

DATE IN 08/02/13	SUSPENSE	ENGINEER PG	LOGGED IN 08/05/2013	TYPE IPI	APP NO. 7PRG 1321755121
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

[D] Other: Specify SWD-649-B

Mesquite SWD, Inc.
 Bran #1
 30-015-25697

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners
 [B] ☐ Offset Operators, Leaseholders or Surface Owner
 [C] ☐ Application is One Which Requires Published Legal Notice
 [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
 [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Kay Havenor

See attached cover letter

Agent for Mesquite SWD

07/30/2013

Print or Type Name

Signature

Title

Date

KHavenor@GeoResources.com
 e-mail Address



Kay C. Havenor, Ph.D

Office: 575-626-4518
e-mail: KHavenor@GeoResources.com
904 Moore Ave
Roswell, New Mexico 88201-1144

RECEIVED OGD

2013 AUG -2 P 3: 01

July 30, 2013

Mr. Phillip R. Goetze, P.G.
Engineering Bureau, OCD
1220 South St. Francis Dr.
Santa Fe, NM 87505

Re: Application for Injection Pressure Increase
Mesquite SWD, Inc. Bran SWD #1
SWD-649-B 30-015-25697

Dear Mr. Goetze:

Mesquite SWD, Inc. filed the above IPI request in early April requesting consideration of a request for Administrative approval of a pressure increase from the present 975 psi surface pump pressure to a new level of 1,500 psi. The increased pressure being necessary to overcome formation pressure and handle increased disposal requirements.

The formation open hole interval is from 4,874" to 6,740' with 3-1/2" tubing and packer set in casing at 4,825'. Inclosed is a re-done Cardinal Step Rate Test dated July 18, 2013.

Processing of the application was delayed due a faulty pump test. Mesquite had Cardinal retest. The results are submitted herewith. A resumption of processing is respectfully requested.

Respectfully submitted,

Kay Havenor

Kay Havenor
Agent for Mesquites SWD, Inc.

Inclosure: 2nd Cardinal Step Rate Test July 18, 2013

$$\frac{1500 \text{ psi}}{4874 \text{ ft}} = 0.31$$

$$\begin{array}{r} 1500 \text{ psig test max} \\ - 50 \text{ safety} \\ \hline 1450 \text{ psig} \end{array}$$

Step Rate Test

RECEIVED OGD
2013 AUG -2 P 3: 01



Cardinal Surveys Company

18-Jul-13

Mesquite SWD

Well: Bran No. 1 SWD

Field;

County: Eddy, N.M.

sc60638

File No. 21359

Step Rate Test Stopped Due to Reaching Surface PSI Limit

Downhole PSI Tool Ser. No. CSC2601

Surface PSI Gauge Ser. No. CSC 2701

Tool @ 5,350

	Start	End	Rate
1	8:15 AM	8:45 AM	0 5,350'
2	8:45 AM	9:15 AM	1000
3	9:15 AM	9:45 AM	2000
4	9:45 AM	10:15 AM	3000
5	10:15 AM	10:45 AM	5000
6	10:45 AM	11:15 AM	7000
7	11:15 AM	11:45 AM	8000
8	11:45 AM	12:00 PM	0 15 MIN. FALL OFF
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Step Rate Test
18-Jul-13

Mesquite SWD
Well: Bran No. 1 SWD
Field:
Location: Eddy, N.M.

