

Case 8324

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Tertiary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☒ no
- II. Operator: Yates Petroleum Corporation
Address: 207 South Fourth Street, Artesia NM 88210
Contact party: E. Robert Tisdale Phone: (505) 748-1331 ext 162
- 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: E. Robert Tisdale

Title CO2 Pilot Project Engineer

Signature: E. Robert Tisdale

Date: 1 August 1984

- * If the information required under Sections VI, VIII, X submitted, it need not be duplicated and resubmitted. of the earlier submittal.

YATES PETROLEUM CORPORATION
Case No. 8324
9/19/84 Examiner Hearing
Exhibit No. 1

DISTRIBUTION: Original and one copy to Santa Fe with district office

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.

Loco Hills CO2 Pilot Flood C-108

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: Tertiary Recovery
Application qualifies for administrative approval? No

II. Operator: Yates Petroleum Corporation
Address: 207 South 4th Street
Artesia, New Mexico 88210
Contact Party: E. Robert Tisdale Phone: (505) 748-1331 Ext 162

III. Well Data:

A. The following well data must be submitted for each injection well covered by this application.

1. Lease name; well no.; location by Section, Township and Range, and footage location within the section.

a. West Loco Hills Unit G4S Tract 13-12
Section 12-18S-29E 1980 FNL - 10 FEL

b. West Loco Hills Unit G4S Tract 6-5
Section 12-18S-29E 2475 FSL - 10 FEL

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.

	<u>Surface</u>	<u>Production</u>
Casing size:	8 5/8"	5 1/2"
Depth:	400' +	2850' +
Cement:	350 sx	400 sx
Hole Size:	12 1/4"	7 7/8"
Top of Cement:	Surface	Surface
Top determined by:	Circulating	Circulating

3. A description of the tubing to be used including its size, lining material, and setting depth.

Tubing Size: 2 7/8"
Lining Material: Spin Coat
Depth: Just above perforations

4. The name, model and setting depth of the packer used or a description of any other seal system or assembly used.

Packer Name: Watson Packer
Model: J-Lok
Depth: Just above perforations

III. B. The following must be submitted for each injection well covered by this application.

1. The name of the injection formation and, if applicable, the field or pool name.

Formation: Grayburg
Field: Loco Hills
Pool Name: Loco Hills Queen Grayburg San Andres

2. The injection interval and whether it is perforated or open hole.

About 2800' - 2820', perforated

3. State if the well was drilled for injection or, if not, the original purpose of the well.

These wells are being drilled for injection.

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.

There are no other perforated intervals.

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.

Higher: Penrose Sand - 2350'
Lower: Premier - 3050'

IV. Is this an expansion of an existing project?

No. However the Loco Hills Waterflood was previously authorized by the Oil Conservation Commission of New Mexico Case No. 1511, Order No. R-1267 and Case No. 2473, Order No. R-2178. (See attached)

- 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. (See attached map)

VI. Tabulation of well data. (See attached)

VII. Attach data on the proposed operation, including:

1. Proposed average & maximum daily rate and volume of fluids to be injected:

40 tons CO2 per day per well alternating with 225 bbls per day per well H2O. Fifteen days of CO2 to be followed with 15 days of H2O.

2. Whether the system is open or closed.

The system is closed.

3. Proposed average and maximum injection pressures:

H2O and CO2 surface injection pressure not to exceed 2000 psi.

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water.

Injection fluid is CO2 trucked in to the site.

Injection fluid is fresh water delivered from Maljamar Fresh Water System by pipeline and produced water. These waters are compatible as has been proven by injecting them into the West Loco Hills Unit since 1963.

Analysis of CO2 is not available at this time; however, we will probably be using food quality CO2 which is 99.9% pure. Analysis of fresh water is attached.

- 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 overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

The Loco Hills Sand, which is the zone to be injected, goes from 14 to 61 feet thick with an average of 18 feet. The top of the Loco Hills Sand has a depth range from 2,366 to 2,880 feet. The composition consists of light gray to white and light brown, very finely grained, silty sandstone, sandy dolomite and minor shale.

The geologic name of the underground source of drinking water overlying the injection zone is the Rustler formation. The Rustler formation extends down to 360 feet and is comprised of anhydrite and interfingering redbeds. It averages 160 feet in thickness. All shallow water overlying the Rustler is comprised of redbeds. Additional information on file, Case No. 1511, Order No. R-1267.

IX. Describe the proposed stimulation program if any.

Small acid job only - less than 10,000 gallons

X. Attach appropriate logging and test data on the well.

There is none - we propose to drill new injection wells. Information will be submitted when the wells have been drilled.

XI. Attach a chemical analysis of fresh water from 2 or more fresh water wells within one mile of an injection well.

There are no fresh water wells within the one mile radius.

XII. Affirmative statement: see attached.

XIII. Proof of Notice: see attached.

LOCO HILLS POOL
(GRAYBURG WATERFLOOD)
Eddy County, New Mexico

Order No. R-1267, Authorizing Newmont Oil Corporation to Conduct a Pilot Waterflood in the Grayburg Formation of the Loco Hills Pool, Eddy County, New Mexico, October 25, 1958.

Application of Newmont Oil Corporation for an order authorizing a pilot waterflood project in the Loco Hills Pool, Eddy County, New Mexico.

CASE NO. 1511
 Order No. R-1267

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on October 2, 1958, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 25th day of October, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner Elvis A. Utz, and being fully advised in the premises,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Newmont Oil Corporation, proposes to institute a pilot waterflood project in the Loco Hills Pool to inject water into the Grayburg formation through five (5) wells located in Section 6, Township 18 South, Range 30 East, N.M.P.M., Eddy County, New Mexico, and through one (1) well located in Section 1, Township 18 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.

(3) That the proposed injection wells are as follows:
 Yates "A" No. 2 NE/4 NW/4 Section 6 T-18-S, R-30-E
 Yates "A" No. 11 NW/4 NE/4 Section 6 T-18-S, R-30-E
 Yates No. 5 NW/4 SW/4 Section 6 T-18-S, R-30-E
 Yates No. 2 SW/4 NW/4 Section 6 T-18-S, R-30-E
 Yates No. 3 SE/4 NW/4 Section 6 T-18-S, R-30-E
 Ballard "B" No. 5 NE/4 NE/4 Section 1 T-18-S, R-29-E

(4) That the proposed pilot waterflood injection project will not adversely affect the interests of any other operators in the Loco Hills Pool.

(5) That the proposed program will promote conservation and will tend to prevent waste through the production of oil which might not otherwise be recovered.

IT IS THEREFORE ORDERED:

(1) That the application of Newmont Oil Corporation for permission to institute a pilot waterflood project in the Grayburg formation of the Loco Hills Pool in Eddy County, New Mexico, be and the same is hereby approved.

(2) That the following-described wells be and the same are hereby authorized as water injection wells:

Yates "A" No. 2 NE/4 NW/4 Section 6 T-18-S, R-30-E
 Yates "A" No. 11 NW/4 NE/4 Section 6 T-18-S, R-30-E
 Yates No. 5 NW/4 SW/4 Section 6 T-18-S, R-30-E
 Yates No. 2 SW/4 NW/4 Section 6 T-18-S, R-30-E
 Yates No. 3 SE/4 NW/4 Section 6 T-18-S, R-30-E
 Ballard "B" No. 5 NE/4 NE/4 Section 1 T-18-S, R-29-E

(3) That monthly progress reports on the waterflood project herein authorized shall be submitted to the Commission in accordance with Rule 704 and Rule 1119 of the Commission Rules and Regulations.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

MALJAMAR POOL
(Yates Sand Gas Injection)
Lea County, New Mexico.

Order No. R-106, Authorizing Buffalo Oil Company to Inject Gas Into the Yates Sand in the Maljamar Pool, Lea County, New Mexico, October 31, 1951.

The application of Buffalo Oil Company for approval of use of its Baish A Well No. 7, Section 21, Township 17 S., Range 32 E, N.M.P.M., Lea County, New Mexico, for gas injection purposes in the Yates Sand.

CASE NO. 312
 Order No. R-106

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 10 a.m., October 23, 1951, before the Oil Conservation Commission of New Mexico hereinafter referred to as the "Commission," upon petition of Buffalo Oil Company.

NOW, on this 31st day of October, 1951, the Commission, a quorum being present, having considered all of the testimony adduced and exhibits received at said hearing, and being fully advised in the premises,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That it would be in the interests of conservation, prevent waste and protect correlative rights to permit the petitioners to conduct a gas injection program in the Yates Sand through its Baish A No. 7 well, located in Section 21, Township 17 S., Range 32 E., N.M.P.M., on an experimental basis.

(3) That gas, in excess of the needs of the Maljamar Cooperative Repressuring Agreement, is available from the plant serving the Maljamar Cooperative Repressuring Agreement, and such excess gas is now being vented to the air, and is available to carry out the gas-injection program as proposed by the petitioner.

IT IS THEREFORE ORDERED:

(1) That Buffalo Oil Company is hereby granted permission to inject gas in the Yates Sands through its Baish A No. 7 well, Section 21, Township 17 South, Range 32 East, N.M.P.M., Lea County, New Mexico.

(2) That said gas injection program is to be conducted on an experimental basis, injection to be made between the 8- $\frac{1}{8}$ inch and the 10- $\frac{3}{4}$ inch casing strings, and production from the Maljamar Pool, Lea County, New Mexico, may continue through the 7-inch casing.

(3) That no change in plans for the injection of gas into the Yates Sand shall be made except upon application to the Commission, and the Commission may act administratively upon such application if, in its opinion, the rights of third parties are not affected thereby.

Nothing in this order shall be construed as affecting, changing or modifying the Maljamar Repressuring Agreement as provided by Commission Order No. 485, or as creating any vested right to gas from the Maljamar Repressuring Agreement source, or from any other source.

IT IS FURTHER ORDERED, that jurisdiction of this case, be and the same hereby is retained by the Commission for such further order or orders as may seem necessary to the Commission for the promotion of conservation, prevention of waste or protection of correlative rights.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

LOCO HILLS POOL
(West Grayburg No. 4 Sand Unit Area Waterflood)
Eddy County, New Mexico

Order No. R-2178, Authorizing Newmont Oil Company to Expand its Loco Hills Waterflood Project by Inclusion of the West Loco Hills Grayburg No. 4 Sand Unit Area, Loco Hills Pool, Eddy County, New Mexico

Application of Newmont Oil Company for expansion of its Loco Hills Waterflood Project, Eddy County, New Mexico.

CASE NO. 2473
Order No. R-2178

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on January 4, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 30th day of January, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Newmont Oil Company, seeks permission to expand its Loco Hills Waterflood Project to include the West Loco Hills Grayburg No. 4 Sand Unit Area, comprising 5,320 acres, more or less, in Townships 17 and 18 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico, which unit was approved by Order No. R-2166.

(3) That the applicant seeks permission to operate the expanded waterflood project as a "capacity" type flood unrestricted by the allowable provisions of Rule 701 E.

(4) That in the interest of increasing ultimate recovery in the Loco Hills Pool, the applicant should be authorized to conduct waterflood operations in the West Loco Hills Grayburg No. 4 Sand Unit Area by the injection of water into the Loco Hills Sand; that the allowables to be assigned to wells in this project should be governed by the provisions of Rule 701 E, except that a buffer zone should be established in which allowables would be unrestricted.

(5) That production from wells outside the buffer zone should be tanked separately from production from wells inside the buffer zone unless the applicant receives approval from the Commission for some other satisfactory means of determining production from each of the two areas.

