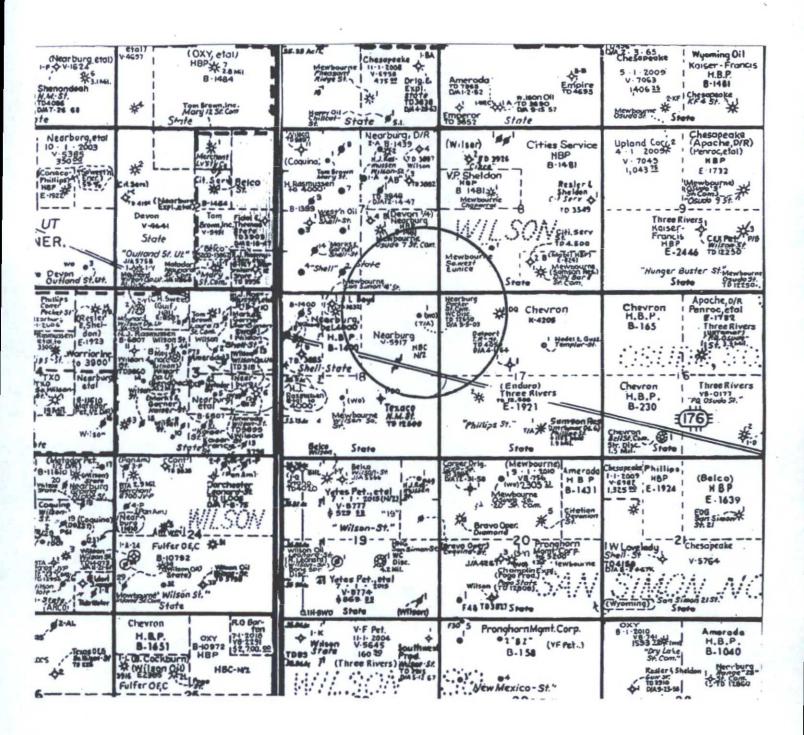
STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage Application qualifies for administrative approval? Yes No
П.	OPERATOR: Grama Ridge Disposal, LLC
	ADDRESS: 120 North Canyon, Carlsbad, NM 88220
	CONTACT PARTY: Tommy Pearson PHONE: 575-370-3162
Ш.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project? Yes X No If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII.	Attach data on the proposed operation, including: 1. Proposed average and maximum daily rate and volume of fluids to be injected; 2. Whether the system is open or closed; 3. Proposed average and maximum injection pressure;
	 Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
*VIII.	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME: Tommy Pearson TITLE: Owner/Operator
	SIGNATURE: DATE: 11/15/15
	E-MAIL ADDRESS: <u>tsp@leaco.net</u> If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: <u>logs filed when drilled.</u>
DISTE	RIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office



ATTACHMENT TO APPLICATION C-108

Packer 18 State #1 (API 30-025-35108) Unit A, Sect. 18, Tws. 21 S., Rng. 35 E. Lea Co., NM

III. WELL DATA

- See injection well data sheets and attached schematics.
 - 2) See injection well data sheets and attached schematics.
 - 3) 4 1/2" coated tubing.
 - 4) Baker lock set or the equivalent.
- Injection formation is the Delaware Sand.
 - 2) Injection interval 5630' to 6290'.
 - 3) This is a plugged and abandoned well converted to SWD.
 - 4) The next higher producing zone is the base of the Yates at 3695'.

