIELD: Phantom (Wolfcamp)										REPORT NO: 29										Surface					13-3/8	55	J-55	943	943		
ELEV: 2,664										DOL: 66										Intermediate					10-3/4	46	J-55	5,080	5,097		
MD: 19,205										LAST BOP TEST: 1/5/19										Intermediate 2					7-5/8	30	HCL-80	10,893	10,879		
24 HR FTG:										HRS DRLG:										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	12.8	62.0		5	6		0/3	9	19	20	20	13	44,000					29,200	54.50	6.40	2.50										
												REDUCED PUMP RATES																			
												PUMP					SPM					PRESS					DEPTH				
												#1					40					1,700					19,205				
												#2					40					1,840					19,205				
BIT DATA																															
NO.		SIZE			MAKE			TYPE			SER NO.			NOZZLES			RE-RUN		IN	OUT	FEET	HRS	WOB		RPM	ROP					
9		6.75			Security			MM53D			12887489			5X10					19,205												
8		6.75			REED			TKC63			A242191			6x9			N		18,346	19,205	859	18.4	28	246		47					
BIT NO.	8	INNER			1	OUTER			2	DULL	WC	LOC	Shoulder	SEAL	x	GAUGE	IN	OTHER		RP	ROP/ Stall										
HYDRAULICS DATA																															
PUMP		MAKE				MODEL				LINER		STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP		PUMP HHP								
1		National Oilwell				12-P-160				4.500		12.000					2.352	95						1600							
2		National Oilwell				12-P-160				4.500		12.000					2.352	95						1600							
BHA																															
DESCRIPTION:				Lateral #4																											
LENGTH				13,092.05				BHA WT. AIR								BHA WT. MUD								HRS. ON JARS							
ROT. WT.								P.U. WT.								S.O. WT.								TORQUE							
TIME MADE UP				18:00				DATE MADE UP				1/16/2019				TIME PULLED								DATE PULLED							
SURVEY DATA																															
MD				ANGLE				AZIMUTH				TVD				N/S		COORDINATES				E/W	V. SECTION				DLS				



