CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

| Operator: | FLAROCK BIL CORP | <u>·</u> We | 11: C.D. TAN | KERSLEY NO | 3 |
|--------------|--|----------------------|----------------------|---------------------|---------------------|
| Contact: ∠ | MERCH MERCHANT | Title: | RES | Phone | : 505 397.3596 |
| DAT | EIN <u>5.30-95</u> RE | ELEASE DATE <u>S</u> | ArisfieD | DATE OUT 6 | 16.95 |
| Proposed | Injection Application is for | ": WATERFI | -00D - <u> </u> | xpansion | Initial |
| Original O | rder: R- | X Secondar | y Recovery | Pressure Mai | ntenance |
| SE | ENSITIVE AREAS | SALT WA | TER DISPOSA | L | |
| WIPP | Capitan Reef | Commerc | ial Operation | | |
| Data is co | mplete for proposed well(s | 17 465 Additiona | al Data | | |
| AREA of F | REVIEW WELLS | | | | |
| | ₹ Total # c | of AOR | 4 <u>8</u> # of Plug | ged Wells | |
| | <u> ५८८</u> Tabulatio | on Complete | 4FJ Schemat | ics of P & A's | |
| | ५ <u>८८</u> Cement | Tops Adequate | AOR Rep | pair Required | |
| | N INFORMATION | | | | |
| lnj | ection Formation(s) | STRAWN (1 | (RNN) | | |
| So | ource of Water <u>ARGA</u> | PRODUCERS | 5 - BOW H | C (PANN | Compatible 46 |
| PROOF O | | | , , , | | |
| | 1165 Copy of | Legal Notice | 46SInformat | ion Printed Corre | ectly |
| | t/ts_ Correct | Operators | 4 <u>LS</u> Copies o | of Certified Mail F | Receipts |
| | N/A Objectio | n Received | Set to H | earing | Date |
| NOTES: | <u> </u> | | | | |
| 1st Contact: | APPLICATION QUA ON WITH CONTACT PERSON: X Telephoned Letter | 95 Date Nature of | Discussion FOOTAL. | is on propos | 240 WELL (LOCATION) |
| | TelephonedLetter | | | | |



COLUMBER OF AN OVER ON RECTUALD

573

CERTIFIED NO. Z 106 681 455

May 22, 1995

MAY 25 1995

Mr. David Catanach
NEW MEXICO OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Application for Administrative Approval for Salt Water Disposal

L. D. Tankersley Well No. 3

Unit H, Section 30, T-9-S, R-34-E

Lea County, New Mexico

Dear Mr. Catanach:

PENROC OIL CORPORATION is requesting administrative approval to convert the captioned well to salt water disposal. This well will be utilized to dispose produced water from **PENROC** operated wells in the Vada Penn field.

PENROC has 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.

An early approval of this application will be greatly appreciated. Without a relative in-expensive disposal, the producing wells will have to be plugged and will result in loss of precious reserves. Thank you.

Sincerely,

M. Y. (Merch) Merchant

President

MYM/ddm attch.

cc: Surface Owner - Certified Mail (Copy Attached)
 Offset Operators - Certified Mail (Copy Attached)
 Mineral Owners - Certified Mail (Copy Attached)

FN: SWDAPPR

MAILING ADDRESS: PO Box 5970 Hobbs, NM 88241-5970 DELIVERY ADDRESS: 5014 Carlsbad Hwy. Hobbs, NM 88240-1118 (505) 397-3596 Phone

OIL CONSERVATION DIVISION POST OFFICE BOX 2008

FORM C-108 Revised 7-1-81

POST OFFICE BOX 2008 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501

| PPLIC/ | ATION FOR AUTHORIZATION TO INJECT |
|--------|--|
| I. | Purpose: Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? Yyes no |
| II. | Operator: PENROC OIL CORPORATION |
| | Address: P.O. BOX 5970, HOBBS, NM 38241-5970 |
| | Contact party: M. Y. (MERCH) MERCHANT Phone: (505) 397-3596 |
| 111. | 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? |
| ٧. | 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: |
| | Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; 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.). |
| 111. | 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. |
| х. | 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. |
| 111. | 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: M. Y. (MERCH) MERCHANT Title PRESIDENT |
| | Name: M, Y. (MERCH) MERCHANT Title PRESIDENT Signature: Color Date: May 18, 1995 |
| submi | ne information required under Sections VI, VIII, X, and XI above has been previously itted, it need not be duplicated and resubmitted. Please show the date and circumstance ne earlier submittal. N/A |