(6) That for the purpose of determining the project area and computing the project allowable under Rule 701 E, any producing well in said project area lying outside the buffer zone should be entitled to receive credit for offsetting an injection well regardless of whether the injection well is in the buffer zone or in the project area.

IT IS THEREFORE ORDERED:

(1) That the applicant, Newmont Oil Company, is hereby authorized to institute a waterflood in the Loco Hills Pool within the West Loco Hills Grayburg No. 4 Sand Unit Area located in Townships 17 and 18 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico, by the injection of water initially into the following-described wells:

Ballard B No. 1—SE/4 NW/4 Section 1, Township 18 South, Range 29 East
Dixon Yates Federal No. 2—SE/4 SE/4 Section 1, Township 18 South, Range 29 East
Newmont Canfield No. 1—A—NW/4 NW/4 Section 7, Township 18 South, Range 30 East

(LOCO HILLS (WEST GRAYBURG NO. 4 SAND UNIT AREA WATERFLOOD) POOL—Cont'd.)

(2) That the ultimate project area for said waterflood shall consist of all the acreage within the said West Loco Hills Grayburg No. 4 Sand Unit Area, except the following-described acreage which shall constitute a buffer zone:

TOWNSHIP 17 SOUTH, RANGE 29 EAST
Section 36: S/2 SW/4

TOWNSHIP 18 SOUTH, RANGE 29 EAST
Section 1: W/2 and S/2 SE/4
Section 12: NE/4 and N/2 NW/4

TOWNSHIP 18 SOUTH, RANGE 30 EAST
Section 7: NW/4

(3) That the wells located within the above-described buffer zone may be operated at unrestricted rates of production.

(4) That all producing wells located within said waterflood project and outside the above-described buffer zone shall be operated and produced in accordance with the allowable provisions of Rule 701 E of the Commission Rules and Regulations.

(5) That for the purpose of determining the project area and computing the project allowable under Rule 701 E, any producing well in said project area lying outside the buffer zone shall be entitled to receive credit for offsetting an injection well regardless of whether the injection well is in the buffer zone or in the project area.

(6) That production from wells outside the buffer zone shall be tanked separately from production from wells inside the buffer zone unless the applicant receives approval from the Commission for some other satisfactory means of determining production from each of the two areas.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

TOTAH-GALLUP POOL
(Tenneco Pressure Maintenance Project and Rules)
San Juan County, New Mexico

Order No. R-2190, Authorizing Tenneco Oil Company to Institute a Pressure Maintenance Project and Adopting Rules to Govern, in the Totah-Gallup Pool, San Juan County, New Mexico, February 21, 1962.

Application of Tenneco Oil Company for a Pressure Maintenance Project, San Juan County, New Mexico.

CASE NO. 2484
Order No. R-2190

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on January 24, 1962, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 21st day of February, 1962, the Commission, a quorum being present, having considered this application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

VI. Tabulation of Well Data.

- A. West Loco Hills G4S Unit Tract 6-1, formerly the Day #1. Located 1980' FSL and 660' FEL of section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operators are Newmont Oil Company and Dixon and Yates. This well was spudded 2/16/42 and completed 3/24/42 as a producing oil well. Current status is as a water injection well with a TD of 2784'. Construction: 8 5/8" 350'/50 sx; 7" 20# smls 2635'/100 sx; 4 1/2" 9.5# liner 2565-2744'/65 sx. Completion record: shot 50 qts Nitroglycerine 2747-60'; shot 30 qts Nitroglycerine 2760-75'; shot 30 qts Nitroglycerine 2775-83'; SOF 1M Strati-lift; Petro-frac 9M-18M; A/1000 gal 15%; A/500 gal 15%; Sandrill 10/20 sd 2766-2770', 2774-2777'; A/500 gal 15%; A/500 gal 28%; A/500 gal 25% & 5 gal Visco IIII.
- B. West Loco Hills G4S Unit Tract 6-2, formerly the Day #2. Located 1980' FSL and 1980' FEL section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operators are Newmont Oil Company and Dixon and Yates. This well was spudded 3/31/42 and completed 5/5/42. This is a producing oil well with a TD of 2745'. Construction: 8 5/8" 340'/50 sx; 7" 20# smls 2603'/100 sx. Completion record: shot 110 qts Nitroglycerine 2695-2722'; SOF 20M-25M#; F/7.5M# 20/40 sd & 375 bbls lease oil; F/500 gal 15% acid 10M gal lease oil & 10M# 20/40 sd.
- C. West Loco Hills G4S Unit Tract 6-3, formerly the Day #3. Located 660' FSL and 1980' FEL of section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operators are Newmont Oil Company and Dixon and Yates. This well was spudded 6/22/43 and completed 9/14/43 as a producing oil well. It was re-entered 10/8/64 when it was D & A. 12/18/82 it was recompleted as a water injection well and was then P & A'd with a TD of 3037'. Construction: 8 1/4" 355'/50 sx; 7" 20# smls 2602'/100 sx; 4 1/2" 9.5# liner 2520-2695'/150 sx Cl "C". Completion record: shot 380 qts Nitroglycerine 2680-2773'; sandrill 10/20 sd 30 min @ 2712-2715', 2704-2708'; perf 2700-2718'/4 SPF A/500 gal 28%; sandrill 2703-2706-2710'; A/500 gal 28% F/595 bbls fresh water & 28M# 20/40 sd; A/500 gal 15%; A/500 gal 15%. P & A: set 7" CIBP @ 2520', spot 25 sx on plug, mud hole up, perf base salt @ 1045' & squeeze with 150 sx cement, tag plug @ 953', tag plug @ 40', set 15 sx & dry hole marker at surface.
- D. West Loco Hills G4S Unit Tract 6-4, formerly the Day #4. Located 660' FSL and 660' FEL of section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operators were Newmont Oil Company and Dixon & Yates. This well was spudded 9/22/43 and completed 11/3/43 as a producing oil well. During the life of the well it was also IA and is now again a producing oil well. TD is 2758'. Construction: 8 1/4" 375'/50 sx; 7" 20# smls 2645'/100 sx. Completion record: shot 120 qts Nitroglycerine 2728-58'; SOF 2670-98'/32M-110M#.

- E. West Loco Hills G4S Unit Tract 13-1, formerly called the Saunders "A" #1 and the Saunders #1. Located 330' FNL and 330' FEL of section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operators were Newmont Oil Company and Dixon & Yates. This well was spudded 3/1/39 and completed 7/19/39 as a producing oil well with a TD of 3200'. It has since been a water injection well and is currently PA. Construction: 8" 24# 424'/50 sx; 7" 20# 2698'/100 sx. Completion record: shot 470 qts Nitroglycerine 2990-3190'; shot 230 qts Nitroglycerine 2803-2850'; A/500 gal 15%. P & A: spot 100 sx w/2% calcium bottom, tag plug @ 2587' perf 4 SPF @ 1170', squeezed 50 sx w/2% calcium, tag plug @ 1040', perf 4 shots @ 390', spot 50 sx w/2% calcium, tag 273' 15 sx top, P & A marker.
- F. West Loco Hills Unit G4S Tract 13A-4, formerly called the Saunders "A" #4 and the Saunders #4-A. Located 1650' FNL and 330' FEL of section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operators were Newmont Oil Company and Dixon & Yates. This well was spudded 9/17/41 and completed 10/21/41 as a producing oil well. Since then this well's status has been TA, producing and is currently shut in. TD on this well is 2805'. Construction: 8 1/4" 425'/50 sx; 7" 2680'/100 sx. Completion record: shot 120 qts Nitroglycerine 2764-2805'; A/500 gal 5% inhibited FE acid; F/395 bbls lease oil & 7500# 20/40 sd; A/1M gal NE-FE acid & 2 drums gyp control chem + 20 bbls water; F/18M gal emulsified oil, 45M# 20/40 sd, 1400# rock salt.
- G. West Loco Hills G4S Unit Tract 13-5, formerly the Saunders "A" #5-AX and the Saunders #5-AX. Located 1650 FNL and 1670 FEL of section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operators were Newmont Oil Company and Dixon & Yates. This well was spudded 1/5/42 and completed 2/8/42 with a TD of 2768'. This well was completed as a producing oil well and was later converted to an injection well and is now P&A. Construction: 8 1/4" 359'/50 sx; 7" 2632'/100 sx; 4 1/2" 9.5# J-55 liner 2596-2727'/150 sx Cl "C". Completion record: shot 100 qts Nitroglycerine 2739-2768'; F/4300 gal butene 15M-60M; A/500 gal 15%; A/500 gal; A/500 gal; perf/4 SPF 2732-54' A/500 gal regular; A/500 gal 28%; P&A: tag bottom, pull up 1 jt, spot 100 sx/2% calcium, tag plug @ 2307', set packer 819', squeeze 50 sx, tag plug @ 975', 15 sx, tag plug @ 960', squeeze cement with 2% calcium, tag plug @ 219', mix 15 sx with 2% calcium, P&A marker.

- H. West Loco Hills G4S Unit Tract 13-7, formerly the Saunders "A" #7 and the Saunders #7-A. Located 990' FNL and 990' FEL of section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operators were Newmont Oil Company and Dixon & Yates. This well was spudded 5/22/47 and completed 6/29/47 with a total depth of 2811'. This well was completed as a producing oil well, but since has also been TA, producing and is now shut in. Construction: 8 1/4" 408'/50 sx; 7" 20# 2670'/100 sx. Completion record: shot 100 qts Nitroglycerine 2775-2801'; A/500 gal 5% inhibitor FE acid; sandrill 10/20 sd 2780, 2785, 2790'; A/250 gal 28% F/567 bbls salt water, 24M# 10/20 sd; A/1M gal 15% HCL with inhibitor F/20M gal oil & 40M# sd & 1400# rock salt.
- I. West Loco Hills G4S Unit Tract 13-11. Located 2310' FNL and 1175' FEL of section 12-18S-29E. Present operator is Yates Petroleum Corporation, former operator was Newmont Oil Company. This well was spudded 12/4/75 and completed 12/31/75 with a TD of 2828'. This well is a producing oil well. Construction: 8 5/8" 23# 302'/150 sx C1 "H"/2% CaCl 11'hole; 4 1/2" 9.5# J-55 2824'/650 sx C1 "H" 7 7/8" hole. Completion record: A/1000 gal 15% 2760-84'; F/20M gal + 50M# sd 2760-84'; perf 2760-84' w/2 SPF.
- J. Yates "A" #10, formerly the Yates #10-A. Located 330' FSL and 990' FWL of section 6-18S-30E. Present operator is Yates Petroleum Corporation, former operators were Newmont Oil Company, Franklin, Aston & Fair, and Franklin Petroleum Corporation. This well was spudded 6/10/49 and completed 7/11/49 with a TD of 2838'. This well was completed as a producing oil well and has since been TA and is now shut in. Construction: 8 1/4" 28# 447'/50 sx; 6 5/8" 18.9# 2700'/100 sx. Completion record: shot 140 qts Nitroglycerine 2802-2838'; sandrill 2815-19' 4 holes F/tubing 15M gal lease oil & 11.25M# 20/40 sd; sandrill 2815-19' F/15M gal lease oil, 14.6M# sd, 275# Adomite, 30 gal WWI.
- K. Yates "A" #15. Located 330' FSL and 330' FWL of section 6-18S-30E. Present operator is Yates Petroleum Corporation, former operator was Newmont Oil Company. This well was spudded 7/20/63 and completed 8/7/63 with a TD of 2830'. This well was completed as a producing oil well and has subsequently been SI and is now again producing oil. Construction: 8 5/8" 32# J-55 smls 416'/50 sx; 5 1/2" 15.5# J-55 smls 2732'/100 sx. Completion record: F/sandrill 2786-2794' 10M lease oil, 10M# 20/40 sd, 150# P2 & 250# Adomite; A/2M gal regular acid, 2 gal Adomall, 6 gal LP-19; sandrill 2791' & 2804' F 5 1/2" csg/56M gal water, 16.5M# 10/20 sd, 9.5M# 8/12 sd; F/268 bbls water, 320 bbls lease oil, 10M# 20/40 sd.