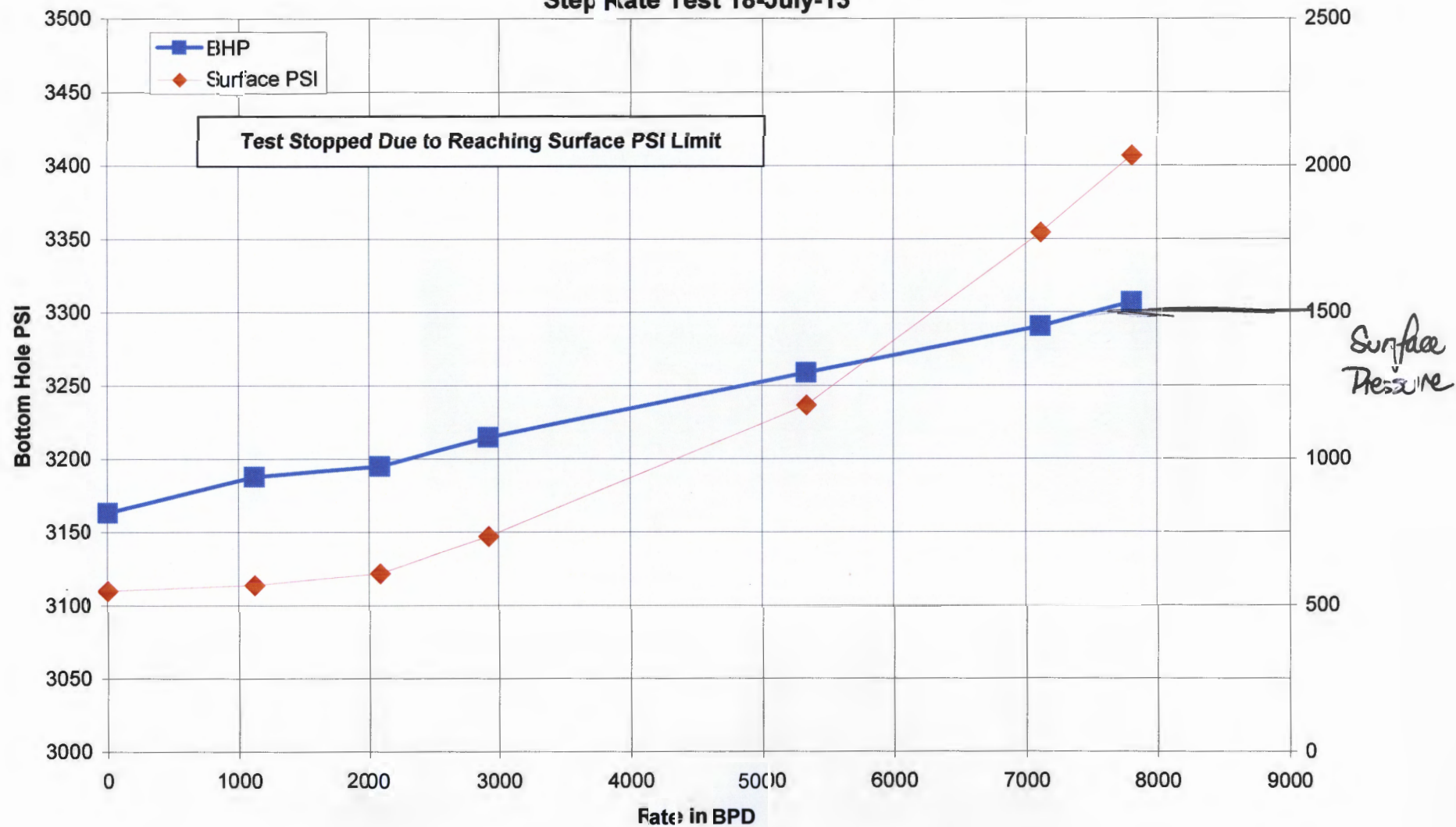


	S Time	E Time	D Time Min	Last Rate BPD	Step BPD	BHP PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Lower Trend	Upper Trend
1	8:15 AM	8:45 AM	30	0	0	3163.4	549.7	0	0	0		
2	8:45 AM	9:15 AM	30	1000	1000	3187.8	569.9	23.3	23.3	1118		
3	9:15 AM	9:45 AM	30	2000	1000	3195	609.7	66.7	43.4	2083		
4	9:45 AM	10:15 AM	30	3000	1000	3214.8	736.1	127.6	60.9	2923		
5	10:15 AM	10:45 AM	30	5000	2000	3258.9	1183.6	238.8	111.2	5338		
6	10:45 AM	11:15 AM	30	7000	2000	3290.6	1773.1	387	148.2	7114		
7	11:15 AM	11:45 AM	30	8000	1000	3307	2035.4	549.7	162.7	7810		
8	11:45 AM	12:00 PM	15	0	0	3237.3	648.4	549.7	0	0		
9												
10												
11												
12												
13												
14												
15												
16												

