

Case 10482

OIL CONSERVATION DIVISION

REC'D: VED

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal ¹⁰⁰ Storage
Application qualifies for administrative approval? yes no
- II. Operator: LAGUNA GATUNA INC.
- Address: P.O. Box 2158 HOBBS, NM 88241
- Contact party: JOE D. RAMEY Phone: 505-392-6525
- III. 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 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;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. 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 geological data on the injection zone including appropriate lithologic detail, geological 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 source 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 source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

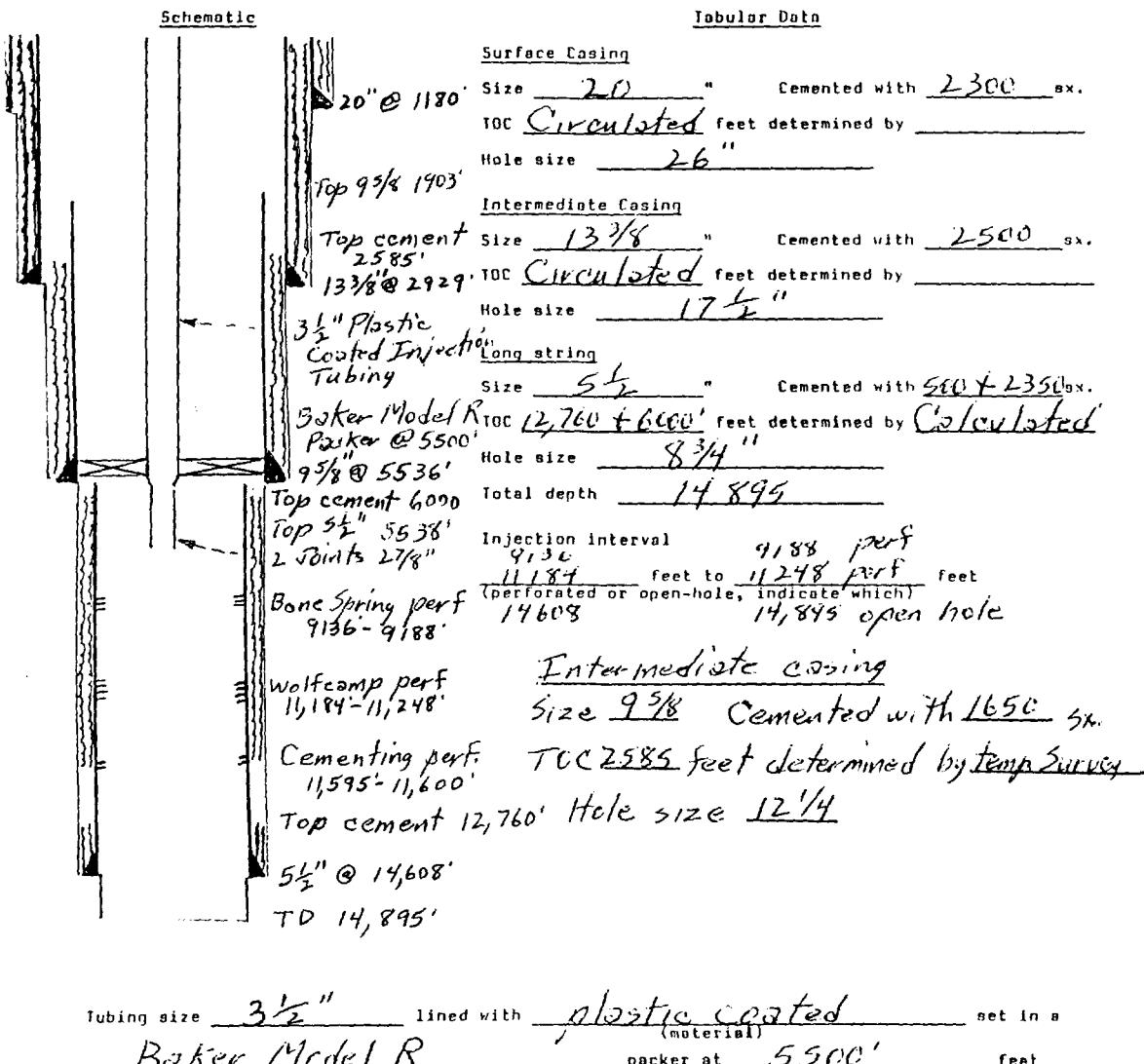
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: JOE D. RAMEY Title: CONSULTANT
Signature: Joe D. Ramey Date: 4/9/92

- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

INJECTION WELL DATA SHEET

LAGUNA GATUNA INC. LAGUNA GATUNA
 OPERATOR LEASE
1 660 S + 1980 W 5 205 33 E
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE
LEA COUNTY, NEW MEXICO

Other Data

1. Name of the injection formation Devonian, Wolfcamp, Bone Spring
2. Name of Field or Pool (if applicable) NA
3. Is this a new well drilled for injection? Yes No
 If no, for what purpose was the well originally drilled? Oil + gas test
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
11,595 - 600 cementing perf. CIBP @ 11,492. 11,184 - 248 Wolfcamp 25.5x5
11,107 - 10,900. 9136 - 88 Bone Spring 25.5x5 9200 - 9000
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
Delaware 7900' Bone Springs 9000'
Yates - Seven Rivers 2900'

LAGUNA GATUNA INC. PROPOSES TO REENTER THE PLUGGED AND ABANDONED PAN AMERICAN PETROLEUM CORP. LITTLE EDDY UNIT NO.1 WHICH WAS DRILLED IN 1966, AND CONVERT THE WELL TO A SALT WATER DISPOSAL WELL. THE CONVERSION WILL BE DONE AS OUTLINED ON THE ATTACHED WORKOVER SHEET.

THERE ARE NO WELLS WITHIN ONE-HALF MILE OF THE PROPOSED INJECTION WELL. OIL PRODUCTION FROM THE YATES AND YATES-SEVEN RIVERS OCCURS ABOUT ONE MILE TO THE SOUTHEAST AND SOUTHWEST AT A DEPTH OF AROUND 2900 FEET. THE DELAWARE AND YATES-SEVEN RIVERS ARE PRODUCTIVE APPROXIMATELY ONE AND ONE-HALF MILES TO THE NORTH. THE DELAWARE IS AT A DEPTH OF AROUND 7900 FEET. THE BONE SPRING IS PRODUCTIVE APPROXIMATELY TWO MILES NORTHWEST OF PROPOSED INJECTION WELL AND OCCURS AT A DEPTH OF AROUND 9000 FEET.

APPLICANT PROPOSES TO DISPOSE OF A MAXIMUM OF 10,000 BARRELS OF PRODUCED WATER PER DAY. THE AVERAGE RATE SHOULD APPROACH 6000 BARRELS PER DAY. THE DISPOSAL SYSTEM WILL BE CLOSED AND DISPOSAL WILL BE BY GRAVITY. DISPOSAL WATERS ARE FROM THE BONE SPRING, DELAWARE, YATES-SEVEN RIVERS AND THE GRAYBURG-SAN ANDRES. THESE WATERS ARE PRESENTLY BEING DISPOSED OF IN A SINK-HOLE LAKE AND THEY APPEAR TO BE COMPATIBLE SINCE THEY ARE MIXED PRIOR TO DISPOSAL INTO THE LAKE. COMPLETE COMPATIBILITY TESTING WILL BE DONE UPON RE - ENTRY OF THE WELL WHEN A SAMPLE OF THE DEVONIAN WATER CAN BE COLLECTED FOR COMPATIBILITY TESTING. WATER ANALYSIS FROM EXISTING LITERATURE IS INCLUDED FOR ALL FORMATIONS INVOLVED.

DISPOSAL WILL BE PRIMARILY INTO THE DEVONIAN FORMATION THROUGH OPEN HOLE AT A DEPTH OF 14,608 - 14,895 FEET. THE WELL PENETRATED 313 FEET OF A TOTAL THICKNESS OF AROUND 500 TO 550 FEET OF DEVONIAN. THE DEVONIAN IS DOLOMATIC WITH VUGULAR POROSITY. FRACTURING HAS ALSO BEEN NOTED IN THE DEVONIAN WHICH COMBINED WITH THE VUGULAR POROSITY, MAKES THE DEVONIAN AS EXCELLENT DISPOSAL ZONE.

THE BONE SPRINGS AND WOLFCAMP ARE PERFORATED AND THERE WILL PROBABLY BE A SMALL AMOUNT OF SEEPAGE OF INJECTION FLUID INTO THESE ZONES. HOWEVER, THE DEVONIAN WILL, FOR ALL PRACTICAL PURPOSES BE THE DISPOSAL INTERVAL. THE BONE SPRINGS IS A COMBINATION OF SHALE, SANDSTONE AND LIMESTONE AND IS ABOUT 3400 FEET THICK IN THIS AREA. THE WOLFCAMP IS SHALE AND LIMESTONE AND IS APPROXIMATELY 900 FEET THICK.