VI. Tabulation of Well Data

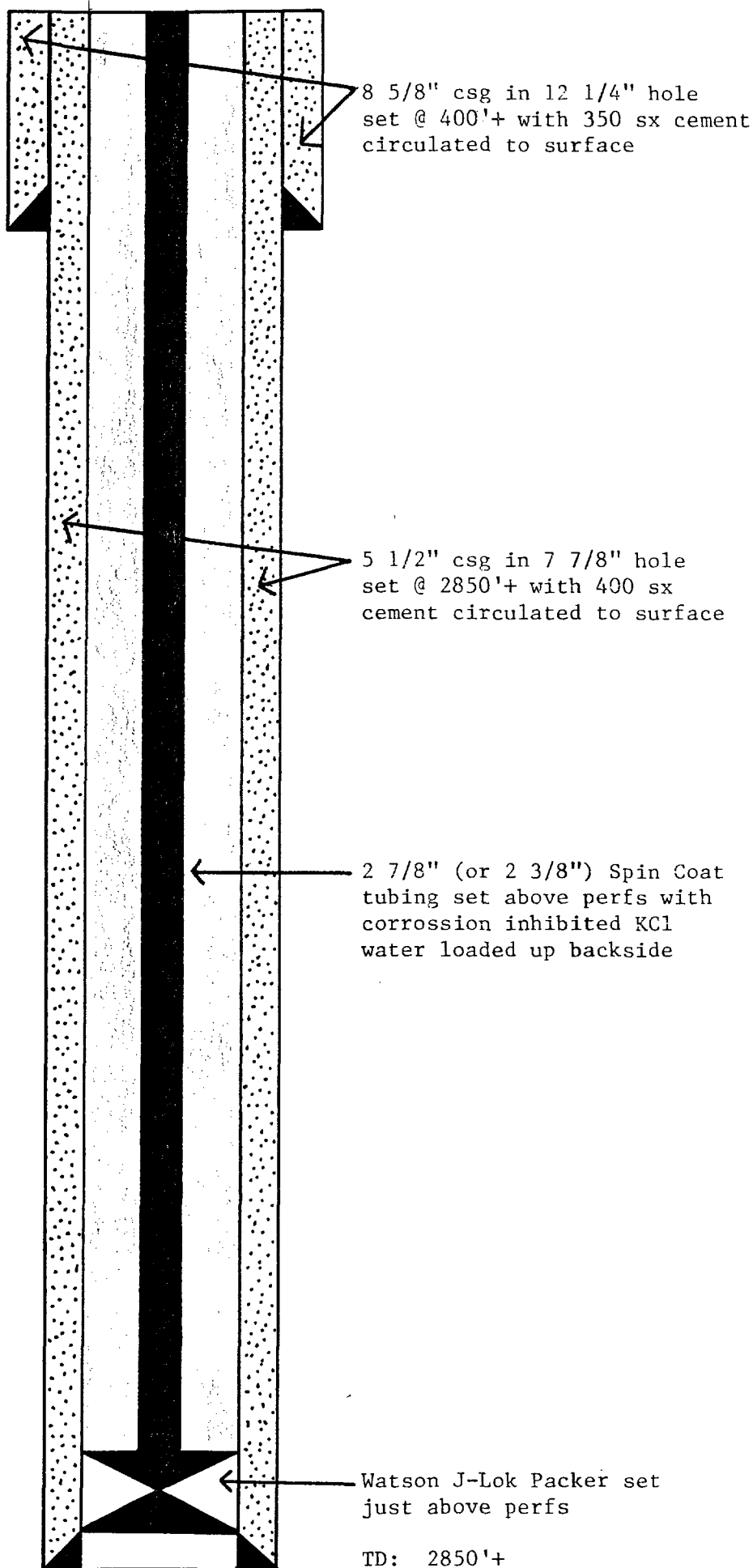
Page 4

- L. West Loco Hills G4S Unit Tract 1-1, formerly the Canfield "A" #1 and the Canfield #1. Located 330' FNL and 330' FWL of section 7-18S-30#. Present operator is Yates Petroleum Corporation, former operators were Newmont Oil Company; Franklin, Aston & Fair; and Franklin Petroleum Corporation. This well was spudded 8/14/39 and completed 9/28/39 with a TD of 2820'. This well was completed as a producing oil well and is now SI. Construction: 8 1/4" 28# 422'/50 sx; 7" 20# smls 2685'/100 sx. Completion record: shot 70 qts Nitroglycerine 2793-2820'; 10M gal 15M# sd 2671-2820'; A/126 gal 15%.
- M. West Loco Hills G4S Unit Tract 1-2, formerly the Canfield "A" #2 and the Canfield #2-A. Located 1650' FNL and 330' FWL of section 7-18S-30E. Present operator is Yates Petroleum Corporation, former operators were Newmont Oil Company; Franklin, Aston & Fair; and Franklin Oil Corp. This well was spudded 8/4/41 and completed 9/16/41 with a TD of 2804'. This well was completed as a producing oil well and has since been SI and is now producing oil. Construction: 8" 28# 427'/50 sx; 7" 20# 2690'/100 sx. Completion record: shot 60 qts Nitroglycerine 2785-2804'; 10M gal 15M# sd; A/126 gal 15%.
- N. West Loco Hills G4S Unit Tract 1-3, formerly the Canfield "A" #3 and the Canfield #3-A. Located 1980' FSL and 660' FWL of section 7-18S-30E. Present operator is Yates Petroleum Corporation. Former operators were Newmont Oil Company; Franklin, Aston & Fair; and Franklin Oil Corp. This well was spudded 10/17/42 and completed 12/1/42 as a producing oil well. The TD is 2835'. Construction: 8 1/4" 32# 427'/50 sx; 5" 17# smls 2705'/100 sx.
- O. West Loco Hills G4S Unit Tract 1-4, formerly the Canfield "A" #4 and the Canfield #4-A. Located 660' FSL and 560' FWL of section 7-18S-30E. Present operator is Yates Petroleum Corporation. Former operators were Newmont Oil Company; Franklin, Aston & Fair; and Franklin Oil Corp. This well was spudded 1/12/44 and completed 3/10/44 as a producing oil well with a TD of 2811'. This well has subsequently been turned in to a water injection well. Construction: 8 1/4" 402'/50 sx; 5 1/4" 2675'/100 sx; 4 1/2" 9.5# J-55 liner 2606-2760'/150 sx Cl "C"/141#; FLAC & 300# salt. Completion record: shot 60 qts Nitroglycerine 2777-2811'; shot 70 qts Nitroglycerine 2771-2806'; 10M gal 15M# sd 2575-2811'; sandrill 10/20 sd 2779, 2782, 2790, 2794'; A/500 gal; perf/4 SPF 2776 & 2797'; jet formation 2762-2806' spot A/500 gal 15% regular; A/500 gal 15% regular.
- P. West Loco Hills G4S Unit Tract 1-5, formerly the Canfield "A" #5 and the Canfield #5-A. Located 1650' FSL and 1650' FWL of section 7-18S-30E. Present operator is Yates Petroleum Corporation. Former operators were Newmont Oil Company; Franklin, Aston & Fair; and Franklin Oil Corp. This well was spudded 12/18/44 and completed 1/29/45 with a TD of 2837'. This well was completed as a producing oil well and is now a water injection well. Construction: 8 5/8" 425'/50 sx; 7" 2690'/100 sx; 4 1/2" 9.5# J-55 liner 2620-2796'/150 sx Cl "C"/1% D-23 & 2% salt. Completion record: shot 140 qts Nitroglycerine 2801-2837'; 10M gal 15M# sd; A/500 gal; perf/1 SPF 2805, 2809, 2313, 2818'; A/500 gal 15%.

- Q. West Loco Hills G4S Unit Tract 1-6, formerly the Canfield "A" #6 and the Canfield #6-A. Located 2590' FNL and 1370' FWL of section 7-18S-30E. Present operator is Yates Petroleum Corporation. Former operators were Newmont Oil Company; Franklin, Aston & Fair; and Franklin Oil Corp. This well was spudded 11/20/48 and completed 2/3/49 with a TD of 2837'. This is a producing oil well. Construction: 8 1/4" 430'/50 sx; 7" 2698'/100 sx. Completion record: shot 126 qts Nitroglycerine 2795-2837'; shot 200 qts Nitroglycerine 2795-2837'; 10M gal 15M# sd 2698-2837'; 126 gal 15%.
- R. West Loco Hills G4S Unit Tract 1-7, formerly the Canfield "A" #7 and the Canfield #7-A. Located 1270' FNL and 1370' FWL of section 7-18S-30E. Present operator is Yates Petroleum Corporation. Former operators were Newmont Oil Company; Franklin, Aston & Fair; and Franklin Oil Corp. This well was spudded 4/19/49 and completed 6/3/49 with a TD of 2814'. This well was completed as a producing oil well and was subsequently TA and is presently a water injection well. Construction: 8 1/4" 431'/50 sx; 7" 2693'/100 sx; 4 1/2" 9.5# J-55 liner 2594-2769'/300 sx encore/2% salt & 1% D-60; A/500 gal; A/500 gal 15% regular; perf 2802-22' 1/4 SPF A/500 gal 28%; A/1000 gal 28%; A/100 15% regular & 5 gal Visco IIII.
- S. West Loco Hills G4S Unit Tract 1-8, formerly the Canfield "A" #8 and the Canfield #8-A. Located 2310' FNL and 330' FWL of section 7-18S-30E. Present operator is Yates Petroleum Corporation. Former operators were Newmont Oil Company; Franklin, Aston & Fair; and Franklin Oil Corp. This well was spudded 7/31/56 and completed 8/30/56 with a TD of 2814'. This well was completed as a producing oil and is presently a water injection well. Construction: 8 5/8" 28# 426'/50 sx; 7" 20# 2774'/100 sx. Completion record: 10M SF 15M# 20/40 sd; A/500 gal regular; A/500 gal 28%; A/1000 gal 28%.
- T. Saunders #5A. Located in section 12-18S-29E. Operator is Dixon & Yates. This well was spudded 11/8/41 and completed 1/6/42 and was J & A with a TD of 2742'. Construction: 8 1/4" 353'/50 sx; 6" 2653'.

PROPOSED INJECTION WELL

West Loco Hills Unit Injection wells will be drilled with 12 1/4" or 10 3/4" bit to top of Salt (400'+). 8 5/8" csg will be run and cement circulated to surface. Cement will be drilled out and the well will TD below the Loco Hills Sand with about 50' of rathole for logging tools (2850'+). 5 1/2" J-55 or K-55 17# pipe will be run to TD and cement circulated back to surface. The Loco Hills Sand will be perforated and stimulated to allow injection of 40 tons/day CO₂ or 225 bbls/day water at less than 2000 psi. A nickel plated and plastic coated tension/compression packer will be set just above the perforations at 2800'+. Internally plastic coated tubing of 2 3/8" or 2 7/8" will be used and the backside will be loaded with corrosion inhibited KCl water for protection from corrosion, pressure backup and thermal conductivity.

