API NUMBER: 019 25879

Oil & Gas

Straight Hole

OKLAHOMA CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION P.O. BOX 52000 OKLAHOMA CITY, OK 73152-2000 (Rule 165:10-3-1)

Approval Date:	04/10/2013
Expiration Date:	10/10/2013

PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 2S Rge: 2\	V County: CART	ER	
SPOT LOCATION: NW SW NE NW		NORTH FROM WEST	
	SECTION LINES:	825 1420	
Lease Name: PIERCE UNIT	Well No:	16-18	Well will be 505 feet from nearest unit or lease boundary.
Operator MACK ENERGY CO Name:		Telephone: 5802525580	OTC/OCC Number: 11739 0
MACK ENERGY CO P.O. Box 400		ASA AI	DAMSON
	70504.0400	8732 S	. HUDSON
DUNCAN, OK	73534-0400	TULSA	OK 74137
Formation(s) (Permit Valid for Listed For Name 1 PENN SD 2 3 4 5	Depth 2400	Name 6 7 8 9 10	Depth
Spacing Orders: 419302	Location Exception 0	Orders:	Increased Density Orders:
Pending CD Numbers:			Special Orders:
Total Depth: 2750 Ground Elevation: 1	902 Surface C	Casing: 1300	Depth to base of Treatable Water-Bearing FM: 1250
Under Federal Jurisdiction: No	Fresh Water	Supply Well Drilled: No	Surface Water used to Drill: Yes
PIT 1 INFORMATION			for disposal of Drilling Fluids:
Type of Pit System: ON SITE		A. Evaporation/de	ewater and backfilling of reserve pit.
Type of Mud System: WATER BASED			
Chlorides Max: 5000 Average: 3000 Is depth to top of ground water greater than 10ft below by	ase of nit? V	-	
Within 1 mile of municipal water well?	add of pit:		
Wellhead Protection Area? N			
Pit is located in a Hydrologically Sensitive Area.			
Category of Pit: 2			
Liner not required for Category: 2			
Pit Location is BED AQUIFER			

Notes:

Pit Location Formation:

WELLINGTON

SPACING - 419302

4/10/2013 - G30 - (UNIT) NW4 NW4 NW4 & E2 NW4 NW4 & NW4 NE4 NW4 & SW4 NE4 NW4 & E2 NE4 NW4 & W2 SE4 NW4 18-2S-2W EST PIERCE UNIT FOR PVSD