THERE ARE NO FRESH WATER AQUIFERS IN THE AREA AND NO WATER WELLS IN VICINITY OF THE PROPOSED INJECTION WELL. ANY FRESH WATER IN THIS GENERAL AREA IS VERY LOCALIZED AND VERY LIMITED AND IS USUALLY SITUATED ABOVE 200 TO 300 FEET. AFTER EXAMINING THE AVAILABLE ENGINEERING AND GEOLOGICAL DATA ASSOCIATED WITH THIS APPLICATION, THERE IS NO EVIDENCE OF OPEN FAULTS OR ANY OTHER HYDROLOGIC CONNECTION BETWEEN THE DISPOSAL ZONE AND ANY UNDERGROUND SOURCE OF DRINKING WATER. FURTHER, THE CAPITAN REEF AND THE SALT SECTION ARE PROTECTED BY CASING, CEMENT AND THE INJECTION TUBING AND PACKER.

CERTIFIED COPIES OF THIS APPLICATION HAVE BEEN FURNISHED TO:

BUREAU OF LAND MANAGEMENT
BOX 1778
CARLSBAD, NM 88221-1778

MITCHELL ENERGY
P. O. BOX 4000
THE WOODLANDS, TX 77387-4000

SANTA FE ENERGY
1616 S. VOSS ROAD
HOUSTON, TX 77057

BARBER OIL INC
BOX 1658
CARLSBAD, NM 88221-1658

NOTICE OF PUBLICATION WILL BE FORWARDED AS SOON AS POSSIBLE. ANY REQUIREMENTS FOR OPERATING ON FEDERAL LANDS WILL BE COMPLIED WITH AFTER INJECTION APPROVAL IS OBTAINED.

Pan American
Little Eddy Unit #1

N-5-20-33

- 1) MIRU pulling unit. PU workstring with 6 drill collars and 12" mill tooth bit.
- 2) Drill 10' surface plug and cement 1050' to 1903' (9 5/8" stub). POH
- 3) PU 8 5/8" mill tooth bit and drill cement plug from 9 5/8" stub to 2904'. Test casing to 500 psi.
- 4) Drill cement plug on top of 5 1/2" casing stub. POH
- 5) Pick up 4/12" bit on 6-3 1/4"- 3 1/2" Drill Collars.
- 6) Drill out cement plugs and CIBPS to 14895' TD. POH & Lay down bit and collars. Take injection test
- 7) Run in hole with 3 1/2" injection tubing, 9 5/8" Model R injection packer and 2 jts. 2 7/8" tailpipe.
- 8) Displace annulus with fresh water and packer fluid with packer at 5500'.
- 9) Set packer and test annulus to 500 psi for 30 minutes.
- 10) Place on injection. Take maximum injection rate test.

Pan American Petroleum Corp.
Little Eddy Unit No. 1

Schematic indicating the present
condition of proposed disposal well.