intersect #DIV/0! BPD
 BHP PSI #DIV/0! PSIA

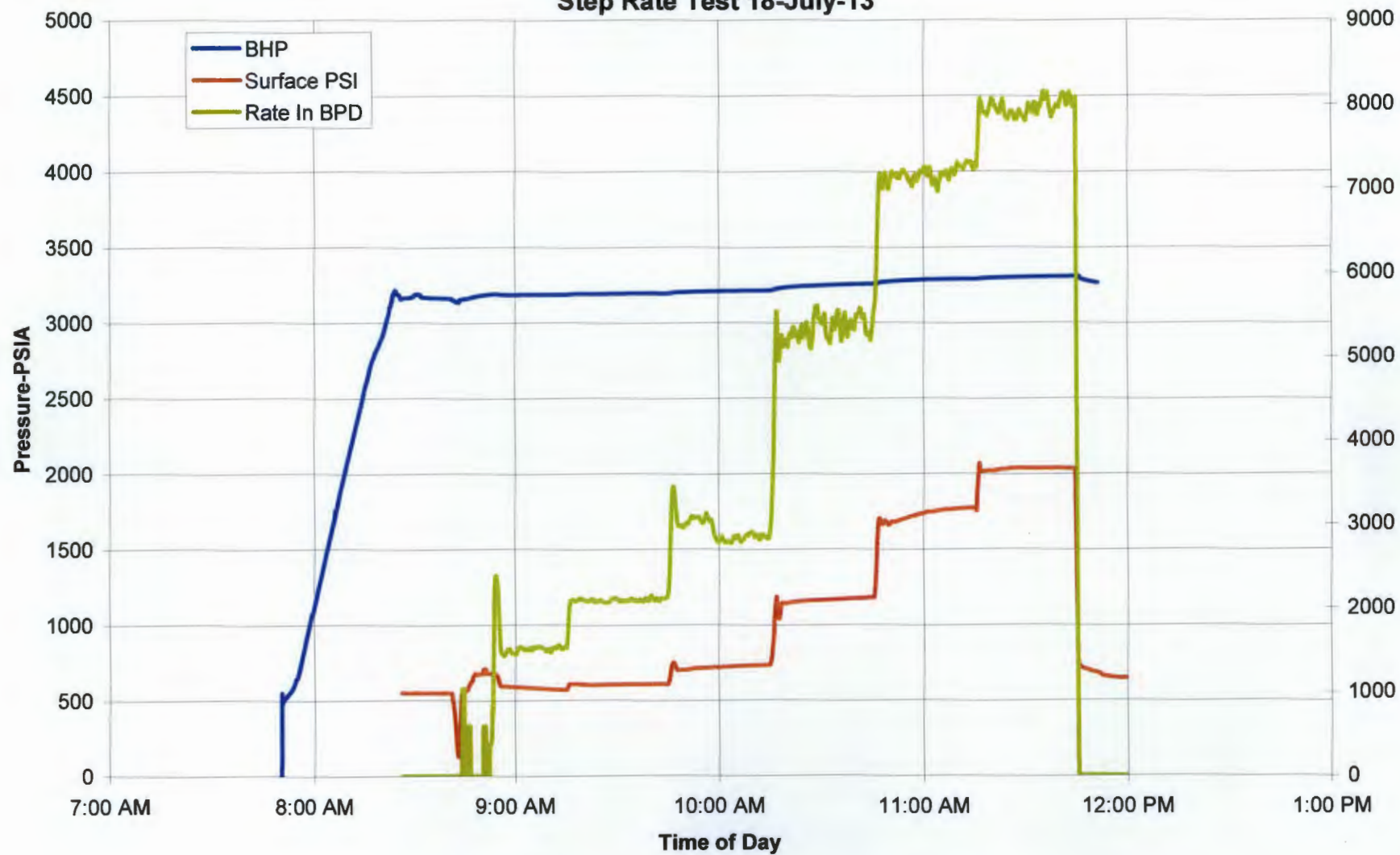


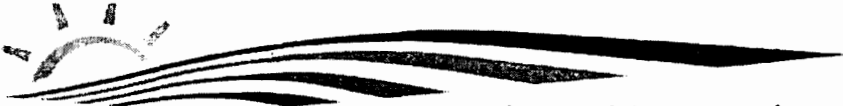
Mesquite SWD
Bran No. 1 SWD
Step Rate Test 18-July-13





**Mesquite SWD
Bran No. 1 SWD
Step Rate Test 18-July-13**





New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John H. Bemis
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division



Administrative Order SWD-649-B
February 15, 2012

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of 19.15.26.8B NMAC, Mesquite SWD, Inc. seeks an administrative order to utilize its Bran SWD Well No. 1 (API 30-015-25697) located 660 feet from the South line and 660 feet from the East line, Unit letter P of Section 11, Township 24 South, Range 31 East, NMPM, Eddy County, New Mexico, for produced water disposal purposes.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of 19.15.26.8B NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, Mesquite SWD, Inc., is hereby authorized to utilize its Bran SWD Well No. 1 (API 30-015-25697) located 660 feet from the South line and 660 feet from the East line, Unit letter P of Section 11, Township 24 South, Range 31 East, NMPM, Eddy County, New Mexico, for disposal of oil field produced water (UIC Class II only) into the Delaware Mountain Group (Bell Canyon and Cherry Canyon members) through an open hole interval from 4874 to 6740 feet through lined tubing and a packer set less than 100 feet above the permitted disposal interval.

SPECIAL REQUIREMENTS: Within 1 year of commencing disposal, the operator shall run a tracer temperature injection survey (or equivalent) on this well while it is in operation under average disposal rate. After 5 years and before 6 years of operation, an additional (tracer temperature) injection survey shall be run under like conditions. A copy of these surveys with the log measured packer setting depth, casing shoe, and total depth, shall be supplied to the Division's engineering bureau in Santa Fe and to the BLM in Carlsbad. If either of these surveys



are not run and supplied to the Division, this disposal permit shall expire, *ipso-facto*.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the proposed disposal interval and is not permitted to escape to other formations or onto the surface.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC.

The wellhead injection pressure on the well shall be limited to **no more than 975 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

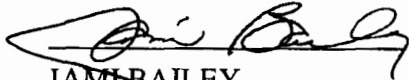
The injection authority granted under this order is not transferable except upon division approval. The division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.



JAMI BAILEY
Director

JB/wvj

cc: Oil Conservation Division – Artesia
Bureau of Land Management – Carlsbad