

Capitan Controlled Water Basin

OCD-ARTESIA 11-0093

FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010

#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SECRETARY'S POTASH

5. Lease Serial No. NM.01877

	DRILL OR REENTER		6. If Indian, Allotee	
a. Type of work: DRILL  REENTER			7. If Unit or CA Agree	ement, Name and No.
lb. Type of Well: ☐ Oil Well ☐ Gas Well ✔ Other	Single Zone Mu	ıltiple Zone	8. Lease Name and W Big Eddy SWD	
2. Name of Operator Mesquite SWD, Inc. (161 968)			9. API Well No. 30-015-05819	,
3a. Address P.O. Box 1479 Carlsbad, NM 88221	3b. Phone No. (include area code) 575-706-1840	1	10. Field and Pool, or E	xploratory
4. Location of Well (Report location clearly and in accordance with a At surface 660' FSL & 660' FEL  At proposed prod. zone Same	uv State requirements.*)		14. Sec., T. R. M. or BI Sec. 3, T20S-R3	
<ol> <li>Distance in miles and direction from nearest town or post office*</li> <li>17 miles SSE from Loco Hills, NM</li> </ol>	1100		12. County or Parish Eddy	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease  NA	NA NA		ell
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth Orig TD 14,205'	1		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3494' GL	22. Approximate date work will 09/30/2010	start*	23. Estimated duration 15 days	
The following, completed in accordance with the requirements of Onshe	24. Attachments		' 6	
A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).  25. Signature	6. Such other s BLM.  Name (Printed/Typed)		ormation and/or plans as	may be required by the
Kay Havenor	Kay Havenor			
Title Agent 575-622-0283				09/07/2010
Approved by (Signature)	Name (Printed/Typed)			
Title FIELD MANAGER	Office CARL	SBAD FIEL	75	09/07/2010 Date
Title	Office CARL	rights in the sul	75	Date
Title FIELD MANAGER  Application approval does not warrant or certify that the applicant hol conduct operations thereon.	Office CARL  Ids legal or equitable title to those of the crime for any person knowingly are	ights in the sul	oject lease which would en	Date of the applicant to of the property of th
Title FIELD MANAGER  Application approval does not warrant or certify that the applicant hol conduct operations thereon.  Conditions of approval, if any, are attached.  Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a	Office CARL  Ids legal or equitable title to those of the crime for any person knowingly are to any matter within its jurisdiction   RECEIVEL	ights in the sul APPRO	val FOR TWC	Date  Date  Date  Date  Dittle the applicant to YEARS  r agency of the United  ructions on page 2
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#### DRILLING/RE-ENTRY PROGRAM

#### 1. Geologic Name of Surface Formation

C-5 Soil map attached. Kermit-Berino fine sands and Wink loamy fine sands overlying Holocene to middle Pleistocene eolian and piedmont deposits.

2. Formation Tops and estimated fresh water: (Note: this well is cased and cemented from surface to 12,970' then open hole to TD 14,205'. The casing will not be perforated for injection.)

Base of potential fresh water bearing Quaternary is estimated at 150 ft. No wells are known or reported by the New Mexico Office of the State Engineer in a 2-mile radius. Ground examination has not found water supply wells or livestock windmill wells.

a. T/Permian (spls)	390'
b. Salado	724'
c. Estimated T/salt	812'
d. Base of salt	2,077'
e. Yates	2,400'
f. Delaware Mtn Group	4,410'
g. Bone Springs	7,710'
h. Wolfcamp	10,832'
i. Miss Lime	13,280'
j. Woodford	13,782
k. Siluro-Devonian	13,930'

#### 3. Casing: (Currently in hole)

Hole size	<u>Interval</u>	<b>Casing</b>	Weight	<b>Grade</b>
17-1/2"	0-440 412	13-3/8"	48#	H-40
12-1/4"	0 - 2365'	9-5/8"	32.5 & 36#	H-40 & J-55
8-3/4"	0-113451354	7-5/8"	26.4, 29.7, 33.7#	N-80
6-5/8"	<del>41343</del> ' - 12970'	5-1/2"	20#	N-80
	11247 per well fi	ĺρ		

### 4. Cement Program: (Original completion)

13-3/8" Surface 750 sxs Circ to surface

9-5/8" Intermediate 750 sxs calculates circ to surface

7-5/8" 1st production string cement reported w/5-1/2" as 835 sxs. TOC  $\approx$  8410'.

5-1/2" Liner w/cement as above item. Perf 8409-8410' sqzd w/600 sxs, reported surface.