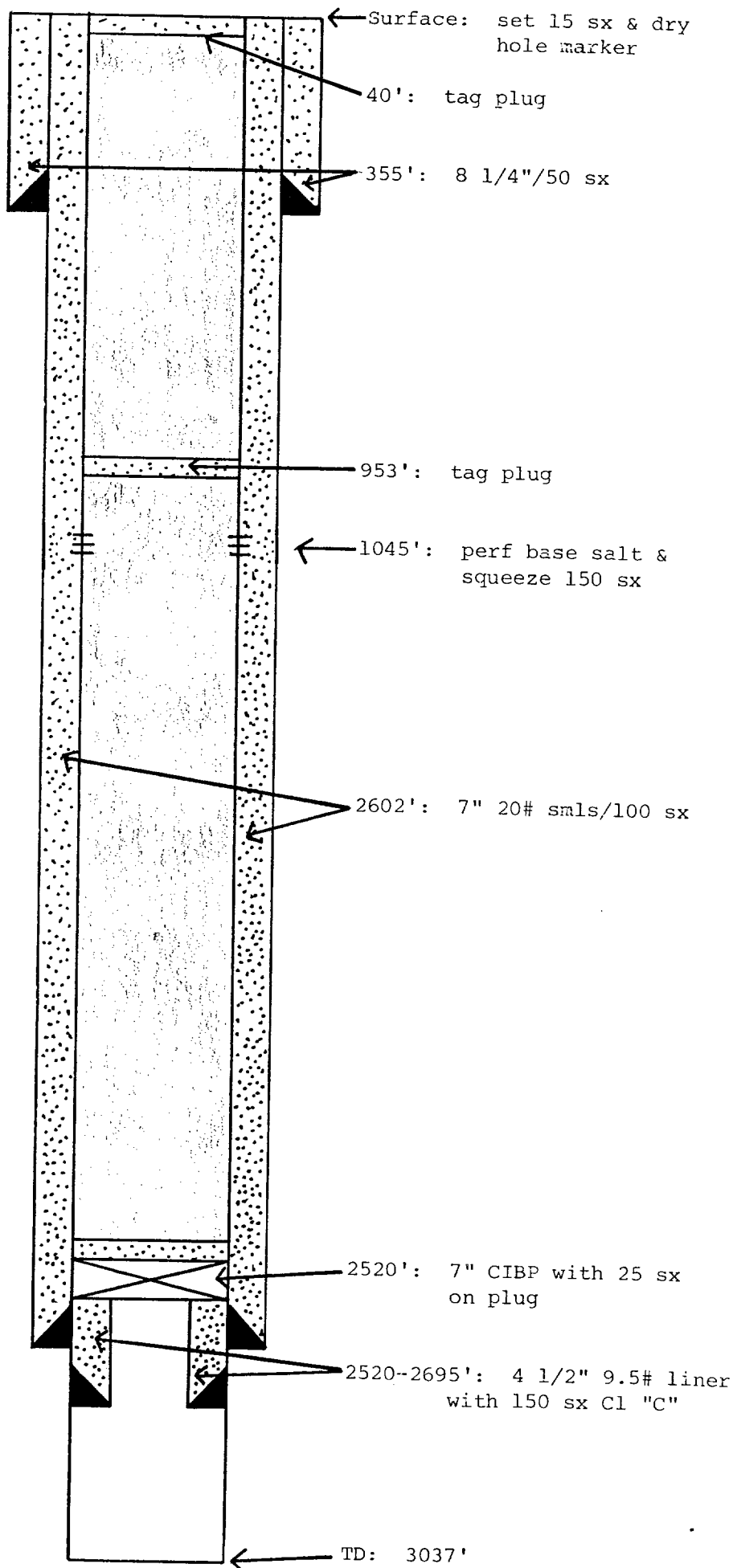


West Loco Hills G4S Unit Tract 6-3

Sec 12-18S-29E 660' FSL/1980' FEL

P & A: 12/18/82

Set 7" CIBP @ 2520', spot 25 sx on plug, mud hole up, perf base salt @ 1045' & squeeze with 150 sx cement, tag plug @ 953'; tag plug @ 40'; set 15 sx & dry hole marker at surface

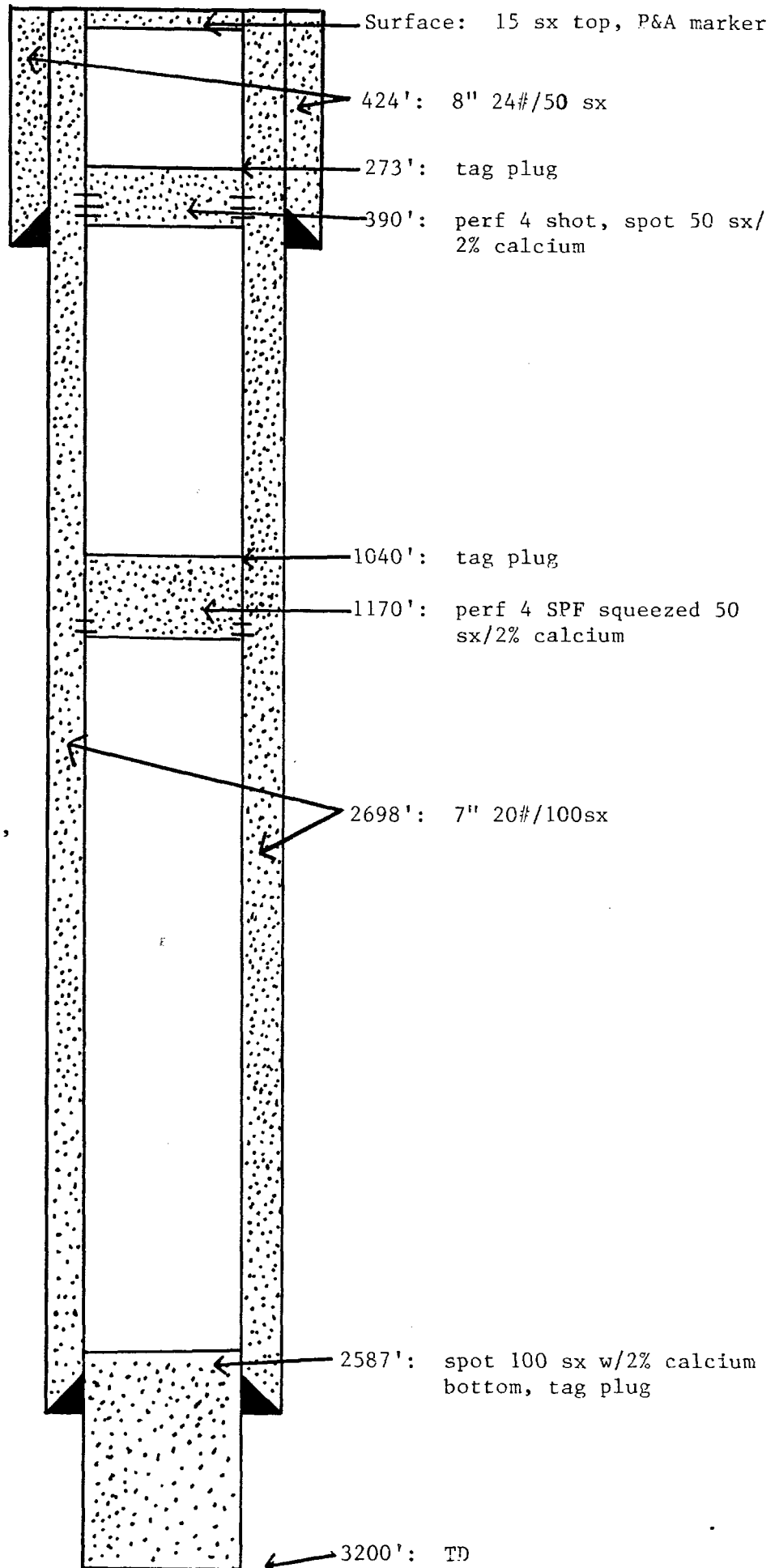


West Loco Hills G4S Unit Tract 13-1

330' FNL/330' FEL Sec 12-18S-29E

P&A: 7/14/83

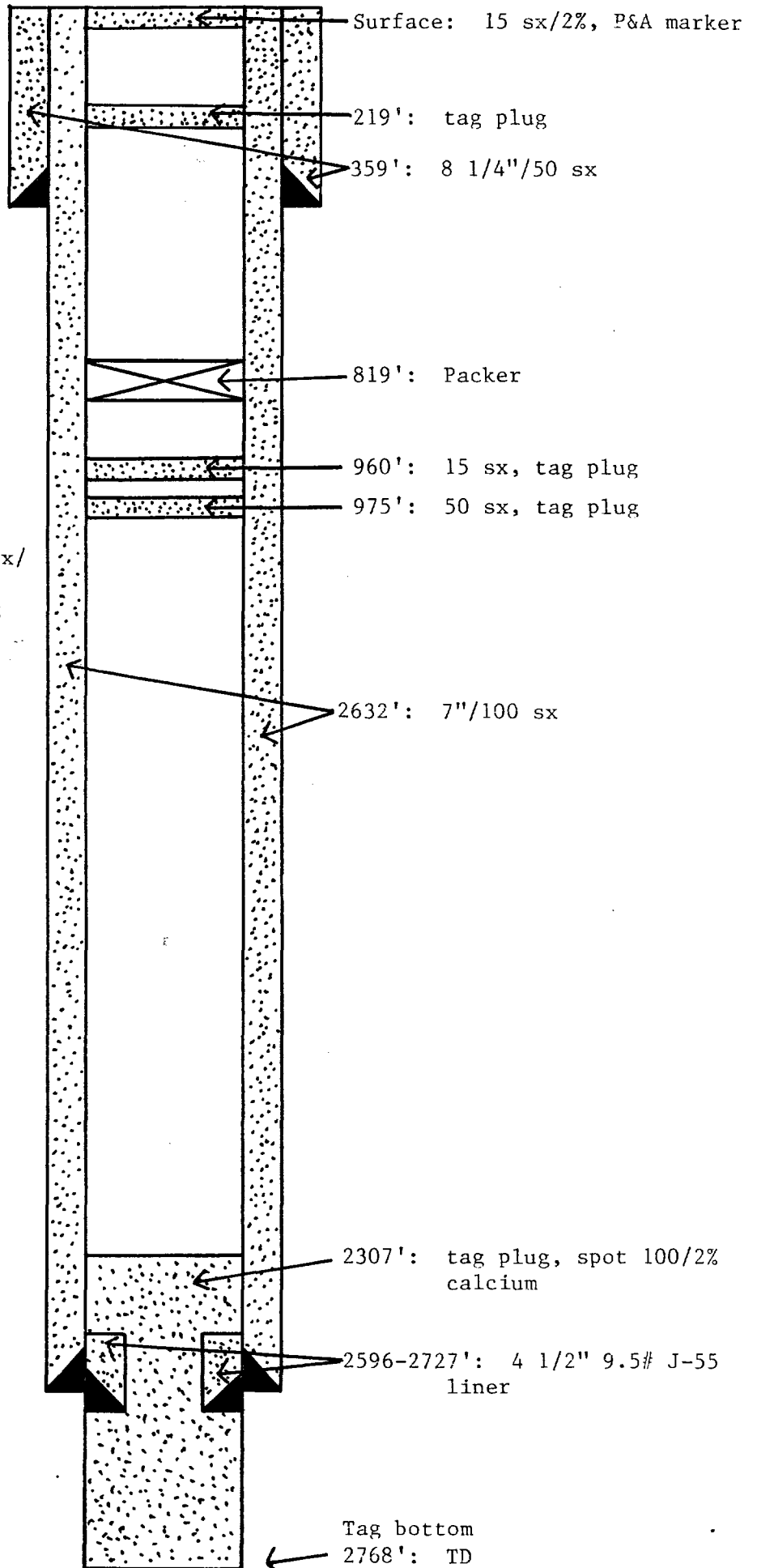
Spot 100 sx 2/2% calcium bottom,
tag plug @ 2587', perf 4 SPF @
1170', squeezed 50 sx w/2% calcium,
tag plug @ 1040', perf 4 shots at
390', spot 50 sx w/2% calcium, tag
273' 15 sx top, P&A marker.