## DRILLING REPORT

WELL: <b>UL Independence 1718-17 B 2H</b>										CONTRACTOR: <b>ICD</b>										RIG: <b>ICD 321</b>																													
RPT DATE: <b>January 18, 2019</b>										SPUD DATE: <b>11/18/18</b>										CASING										OD		WT		GRD		MD		TVD											
API #: <b>42-475-37718</b>										DFS: <b>61</b>										Conductor										20				80		80													
FIELD: <b>Phantom (Wolfcamp)</b>										REPORT NO: <b>30</b>										Surface										13-3/8		55		J-55		943		943											
ELEV: <b>2,664</b>										RKB: <b>25</b>										DOL: <b>67</b>										Intermediate										10-3/4		46		J-55		5,080		5,097	
MD: <b>20,223</b>										TVD: <b>11,414</b>										LAST BOP TEST: <b>1/5/19</b>										Intermediate 2										7-5/8		30		HCL-80		10,893		10,879	
24 HR FTG: <b>1,018</b>										HRS DRLG: <b>22</b>										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	12.8	60.0		5	6		0/3	9	20	22	23	14	44,000		29,200	54.50	5.80	2.50																															
REDUCED PUMP RATES																																																	
PUMP										SPM					PRESS					DEPTH																													
#1										40					1,700					19,205																													
#2										40					1,840					19,205																													
BIT DATA																																																	
NO.	SIZE	MAKE	TYPE	SER NO.	NOZZLES	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP																																				
9	6.75	Security	MM53D	12887489	5X10		19,205	20,223	1,018	19.4	23	189	52																																				
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	National Oilwell	12-P-160	4.500	12.000		5700	270	2.352	95	18.07	243.5			1600																																			
2	National Oilwell	12-P-160	4.500	12.000		5700	270	2.352	95	18.07	243.5			1600																																			
BHA																																																	
DESCRIPTION:		Lateral #4																																															
LENGTH		13,092.05		BHA WT. AIR		401,995		BHA WT. MUD		321,596		HRS. ON JARS																																					
ROT. WT.		220		P.U. WT.		290		S.O. WT.		140		TORQUE		120																																			
TIME MADE UP		18:00		DATE MADE UP		1/16/2019		TIME PULLED				DATE PULLED																																					
SURVEY DATA																																																	
MD		ANGLE		AZIMUTH		TVD		N/S		COORDINATES		E/W		V. SECTION		DLS																																	
19,823		90.17		164.44		11,412		-8,196.8		2,642.2		8,612.0		1.3																																			
19,918		89.38		164.57		11,413		-8,288.3		2,667.6		8,706.9		0.8																																			
20,014		90.10		164.53		11,413		-8,380.9		2,693.2		8,802.9		0.8																																			
20,110		89.79		162.70		11,413		-8,473.0		2,720.2		8,898.8		1.9																																			
CONSUMABLES																																																	
DIESEL FUEL (gal) Rvcd/Used/On Hand:										DRILL H2O (gal) Rvcd/Used/On Hand:																																							
OPERATIONS TIME LOG																																																	
FROM	TO	HRS	CODE											Start MD	End MD																																		
06:00	07:00	1.0	Dir Work	Re log Gamma and down link power drive										19205	19205																																		
07:00	12:00	5.0	Drilling	Drill lat 19205' to 19411' (206') @ AVG ROP 41.2 FPH WOB: 15-25 ROT: 60 GPM: 250 TRQ: off bottom TRQ: 6500 DIFF:500 OBPSI: 4450 Increased flow rate from 245-260 to aid in more pad push to combat formation push 19,347										19205	19411																																		
12:00	13:00	1.0	Other	Change swivel packing										19411	19411																																		
13:00	14:30	1.5	Drilling	Drill lat 19411' to 19555' (144') @ AVG ROP 96 FPH WOB: 15-25 ROT: 60 GPM: 250 TRQ: 11k off bottom TRQ: 6500 DIFF:500 OBPSI: 4450 Downlink tool into manual targeting 228° max pad push to combat. Did a H2S drill and SAT equipment did not function as designed called to have tech come and inspect and test equipment										19411	19555																																		
14:30	17:00	2.5	Drilling	Drill lat 19555' to 19601' (46') @ AVG ROP 18.5 FPH WOB: 15-25 ROT: 60 GPM: 250 TRQ: 11k off bottom TRQ: 6500 DIFF:500 OBPSI: 4450 Control drill not getting build and turn as needed Optimal pad push set with 250 GPM attempts made in GPM from 230-270 GPM Rolled target to 219° 100 % steer										19555	19601																																		