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

| CHAVES, N | ortneast | ROC | SEVELT, Sou | uth | College College |
|--|--|--|--|--|--|
| 4 44.3/Ac 3 44.3/Ac 2 42.3/Ac 1 42.3/Ac 4 42.7/Ac 3 44.2/Ac 3 42.3/Ac 4 42.3/Ac 3 42.2/Ac 3 42.2/Ac 3 42.3/Ac 3 42. | | L.D. Comport | Gray Co (Coastel O&G) | R | 34E |
| Del Apache TOSTO T | Lavelady Dos | James Pet M.I. TO 9615 | F257, Origin E, Co. Acadea | | Western Res. |
| S Pet, etal | Pacific Enterprises W.C. Osborne | oul & Thos. E. Davis, Jr., 5 | Apone Min. etal. M | OEC /AMAY BIT TO STORY OF THE S | |
| 4483 4483 455 U.S.M.I. Stote Game Manual C. M | Material Delbert F. Wesley Brown 3-31-76 84 | 142818 020277 | 0202771 P49 Coostal | Sulpetro 7 · 23 · 84 Amoco Rives Casey Charness | 7/0/UV-D |
| Commission (s) Midwest St." State Hanson Murphy Oper | Mail Padi Wasin Dent E | ley U.S. Abult Thas & Dove dr. | TD9720 Price E, Price | etal.M.I. Janette Charness, | Price & Price (PMB) |
| McBride OEG P240 McBride OEG P240 Westway Burshi Murphy Oper: 15 22 (Westway Burshi) Peth 17 25 25 (Westway Burshi) | Pacific 1-A - Terra Apexco HB Ent. Polo Cabbuell M. Pacific Pacific Terra 34 & Pacific Pacific Cabbuell (An Pacific Pacific Cabbuell (An Pacific Pacific Cabbuell (An Pacific Pacific Cabbuell (An Pacific Pac | Igh / Yorkes Del-Apache 2/3 lose (Pet, eral) exco Select Sun 7 - 73 exco Select Sun 7 - 73 exco Select Sun 7 - 80 exco Select Sel | 1 Senson Res 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 | Westin Reserves. | 3-19-95 |
| IO Hanson | | M.I. Fed " Buream Ma Day yet | A H Price, 5 TOSTIO | Hutcherson T09870 DIAIZ 13-60 | Trice Prod.) Nutcherson) Albert T. |
| Amoco-St." LaytonEnt. Pyron Egostal States) | Res. Apache 1-15-5 | Brown Co. 0556873 | FS60 Midwest | Western Reserves Signal Hurchen 10 95 50 9717 Sun BTA.etal | 501 |
| is State State | S.P. Johnson I M.I Prin | AC TAN MOODE JAM MOORE TAN Woldrip Vam LINWENTEN LIN Wesley Brown Price 6 | CoastalStates Mattie Price Price E, Price M. I. | Amoco Wotson Watson6 T09746 Watson6 DA6 3 60 Johnes Pet. M.I. Eliz Wilson, eta | Windsor etal, MI. |
| HBP Ent HBP M.J.Harvey Jr. HBP 3 1 2003 | King Res, etal Willow Crk. Res. Res | M & G | Midwest No. Lea Pruitt Joint Venture to 10,050' | Yates Pet.etal Yates Pet.etal 2 · 1 · 99 2 · 1 · 91 | Price E, Price |
| Exxon Fred To Soo Somedon | amedan Bison Fell Damson Deschmidt Grades | Sevens, 14 M.L. Gray, M.L. Gray, M.L. Gray, M.L. S. 7 - 80 | Amer. Trading 2.4 5 7 98 (P/B) | V 4263 VA 502 4293 3667 | BYA, etal |
| OEG Sun Gastrod Sulpetra Harris Expl. | Oil Midco Ener. CityOil Read | 6 Read & Pruitt | 17 Sulpetro | 7 Maralo 16 Del: Apach | AT. Mutcherson MI Price e 15 |
| State | Jone Devore Sheridan M.I. Samedan 122.38 Samedan Only Samedan Roy., 1/2 M.I. Delbarts waring a proper School | ja. Lines Orlige ja. Lines et li Amoco; ja. Lines et li Amoco; ja. Lines et li Amoco; ja. Lines et li | Amoco Pruitt | #10 | Skelly |
| Hondo OSG Tipoton, (Exxen) (Exxen) (B 5 88 Openton 15 Baren Wew Oil 2 | Ing Kes Care Wall Same # 18 974 | ((Amora) I | Amoco = | State 9 | |
| Murphy Corp. Sam Boren 1 Abby 5 | Jane D. Dickinson, M.I Jane Outhwest Roy. Pierce, etc. 1.96 7.1.94 Extreme DCG | ead & Sievens RKH Ltd. 1 - 1 - 84 - 1 - 1 - 84 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - | Penn Discl | (Cabot) Project IProperty Inv. Ca | Supr Fru |
| 70 355 F80 JJ.C. Ainsworth | Delbert 6, Wesley Brown, (S) Wesley Brown, (S) Wesley Wesle | Read Read | 0.6.84 Pruin " | Anger Trad. | Pruitt' |
| Airsworth Airsworth (Monterey) 7-1 95 V-3758 | Dickingen to Devore | 7 64 | Amoco Vodo 673 Ltd. F. | 7A (TD 10,025) | Estacado e P/B P371 |
| stes Vates Det about | medan Roy, M.I. U.T. Wilson, M.I. Robt W. Delbert E. Wesley Brown | Devie Norton, | tods C.B. Read, M.J. | Amer.Trad. 4 · 1 · 90 3 · 27 · 90 Vada Lee Pruitt | Myrtle Plains, 1/2 Ml "Vada Lee Pruitt" |
| 7.73693 | BP Del 9798 Amoco Wilson Samedan Roy, M.I. | Midwest Hercor Ener | P314 2 Trobaugh | OS (8TA) OS Vada 673 Ltd (Shell) Shell Amini Oil Corp. | Amer. |
| 10 12 1 2003 1 2 1 2003 1 2 1 2 2003 223 92191 2 2 2 2 2 2 2 2 2 | All Penroc Dil Amoco 15 10 9810 HBP MIL J. T. Wilson, etal | D. Tankersley, etal, M.I. | Glenn J. Smith, S & MI | bilee MLAC 4 1 85 Wiels, JGrody Groy, 47 Nutchersen, MI. al, MI Cath. Co. 20 Well Cath. Co. 20 | States Equip. |
| BP CLEOpers PPES 2.6.94 | Yates Pet. etal | MLAC | Bright e. Co. (8 | TA) RKH | Hutcherson" 27 - (Shell) Sh |
| U.S.M.I. Peter stal Somer Red January H. Sevesley Brown Oelbert & Wesley Brown (7/8) | P30 U.S.M.L 41-H Delbert E, Wesley Brown J.C. Ains | BIA- STUAR | Wman 45 00 Ne | "Hooper" (Enfield) 1715 Expl. 9-2:84 (Medlin) 1728-84 TO 9900 P293 1738 K. Linom (Dialos ess) | Headington Mins. T. A.T. P282 Hutcherson |
| EG Southwest Penroc 101 Penroc Harcor 10 9888 Penroc Harcor 10 9884 Penroc 10 988 | Pet. Prod Mgmt 39/4/ Pet Pr | | J/A 4000 3-Y. III 0.0 | TXO 10.1.03 MCCDI | Caswell Cattle C |
| Markham etai | Sunray HBP 6882 Ltd. BTA 194.40 7 | Midwest Cook Toses | Yates Pet, etal (Cactus Orig) 9 1 93 (Atlantic St.) | Anderson Anschutz | W.A.Chalfant Fish |
| Coostal OSE (Midwest) OSER Ener. Olsen 10 · 2 · 93 | D.V. COO. 30 (Sunray) 30 (Sunray) 40 (Sunr | J.V. COOK, JF. | 26 56 32 So. Roy 2 - Vade-St. 4 | | 82935 14000 N.A.Chell 9 34 ^{Cast} |
| La LA Expl. M. SKE. W. 90544 MALL. Yates Pet, et al. 103873 Surre Yates Pet, et al. 103873 Surre Olsen Roy, M.I. Wesley Brown Delborts wesley Brown Delborts wesley Brown | grand for the state of the stat | Armoco) Bright & Co. 77085 0336039 6592 M.I. 1986 | State TD 9869. | Pet etal 1332335 80 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 52973 52979 12 952 953 90910 952 55 20 |
| Delber F. Wesley Brown (wo) U.S.M. 1 -00 | | Caswell Cattle (a.(5) | de 1188 de 3 possible pariste el const | THE CO. POR CER PROPERTY | Cash. Cash. Cash. |
| (Midwest) K.4105 K.4105 (At +c) (At | (MLBrow | V-70 Per Prod. Troic | Monsanto Ser. 1936 Monsanto Ser. | (TD995a) Marticore Res. | Kerr- McGee M. 71.94 M. VA-225 V |
| Read E Stevens 2 Yates Pet. et al | Jennecol | 6 | Mar 879 Ltd. AK K.Amini | LG-3815 | enroc Oil |
| HOP (P/6 1 V-2647 112 50 | J-AY | BTA BA Anderson 678 Lide 1-A Overland Park Prod. VA-886 5.1.98 2828 BJA | | 9-1-93 V-2663 6259 | NLA) |
| | 70960 84 19 P287 V2 State | MissionSr. TD 95:22 | Monsonto State 2 258 State | How-St I-A (Solar) | (hio) (tate) D 12385 D/A 8-26-61 |
| Read & Stevens (Asid A) Yates Pet atal | | A LINE INCIDI | Catanach (Champlin O&R) 1 90 Pet Prod. W- 1550 Mgmt. Inc. 351 56 La 6974 (19)2) | | Yates Pet |
| State (PVB) 52-1 68 75 | Ben Pet.) Eagle - 51.) Cayman Mul phy TD 9810 | - 57. AND 1520 | AhoDisc (At | Rich) 8J | 11 · 1 · 93 V: 2773 2168 |
| S Pet. etal | Reod & Ste (Conti | evens (Cauman) An | ret. Trad. Morrison | 9 | 10 |
| (Midwest) Skenuss | Union | Mutphy-31. | / 1500 utarkich Penros | | |