West Loco Hills G4S Unit Tract 13-5

P&A: 7/27/83

Tag bottom, pull up 1 jt, spot 100 sx/
2% calcium, tag plug @ 2307', set
packer 819', squeeze 50 sx, tag plug
@ 975', 15 sx, tag plug @ 960',
squeeze cement with 2% calcium, tag
plug @ 219', mix 15 sx with 2%
calcium, P&A marker.



COMPANY Dixon & Yates - #1 - Day

ELEV. 3515

LOC. 1980 FSL & 660 FEL
Sec. 12, T-18-S, R-29-E

S.

ACID OR SHOT 110 qts. 2747-2784	CASING RECORD 8 5/8- 345-50 7 -2637-100	TOPS S. 340 B.S. 1095 Rd. Sd. thru 2255 Q +1270 UPS
SPD. 2-16-42 COMP. 3-28-42		TP 2760 TD 2784 PBD
I. P. F. 40 BOPH thru op. 2" @ 2764		
GR. GOR TP CP REMARKS SO 2760		

CO. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 1967

COMPANY Dixon & Yates - #2 - Day

ELEV. 3509 LS

LOC. 1980 FSL & FEL
Sec. 12, T-18-S, R-29-E

S.

ACID OR SHOT 110 qts. 2680-2745	CASING RECORD 8 5/8- 340-50 7 -2600-100	TOPS Q +1294 UPS
SPD. 3-31-42 COMP. 5-11-42		TP 2690 TD 2745 PBD
I. P. F. 82 BO/2 hrs. thru 3/4" chk., 2" @ 2735.		
GR. GOR TP CP REMARKS SO&G 2660, Inc. G 2692, Inc. O 2695-2700, SO 2700-18.		

XII. Affirmative Statement

I have examined the available geologic and engineering data for this project and I found no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

A handwritten signature in black ink, reading "E. Robert Tisdale". The signature is written in a cursive style with a large, prominent initial "E".

E. Robert Tisdale
CO2 Pilot Project Engineer
Yates Petroleum Corporation

Company Newmont Oil Company
Field Loco Hills
Unit West Loco Hills
Station Station #1 & Station #2



P. O. Box 1499
HOBBS, N. M. 88240

SERVICE REPORT — TYPE

DATE	SAMPLE POINT	DISSOLVED OXYGEN ppb	SO ₂ ppm	CHLORINE ppm	REMARKS
<u>Station #1</u>					
9-4-79	Tank fill line Valve on tank	41ppb	8 6		Checked SO ₂ & Cobalt inj.
9-10-79	Tank fill line Valve on tank		5 3		Checked SO ₂ & Cobalt inj.
9-17-79	Tank fill line Valve on tank		7 6		Checked SO ₂ & Cobalt inj.
9-21-79	Tank fill line Valve on tank	24ppb	8 5		Checked SO ₂ & Cobalt inj.
<u>Station #2</u>					
9-4-79	SO ₂ pump discharge Suction manifold	27ppb	8		Checked SO ₂ & Cobalt inj.
9-10-79	SO ₂ pump discharge Suction manifold		1		Checked SO ₂ & Cobalt inj. Increased SO ₂ rate
9-17-79	Suction manifold		0 ^F		Checked SO ₂ & Cobalt ini. Increased SO ₂ rate
9-24-79	Suction manifold		--		Ejector plugged with produced water buildup.

Well: NEWMONT OIL CO, WI-3 West Loco Hills
Loc'n: (Grayburg) Unit Tr 6-OWWO
5 mi SW/Loco Hills; 660' FSL, 1980' FEL Sec 12-18S-29E; (Orig
Dixon & Yates, 3 Day, comp 9-21-43 from Grayburg OH 2600-
2773', OTD 3037', PB 2773')

LOCO HILLS FLD

Result: D & A D

Spud: 10-8-64; Comp: 12-18-82; Elev: 3522' DF; TD: 3037' Grayb
Casing: 8" 356'/50 sx; 7" 2600'/100 sx; 4 1/2" lnr 2520-2695'/150
Comp Info: (Grayburg) OH 2695-3037' used as WIW from 10-11-
64 until time of plugging

Tops: NR

API No: 30-015-03395

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Date: 5-4-83 Card No.: 15 dh

Co. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 1968

COMPANY Dixon & Yates - #3 - Day

ELEV. 3522

LOC 660 FSL & 1980 FEL
Sec. 12, T-18, R-29

ACID OR SHOT

390 qts. 2680-2773

CASING RECORD

8 5/8- 356-50
7 -2600-100

TOPS

S. 355
B.S. 1045
Rd. Sd. +1317 2208
SA +467 3055

EPD. 6-22-43 COMP. 9-21-43

I. P. F. 30 BO/4 hrs. thru 1/2" chk.,
2" @ 2680

GR. GOR TP CP
REMARKS SG 2535-38, Inc. Gas 2757, 2823.

TP 2680
TD 3037 L.
PBO 2773

Driller's log

EDDY, NEW MEXICO. 12-18-29

KROENLEIN

E. 2

DIXON-YATES - #1-A - SAUNDERS
Sec. 12, T. 18, R. 29

330 FNL & FEL

NO COMP. CARD - HAVE SAMPLE DESCRIPTION.

Q +1255 ups

L.H. 2803-2820

2803

COUNTY OR PARISH Eddy
COMPANY Martin-Yates or Dixon & Yates.
WELL No 1 FARM Saunders
LOCATION 330' fr N&E/L.

AREA

13-1

LEV.	REMARKS	PALEO	STATE New Mexico.	COMPLETION
30 2805-28, Inc. 2835-39.			T. PAY 2805 T. D. 3200, PB to 3070. PERF SHOTS 470/3043-3160. PRESSURES GRAVITY WATER COMPLETED Aug. 28, '39. (Week) I. P. Flow 82 BOPD thru 5/4" Ch. on 2" @ 2834, Fkr 2650. CASING RECORD 6 1/2" 462, 7" 2725, 2" 2834.	
<i>J. R. Ruland</i> OIL REPORT				

CO. EDDY POOL-LOCO HILLS STATE N.M. KROENLEIN 1972

COMPANY Dixon & Yates - #4-A - Saunders ELEV. 3527

LOC. 1650 FNL & 330 FEL
Sec. 12, T-18-S, R-29-E

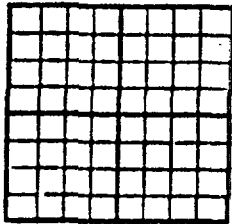
13 A

S.

ACID OR SHOT	CASING RECORD	TOPS
Shot 120 qts. 2764-2805	8 1/4- 425-50 7 -2600-100 2 -2790	Q +1250 ups
SPD. 9-17-41 COMP. 10-27-41		
I. P. F. 120 BO/3 1/2 hrs. thru op. chk.		
GR. GOR TP CP		
REMARKS SO&G 2776-2805		
	TP 2776 TD 2805 PSD	

COMPANY DIXON & YATES
WELL NO 4-A FARM SAUNDERS
LOCATION NE SE NE Sec. 12 TWP. 18S RGE. 29E

COUNTY EDDY COUNTY, NEW MEXICO



GEOLOGICAL DATA

ELEVATION 3527'
SPUDED 2/17/41
SLM 2273 EQUAL 95

COMPLETION DATA

TOP PAY 2776'
TOTAL DEPTH 2805' BND
PERF
SHOTS 120/2764-2805'
ACID
PRODUCTION
OIL 7/120/80 3 1/2 MRS 2"
GAS TUB
WATER
PRESSURE
GRAVITY
CASING RECORD: 6" 2425'
7" 2600, 8" 2790'

La Rinchita
OIL REPORT

COMPLETED: 10/27/41

Co. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 1973

COMPAN Dixon & Yates - #5-A - Saunders ELEV. 3526

LOC. 1650 FNL & FEL
Sec. 12, T-18-S, R-29-E

ACID OR SHOT

CASING RECORD

8 1/4- 353-50
6 -2653

TOPS

SPD. 11-8-41 COMP. 1-6-42

I. P. J&A

GR. BOR TP

CP

TP

TD 2742

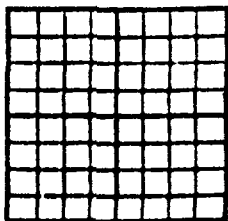
REMARKS SO 2739-42.

PBD

COMPANY DIXON & YATES ET AL
WELL NO 5-A FARM SAUNDERS
LOCATION NE SW NE

Sec 18 TWP 18 RGE. 29

COUNTY EDDY COUNTY, NEW MEXICO



GEOLOGICAL DATA

ELEVATION 3526'
SPUDED 11/8/41
LOST HOLE & SKIDDED 20'
WEST

COMPLETION DATA

TOP PAY
TOTAL DEPTH 2742'
PERF.
SHOTS
ACID
PRODUCTION
OIL DRY & ABANDONED
GAS
WATER
PRESSURE
GRAVITY
CASING RECORD: 6" 2653'

La Rinchita
OIL REPORT

COMPLETED 12/30/41

CO. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 1974

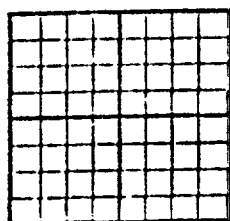
COMPANY Dixon & Yates - #5-AX - Saunders ELEV. 3526

LOC. 1650 FNL & 1670 FEL
Sec. 12, T-18-S, R-29-E

ACID OR SHOT 100 qts. 2739-2768	CASING RECORD 8 1/4- 359-50 7 -2632-100 2 -2707	TOPS S. 340 Q +1286 vps
SPD. 1-6-42	COMP. 2-11-42	
I. P. F. 36 BOPH thru 3/4" chk.		
GR	GOR	TP
REMARKS	SDRG 2739-68	CP
		TP 2739 TD 2768 PSD

COMPANY DIXON & YATES
WELL NO 5-A-X FAHM SAUNDERS
LOCATION 1650' FR N, 1670' FR E/L SEC 12 TWP. 18 RGE. 29

COUNTY EDDY COUNTY, NEW MEXICO



Joe Pinchault's
OIL REPORT

COMPLETED 2/13/42

GEOLOGICAL DATA

ELEVATION 3526'
SPUDDED 1/6/42

COMPLETION DATA

TOP PAY 2739
TOTAL DEPTH 2768'
PERF.
SHOTS 100/2739-68
ACID
PRODUCTION
OIL 7/36 BOPH 3 HRS THRU
GAS 3/4" CH 2" 2707'
WATER
PRESSURE
GRAVITY
CASING RECORD 8 1/4" 359

CO. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 1976

COMPANY Dixon & Yates - #7-A - Saunders ELEV. 3527

LOC. 990 FNL & FEL
Sec. 12, T-18-S, R-29-E

ACID OR SHOT Shot 100 qts. 2775-2801	CASING RECORD 8 5/8- 408-50 7 -2670-100 2 -2785	TOPS S. 408 A. 1100 Rd. Sd. 2273 +1257
SPD. 5-22-47	COMP. 6-26-47	
I. P. F. 70 BOPD thru 2" chk.		
GR	GOR	TP
REMARKS	SO 2773-2803 Sd.	CP
		TP 2775 TD 2811 PSD

County _____ State _____ Field Area or Prospect _____

Well No. 7-A

Form Sundara

Section 8901 FIVE/1 Reg 12-188-29R.