17:00	06:00	13.0	Drilling	Drill lat 19601' to 20223' (622') @ AVG ROP 47.8 FPH WOB: 20-25 ROT: 80-90 GPM: 270 TRQ: 12K off bottom TRQ: 6800 DIFF: 1000 OBPSI: 4700 Down link power drive nudge down 2-23 @ 19650' Down link power drive nudge up 2-22 @ 19717' Down link power drive nudge left 2-20 & nudge up 2-22 @ 20065' Down link power drive nudge up 2-22 @ 20160'										19601																																			
TOTAL HRS		24.0																																															
WEATHER																																																	
GEN. CONDITIONS:		Clear		WIND SPEED:		5		WIND DIRECTION:		SW		TEMP:		43																																			
COMMENTS:																																																	
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## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321														
RPT DATE: January 19, 2019										SPUD DATE: 11/18/18										CASING					OD	WT	GRD		MD	TVD				
API #: 42-475-37718										DFS: 62										Conductor					20				80	80				
										REPORT NO: 31										Surface					13-3/8	55	J-55	943	943					
FIELD: Phantom (Wolfcamp)										DOL: 68										Intermediate					10-3/4	46	J-55	5,080	5,097					
ELEV: 2,664										RKB: 25										LAST BOP TEST: 1/5/19					Intermediate 2					7-5/8	30	HCL-80	10,893	10,879
MD: 20,348										TVD: 11,411																								
24 HR FTG: 125										HRS DRLG: 4										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	12.8	64.0		5	6		0/3	10	21	25	24	13	45,000		31,200	54.50	5.80	3.00																
										REDUCED PUMP RATES																								
										PUMP					SPM					PRESS					DEPTH									
										#1					40					1,700					19,205									
										#2					40					1,840					19,205									
BIT DATA																																		
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP														
9		6.75		Security		MM53D		12887489		5X10				20,223	20,348	125	4.4	23	189	28														
BIT NO.	9	INNER		2	OUTER		1	DULL	CT	LOC	Nose	SEAL	X	GAUGE	IN	OTHER		RP	ROP															
HYDRAULICS DATA																																		
PUMP	MAKE			MODEL		LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP																	
1	National Oilwell			12-P-160		4.500	12.000		2700	270	2.352	95	18				1600																	
2	National Oilwell			12-P-160		4.500	12.000		5700	270	2.352	95	18				1600																	
BHA																																		
DESCRIPTION:			Lateral #4																															
LENGTH			13,092.05		BHA WT. AIR		403,980		BHA WT. MUD		323,184		HRS. ON JARS																					
ROT. WT.			220		P.U. WT.		290		S.O. WT.		140		TORQUE		13																			
TIME MADE UP			18:00		DATE MADE UP		1/16/2019		TIME PULLED				DATE PULLED		1/18/2019																			
SURVEY DATA																																		
MD		ANGLE				AZIMUTH				TVD		N/S	COORDINATES				E/W	V. SECTION		DLS														
20,205		91.03				161.81				11,413		-8,563.4		2,749.2					8,993.8		1.6													
20,301		90.24				160.69				11,412		-8,654.3		2,780.0					9,089.8		1.4													
CONSUMABLES																																		
DIESEL FUEL (gal) Rvcd/Used/On Hand:										DRILL H2O (gal) Rcvd/Used/On Hand:																								
OPERATIONS TIME LOG																																		
FROM	TO	HRS	CODE															Start MD	End MD															
06:00	10:00	4.0	Drilling	Drill lat 20223 ' to 20348' (115') @ AVG ROP 28.75 FPH WOB: 20-25 ROT: 80-90 GPM: 270 TRQ: 12K off bottom TRQ: 6800 DIFF: 1000 OBPSI: 4700														20223	20348															
10:00	12:00	2.0	Cond Mud & Circ	CM/C due ROP and loss of collar RPM Flow check Pump slug														20348	20348															
12:00	20:30	8.5	Trips	TOH Monitoring proper fill and tight spots														20348	20348															
20:30	23:00	2.5	Dir Work	Lay down directional tools Stage new BHA and clean floor Pick up new Vortex Assembly														20348	20348															
23:00	23:30	0.5	Dir Work	Test MWD														20348	20348															
23:30	00:00	0.5	Dir Work	Finish making up BHA														20348	20348															
00:00	06:00	6.0	Trips	TIH filling every 30 stands and circulating for 3 minutes before killing pumps Monitoring mud volumes at all times														20348	20348															