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## 5. Pressure Control Equipment: See COA

The BOP and Manifold, shown on the following diagram. The BOP is a Townsend 81 5000# double ram, manual shut-off, 8" bore. The BOP and manifold test will be to pressure casing/tubing to 2000 psi for 30 minutes prior to reaching 9-5/8" casing shoe at 2365'. BOP equipment will be tested daily during re-entry. Additionally, BOP and equipment will also be tested prior to drilling-out the 5-1/2" casing shoe at 12,970'.

#### 6. Proposed Mud Circulation System:

Fresh water will be used for the re-entry mud system. Drilling and returned circulation will be from and to screened surface tanks. No earthen mud or reserves pits will be constructed or used for this re-entry. Drilling fluids will be trucked to a certified disposal facility upon completion of re-entry operations. Cement cuttings will be removed to a certified disposal facility.

#### 7. Auxiliary Well Control and Monitoring Equipment:

While H<sub>2</sub>S monitoring equipment will be on location, the entire cased hole to 12,970' is known not to contain H<sub>2</sub>S, it is also cased and cemented with no perforations.

## 8. Logging, Coring, and Testing Program: See COA

No logging, coring, perforating, or testing is anticipated.

#### 9. Potential Hazards:

No abnormal pressures or temperatures were encountered in the original drilling. No H<sub>2</sub>S was reported in the original drilling. Original BHP was not reported. BHT is estimated at 170°.

Anticipated BHf=6620 psi for Kay Havaror 9-9-10

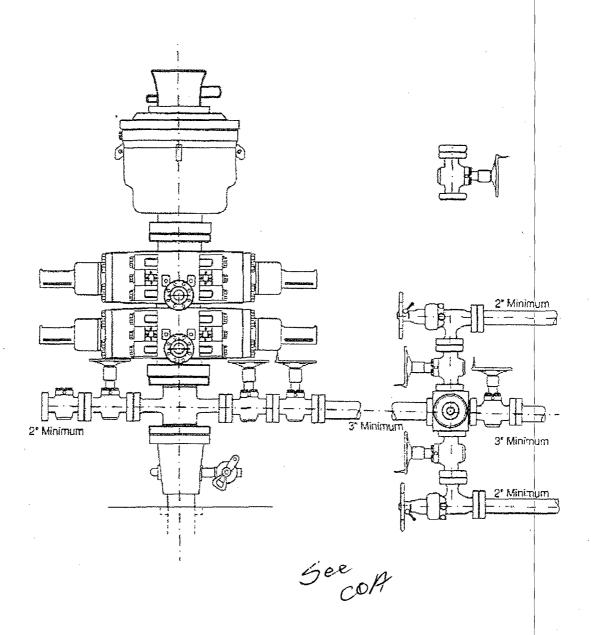
10. Anticipated Starting Date and Duration of Operations:

Road and location repair will begin after the BLM has approved the APD. Re-entry date will follow as soon as deep work-over unit and equipment are available. Re-entry, well preparation for injection, and lease clean-up are expected to require approximately 15 days.

# 5000 psi BOP and Manifold

### Schematic using Townsend 81 Series

Mesquite SWD, Inc. Big Eddy SWD #1 Sec. 3, T20S-R31E Eddy Co. NM



#### DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

	Operator	MESQUITE	SWDINC	OGRID#	1968
38571	Well Name 8	8# 1316 EDDY	SWD #/	Surface Ty	/pe (F) (S) (P)
10111		LP, Sect 3, Twnship 20		Sub-surface Ty	rpe (F) (S) (P)
	A. B.	Date C101 rec'd	C101 on Forms: OP CODE	reviewed/	
	C.	No Letter required $\frac{1}{4}$ ; Solution of the second of th	ent Letter to Operator ت	, To Santa Fe	7
· .	٠	<ul> <li>a. Dedicated acreage</li> <li>b. SUR. Location Standard</li> <li>c. Well shares acres: Yes</li> <li>2. 2<sup>nd</sup>. Operator in same acreag</li> <li>Agreement Letter</li> <li>a. Dedicated acreage</li> <li>b. Bottomhole Location Star</li> </ul>	2, What Units, Non-Standard Loc, No, # of wells, No, # of wells, No, No, What Units	cation _ plus this well #	•
		4. Downhole Commingle: Yes_ a. Pool #2 Pool #3 Pool #4	,C	Code, Açr	es
	D. E. F.	5. POTASH Area Yes, No Blowout Preventer Yes, No H2S Yes, No C144 Pit Registration Yes, Does APD require Santa Fe Appro 1. Non-Standard Location: Yes 2. Non-Standard Proration: Yes 3. Simultaneous Dedication: Yes Number of wells, P 4. Injection order Yes, No 5. SWD order Yes, NO	No,	or WFX #	
	,	6. DHC from SF	1 *	; Holding	
		7. OCD Approval Date # 0	2511	API # <u>30-0 / <i>G 0</i></u>	5819