CASING RECORD

8-5/8"	408'
7"	2070'

Spudded 5-22-47 Comp. 6-25-47

FORMATION RECORD

Cr.	3527'
T/Salt	408'
B/Salt	1100'
T/Lime	2871'
T/Sand	2273'

T/P 2776-2801'

2811' L.L.S.

Potential IFF 70 WCFD open 2" 2785'

Temperature TP CP

Gravity

S.O. Ratio

Water

Remarks Shot 100 qts/2775-2801'

OIL REPORT Card # 1, NM 7-10-47

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COUNTY EDDY FIELD Loco Hills STATE NM

OPR NEWMONT OIL CO. API 30-015-21693

NO 11 LEASE West Loco Hills Grayburg #4 Sand Unit SERIAL 2-2-9 NM

Sec 12, T18S, R29E /Tr. 13 MAP

2310' FNL, 1175' FEL of Sec

4 1/2 mi SW/Loco Hills CO-ORD

SPD 12-4-75 CMP 1-1-76 WELL CLASS: INT. D FIN DO

CSG

FORMATION	DATUM	FORMATION	DATUM

TD 2828' (GRBG) PBD 2810'

IP (Grayburg) Perfs 2760-84' P 19 BOPD + 500 BW. Pot based on 24 hr test. GOR TSTM; Grav 38

CONTR Sundance OPR'S ELEV 3521' GL PD 2794' RT

COMES 12-1-75 12-1-75 12-1-75

12-1-75 F.R. 12-1-75 (Grayburg)

12-8-75 Drlg 2100'

12-16-75 TD 2828'; WOCU

1-7-75 TD 2828'; PBD 2810'; Recg Ld

Perf (Grayburg) 2760-84' w/2 SPF

Acid (2760-84') 1000 gals

Frac (2760-84') 20,000 gals + 50,000# sand

2-2-76 TD 2828'; PBD 2810'; TO Pmp

2-9-76 TD 2828'; PBD 2810'; Complete

LOG TOPS: Salt 340', Base Salt 1050', Yates 1258', Seven Rivers 2058', Queen 2270', Grayburg 2638', Loco Hills 2760'

2-14-76 COMPLETION ISSUED

2-2-9 NM
IC 30-015-70098-75

Well: NEWMONT OIL CO. II West Loco Hills Grayburg #4 Sand Unit Result: OIL DO
 Loc'n: 4 1/2 mi SW/Loco Hills, 2310' FNI 1175' FEL Sec 12-18S-29E

Spud: 12-4-75, Comp: 1-1-76, Elev: 3521' grd; TD: 2828' Grayburg; PB: 2810'
 Casing: 8 5/8" 30T/150 ss, 4 1/2" 2824'/650 ss
 Prod Zone: (Grayburg) 1/Pay 2760', prod thru perf 2760-84'
 IPP: 19 BOPD + 500 BW, (GOR TS FM, Grav 38
 Comp Info: Perf (Grayburg) 2760-84' w/2 SP; A/1000 gals; frac w/20,000 gals G
 50,000 lb sd, C/Sundance Drg.
 Logs: (F1) Salt 340', Base Salt 1050', Yates 1258', Seven Rivers 2058', Queen 2270',
 Grayburg 2638', Loco Hills 2760'
 API No.: 30-015-21693

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Petroleum Information

A Division of A.C. Allen Company

Date: 2-18-76 Cord No.: 8 mm

Co. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 2139

Company Franklin, Aston & Fair - #10-A - Yates ELEV. 3542

Loc. 330'FSL & 900'FWL
 Sec. 6, T.18-S, R.30-E

ACID OR SHOT	CASING RECORD	TOPS
140 qts. 2802-2838	8 5/8- 447- 50 7 -2700- 100	T.Salt 447 B.Salt 1125 T.Red sd. ^{H22} 2317 T.Gryb. 2810
SPD. 6-10-49 COMP. 8-7-49		
I. P. P. 100 BO/24 hrs. thru 2" @ 2830, 3/4" ch.		TP 2810 TD 2838 sd.
GR. 36 GOR TP CP		PBD
REMARKS		

Co. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 2150

Company Newmont Oil Co. - #15 - Yates "A"

ELEV.

Loc. 330'FSL & FWL
 Sec. 6, T.18-S, R.30-E
 2875'OT-Gryb.-S.And.

PAY STIMULATION	CASING	TOPS
OH/2732-2830 9000 SOF (16,000# sd)	8 5/8- 425- 150 5 1/2-2732- 100	B.Salt 1170 Queen 2375
SPD. 7-26-63 COMP. 8-11-63		
I. P. P. 169 BO & 80 BW/24 hrs.		
GR. - GOR - TP CP		TP 2732 TD 2830
REMARKS:		

CO. EDDY POOL WILDCAT STATE N.M. KROENLEIN 2111

COMPANY Franklin - #1 - Canfield

ELEV. 3540

LOC. 330' FNL & FNL of
Sec. 7, T.18-S, R.30-E

ACID OR SHOT	CASING RECORD	TOPS
70 qts. 2793-2820	5 1/4- 420- 50 7 -2671- 100 2 -2760	Q +1230 UPS
SFD. 6-14-39	COMP. 10-9-39	
I. P. 60 SOPH.		
GR - GOR TP CP		TP 2795 TD 2820 PSD
REMARKS		

CO. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 2112

COMPANY Franklin - #2-A - Canfield

ELEV. 3524

LOC. 1650' FNL & 340' FNL of
Sec. 7, T.18-S, R.30-E

ACID OR SHOT	CASING RECORD	TOPS
60 qts. 2785-2804	3 1/4- 427- 50 7 -2675- 100 2 -2704	Salt 405 Q +1237 UPS
SFD. 8-4-41	COMP. 10-1-41	
I. P. F. 170 30/4 hrs. thru op. ch.		
GR - GOR TP CP		TP 2784 TD 2804 PSD
REMARKS SO 2784-2804; SO 2775-84.		

CO. EDDY POOL GRAYBURG- STATE N.M. KROENLEIN 2113

COMPANY Franklin - #3-A - Canfield JACKSON

ELEV. 3537

LOC. 1960' FSL & 660' FNL of
Sec. 7, T.18-S, R.30-E

ACID OR SHOT	CASING RECORD	TOPS
40 qts. 2795-2830	8 1/4- 427- 100 5 -2705- 100 2 -2835	A. 200 B. Salt 1125 Q +1242 UPS
SFD. 10-17-42	COMP. 12-1-42	

CO. EDDY POOL WILDCAT STATE N.M. KROENLEIN 2111

COMPANY Franklin - #1 - Canfield

ELEV. 3540

LOC. 330' FNL & FNL of
Sec. 7, T.18-S, R.30-E

ACID OR SHOT	CASING RECORD	TOPS
70 qts. 2793-2820	5 1/4- 420- 50 7 -2671- 100 2 -2760	Q 1220 UPS
SFD. 6-14-39	COMP. 10-9-39	
I. P. 60 SOPH.		
GR - GOR TP CP		TP 2795 TD 2820 PSD
REMARKS		

CO. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 2112

COMPANY Franklin - #2-A - Canfield

ELEV. 3524

LOC. 1650' FNL & 340' FNL of
Sec. 7, T.18-S, R.30-E

ACID OR SHOT	CASING RECORD	TOPS
60 qts. 2785-2804	3 1/4- 427- 50 7 -2675- 100 2 -2704	Salt 405 Q 1239 UPS
SFD. 8-4-41	COMP. 10-1-41	
I. P. F. 170 30/4 hrs. thru op. ch.		
GR - GOR TP CP		TP 2784 TD 2804 PSD
REMARKS SO 2784-2804; SO 2775-84.		



[illegible]

ACID OR SHCT	CASING RECORD	TOPS
	8 5/8- 425- 50 7 -2691- 100	T.Salt 420 B.Salt 1145
SPD. 12-17-44	COMP. 1-31-45	
I. F. P. 125 BOPD thru 2" @ 2627.		
GR. - GOR	TP	TP 2805
	CP	TD 2837 L.
REMARKS 990 2625.		FSD

LOCO HILLS STATE N.M. KROENLEIN 2116
 COMPANY Franklin, Aston & Fair - #6-A - Can- ELEV. 3538
 field
 LDC. 2590' FNL & 1370' FNL
 Sec. 7, T.18-S, R.30-E

ACID OR SHOT	CASING RECORD	TOPS
126/2795-2837	8 - 430- 50	T. Salt 430
200/2795-2837	7 - 2698- 100	T. Red Sd. 2308 +1230
SPD. 11-20-48 COMP. 2-3-49		
I. P. P. 112 BOPD thru 2" @ 2808.		
GR 37 GOR 700 TP	CP	TP 2795
REMARKS SSO 2308-30; SWb. & F.150 BOPD		TD 2837 Sd.

EDDY
 County
 State
 Field, Area or Prospect
 WELL NO. #6-A
 FORM CANFIELD
 Casing Record
 8" 430'
 7" 2698'
 2" 2808'
 FORMATION RECORD
 Elev. 3538'
 T/SALT 430'
 T/REDSAND 2308'
 PRODUCED 11/20/48 COMP. 2/3/49
 TP 2795'
 TD 2837'
 PRODUCTION 112 BOPD UN 2" 2808'
 PRODUCTION: TP CP
 GOR 37
 G.O. Rate 700-1
 REMARKS SHOW OIL 2308-30', F.L.F. 126/2795-2837', SHOT 200 QTS 2795-2837'
 OIL REPORT CARD # 5 IN 2/17/49

CO. EDDY POOL LOCO HILLS STATE N.M. KROENLEIN 2117
 COMPANY Franklin, Aston & Fair - #7-A - Can- ELEV. 3522
 field
 LDC. 1270' FNL & 1370' fr. W. TRACT #1 Well #7
 Sec. 7, T.18-S, R.30-E

ACID OR SHOT	CASING RECORD	TOPS
170 qts. 2784-2820	8 1/4- 431- 50	T. A. 365
	7 - 2693- 100	T. Salt 431
		B. Salt 1120
		T. Red Sd. 2308
		T. Br. L. 2612
SPD. 4-19-49 COMP. 6-3-49		
I. P. F. 200 BOPD thru 2" @ 2690.		
GR 36.9 GOR TP	CP	TP 2802
REMARKS SO 2788-02; SO 2802-12.		TD 2820 L.

County: <u>EDDY</u> <u>NEW MEXICO</u>		Sec. <u>7</u> Twp. <u>18S</u> Rge. <u>30E</u>
Company: <u>Franklin, Aston & Fair</u>		Field: <u>Loco Hills</u>
Well No. <u>7 Canfield</u> Allocation <u>SW HR NW</u>		Elevation: <u>3522'</u>
Footage: <u>(1270' S/N, 1370' E/W)</u>		
Sec. <u>7</u> Twp. <u>18S</u> Rge. <u>30E</u>		6-15-49

Casing Record: 8" 431' 7" 2693' 2" 2690'	GEOLOGICAL DATA	COMPLETION DATA
	Producing Zone: _____ Elevation: <u>3522'</u> Formation Tops: Anhydrite 305' Salt 431' B/Salt 1120' Red Sand 2305' Black Lime 2612' Show Oil 2802'	TOP PAY: <u>2802'</u> TOTAL DEPTH: <u>3020' Lime (T)</u> Perforations: Acid: Nitro: <u>170 qts/2784-2828'</u> PRODUCTION: Oil: <u>1700 Bbl/24 hrs, 2"</u> Gas: <u>170</u> Water: PRESSURES: Tubing: Casing: GAS-OIL RATIO: <u>500</u> GRAVITY: <u>36.6</u>
Started: <u>4-19-49</u> Completed: <u>6-3-49</u> Ready Production OIL REPORT	Remarks: _____	

Co. **EDDY** POOL **LOCO HILLS** STATE **N.M.** KROENLEIN **2117-56**

COMPANY **Franklin, Aston & Fair - #8 - Canfield** ELEV. **3534 DF**

LOC **2310' FWL & 330' FWL**
Sec. 7, T. 18S, R. 30E
2700' T.