 The next lower producing zone is the Bone Springs at approximately 7658'.
- IV. NO.
- V. MAP ATTACHED.
- VI. LIST OF WELLS AND DATA ATTACHED.
- VII. Grama Ridge plans to re-enter the plugged Packer 18 State well and convert to a commercial Delaware Disposal. Plan to drill out all plugs down to 7" casing stub at 6300', run 7" casing from surface to stub, and circulate cement to surface. Test casing. Selectively perforate 7" casing from 5630' to 6290', acidize as needed. Run 4 ½" plastic coated tubing and 7" packer and set within 100 ft. of upper most perfs. Notify OCD, load backside and test as required. Put in service.
 - 1) Plan to inject approximately 10,000 bpd of produced water.
 - 2) Commercial SWD.
 - Average injection pressure should be approximately 1100# or whatever limit OCD allows.
 - 4) Produced water from various operators and formations.
- VIII. The proposed disposal formation is interbedded sand and limestone. The primary geologic formation is the Lower Delaware from 5630' to 6290'.

The fresh water formation for this area would be the Santa Rosa which would be between 300' to 400' below surface. See attached water analysis.

- IX. ACID AS NEEDED.
- X. PREVIOUSLY SUBMITTED TO OCD.
- XI. ATTACHED.
- XII. I, Eddie W. Seay, have examined all available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zones and any underground source of drinking water pertaining to this well.
- XIII. ATTACHED.

INJECTION WELL DATA SHEET

a cases TO USAS TO USA	Stream 11100 Car @ 1000 ap and Char Tay @ 1000 Char Tay @ 10	Outhweete 6530 A 42 pct of pix set elita 169 appeared parts The 7 gc 1500 The 7 gc 1500 The 9 pct of pix set elita 169 appeared parts Fix 7 gc 1500 The 9 pct of pix set elita 169 appeared parts Fix 7 gc 1500 The 9 pct of pix set elita 169 appeared parts Fix 9 pct of pix set elita 169 appeared part	288	-	AFTER WELLBORE SCHEMATIC AND HISTORY COMPLETION SCHEMATIC APPRIAL 204-205-48108 APPRIAL 204-205	VELL LOCATION: /60/N /660/E FOOTAGE LOCATION WELLBORE SCHEMATIC	PERATOR: Grama Ridges Dispos VELL NAME & NUMBER: Reter 18 Statu #
5630 Injection Interval	Top of Cement: Tre t Stal 630 M. Total Depth: 12650	Production C	5 sx.	Top of Cement: Swaper Intermediate Casing	Hole Size: 17.5 Casi	A 18 UNIT LETTER SECTION	1 (API 30.025.35108)
rval 6 290	Method Determined: Calc	Casing Size: 7	sing Size: 8. 2	Method Determined: Casing	Surface Casing Casing Size: [3,375	21 35 & TOWNSHIP RANGE	

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

A top (100 4	5.	3	30	55	Appx	epth:	Packer Setting Depth: Appx 5530 ~ w. Hin 100 ft of top purs
	thelaut	eau.	B	DV.	S	000	3	Type of Packer: Baker loc satt or the equippeles
	TPC	Lining Material:	ing M	Lin			I W	Tubing Size:

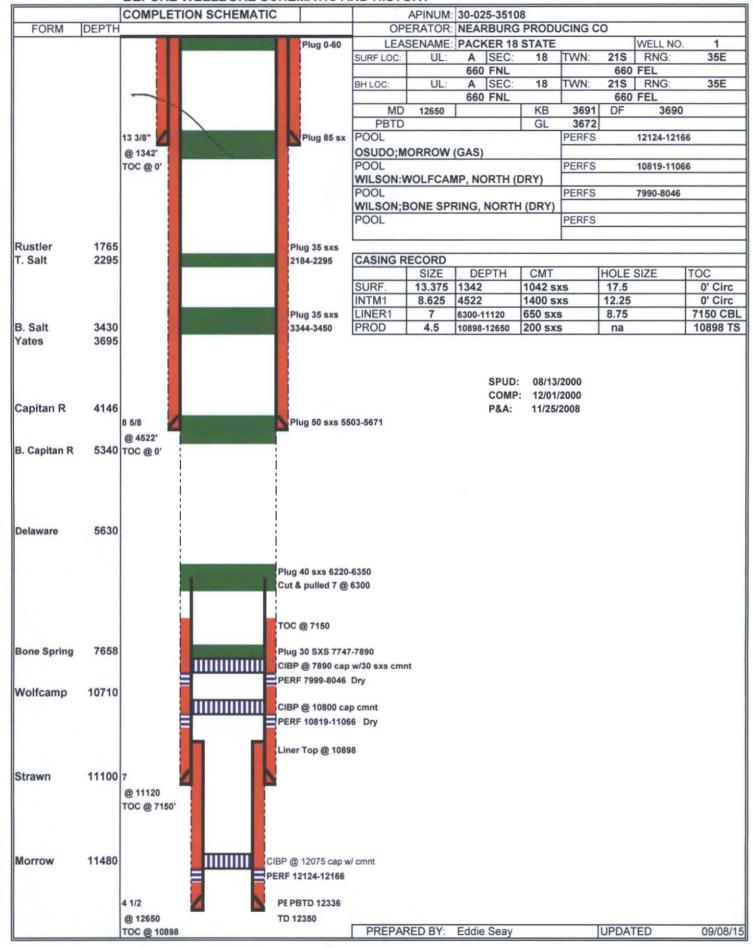
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	5	.4	. s.	٥	H		Other	Tubing Type o
the zone everlying is the Your Sone Spring 7658	Morrow, Walfcamp, Bane. Spring / Plupps /isted on salematic Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:	Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.	Name of Field or Pool (if applicable): Wilson	in Morrow	Is this a new well drilled for injection? Yes X No If no, for what purpose was the well originally drilled? A, / 4 a a)	Additional Data	Other Type of Tubing/Casing Seal (if applicable): Now e	Tubing Size: 4 2 Lining Material: IPC Type of Packer: Baker loc sat or the equipment Packer Setting Depth: Appx 5530 on within 100 ft A top pure.

DISPOSAL WELL

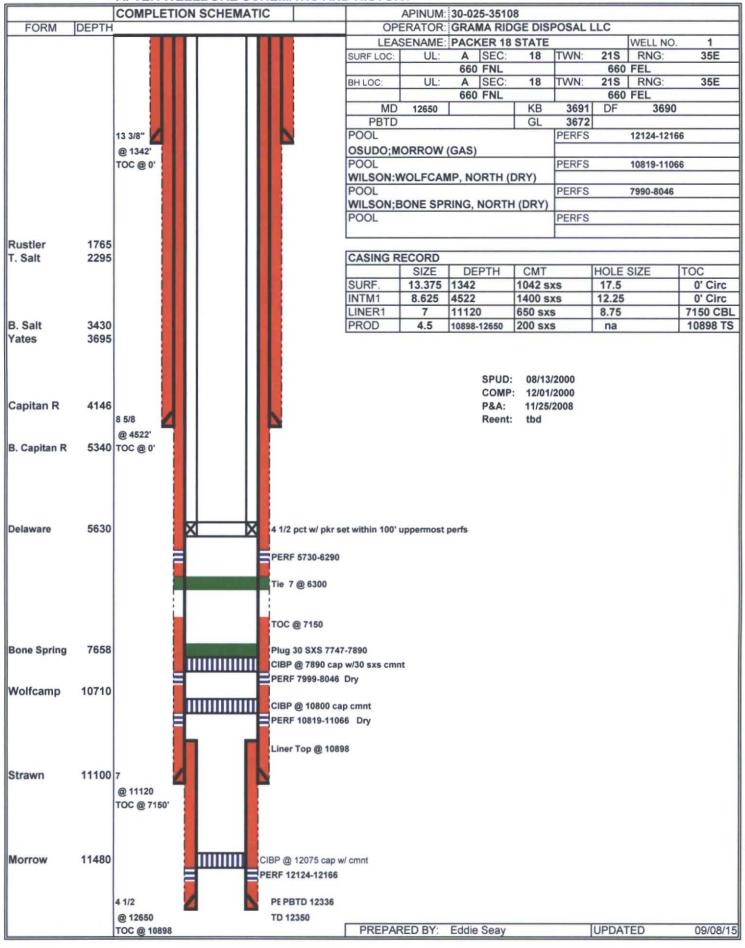
30-025-35108 PACKER 18 STATE 1 GRAM RIDGE DISPOSAL LLC 660 N 660 E