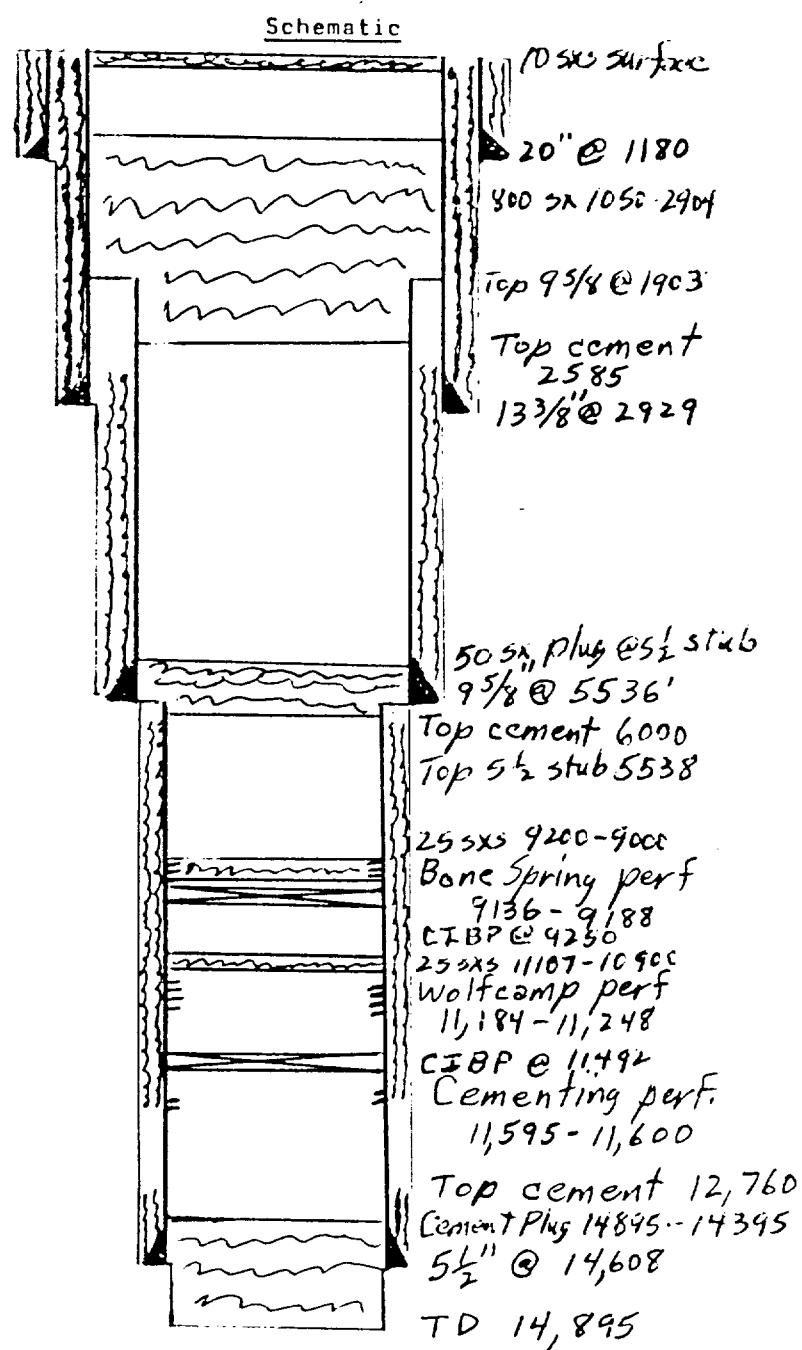


TABLE 4A.—WATER-QUALITY DATA FOR FORTY AND LEA COUNTIES, NEW MEXICO, ARRANGED BY ANNUAL FORMATION SOURCE AND GEOGRAPHIC LOCATION.

TABLE 4A.—WATER-QUALITY DATA FOR EDDY AND LEA COUNTIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

TABLE 4A.—WATER-DUALITY DATA FOR EASY AND LFA COUNTIES, NEW MEXICO, ARRANGED BY BOTH PREGNANCY STAGE AND GEOPHYSIC LOCALITY.

TABLE 4A.—WATER-QUALITY DATA FOR EDDY AND LEE COUNTIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

TABLE 4A.—WATER-QUALITY DATA FOR SEDGE AND LEAF COUNTRIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

TABLE 42.—WATER-OILY OIL DATA FOR EDDY AND LIA COUNTIES, NEW HAMPSHIRE, ARRANGED BY BOTTLES.