35356L

ACID OR SHOT	CASING RECORD	TOPS
OH 2774-2814	8 5/8" - 426-50	Salt 400
10,000 Gal SF	7 - 2774-100	Premier LH. 2785
		Queen (4/237) 2298
SPD. <u>8-2-56</u> COMP. <u>9-4-56</u>		
I. P. F. <u>66 BOPD</u>		
GR <u>34</u> GOR _____ TP _____ CP _____		TP <u>2785</u>
REMARKS <u>F. 66 BOPD. 2" tbg. (on gas lift)</u>		TD <u>2814' sd.</u>
<u>CRD: 2786-2814, rec 27' sd w/GSO.</u>		

EDDY COUNTY NEW MEXICO LOCO HILLS FLD

Well: FRANKLIN, ASTON & FAIR #8 Canfield Result: OIL

ac'n: 7-18S-30E, 2310' FWL 330' FWL of Sec.

Spd: 8-2-56; Comp: 9-4-56; Elev: 3534' DF; TD: 2814' sd
 Casing: 8 5/8" 426'/50 sz, 7" 2774'/100 sz
 Prod Zone: T/Pay 2785'; Prod from OH
 I.P.F.: 66 BOPD thru op 2", Grav 34
 Comp Info: Frac w/10,000 gals
 Tops: (SpIs) Salt 400', Premier sd 2785'

The Standard
OIL REPORTS

Date: 1-30-57

Cord No.: 10 NM pf

March 28, 1966

TRACT 6 WELL NO. 1
LC 055374

LOCATION: 1980 FSL 660 FEL Sec. 12-18S-29E
ELEVATION: 3515'
SURFACE CSG: 8 1/4" 347'
OIL STRING: 7" 20# smls 2635'
PAY ZONES: 2760 - 2784'
T.D. 2784'
TREATMENTS: 3/25/42 Shot 110 qts. 2747-2783
7/50 SOF 1M Strati-lift
2/54 Petro Frac 9M - 18M
LINER: 4 1/2" Liner 179' 2565 - 2744' w/65
Sax set on the 9/17/64
LOGS: 6/24/64 Cardinal Ejecto Log-Tracer
Micro Caliper
5/19/65 GR-Caliper Injection Profile
INJECTION: 1/5/64
TBG: 2063'
Casing leak below 636'

March 28, 1966

TRACT 6 WELL NO. 2
LC 055374

LOCATION: 1980 FSL 1980 FEL Sec. 12-18-29
ELEVATION: 3518'
SURFACE CSG: 8 5/8" 340
OIL STRING: 7" 2603' 20# Smls
PAY ZONES: 2695' - 2722'
T.D.: 2745'
TUBING: 82 jts 2 1/2" 8rd tbg 2551'
PUMP: FEB 252020
PACKER: 7" x 2 1/2" KV-30 Pkr. Guiberson
FEB bottomhole assembly. Packer @
2573'.

March 28, 1966

TRACT 6 WELL NO. 3

L.C. 055374

LOCATION: 660 FSL 1980 FEL
Sec. 12-18-29

ELEVATION: 3522'

SURFACE: 8 1/4" 355'

OIL STRING: 7" 20# Sm's. 2602'

PAY ZONES: 2680 - 2722 2750 - 2773

T.D. 3037' - PAD 2770'

LINER: 10/8/64 4 1/2" liner 175'
2520 - 2695' w/150 Sx

LOGS: 9/4/64 Lane Wells Acoustilog
Caliper

5/16/65 GR Caliper Injection
Profile

9/29/65 Sandrilled 2715-2712-
2708-2704'

TUBING: 5-4-69 Pulled tubing.

PA 12/18/82

March 28, 1966

TRACT 6 WELL NO. 4

L.C. 055374

LOCATION: 660 FSL 660 FEL
Sec. 12-18S-29E

ELEVATION: 3519'

SURFACE CSG: 8 5/8" 375'

OIL STRING: 7" 20# sm's 2646'

PAY ZONES: 2730 - 2758

TREATMENT: Shot 120 qts. 2728 - 2758

T.D.: 2758'

TUBING: 2" 2636'

PUMP: 8/4/65 VFG 201616

PACKER: 2 x 7 Guiberson

March 28, 1966

TRACT 13 WELL NO. 1

LC 060904

LOCATION: 330 FNL 330 FEL Sec. 12-18-29

ELEVATION: 3543'

SURFACE CSG: 8 1/4" 425'

OIL STRING: 7" 20# 2698'

PAY ZONES: 2803 - 2823'

Shot 470 qts. 2940 - 3190
Shot 230 qts. 2803' - 2850'

T.D. 3200' PBD 2850'

LOGS: 5/5/64 Enjecto Tracer - Caliper

12/10/64 Caliper - Injectivity Profile

INJECTION: 7/3/63

TEA 7/14/83

March 28, 1966

TRACT 13 WELL NO. 4

LOCATION: 1650 FNL 330 FEL Sec. 12-18-29

ELEVATION: 3525'

SURFACE CSG: 8 1/4" 425'

OIL STRING: 7" 2680'

PAY ZONES: 2774' - 2805'

Shot 120 qts. 2764' - 2805'

T.D.: 2805'

TUBING: 83 jts 2 3/8"

PUMP: FEB 201616

2 1/2" x 7 KVL-30 Guiberson packer

2" FEB bottom assembly

SI 2/83

March 28, 1966

TRACT 13 WELL NO. 5

LOCATION: 1650 FNI 1670 FEL Sec. 12-18-29
ELEVATION: 3526'
SURFACE CSG: 8 5/8" 359'
OIL STRING: 7" 2635'
PAY ZONES: Shot 100 qts. 2739 - 2768'
T.D.: 2768'
10/20/64 4 1/2" Liner 146' 2581' - 2727'
w/150 Sax
6/26/64 Cardinal Ejecto-Tracer-Micro
Caliper
4/29/65 500 gals acid
5/15/65 Ran Gamma Ray Caliper Injectivity
Profile
9/27/65 Spot 500 gals reg. acid

Injection: 11/16/63

REA 7/22/83

March 28, 1966

TRACT 13 WELL NO. 7

LOCATION: 990 FNL 990 FEL Sec. 12-18-29
ELEVATION: 3527'
SURFACE CSG: 8 1/4" 408'
OIL STRING: 7" 20# 2670'
PAY ZONES: 2775' - 2801'
T.D.: 2811'
TUBING: 2 1/2" 2650' 85 jts EUE 8rd
PUMP: FEB. 252020

2 x 7 Guiberson KVL-30 packer
2 1/2" FEB bottomhole assembly

51

YATES "A" NO. 10

LOCATION: 330 FSL 990 FWL Sec. 6-18-30
ELEVATION: 3542'
SURFACE CSG: 8 1/4 447'
OIL STRING: 2700'
OPEN HOLE: 2700 - 2838
PAY ZONES: 2810 - 2838
T. DEPTH: 2838
TREATMENTS:
LOGS:
TUBING: 2" 2775'
RODS: 5/8" 2750'
PUMP: 2" x 1 1/2" x 10'
4/7/66: TEMPORARILY ABANDONED

YATES "A" NO. 15

INJECTION WELL

LOCATION: 330 ^SFNL 330 ^NFEL Sec. 6-18-30
ELEVATION: 3536'
SURFACE CSG: 8 5/8" 416'
OIL STRING: 5 1/2" 2732'
PAY ZONES: 2786 - 2794
T.D. 2830
TREATMENT: Sanddrilled 2790 - 94, 2786 - 90, frac with 10,000 gals oil and 10M # sand.
TUBING: 2713 of 2 1/2" (87 jts) 2 1/2" SN
RODS: 106 3/4 and 7/8"
PUMP: 2 1/2" x 1 1/2" x 16'

March 28, 1966

TRACT 1 WELL NO. 1

LOCATION: 330 FNL 330 FWL
Sec. 7-18-30

ELEVATION: 3540'

SURFACE CSG: 8-5/8" 422'

OIL STRING: 7" 2671'

PAY ZONE: 2795 - 2820'

T. DEPTH: 2820'

TREATMENTS: 9/28/38 70 qts. 2793-2820
9/25/55 10M gals 15M # sand 2671-
2820
8/15/61 - 500 gals 15% acid

LOGS: SAMPLE

TUBING: 86 jts 2" EUE 8rd 2638'

PACKER: 2658' 7" Guiberson RMC-1

PUMP: VFR Bottomhole assembly

Drilled out plug 2-22-68

51 3/83

9-13-71 7" Packer Lock-set Packer left
in hole at 2821'

4-1-73

Clean out to 2820'
Run Rebuild 7" RMC-1 Guiberson
Packer w/ 1/2" VFR Bottomhole Assembly

March 28, 1966

TRACT 1 WELL NO. 2

LOCATION: 1650 FNL 330 FWL
N
/section/ 7-18-30

ELEVATION: 3524'

SURFACE CSG: 8-5/8" 427'

OIL STRING: 7" 2690'

PAY ZONES: 2787 1/2 - 2804'

T. DEPTH: 2804'

TREATMENTS: 9/16/41 60 qts.
5/24/55 10M gals 15.M #sand
9/20/61 126 gals 15%

LOGS: Sample, Microscopic and
Fluorescent

TUBING: 2680'

PUMP: 2" FEB Hydraulic Pump
#201616
2" Guiberson KVL Packer
1-2 1/2" hyd. bottomhole assembly
Set @ 2680'.

March 28, 1966

TRACT 1 WELL NO. 3

LOCATION: 1980 FSL 660 FWL
Sec. 7-18-30

ELEVATION: 3537

SURFACE CSG: 8 - 5/8" 427'

OIL STRING: 5 - 1/2" 2705'

PAY ZONES: 2815-2835'

T.D.: 2835'

TREATMENTS: 60 qts. 2792-2832
1 1/5/54 10M gals 15M#sand
2705-2835
9/20/61 125 gals 15% acid

LOGS: Sample, Halliburton,
Jeep 2707-2830

TUBING: 2 7/8" 2680' (84 jts)

PACKER: Baker Lock-set packer 2 1/2"
bottomhole assembly pkr @ 2680'
FEB 252020

PUMP:

OPEN HOLE: 2705 - 2835'

2-20-74 Back on Production. No casing leak. With casing
up between casing and surface pipe.
1-2-74 Ran new 2 1/2" FEB Bottom hole assembly
on 84 jts 2 3/8" EUE 8nd Tbg.