FORM C-108 (ATTACHMENTS)

III. A. WELL DATA:

- L. D. Tankersley Well No. 3
 Unit F, Section 30, T-9-S, R-34-E
 Vada Penn Field, Lea County, New Mexico.
- 2. Well drilled in February, 1969.

11 3/4", 31.2# @ 318' w/350 sxs. (circ.)
8 5/8", 24 & 32# @ 4036' w/400 sxs. (circ.)
5 1/2", 17 & 20# @ 9870' w/750 sxs. Top of cement
by temp.
Survey: 1857'

- 3. Well is depleted in the present pay. No other possibilities exist. Will use 2 7/8" plastic coated tubing.
- 4. The tubing will be set at approximately 9000 feet in a 5 1/2" x 2 7/8" nickel coated packer.

1980 N 1965 W

PENROC OIL CORPORATION

APPLICATION FOR AUTHORIZATION TO INJECT

FORM C-108

VII.

- 1. Average Daily Rate: 200 BW Maximum Daily Rate: 1200 BW
- 2. Closed System
- 3. Inject on vacuum initially and maximum 500 psig.
- 4. Re-inject produced water from off-set Penroc operated 3 wells.
- 5. Not Applicable

VIII.

The proposed injection zone is considered to be Strawn Age. Lithologically it is a limestone of shelf origin. The approximate depth at this locale is 9600' and the thickness is +/- 600'.

The fresh water aquifer at this site is the Oglalla found from near surface to a depth of 380'.

- IX. None at this time.
- X. Logs have been filed with OCD.
- XI. Analysis attached.
- XII. Applicant attests that a through examination has been made of all available geologic, engineering, and well data and that no hydrologic connection exists between the proposed injection interval and the overlying fresh water aquifer.
- XIII. L. D. Tankersley Well No. 1
 Unit H, Sec. 30, T-9-S, R-34-E

Drilled and completed as a Vada Penn producer in 1968.