LOCATION T. & R.	DATE OF COLLECTION	DEPTH FROM TO	FORMATION	CAMP- LNG (MG/L)		IRON (MG/L)	CALCIUM (MG/L)	MAGNESIUM (MG/L)	SODIUM + BICARBONATE + KARBOATE (MG/L)	SULFATE + CHLORIDE (MG/L)	HYDROGEN ION CONCENTRATION (PH)
				PPM	PPM						
17	10-16-57	-	300' NWAN	1.11-	1.11-	0.0	2,000.	1,000.	15,000.	38%	2
17	10-16-57	12-21-59	2,250'- 3,000' NWAN	2.25-3.00	2.25-3.00	0.0	2,600.	1,600.	13,000.	1,220.	2
17	10-16-57	12-21-59	3,000' NWAN	0.0-0.58	0.0-0.58	0.0	2,200.	2,200.	4,000.	2,65.	3
17	10-16-57	12-21-59	3,000' NWAN	0.58-1.12	0.58-1.12	0.0	2,000.	1,100.	11,000.	5,21.	3
17	10-16-57	12-21-59	3,000' NWAN	1.12-1.54	1.12-1.54	0.0	2,500.	9,000.	9,000.	557.	2
17	10-16-57	12-21-59	3,000' NWAN	1.54-2.51	1.54-2.51	0.0	3,000.	14,000.	14,000.	1,230.	1
17	10-16-57	12-21-59	3,000' NWAN	2.51-3.15	2.51-3.15	0.0	3,000.	14,000.	14,000.	1,202.	1
17	10-16-57	12-21-59	3,000' NWAN	3.15-4.76	3.15-4.76	0.0	1,600.	6,000.	6,000.	1,882.	2
17	10-16-57	12-21-59	3,000' NWAN	4.76-7.62	4.76-7.62	0.0	1,730.	6,700.	6,700.	2,000.	2
17	10-16-57	12-21-59	3,000' NWAN	7.62-14.33	7.62-14.33	0.0	1,200.	2,100.	2,100.	2,840.	2
17	10-16-57	12-21-59	3,000' NWAN	14.33-33.00	14.33-33.00	0.0	1,200.	2,100.	2,100.	2,000.	2
17	10-16-57	12-21-59	3,000' NWAN	33.00-51.51	33.00-51.51	0.0	1,000.	1,000.	1,000.	1,26.	2
17	10-16-57	12-21-59	3,000' NWAN	51.51-67.15	51.51-67.15	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	67.15-112.21	67.15-112.21	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	112.21-192	112.21-192	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	192-265.12	192-265.12	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	265.12-311.00	265.12-311.00	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	311.00-400	311.00-400	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	400-1,112.61	400-1,112.61	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	1,112.61-1,215.00	1,112.61-1,215.00	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	1,215.00-1,762	1,215.00-1,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	1,762-3,000'	1,762-3,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	3,000'-3,300'	3,000'-3,300'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	3,300'-3,600'	3,300'-3,600'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	3,600'-4,000'	3,600'-4,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	4,000'-4,762	4,000'-4,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	4,762-5,233	4,762-5,233	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	5,233-6,000'	5,233-6,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	6,000'-6,762	6,000'-6,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	6,762-7,620	6,762-7,620	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	7,620-8,300'	7,620-8,300'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	8,300'-9,000'	8,300'-9,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	9,000'-10,000'	9,000'-10,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	10,000'-11,000'	10,000'-11,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	11,000'-11,730	11,000'-11,730	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	11,730-12,150	11,730-12,150	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	12,150-12,600	12,150-12,600	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	12,600-13,150	12,600-13,150	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	13,150-13,600	13,150-13,600	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	13,600-14,000	13,600-14,000	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	14,000-14,762	14,000-14,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	14,762-15,233	14,762-15,233	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	15,233-16,000	15,233-16,000	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	16,000-16,762	16,000-16,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	16,762-17,620	16,762-17,620	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	17,620-18,300'	17,620-18,300'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	18,300'-19,000'	18,300'-19,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	19,000'-19,762	19,000'-19,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	19,762-20,000'	19,762-20,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	20,000'-20,762	20,000'-20,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	20,762-21,500	20,762-21,500	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	21,500-22,150	21,500-22,150	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	22,150-22,600	22,150-22,600	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	22,600-23,150	22,600-23,150	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	23,150-23,600	23,150-23,600	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	23,600-24,150	23,600-24,150	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	24,150-24,762	24,150-24,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	24,762-25,233	24,762-25,233	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	25,233-25,762	25,233-25,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	25,762-26,233	25,762-26,233	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	26,233-26,762	26,233-26,762	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	26,762-27,233	26,762-27,233	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	27,233-27,600	27,233-27,600	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	27,600-28,000'	27,600-28,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	28,000'-28,400'	28,000'-28,400'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	28,400'-28,800'	28,400'-28,800'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	28,800'-29,200'	28,800'-29,200'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	29,200'-29,600'	29,200'-29,600'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	29,600'-30,000'	29,600'-30,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	30,000'-30,400'	30,000'-30,400'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	30,400'-30,800'	30,400'-30,800'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	30,800'-31,200'	30,800'-31,200'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	31,200'-31,600'	31,200'-31,600'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	31,600'-32,000'	31,600'-32,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	32,000'-32,400'	32,000'-32,400'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	32,400'-32,800'	32,400'-32,800'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	32,800'-33,200'	32,800'-33,200'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	33,200'-33,600'	33,200'-33,600'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	33,600'-34,000'	33,600'-34,000'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	34,000'-34,400'	34,000'-34,400'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	34,400'-34,800'	34,400'-34,800'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	34,800'-35,200'	34,800'-35,200'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	35,200'-35,600'	35,200'-35,600'	0.0	1,000.	1,000.	1,000.	1,000.	1
17	10-16-57	12-21-59	3,000' NWAN	35,600'-36,000'	35,600'-36,000'	0.0					

FIG. 41.—Mappa-Ornithy DATA FOR FORT AND LEAF COUNTY, NEW MEXICO, ARRANGED BY BIRDS FOUND IN FOREST AND SEMIGRAPHIC LOCALITY.