20.4	1980 W	660 N	35 E	21 S	17	С	Lea S	Α	G	12350	HEVRON U.S.A.INC	I Ct	NEW MEXICO DQ STATE	S	30-025-2475
Dis	EW	N/S	RNG	NWT	L SEC	AND U/	CO L	TYPE STATUS CO	TYPE	10	OPERATOR	# 0	PROPERTY NAME		API#
													Wells wihin 1/2 mile of proposed disposal well.	wihin 1/2 mile o	Wells v

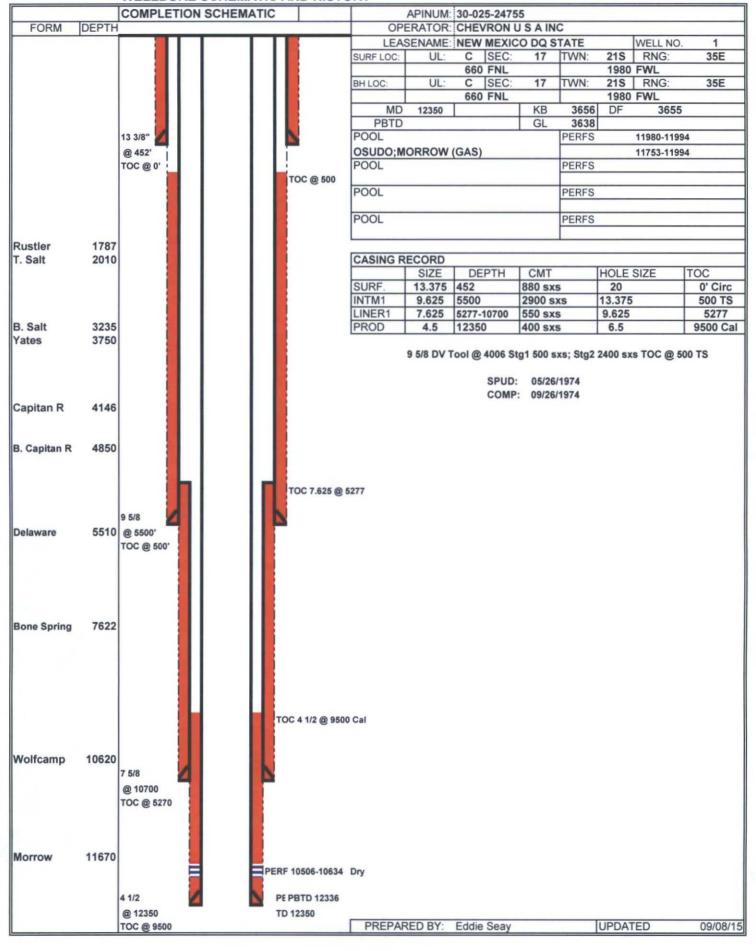
BEFORE WELLBORE SCHEMATIC AND HISTORY



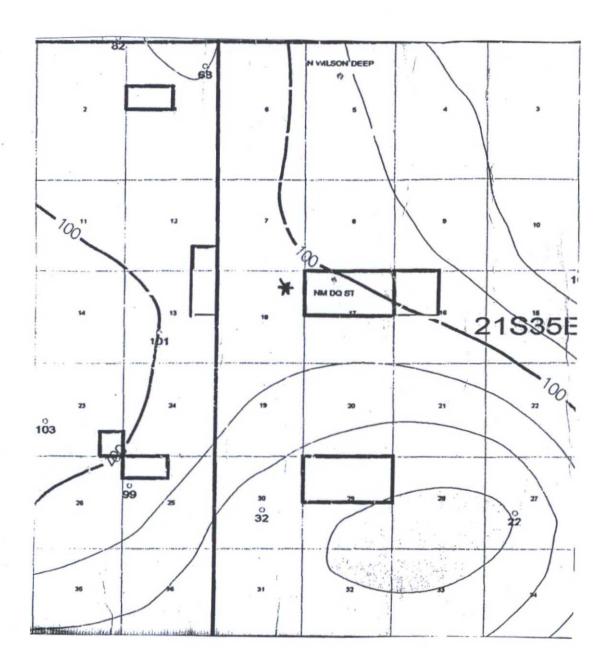
AFTER WELLBORE SCHEMATIC AND HISTORY



WELLBORE SCHEMATIC AND HISTORY



Water Sample Analysis				
(AAgret Cambre)		Location	Range	Chlorides
Pool	Section	Township	37E	45440
North Justis Montoya	2	25\$	37E	58220
North Justis McKee	2	258	37E	68533
North Justis Fusselman	2	258	37E	34151.
North Justis Ellenburger	. 2	258		116085
Fowler Blinebry	22	248	37E	84845
Skaggs Grayburg	- 18	-	38E	85910
Warren McKee	. 18	208	38E	91600
Warren Abo	19	208	39E	106855
DK Drinkard	30	208	39E	38695
Littman San Andres	8	218	38E	6461
Littman Sail Andres	29	188	39E	
East Hobbs grayburg Halfway Yates	18	208	32E	14788
Arkansas Junction San Andres	12	188	38E	7171
Pearl Queen	28	198	35E	38494
Midway Abo	17	178	37E	
Lovinton Abo	31	168	37E	22933
