PI NUMBER: 129 23895 rizontal Hole Oil & Gas	OKLAHOMA CC OIL & GAS C P. OKLAHOM (R	Approval Date: Expiration Date:	11/22/2013 05/22/2014			
	<u>PE</u>	RMIT TO DRILL				
WELL LOCATION: Sec: 08 Twp: 14N Rge: 24						
SPOT LOCATION: NE NW NE NE	SECTION LINES:	RTH FROM EAST				
	220					
Lease Name: MERCURY	Well No: 2-5	н		st unit or lease boundary.		
Operator APACHE CORPORATION Name:		Telephone: 9184914900	OTC/OCC Number:	6778 0		
APACHE CORPORATION						
6120 S YALE AVE STE 1500		W&S TURI	EY LTD. PARTNERSHIP			
	74400 4004	8468 NOR	TH 1750 RD.	0 RD.		
TULSA, OK	74136-4224	DURHAM	OK 7	3642		
1 MARMATON 2 3 4 5	11038	6 7 8 9 10				
Spacing Orders: 146905	Location Exception Orde	ers:	Increased Density Orders:	615453		
Pending CD Numbers: 201306411			Special Orders:			
Total Depth: 16000 Ground Elevation: 22	07 Surface Cas	sing: 580	Depth to base of Treatable Wate	-Bearing FM: 480		
Linder Federal Jurisdiction N-	Fresh Water Sup	pply Well Drilled: No	Surface Water u	sed to Drill: No		
Under Federal Jurisdiction: No			sposal of Drilling Fluids:			
Under Federal Jurisdiction: No PIT 1 INFORMATION		Approved Method for di				
			r and backfilling of reserve pit.			
PIT 1 INFORMATION		A. Evaporation/dewate	r and backfilling of reserve pit.			
PIT 1 INFORMATION Type of Pit System: ON SITE		A. Evaporation/dewate		PERMIT NO: 13-2328		
PIT 1 INFORMATION Type of Pit System: ON SITE Type of Mud System: WATER BASED Chlorides Max: 200000 Average: 5000 Is depth to top of ground water greater than 10ft below ba	se of pit? Y	A. Evaporation/dewate	r and backfilling of reserve pit.	PERMIT NO: 13-2328		
PIT 1 INFORMATION Type of Pit System: ON SITE Type of Mud System: WATER BASED Chlorides Max: 200000 Average: 5000 Is depth to top of ground water greater than 10ft below ba Within 1 mile of municipal water well? N	se of pit? Y	A. Evaporation/dewate	r and backfilling of reserve pit.	PERMIT NO: 13-2328		
PIT 1 INFORMATION Type of Pit System: ON SITE Type of Mud System: WATER BASED Chlorides Max: 200000 Average: 5000 Is depth to top of ground water greater than 10ft below ba Within 1 mile of municipal water well? N Wellhead Protection Area? N	se of pit? Y	A. Evaporation/dewate	r and backfilling of reserve pit.	PERMIT NO: 13-2328		
PIT 1 INFORMATION Type of Pit System: ON SITE Type of Mud System: WATER BASED Chlorides Max: 200000 Average: 5000 Is depth to top of ground water greater than 10ft below ba Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit <b>is</b> located in a Hydrologically Sensitive Area.	se of pit? Y	A. Evaporation/dewate	r and backfilling of reserve pit.	PERMIT NO: 13-2328		
PIT 1 INFORMATION Type of Pit System: ON SITE Type of Mud System: WATER BASED Chlorides Max: 200000 Average: 5000 Is depth to top of ground water greater than 10ft below ba Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: 1B	se of pit? Y	A. Evaporation/dewate	r and backfilling of reserve pit.	PERMIT NO: 13-2328		
PIT 1 INFORMATION Type of Pit System: ON SITE Type of Mud System: WATER BASED Chlorides Max: 200000 Average: 5000 Is depth to top of ground water greater than 10ft below ba Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area.	se of pit? Y	A. Evaporation/dewate	r and backfilling of reserve pit.	PERMIT NO: 13-2328		

PIT 2 INFORMATION Type of Pit System: ON SITE Type of Mud System: OIL BASED Chlorides Max: 300000 Average: 200000 Is depth to top of ground water greater than 10ft below base of pit? Y Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: 3 Liner required for Category: 3

Pit Location is BED AQUIFER Pit Location Formation: OGALLALA

## HORIZONTAL HOLE 1

Sec	05	Twp	14N	Rge	24W	С	ounty	ROGE	R MILLS	
Spot Location of End Point: NE NE NW NE										
Feet From: NORTH 1/4 Section Line: 250										
Feet From: EAST 1/4 Section Line: 1400										
Depth of Deviation: 8550										
Radius of Turn: 573										
Direction: 355										
Total Length: 5106										
Measured Total Depth: 16000										
True Vertical Depth: 11120										
End Point Location from Lease,										
Unit, or Property Line: 250										

Notes:	
Category	Description
INCREASED DENSITY - 615453	11/22/2013 - G30 - 5-14N-24W X146905 MRMN 2 WELLS APACHE CORPORATION 9/4/13
MEMO	11/19/2013 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PENDING CD - 201306411	11/22/2013 - G30 - 5-14N-24W X146905 MRMN SHL NCT 10 FNL, NCT 10 FEL 8-14N-24W 1ST PERF NCT 330 FSL, NCT 500 FEL 5-14N-24W LAST PERF NCT 330 FNL, NCT 500 FEL 5-14N-24W NO OP. NAMED REC 10/22/13 (JOHNSON)
SPACING - 146905	11/22/2013 - G30 - (640) 5-14N-24W EXT 112842 MRMN, OTHERS