## DRILLING REPORT

[illegible]



# DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321									
RPT DATE: January 21, 2019										SPUD DATE: 11/18/18					CASING			OD	WT	GRD	MD	TVD							
API #: 42-475-37718										DFS: 64					Conductor			20			80	80							
										REPORT NO: 33					Surface			13-3/8	55	J-55	943	943							
FIELD: Phantom (Wolfcamp)										DOL: 70					Intermediate			10-3/4	46	J-55	5,080	5,097							
ELEV:		2,664		RKB:		25		LAST BOP TEST: 1/5/19					Intermediate 2			7-5/8	30	HCL-80	10,893	10,879									
MD:		22,402		TVD:		11,380																							
24 HR FTG:		1,094		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	HTHP									
18:00	12.9	63.0		6	7		0/3	11	23	26	24	15	43,000					29,600	54.50	5.60	3.00								
												REDUCED PUMP RATES																	
												PUMP		SPM		PRESS		DEPTH											
												#1		40		1,700		19,205											
												#2		40		1,840		19,205											
BIT DATA																													
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB	RPM	ROP									
10		6.75		Reed Hycalog		TKC63		A254949		2X10/3X11				21,308	22,402	1,094	14.1	30	131	78									
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		National Oilwell		12-P-160		4.500		12.000		115		5600		271		2.352		95		19.49		256.4						1600	
2		National Oilwell		12-P-160		4.500		12.000		115		5600		27		2.352		95		19.49		256.4						1600	
BHA																													
DESCRIPTION:				Lateral #5																									
LENGTH				13,092.91		BHA WT. AIR				436,845				BHA WT. MUD				349,476				HRS. ON JARS							
ROT. WT.				220,000		P.U. WT.				310,000				S.O. WT.				100,000				TORQUE				14			
TIME MADE UP				18:00		DATE MADE UP				1/16/2019				TIME PULLED								DATE PULLED							
SURVEY DATA																													
MD				ANGLE				AZIMUTH				TVD				N/S		COORDINATES				E/W		V. SECTION				DLS	
22,088				90.52				163.00				11,380						-10,369.6				3,279.5		10,875.8				0.5	
22,184				90.69				163.28				11,379						-10,461.4				3,307.3		10,971.8				0.3	
22,279				87.93				160.97				11,380						-10,551.8				3,336.4		11,066.7				3.8	
22,322				89.79				162.49				11,381						-10,592.7				3,349.9		11,109.7				5.6	
CONSUMABLES				DIESEL FUEL (gal) Rvcd/Used/On Hand:								DRILL H2O (gal) Rcvd/Used/On Hand:																	
OPERATIONS TIME LOG																													
FROM		TO		HRS		CODE														Start MD		End MD							
06:00		10:30		4.5		Drilling		Drill Lateral from: 21308' to 21590' (282') @ AVG ROP 62 FPH WOB: 25-32                      ROT: 50-80 GPM: 285                        TRQ: 13.5k DIFF: 480                       OBPSI: 5250												21308		21590							
10:30		11:00		0.5		Other		Replace seal on mud line												21590		21590							
11:00		16:30		5.5		Drilling		Drill Lateral from: 21590' to 21975' (385') @ AVG ROP 70 FPH WOB: 25-32                      ROT: 50-80 GPM: 285                        TRQ: 13.5k DIFF: 480                       OBPSI: 5250												21590		21975							
16:30		17:00		0.5		Lubricate Rig		Service rig												21975		21975							
17:00		00:00		7.0		Drilling		Drill Lateral from: 21975' to 22402' (427') @ AVG ROP 61 FPH WOB: 25-32                      ROT: 50-80 GPM: 271                        TRQ: 14k DIFF: 480                       OBPSI: 5100												21975		22402							
00:00		02:00		2.0		Cond Mud & Circ		CMC bottoms up. Sent high vis sweep and timed it to be coming out of the bit at TD.												22402		22402							

## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H				CONTRACTOR: ICD				RIG:		ICD 321			
RPT DATE: January 22, 2019				SPUD DATE: 11/18/18		CASING		OD	WT	GRD	MD	TVD	
		API #:	42-475-37718		DFS: 65		Conductor	20			80	80	
					REPORT NO: 34		Surface	13-3/8	55	J-55	943	943	
FIELD: Phantom (Wolfcamp)				DOL: 71		Intermediate	10-3/4	46	J-55	5,080	5,097		
ELEV:		2,664	RKB:	25		LAST BOP TEST: 1/5/19		Intermediate 2	7-5/8	30	HCL-80	10,893	10,879
MD:		22,402	TVD:	11,380									
24 HR FTG:			HRS DRLG:		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	13.0	75.0		9	10		0/3	14	23	28	24	25	43.000				28.400	53.80	6.40	3.00

REDUCED PUMP RATES			
PUMP	SPM	PRESS	DEPTH
#1	40	1,700	19,205
#2	40	1,840	19,205

BIT DATA																						
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN	OUT	FEET	HRS	WOB		RPM	ROP	
10		6.75		Reed Hycalog		TKC63		A254949		2X10/3X11				21,308	22,402	1,094	14.1	30		131	78	
BIT NO.	10	INNER	1	OUTER	2	DULL	WT	LOC	Shoulder	SEAL	X	GAUGE	IN	OTHER		RP				TD		

[illegible]

BHA						
DESCRIPTION:						
LENGTH		BHA WT. AIR		BHA WT. MUD		HRS. ON JARS
ROT. WT.		P.U. WT.		S.O. WT.		TORQUE
TIME MADE UP		DATE MADE UP		TIME PULLED		DATE PULLED

[illegible]

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

<b>FROM</b>	<b>TO</b>	<b>HRS</b>	<b>CODE</b>		<b>Start MD</b>	<b>End MD</b>
06:00	06:30	0.5	Cond Mud & Circ	CM/C finish spotting beads, pump slug seepage of 1/2 bbl/min to 3/4 bbl/min	22402	22402
06:30	10:00	3.5	Trips	Trip out of the hole to top of curve to LDDP	22402	22402
10:00	11:00	1.0	Repair Rig	Repair hose on STD	22402	22402
11:00	13:00	2.0	Trips	TOH	22402	22402
13:00	21:00	8.0	Trips	LDDP	22402	22402
21:00	22:30	1.5	Dir Work	LD Dir tools and Bit Bit graded:1-2 worn cutters on shoulder	22402	22402
22:30	01:00	2.5	Other	Pull wear bushing/Change out saver sub/Clean Floor/Stage casing Equipment	22402	22402
01:00	06:00	5.0	Run Csg & Cement	Rig up Casing equipment/PU shoe track/RU CRT tool/Test Floats/Run casing as per design/Fill pipe and break circulation every 2500' Notified TRRC @ 19:45 1/21/2019 Audrey #2	22402	22402
<b>TOTAL HRS</b>		<b>24.0</b>				

WEATHER							
GEN. CONDITIONS:	Partly Cloudy	WIND SPEED:	8	WIND DIRECTION:	WNW	TEMP:	46
COMMENTS:							

## DRILLING REPORT

[illegible]