LOVINION ADD	3	168	37E	4899
Lovington San Andres	31	168	37E	93720
Lovington Paddock	17	165	32E	172530
Mesa Queen .	27	168	34E	49345
Kemnitz Wolfcamp	9	168	34E	124980
Hume Queen	2	169	32E	11040
Anderson Ranch Wolfcamp	11.	: 168. :	32E	25702
Anderson Ranch Devonlan	11	165	32E	23788
Anderson Ranch Unit	9	153	36E	20874
Caudill Devonian	6	168	38E	38895
Townsend Wolfcamp	5	163	37E	44730
Dean Permo Perin	35	158	38E	19525
Dean Devonlan	26	158	37E	54315
South Denton Wolfcamp	36	158	37E	34080
South Denton Devonlan	15	158	38E	39760
Medicine Rock Devonian	29	158	30E	23288
Little Lucký-Lake Devonlan	28	218	37E	132770
Wantz Abo	18	258	. 37E	58220
Crosby Devonian	7	26\$	37E	3443(Reef)
Scarborough Yátes Seven Rivers	34	238	37E	114685
Teague Simpson	34	238	37E	120345
Teague Ellenburger	27	268	37E	144485
Rhodes Yates 7 Rivers	11	208	38E	93365
House SA	12	208	38E	49700
House Drinkard	24	263	37E	115375
South Leonard Queen	.2	218	38E	55380
Elliot Abo	5	193	35E	30801
Scharb Bone Springs	13	183	34E	41890
EK Queen	22	. 188	34E	179830
East EK Queen	22	178	32E	46079
Mallamar Grayburg SA	27	178	32E	115375
Maljamar Paddock	22	178	32E	25418
Maljamar Devonian	24	170	450	