11 3/4" @ 330' w/325 sxs. cmt. circ. 8 5/8" @ 4050' w/450 sxs. cmt. circ. 5 1/2" @ 9869' w/300 sex. cmt. circ. Perfs 9804'-16'

XIII.(Cont'd)

P&A'd 1983

CIBP @ 9650' w/10sx. on top. Cut off 5 1/2" @ 4115'. 25 sx. ply @ 5400'. 25 sx. ply @ 4165' - Tagged at 3968'. Cut 8 5/8" @ 650'. 25 sx. @ 1900'. 25 sx. @ 700'. 70 sx. in and out 330' (270' tagged 10 sx surface).

L. D. Tankersley Well No. 2

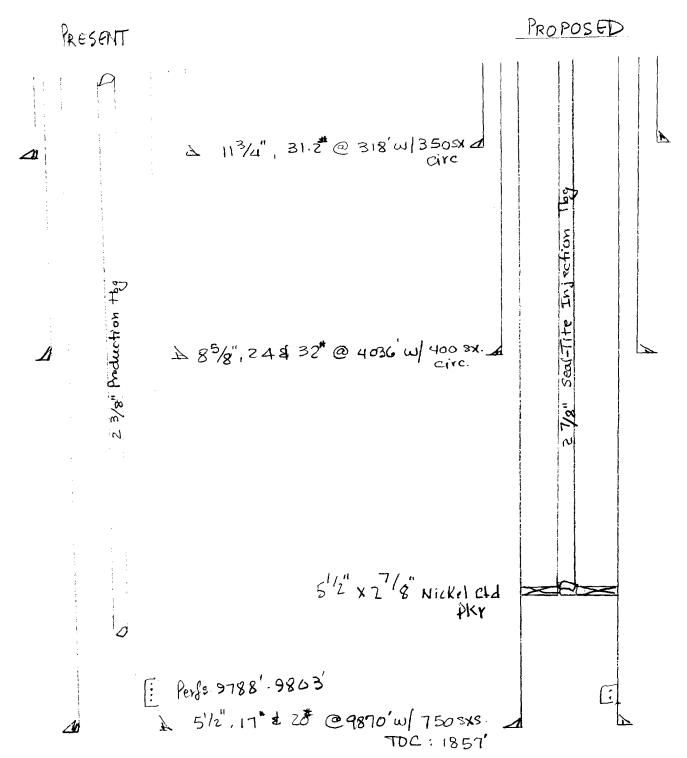
Unit D, Sec. 30, T-9-S, R-34-E
Drilled and abandoned 1968 as a Vada Penn dry hole.
11 3/4" csg. 31.2# @ 332' w/325 sxs.
8 5/8" csg. 24 & 32# @ 4015' w/450 sxs.
P&A'd as follows:

25 sx. 9790-9704 25 sx. 8990-8904 25 sx. 7735-7649 25 sx. 5325-5278 25 sx. 4015-3929 55 sx. 1050-950 65 sx. 385-285 10 sx. @ surface.

Max 677 Ltd #1
Unit P, Sec. 30, T-9-S, R-34-E
Drilled 1967.
13 3/8" @ 375'
8 5/8" @ 3988'
4 1/2" @ 9840'
Perfs. 9810'-24'
CIBP @ 9775' w/5 sx.
Cut and pulled 5 1/2" @ 3340'
Cut and pulled 8 5/8" @ 518'
25 sx. @ 518'
25 sx. @ 375'
10 sx. @ surface
P&A'd 1972

Max 677 Ltd #2
Unit N, Sec. 30, T-9-S, R-34-E
12 3/4" @ 375'
8 5/8" @ 3995' w/400 sxs.
4 1/2" @ 9810' w/300 sxs.
Perfs. 9788'-94'
P&A'd in 1972.
CIBP @ 9604' w/2 sx.
4 1/2" csg. pulled @ 1796'
Cut and pulled csg @ 460'
25 sx. @ 460'
25 sx. @ 375'
10 sx. @ surface
P&A'd 1972

Penvoc Oil Corporation L.D. Tankersley No.3 Unit F. Sec 30, T95, R34E



WATER ANALYSIS REPORT

SAMPLE

Location: TANKERSLEY # 3 Date: 13-NOV-1987 Company: NORTH LEA JOINT VENTURE Ref.: PRO-KEM INC.

ANALYSIS

*MEQ/L. MG/L EQ. WT.

- 1. pH 6.000
- 2. Specific Gravity 60/60 F. 1.060
- CaCOs Saturation Index @ 80 F. -0.407 # 140 F. +0.360

DISSOLVED GASSES

Hydrogen Sulfide 4. 5. Carbon Dioxide Not Determined 6. Dissolved Oxygen Not Determined

CATIONS

| 7. | Calcium | (Ca++) | | 5119 | 1 | 20.1 | = | 2 55 |
|-----|-----------|--------|------------|------------|---|------|---|-------------|
| 8. | Magnesium | (Mg++) | | 656 | / | 12.2 | = | 54 |
| 9. | Sodium | (Na+) | Calculated | 26890 | / | 23.0 | = | 1169 |
| 10. | Barium | (Ba++) | Not | Determined | / | 68.7 | # | Ø |