**TABIF 4A - WATER-DUALITY DATA FOR FLOW AND LFA COUNTIES, NEW MEXICO, ARRANGED BY BOTH
FORMATION TIME AND STREAMFLOW FRACTION**

WATER-QUALITY DATA FOR EDDY AND LEA COUNTIES, NEW MEXICO, ARRANGED BY BOROUGH
FORMATION SOURCE AND GEOGRAPHIC LOCATION.

TABLE 4.—WATER-DUALITY DATA FOR FAY AND LIA COUNTIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

- do not permit.**
- Write "Return Receipt Requested" on the mailpiece below the article number
 - The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.
- 3. Article Addressed to:**

3. Article Addressed to:		SB Mitchell Energy Box 4000 The Woodlawn, TX 77387
4. Article Number		PS Form 3811, November 1990 *U.S. GPO: 1991-287-066
4b. Service Type		<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
5. Signature (Addressee)		<i>[Signature]</i>
6. Signature (Agent)		<i>[Signature]</i>
7. Date of Delivery		APR 10 1992
8. Addressee's Address (Only if requested and fee is paid)		Bureau of Land Management P.O. Box 1778 Carlsbad, NM 88221-1778
RETURN RECEIPT		
<p>Pen: These are the return receipts for the Logans. Sento Gestures Inc 500 D 1616 S. 1st Street Houston application.</p> <p><i>[Signature]</i></p> <p>Joe DeLongey</p>		
3. Article Address		PS Form 3811.
5. Signature (Addressee)		<i>[Signature]</i>
6. Signature (Agent)		<i>[Signature]</i>

- Attach this form to th**
does not permit.
- Write "Return Receipt Requested"
 - The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.
- 3. Article Address**

SENDER:		<ul style="list-style-type: none"> • Complete Items 1 and/or 2 for additional services. • Complete Items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery. 	
3. Article Addressed to:		<i>Barber Oil Inc P.O. Box 1658 Carlsbad, NM 88221-1658</i>	
4a. Article Number		PS Form 3811, November 1990 *U.S. GPO: 1991-287-066	
4b. Service Type		<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
7. Date of Delivery		APR 10 1992	
8. Addressee's Address (Only if requested and fee is paid)		DOMESTIC RETURN RECEIPT	

SENDER:		<ul style="list-style-type: none"> • Complete Items 1 and/or 2 for additional services. • Complete Items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery. 	
3. Article Addressed to:		<i>Bureau of Land Management P.O. Box 1778 Carlsbad, NM 88221-1778</i>	
4a. Article Number		PS Form 3811, November 1990 *U.S. GPO: 1991-287-066	
4b. Service Type		<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
7. Date of Delivery		APR 10 1992	
8. Addressee's Address (Only if requested and fee is paid)		DOMESTIC RETURN RECEIPT	

David [unclear]
Here's a copy of
the legal for
the SWD well

RELEASE DATE Joe Ramey
4.24.92

COURT: By: (seal) SICKIAS

LEGAL NOTICE

April 10, 1992

Laguna Gatuna Inc. P.O.
Box 2158, Hobbs, NM 88241
will convert the Pan Amer-
ican Petroleum Corp.
Little Eddy Unit No. 1
located 660 feet from the
South line and 1980 feet
from the West line of Sec-
tion 5, Township 20 South,
Range 33 East, Lea
County, New Mexico, to a
salt water disposal well.
Injection will be into the
Bone Springs from 9135—
9188 feet, the Wolfcamp
from 11,184—11,248 feet,
and the Devonian from
14,608—14,895 feet.

Maximum injection rate
is 10,000 barrels per day
with no injection pressure
anticipated.

Contact party for the
applicant is:

Joe D. Ramey
P.O. Box 6016
Hobbs, NM 88241-6016
(505)392-6525

Interested parties must
file objections or requests
for hearing within 15 days
to:

OIL CONSERVATION
DIVISION
P.O. Box 2088
Santa Fe, NM 87501-2088