Groundwater Map

MITCHELL ANALYTICAL LABORATORY

2638 Faudree Odessa, Texas 79765-8538 561-5579

Company:	X-Ch	em						
Well Number: Lease: Location:	Water Battle	Well #1				Sample Temp: Date Sampled: Sampled by:	70 6/25/20 Robert H	
Date Run: Lab Ref #:	6/29/2 15-jur	2015 n-w70820)			Employee #: Analyzed by:	GR	idisell
				D: 1 1				
				Dissolved (jases	Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulf	ide	(H2S)		7.7		.00	16.00	.00
Carbon Dioxid Dissolved Oxy		(CO2)		NOT ANA				
				Cations				
Calcium		(Ca++))			28.06	20.10	1.40
Magnesium		(Mg++				25.13	12.20	2.06
Sodium		(Na+)				408.04	23.00	17.74
Barium		(Ba++))	NOT ANAL	YZED			
Manganese		(Mn+)				.35	27.50	.01
Strontium		(Sr++)		NOT ANAL	YZED			
				Anions				
Hydroxyl		(OH-)				.00	17.00	.00
Carbonate		(CO3=)				.00	30.00	.00
BiCarbonate		(HCO3-	*			317.72	61.10	5.20
Sulfate		(SO4=))			360.00	48.80	7.38
Chloride		(CI-)				330.36	35.50	9.31
Total Iron Total Dissolved Total Hardness Conductivity M	s as Ca	03				12.53 1,482.19 173.18 2,318	18.60	.67
рН	9.030)			Specific	c Gravity 60/60	F.	1.001
CaSO4 Solubilit	ty @ 80	F.	17.	19MEq/L,	CaSO4 s	scale is unlikely		
CaCO3 Scale Ind	lex							
70.0		803	100.0	1.153	130.0	0 1.663	.	
80.0		933	110.0	1.393	140.0	1.663	141	
90.0	1.	153	120.0	1.393	150.0	0 1.893	1	

MITCHELL ANALYTICAL LABORATORY

2638 Faudree Odessa, Texas 79765-8538 561-5579

Company:	X-CI	nem						
Well Number: Lease: Location:	Water Battle	Well #2				Sample Temp: Date Sampled: Sampled by:	70 6/25/20 Robert H	
Date Run:	6/29/	2015				Employee #:	Robert	iaiseii
Lab Ref #:	15-ju	n-w70821				Analyzed by:	GR	
				Dissolved (Gases			
			4			Mg/L	Eq. Wt.	MEq/L
Hydrogen Sul		(H2S)		2.4		.00	16.00	.00
Carbon Dioxic Dissolved Oxy		(CO2) (O2)		NOT ANA		e.		
		, ,		Cations				
Calcium		(Ca++)		Canons		20.42	20.10	1.02
Magnesium		(Mg++				8.49	12.20	.70
Sodium		(Na+)	,			115.34	23.00	5.01
Barium		(Ba++)) l	NOT ANAI	YZED		20100	
Manganese		(Mn+)				.27	27.50	.01
Strontium		(Sr++)		NOT ANAI	YZED			
		(011.)		Anions				
Hydroxyl		(OH-)				.00	17.00	.00
Carbonate		(CO3=)				.00	30.00	.00
BiCarbonate		(HCO3-				244.40	61.10	4.00
Sulfate		(SO4=)	1).			69.00	48.80	1.41
Chloride		(CI-)				53.06	35.50	1.49
Total Iron		(Fe)				3.2	18.60	.17
Total Dissolve		-				514.18		
Total Hardnes						85.86		
Conductivity N	MICROM	IHOS/CM				743		
рН	8.98	0			Specific	Gravity 60/60	F.	1.000
CaSO4 Solubili	ty @ 80	F.	19.	79MEq/L,	CaSO4 s	cale is unlikely		
CaCO3 Scale Inc	dex							
70.0		.501	100.0	.851	130.0	1.361		
80.0		.631	110.0	1.091	140.0			
90.0		.851	120.0	1.091	150.0			

GRAMA RIDGE DISPOSAL, LLC (OGRID # 370997)

November 2015

RE: Packer 18 State #1 (API 30-025-35108) Unit A, Sect. 18, T. 21 S., R. 35 E.