ANIONS

Na

Ca

Ma

| 11. | нуагохуі | (OH-) | Ø | | 17.0 | = | v |
|-----|-------------|-------------|-------|---|------|---|------|
| 12. | Carbonate | (CO3 *) | Ø | / | 30.0 | = | Ø |
| 13. | Bicarbonate | $(HCO_3 -)$ | 368 | / | 61.1 | = | 6 |
| 14. | Sulfate | $(SO_4 =)$ | 310 | / | 48.8 | = | 6 |
| 15. | Chloride | (Cl-) | 51988 | / | 35.5 | = | 1464 |

- Total Iron (Fe) 16. 60
- Total Dissolved Solids 17. 85331
- 18. Total Hardness as CaCO3 15467
- Resistivity (Calculated) 19. .113 Ohm-Meters

LOGARITHMIC WATER PATTERN *MEQ/L

COMPOUND EQ. WT. X * MEQ/L = MG/LCa(HCO₃)₂ 81.04 6 486 CaSO₄ 68.07 6 408 **Н**НСОЗ CaCl2 55.50 244 13542 SO4 Mg (HCO3)2 73.17 Ø 18000 1000 100 100 1000 1000 MqSO₄ 60.19 Ø Ø *Milli Equivalents per Liter 47.62 54 2571 MgCl₂ 84.00 Ø Ø NaHCO₃ Calculated Calcium Sulfate Solubility NaSO₄ 71.03 Ø 0

PROBABLE MINERAL COMPOSITION

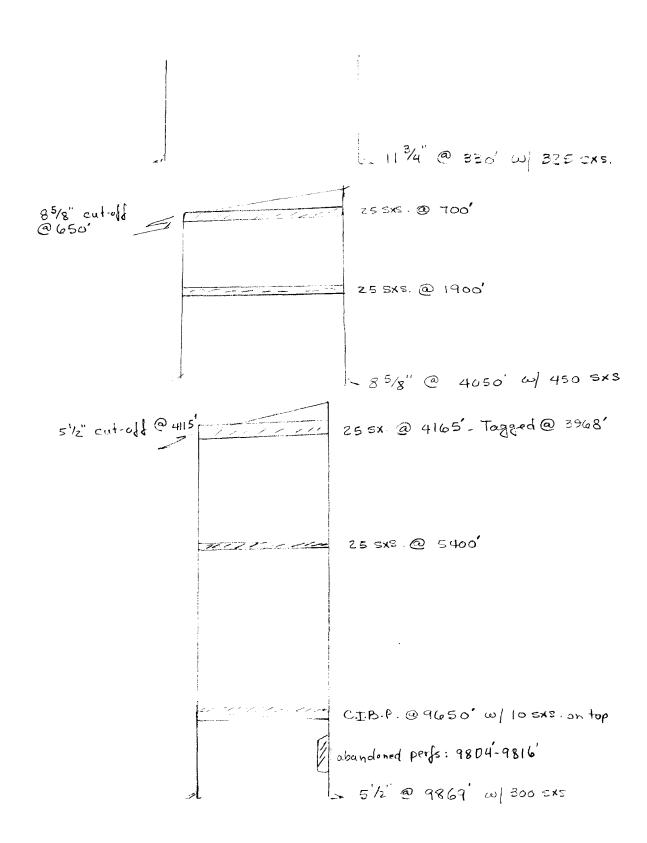
in this brine is 2381 mg/L. 58.46 68223 NaCl 1167

Estimated Temperature of Calcium Carbonate Instability is 111 Degrees F. Calcium Sulfate Scaling Potential: Nil

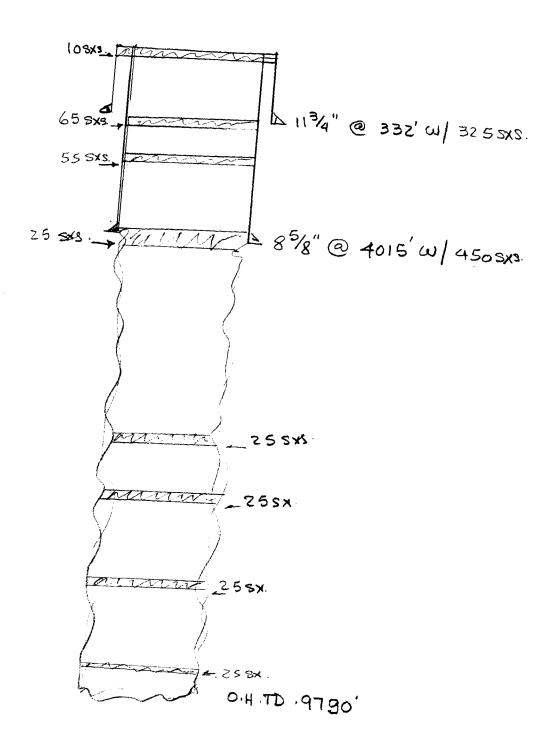
This water is somewhat corrosive due to the pH observed.

The corrosivity is increased by the content of mineral salts in solution.