## DRILLING REPORT

WELL: UL Independence 1718-17 B 2H										CONTRACTOR: ICD										RIG: ICD 321											
RPT DATE: January 24, 2019										SPUD DATE: 11/18/18					CASING			OD	WT	GRD	MD	TVD									
API #: 42-475-37718										DFS: 67					Conductor			20			80	80									
FIELD: Phantom (Wolfcamp)										REPORT NO: 36					Surface			13-3/8	55	J-55	943	943									
ELEV: 2,664 RKB: 25										DOL: 73					Intermediate			10-3/4	46	J-55	5,080	5,097									
MD: 22,204 TVD: 11,380										LAST BOP TEST: 1/5/19					Intermediate 2			7-5/8	30	HCL-80	10,893	10,879									
24 HR FTG:										CSGHD:					Production			5-1/2	23	P-110	22,392	11,380									
HRS DRLG:																															
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	13.0	77.0		4	5		0/3	7	16	20	20	12	41,000			26,000	56.00	6.10	6.00												
												REDUCED PUMP RATES																			
												PUMP		SPM		PRESS		DEPTH													
												#1		40		1,700		19,205													
												#2		40		1,840		19,205													
BIT DATA																															
NO.		SIZE		MAKE		TYPE		SER NO.		NOZZLES		RE-RUN		IN		OUT		FEET		HRS		WOB		RPM		ROP					
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		National Oilwell		12-P-160		4,500		12,000																							
2		National Oilwell		12-P-160		4,500		12,000																							
BHA																															
DESCRIPTION:																															
LENGTH				BHA WT. AIR				BHA WT. MUD				HRS. ON JARS																			
ROT. WT.				P.U. WT.				S.O. WT.				TORQUE																			
TIME MADE UP				DATE MADE UP				TIME PULLED				DATE PULLED																			
SURVEY DATA																															
MD				ANGLE				AZIMUTH				TVD				N/S		COORDINATES		E/W		V. SECTION		DLS							
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	09:00	3.0	Run Csg & Cement	Continue running casing from 20200' to 22260' Broke circ. & rotation @ 21500', PSI= 2900, TRQ =17k could not rotate Ran a total of 508 joints of 5.5" P-110 GeoConn 23# casing Total losses during casing run: 300												22204	22204														
09:00	10:00	1.0	Run Csg & Cement	Wash last 3 joints to bottom from 22260' to 22392' w/ 3 bbls/min												22204	22204														
10:00	12:00	2.0	Other	Rig down casing equipment & CRT Pick up black hawk cement head w/ Black hawk Rep. (Confirmed top & bottom plugs are loaded) Barrels circulated during wash down and equipment rig down 168 bbls												22204	22204														
12:00	14:00	2.0	Cond Mud & Circ	Circulate a total of 360 bbls. Cut circulation time short due to losses PSI @ 190 w/ 42.5bbls/min TRQ @ 15300 Rig up cement surface equipment and verify cement bin loading tags w/ Halliburton rep. Hold PJSM Circulating @ 2.5 bbls/ min and losing @ 1 bbl/min, Total losses = 60 bbls												22204	22204														
14:00	19:00	5.0	Run Csg & Cement	Cement production as follows: Cement as follows: Pressure test lines to 8000 PSI. Drop bottom plug @ 14:25 hrs. Mix and pump 50 bbl spacer @ 14#. Mix and pump 332 bbls 14.5# (1520 sks) Tail Cmt. Wash up surface lines. Shut down drop top plug @ 16:22 hrs. Displace with 473 bbls of treated water @ 3 to 4 bpm, slowed down to 2 bpm for last 10 bbls. Final lift PSI @ 5600, Bump plug @ 500 PSI over = 6150 psi, held for 5 min. Bled back 9 bbls, floats held. Had rotation @ 10 rpm until 110 bbls of displacement away. Held returns entire job. No spacer back to surface.												22204	22204														
19:00	23:30	4.5	Wait on Cement	Shut well in, casing pressure built up to 390 psi after 1 hour. Bleed off PSI and shut back in PSI instantly built to 100 psi leave shut in for another hour and monitor after 1 hr PSI built to 320 Bleed off PSI and shut back in PSI instantly built to 120 psi leave shut in for another hour and monitor after 1 hr PSI built to 280 Bleed off PSI and shut back in PSI instantly built to 40 PSI leave shut in for 1/2 hour and monitor PSI built to 60 psi Bleed off pressure and monitor @ trip tank 10 min --well static.												22204	22204														
23:30	06:00	6.5	Other	Flush all lines with diesel. Nipple down BOP: Pick up stack and install slips, cut off casing, break cut joint off of cement head and lay down both.												22204	22204														
TOTAL HRS 24.0																															
WEATHER																															
GEN. CONDITIONS:				Partly Cloudy				WIND SPEED:				5				WIND DIRECTION:				ESE				TEMP:				39			
COMMENTS:																															