Dear Sir:

In accordance with the Rules and Regulations of the Oil Conservation Division of the State of New Mexico, you are being provided a copy of the C-108, Application for Authorization to Inject into the above captioned well to be drilled.

Any questions about the permit can be directed to Eddie W. Seay, (575)392-2236. Any objections or request for hearing must be filed with the Oil Conservation Division within fifteen (15) days from the date received. The OCD address is 1220 S. Saint Francis Drive, Santa Fe, NM 87504, (505)476-3440.

Thank you,

Eddie W. Seay, Agent Eddie Seay Consulting

601 W. Illinois

Hobbs, NM 88242

(575)392-2236

seay04@leaco.net

Packer 18 States

	Werepomme	Membourne	
 12	State	<u> হার্য ৬</u>	
	Newburg .	Chevron	
	Wompomme	Three Rivers	
	State	state	

[·] Proposed SwD

LANDOWNERS AND OFFSET NOTICES

State of New Mexico, Landowner and Mineral Owner New Mexico State Land Office 310 Old Santa Fe Trail Box 1148 Santa Fe, NM 87504

Chevron USA 1500 Louisiana St. Box 4791 Houston, TX 77210

Nearburg Production Co. Box 823085 Dallas, TX 75382

Mewbourne Oil Co. Box 5270 Hobbs, NM 88241

Three Rivers Operating Co. 1122 S. Capital of Texas Hwy. Ste. 325 Austin, TX 78746





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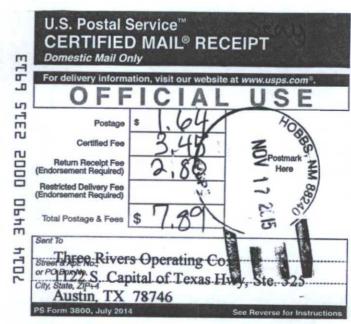
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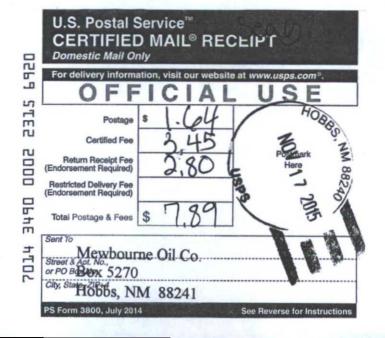
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LEGAL NOTICE

Pursuant to the rules and regulations of the Oil Conservation Division of the State of New Mexico, Grama Ridge Disposal, LLC, 120 North Canyon, Carlsbad, NM 88220, is filing a C-108 to convert a plugged well to a Salt Water Disposal. The well being applied for is the Packer 18 State #1, located in Unit A, 660/N 660/E Section 18, Township 21 South, Range 35 East, Lea Co., NM. The injection formation is the Delaware Sand from 5630' to 6290' below surface. Expected maximum injection rate is 10,000 bpd., and the expected maximum injection pressure is 1100 psi or what the OCD allows. Any questions about the application can be directed to Eddie W. Seay, (575)392-2236, or any objection or request for hearing must be directed to the Oil Conservation Division, (505)476-3440, 1220 South Saint Francis Drive, Santa Fe, NM 87504, within fifteen (15) days.

Affidavit of Publication

STATE OF NEW MEXICO)
COUNTY OF LEA) ss

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Manager of THE LOVINGTON LEADER, a thrice a week newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled Legal Notice was published in a regular and entire issue of THE LOVINGTON LEADER and not in any supplement thereof, for one (1) day(s), beginning with the issue of November 17, 2015 and ending with the issue of November 17, 2015.

And that the cost of publishing said notice is the sum of \$ 27.03 which sum has been (Paid) as Court Costs.

Joyce Glemens, Advertising Manager Subscribed and sworn to before me this 17th day of November, 2015.

Lina toot

Gina Fort

Notary Public, Lea County, New Mexico My Commission Expires June 30, 2018



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Published in the Lovington Leader November 17, 2015.