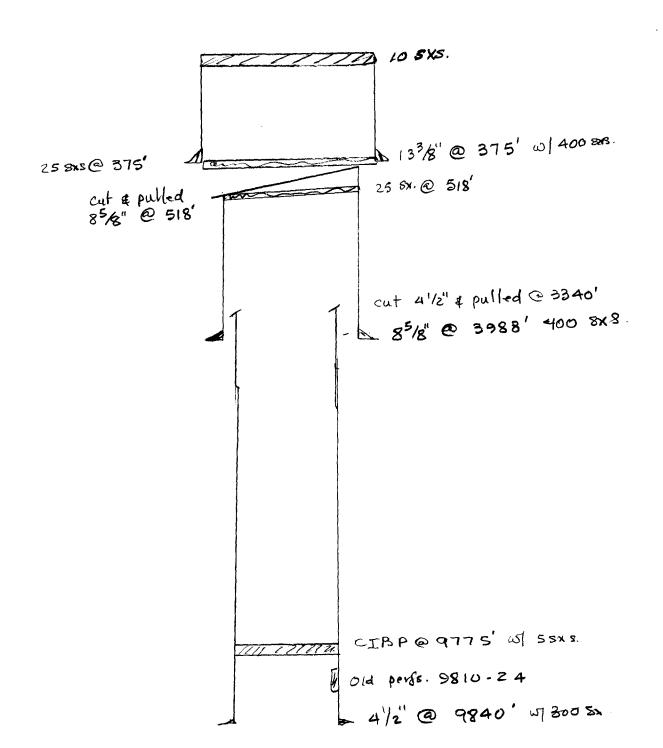
_L.D. TANKERSLEY NO.1 Unit H, Sec. 30, T-9.5, R-34-E



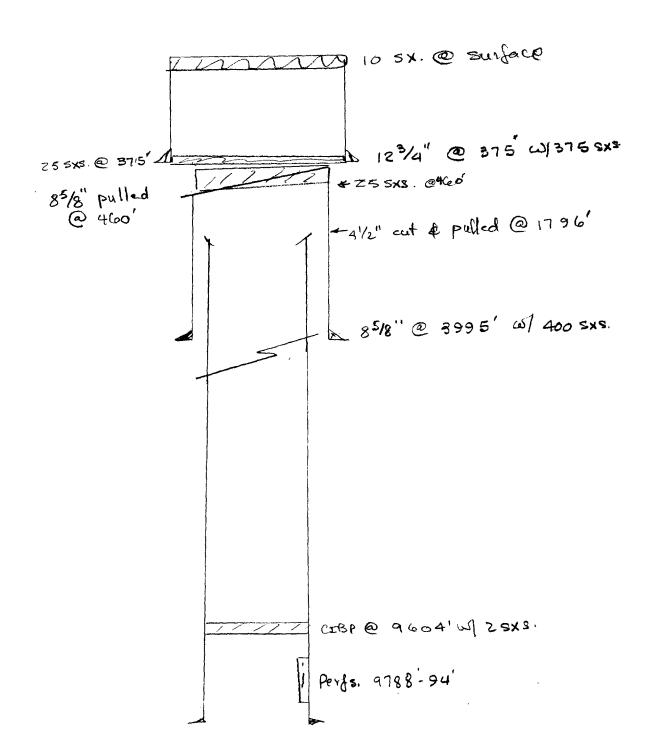
Unit D. Sec. 30, T9 S, R. 34-E



MAX 677 LTD. #1 Unit P. Sec. 30, T-9-8, R. 34E



Max 677 Ltd No. Z Unit N, Sec. 30, T-9-5, R.34E





May 17, 1995

Ms. Howard Elza 1210 West Avenue "H" Lovington, New Mexico 88260

Re:

L. D. Tankersley No. 3

Conversion to Produced Water Disposal SE/4 NW/4, Section 30, T-9-S, R-34-E

Lea County, New Mexico

Dear Ms. Elza:

PENROC OIL CORPORATION is filing an application with the State of New Mexico Oil Conservation Division to convert the captioned well which it currently owns and operates. This well is very marginal and is needed to dispose water from three (3) other PENROC wells in the Vada Field.

As required by the NMOCD rules we are publishing a Legal Notice in the Hobbs News Sun this week. We would also appreciate your blessing to complete this project. We do not plan any surface work as existing tanks will be utilized to contain water.

If you have any questions please contact me and I personally will come to discuss this matter with you.

Sincerely,

M. Y. (Merch) Merchant

President

MYM/ddm

FN: SWDAPPR

P. O. BOX 5970 HOBBS, N.M. 88241-5970

orm 3800, March 1993 e se thomas gito Webs landrossivo's Address

106 681 445

MS. HOWARD ELZA
1210 WEST AVENUE "H"
LOVINGTON, NEW MEXICO

88260

Receipt for
Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

MS. HOWARD ELZA 1210 W. AVE "H" William & Cale Delivered LOVINGTON, NM 88260 and the same My terr 142 .32



May 19, 1995

R. N. Merritt & Majorie N. Merritt P.O. Box 1966 Monahans, Texas 79756

Re:

L. D. Tankersley Well No. 3 Lea County, New Mexico

Dear Mr. & Mrs. Merritt:

PENROC OIL CORPORATION is filing an application with the State of New Mexico Oil Conservation Division to convert the captioned well which it currently operates. This well has been depleted for a long time in the Bough "C" formation. The well is needed to dispose produced water from the Bough "C" formation from three (3) other PENROC wells in the Vada Field.

As required by the New Mexico Oil Conservation Division we have advertized our intent in the Hobbs News Sun on May 18, 1995. We would appreciate your comments at an early date.

Please call the undersigned or write and discuss the matter if you have any questions. Your cooperation in this matter is greatly appreciated.

Sincerely,

∠Ď. Denise Mohar

Assistant to the President

M. Y. (Merch) Merchant

ddm

FN: SWDAPPR

MAILING ADDRESS
PO Box 5970
Hobbs. NNI
88241-5970
DELIVERY ADDRESS:
5014 Carlsbad Hwy.
Hobbs, NM
88240-1118
(505) 397-3596 Phone



May 19, 1995

Roy G. Barton Jr. P.O. Box 968 Hobbs, New Mexico 88240

Re:

L. D. Tankersley Well No. 3 Lea County, New Mexico

Dear Mr. Barton:

PENROC OIL CORPORATION is filing an application with the State of New Mexico Oil Conservation Division to convert the captioned well which it currently operates. This well has been depleted for a long time in the Bough "C" formation. The well is needed to dispose produced water from the Bough "C" formation from three (3) other PENROC wells in the Vada Field.

As required by the New Mexico Oil Conservation Division we have advertized our intent in the Hobbs News Sun on May 18, 1995. We would appreciate your comments at an early date.

Please call the undersigned or write and discuss the matter if you have any questions. Your cooperation in this matter is greatly appreciated.

Sincerely,

D. Denise Mohar

Assistant to the President

M. Y. (Merch) Merchant

ddm

FN: SWDAPPR



May 19, 1995

Anna Roth Mirken and husband Milton Mirken 155 East 73rd Street New York, New York 10021

Re:

L. D. Tankersley Well No. 3 Lea County, New Mexico

Dear Mr. & Mrs. Mirken:

PENROC OIL CORPORATION is filing an application with the State of New Mexico Oil Conservation Division to convert the captioned well which it currently operates. This well has been depleted for a long time in the Bough "C" formation. The well is needed to dispose produced water from the Bough "C" formation from three (3) other PENROC wells in the Vada Field.

As required by the New Mexico Oil Conservation Division we have advertized our intent in the Hobbs News Sun on May 18, 1995. We would appreciate your comments at an early date.

Please call the undersigned or write and discuss the matter if you have any questions. Your cooperation in this matter is greatly appreciated.

Sincerely,

D. Denise Mohar

Assistant to the President M. Y. (Merch) Merchant

ddm

FN: SWDAPPR

MAILING ADDRESS PO Box 5970 Hobbs, NM 88241-5970 DELIVERY ADDRESS: 5014 Carlsbad Hwy. Hobbs, NM 88240-1118 (505) 397-3596 Phone



May 19, 1995

Mrs. L. D. Tankersley AKA Ola Tankersley - A Widow Space 22, Trailer Mecca Holtville, California 92250

Re:

L. D. Tankersley Well No. 3 Lea County, New Mexico

Dear Mrs. Tankersley:

PENROC OIL CORPORATION is filing an application with the State of New Mexico Oil Conservation Division to convert the captioned well which it currently operates. This well has been depleted for a long time in the Bough "C" formation. The well is needed to dispose produced water from the Bough "C" formation from three (3) other PENROC wells in the Vada Field.

As required by the New Mexico Oil Conservation Division we have advertized our intent in the Hobbs News Sun on May 18, 1995. We would appreciate your comments at an early date.

Please call the undersigned or write and discuss the matter if you have any questions. Your cooperation in this matter is greatly appreciated.

Sincerely,

D. Denise Mohar

Assistant to the President

M. Y. (Merch) Merchant

ddm

FN: SWDAPPR

MAILING ADDRESS-PO Box 5970 Hobbs, NM 88241-5970 DELIVERY ADDRESS: 5014 Carlsbad Hwy. Hobbs, NM 88240-1118 (505) 397-3596 Phone



May 19, 1995

Nathan Appleman and wife Janet G. Appleman 654 Madison Avenue
New York 21, New York 10021

Re:

L. D. Tankersley Well No. 3 Lea County, New Mexico

Dear Mr. & Mrs. Appleman:

PENROC OIL CORPORATION is filing an application with the State of New Mexico Oil Conservation Division to convert the captioned well which it currently operates. This well has been depleted for a long time in the Bough "C" formation. The well is needed to dispose produced water from the Bough "C" formation from three (3) other PENROC wells in the Vada Field.

As required by the New Mexico Oil Conservation Division we have advertized our intent in the Hobbs News Sun on May 18, 1995. We would appreciate your comments at an early date.

Please call the undersigned or write and discuss the matter if you have any questions. Your cooperation in this matter is greatly appreciated.

Sincerely

D. Denise Mohar

Assistant to the President

M. Y. (Merch) Merchant

ddm

FN: SWDAPPR



May 19, 1995

June D. Speight, Married - Dealing Separate P.O. Drawer 1687 Lovington, New Mexico 88260

Re:

L. D. Tankersley Well No. 3 Lea County, New Mexico

Dear Ms. Speight:

PENROC OIL CORPORATION is filing an application with the State of New Mexico Oil Conservation Division to convert the captioned well which it currently operates. This well has been depleted for a long time in the Bough "C" formation. The well is needed to dispose produced water from the Bough "C" formation from three (3) other PENROC wells in the Vada Field.

As required by the New Mexico Oil Conservation Division we have advertized our intent in the Hobbs News Sun on May 18, 1995. We would appreciate your comments at an early date.

Please call the undersigned or write and discuss the matter if you have any questions. Your cooperation in this matter is greatly appreciated.

Sincerely,

D. Denise Mohar

Assistant to the President M. Y. (Merch) Merchant

ddm

FN: SWDAPPR



May 19, 1995

Ms. Lillian Roth 140 West 58th Street New York, New York 10019

Re:

L. D. Tankersley Well No. 3 Lea County, New Mexico

Dear Ms. Roth:

PENROC OIL CORPORATION is filing an application with the State of New Mexico Oil Conservation Division to convert the captioned well which it currently operates. This well has been depleted for a long time in the Bough "C" formation. The well is needed to dispose produced water from the Bough "C" formation from three (3) other PENROC wells in the Vada Field.

As required by the New Mexico Oil Conservation Division we have advertized our intent in the Hobbs News Sun on May 18, 1995. We would appreciate your comments at an early date.

Please call the undersigned or write and discuss the matter if you have any questions. Your cooperation in this matter is greatly appreciated.

Sincerely,

. Denise Mohar

Assistant to the President M. Y. (Merch) Merchant

ddm

FN: SWDAPPR

SOPY

MAILING ADDRESS-PO Box 5970 Hobbs, NM 88241-5970 DELIVERY ADDRESS-5014 Carlsbad Hwy. Hobbs, NM 88240-1118 (505) 397-3596 Phone

Achibsulance Coverage Provided Lectified Mail

& MARJORIE MERRIT

ROY G. BARTON JR.

P, 0, BOX 968

HOBBS, NM 88240

, 42 79756 Ś \$ P.O. BOX 1966 × SdS MONAHANS, N. 89

PS Form 3800, March 1993

PS Form **3800₁**

681 450 **1**06

Certified Mail Receipt for

N. Insurance Coverage Provided De not use for International Mail

DOSTAL SERVICE

NATHAN APPLEMAN

10021 654" MADISON AVENUE くか Ż NEW YORK,

LOVINGTON, NM 88260

P.O. DRAWER 1687

PSZ 8 Certified 1 --

15h 181 10b

papinous afternation Ternational Mad Certifie De not us. Receip

÷

MS.

JUNE SPEIGHT (Sec Rever

(See Reverse) UNITED STATES POSTAL

No Insurance Coverage Provided Do not use for International Mail Certified Mail

Receipt for

681 449

901 2

0019 MS. LILLIAN ROTH ST ž 140 W. 58TH NEW YORK,

Settletace for ,0086

42

Sden

3800, March 1993

61

6240

The state of

Certified Mail Receipt for

No Insurance Coverage Provided Do not use for International Mail

No insurance Coverage Pro Do not use for Internationa

Certified Mail

Receipt for

244 TG9 90T 2

LD TANKERSLEY

MS.

(See Reverse)

(See Reverse)

HW114, 12 00K 1

. Hurrage Provided mations Wa

No insurance

(C) (S)

Confidence Assi

ANNA & MILTON MIRKEN

155 EAST 73RD ST. NEW YORK, NY Contide disease

92250

CA

SPACE 22, TRAILER M HOLTVILLE,

> Restricted for very fee Special Description

\$ Regain the Derivery Fee Special Delivery Fee March 1993 PS Form **3800**

(42)

43

42

Bas

3800,

HOBES, N.M. 88241-5970 P.O. BOX 5970

2 10F FB1 A2A

Receipt for

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

| orm 3800 |), Ma | irch 1 | 1993 | | | | | | | |
|------------------|-------------------------|---|--|------------------------|---|---------------|---------|---------------------------------|------------------|----------------------------|
| Postmark or Date | *O*Ac Pestage & Eves | Betarn Receipt Showing to Choin, Date, and Addingshe's Addings. | Return Recept Showing to Whom & Date Delivered | Restricted Description | Special Delicary rose | Contited Figo | Fostage | PO SHEWE DE COMERLAND PARK, KAN | 7101 COLLEGE BLV | PETROLEUM PRODUCTION MGMT. |
| | \$ 1.42 | | | | | 1.10 | \$.32 | KANSAS 66210 | BLVD., SUITE 330 | TION MG |
| | | | | | *************************************** | | | 10 | E 330 | MT. |

70P P87 42A



PETROLEUM PRODUCTION MANAGEMENT INC. 7101 COLLEGE BLVD., SUITE 350 OVERLAND PARK, KANSAS 66210

P.O. BOX 5970 HORES, N.M. 88241-5970

ESh 189 901 Z

Receipt for
Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

| orm 380(| | arch | 1993 | | | | | ····· | | |
|------------------|-------------------------|---|--|------------------------|---------------------|-------------|---------|-------------------|---------------|----------------------|
| Posimari or Date | TOTAL Portuge & Fees | Return Recept Growing to Whom Date, and Address as Address | Return Receipt on wing to Whom 's Early I moved | Restricted the concept | Special (preserve e | Certified I | Postaqu | HOUSTON, TX 77253 | P.O. BOX 3092 | AMOCO PRODUCTION CO. |
| | \$1.42 | | | | | 1.10 | \$.32 | 253 | | N CO. |



AMOCO PRODUCTION COMPANY P.O. BOX 3092 HOUSTON, TEXAS 77253

AFFIDAVIT OF PUBLICATION

| State of New Mexico, County of Lea. |
|--|
| I. Kathi Bearden |
| General Manager |
| of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period. |
| of |
| Beginning with the issue dated May 21, 199519 and ending with the issue dated May 21, 1995 |
| General Manager Sword and subscribed to before |
| me this - 22 and day of |
| Mariles & Rulling Notary Rublic. |
| My Commission expires March 24, 1998 (Seal) |

This Newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

May 21, 1995
PENROC OIL CORPORATION, P.O. Box 5970, Hobbs,
New Mexico 88241-5970, is
filing an application to convert its Tankersley Well No.
3 to water disposal. This well
is located in the SE/4 of NW/
4, Section 30, Township 9
South, Range 34 East, LeaCounty, New Mexico

The Intention of the applicant is to inject produced water from the Bough C formation at its producing wells in the Vada Penn Field into the Bough "C" formation in this well which is depleted.

Maximum injection rates will be 1200 barrels of water per day at pressures not to exceed 500 psig. The depth of the injection zone will be 9788' to 9803'.

All interested parties must file any objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 97501 within 15 days of this notice. M.Y. (Merch) Merchant, President, (505) 397-3596.