March 28, 1966

TRACT 1 WELL NO. 4

LOCATION: 660 FSL 560 FWL
Section 7-18-30

ELEVATION: 3529'

SURFACE: 8 5/8" 402'

OIL STRING: 5 1/2" 2675'

PAY ZONE: 2762 - 2811'

T.D. 2811'

TREATMENTS: 70 qts. 2771-2806 4-6-55
10M gals 15M sand 2575-2811

LOGS: Sample

TUBING: 70 jts 2" 2138'.
PACKER: Packer set @ 2138'
OTHERS: 12/31/64 4 1/2 9.5# Liner
2606-2760' w/150 sax

12/12/64 Western Caliper Surve
6/24/64 Cardinal Ejecto Log
Tracer-Micro Caliper

INJECTION WELL

5/16/65 Ran Western Co.
Gamma Ray-Caliper Injection
Profile SLM

INJECTION: 1/7/64

March 28, 1966

TRACT 1 WELL NO. 5

LOCATION: 1650 FSL 1650 FWL
Sec. 7-18-30

ELEVATION: 3530'

SURFACE CSG: 8 - 5/8" 500'

OIL STRING: 7" 2690'

PAY ZONES: 2803 - 2835'

T.D. 2835'

TREATMENTS: 6/7/55 10M gals 15M #sand
2/1/45 140 qts. 2801-2835

LOGS: Sample Howco Jeep
TUBING: 2160'

PACKER: 2168' 7" Gub. pkr. shortly
packer

LINER: 4 1/2" 176' 2614' - 2790 w/150
sack

LOGS: 6/24/64 Cardinal Ejecto Log
Tracer-Micro Caliper

5/15/65 Ran Western Co.
Gamma Ray-Caliper Injection
Profile

Started Injection 1/7/64

Hole in casing @ 1391'

6-24-73 Cleaned out to TD.
8-29-74 Cleaned out to 2832'. Ran 2 1/2" x 7" Donald
Hydrol or Tension Pkr on 70 ITS 2" and
at 2832' - 2835' 2" m

March 28, 1966

TRACT 1 WELL NO. 6

LOCATION: 2590 FNL 1370 FWL
Sec. 7-18-30

ELEVATION: 2538'

SURFACE CSG: 8 - 5/8" 430'

OIL STRING: 7" 2698'

PAY ZONES: 2795 - 2837'

T.D. 2837'

TREATMENTS: 1/7/49= 200 qts. 2794 - 2837
9/4/56 10M gals 15M #sand
2698 - 2837'
9/20/61 126 gals 15% acid

LOGS: Sample

TUBING: 2684' 86 jts.

OPEN HOLE: 2698-2837'

PACKER: 2684' - Guberson KV-30

PUMP: 2 1/2" FEB Hydraulic 252020
and 2 1/2" bottomhole
assembly

March 28, 1966

TRACT 1 WELL NO. 7

LOCATION: 1270 FNL 1370 FWL
Sec. 7-18-30

ELEVATION: 3522'

SURFACE CSG: 8 - 5/8" 432'

OIL STRING: 7" 2693'

PAY ZONES: 2783-2820

T.D. 2825

TREATMENTS: 5/31/49 170 qts. 2783-2820

LOGS: Sample

TBG? 69 jts 2" EUE 8rd 2151'

1/27/65 4 1/2" 9.5# liner 2594-2769 w/300
sax (2 jobs)
Packer @ 2151'. Totem Tension pkf.

12/9/64 Western Injectivity Profile

1/23/65 Lane Wells Acoustilog w/caliper

5/16/65 GR - Caliper Injectivity Profile

11/8/63 Put well on injection

*Hole in casing between 1184' and
1215'

March 28, 1966

TRACT 1 WELL NO. 8

LOCATION: 2310 FNL 330 FWL
Sec. 7-18-30

ELEVATION: 3535'

SURFACE CSG: 8 5/8" 426'

OIL STRING: 7" 2774'

PAY ZONES: 2785-2814'

T.D. 2821'

TREATMENT: 9/1/56 10,000 ref. oil
20-40 sand, 1/2" ecc &

LOGS: 3/23/62 Gamma Ray Neutron
& Sonic

6/26/64 Cardinal Ejecto
Log Tracer Micro Caliper

Cone Analysis 9-12-56

Put on injection 11/23/63

4-27-73 Packer = 2150 (EST)

5-27-73 Packer 2 1/2" x 7" TOTEM Tracer 2137'

Traking - 2 3/8" OD

5-27-73 Left one relief and one drag spring at 2821' -
Circ Down TO 2821'

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

FORM 10-75
MAY 1975 EDITION
GSA FPMR (41 CFR) 101-11.6

Form 10-75
MAY 1975 EDITION
GSA FPMR (41 CFR) 101-11.6
NM-025623

NDRY NOTICES AND REPORTS ON WELLS

Use form for proposals to drill or to deepen or plug back to a different depth.
Application Form for Permit for such proposals.

OCT 11 12 34 AM '83

WELL ☐ OTHER

WIW - TA 1400

OPERATOR

NEWMONT OIL COMPANY

BUR. OF LAND MGMT
ROS WELL DISTRICT

AS OF OPERATOR

P. O. BOX 1305, ARTESIA, NEW MEXICO 88210

LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface

660' FSL 1980' FWL Sec. 7-18-30

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, CR, etc.)

3527'

12. COUNTY OR PARISH

Eddy

13. STATE

N.M

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

☐
☐
☐
☐
☐

FULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

☐
☐
☐
☐
☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

☐
☐
☐
☐

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

☐
☐
☐
☐

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROMISED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

8/8/83...Ran in hole with packer to 2400'. Pump rate 2 bbl/min at 400 psi. Squeezed bottomhole plug with 50 sks Class "C" cement with 2% Calcium. Shut in with 400 psi.

8/9/83...Pressure tested bottomhole plug to 500 psi. Ran wireline in hole to tag plug, wouldn't go through packer. Came out of hole with wireline. Checked for hole in csg. Csg good. Ran wireline and tagged plug at 2550'. Pulled up to 1180' and perf. Pump rate 2 bbl/min 800 psi. Land packer at 819' and squeezed 50 sks Class "C" cement with 2% Calcium. Shut in pressure 600 psi. WOC.4 hrs. Pressure test plug at 500 psi, good. Laid down tbg and ran wireline to tag plug. Plug at 1040'. Pulled up to 400' and perf. Circ. to pit. Land packer at 63' and squeezed 50 sks Class "C" with 2% Calcium. Shut in - no pressure.

8/10/83..Pressure up on plug to 500 psi. Unset packer and laid down tbg. Ran tbg in to tag plug. Plug at 300'. Mixed 15 sks top hole plug and installed P&A Marker.

Location cleaned, seeded and ready for inspection.

18. I hereby certify that the foregoing is true and correct

SIGNED *Ernest J. McLaughlin*

TITLE Area Manager

DATE 9/14/83

(This space for Federal or State office use)

APPROVED BY
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN THIS CASE
(Other instructions on the
reverse side)

Form approved
Budget Bureau No. 42 R142
5. LEASE DESIGNATION AND SERIAL NO.
LC-055374
6. INDIAN, ALLOTTEE OR TRIBE NAME

O. & D. SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
See "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER ☒ WIW - FA P & F

2. NAME OF OPERATOR
NEWMONT OIL COMPANY

3. ADDRESS OF OPERATOR
P. O. BOX 1305, ARTESIA, NEW MEXICO 88210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface
660' FSL & 1980' FEL of Sec. 12-18-29

14. PERMIT NO.

15. ELEVATIONS (Show whether DP, RT, GR, etc.)
3522'

7. UNIT AGREEMENT NAME
W.L.H.U. GRB #4 SD U

8. FARM OR LEASE NAME
Tract 6

9. WELL NO.
3

10. FIELD AND POOL, OR WILDCAT
Leco Hills (Q.G. SA)

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA
Sec. 12-18-29 NMPM

12. COUNTY OR PARISH
Eddy

13. STATE
New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
(Other) ☐

PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
ABANDON* ☐
CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐
FRACTURE TREATMENT ☐
SHOOTING OR ACIDIZING ☐
(Other) ☐

REPAIRING WELL ☐
ALTERING CASING ☐
ABANDONMENT* ☒

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting and proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The above well was plugged and abandon as follows:

12/15/82...Well flowing back.

12/16/82...Set 7" cast iron bridge plug at 2520'. Spotted 25 sacks on plug. Mudded hole up perf base of salt at 1045' and squeezed w/150 sacks cement. WOC.

12/17/82...Tagged plug at 953', pressured up on csg to 800'psi. Okay. Perf top of salt @ 355'. Csg parted at shot, pumped 120 sacks cement on back side. WOC.

12/18/82...Tagged plug at 40'. Set 15 sack cement plug and dry hole marker at surface.

Location ready for inspection.

18. I hereby certify that the foregoing is true and correct

SIGNED

Timothy J. McFarrell

TITLE

Area Manager

DATE

3/5/83

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

3/5/83



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

WORKING INTEREST OWNERS
WEST LOCO HILLS UNIT

GUS ARNOLD, LTD.	.413700
J. ROBERT BRIGHT	.216650
JOHN BRIGHT	.216650
CIBOLA ENERGY CORPORATION	.326459
CLIFFORD CONE	.404900
DOUGLAS L. CONE	.404900
ESTATE OF KATHLEEN CONE	.674800
KENNETH G. CONE	.404800
FLORENCE M. DOOLEY	.237600
ESTATE OF WILLIAM P. DOOLEY	.095000
GEORGE F. EMMONS	.076200
FAIR OIL COMPANY	6.303200
JAMES W. FAIR	.200100
WILTON H. FAIR	.200200
I. AND L. DEVELOPEMENT COMPANY	.758000
THOMAS W. LETT	.416900
THOMAS W. LETT, TRUSTEE SAM LETT TESTAMENTARY TRUST	.341100
EUGENE NEARBURG	.065700
PERMIAN RESOURCES, INC.	.657400
R.L. RAY LTD, TRUSTEE	.206800
RICHARD L. RAY	.200200
RICHARD L. RAY, TRUSTEE	3.108000
PAUL SLATON	.147700
THOMPSON PETROLEUM CORPORATION	3.032300
MARVIN N. WILSON	.137900
HARVEY E. YATES COMPANY	1.244798
JOHN A. YATES	.771400
YATES DRILLING COMPANY	8.821500
YATES ENERGY CORPORATION	.609343
YATES PETROLEUM CORPORATION	<u>69.305800</u>
	100.000000

COUNTY: **EDDY** STATE: **NEW MEXICO** FIELD AREA OR PROSPECT: **LOCO HILLS** COMPANY: **DIXON & YATES ETAL**
 DISTANCE FROM TOWN OR WELL: **Sec. 12-188-294**
 SURVEY: **Con SW SE**
 LOCATION: **Sec. 12-188-294**
 DATES LOC FILED: **8-22-43 9-21-43**
 REMARKS: **IP 30 30 4 hrs. 1" ch.**
Shot 390/2680-2773'; SIM 2943'
equals 2925'. S/Oas 2535-38, 2757-
2823, 2823-30. S/O 2515'.
CARD #8 - NM - 10-7-43.

WELL NO: **3**
 FARM: **Day**
 MAP NO: **8-5/8" 355' (50 ax.)**
 LEGAL NO: **7" 2600'.**
 LOG TYPED: **NO**
 PLOTTED: **NO**
 INFORMATION RECORD: **3519'**
T/S 355', B/S 1045',
R/S 2208'.

CO. **EDDY** POOL **LOCO HILLS** STATE **N.M.** KROENLEIN **1969**
 COMPANY **Dixon & Yates - #4 - Day** ELEV. **3519**
 LOG. **660 FSL & FEL**
Sec. 12, T-18, R-29

ACID OR SHOT 120 qts. 2728-2758	CASING RECORD 8 5/8- 363-50 7 -2647-100	TOPS S. 355 B.S. 1075 Rd. Sd. (thr) 2258 22L.
BPO. 9-22-43 COMP. 11-14-43 I. P. F. 200 BOPD thru 2" @ 2600 GR. GOR TP CP REMARKS SO 2730-43.		TP 2728 TD 2758 L. PSD <i>Driller's log</i>

EDDY COUNTY NEW MEXICO LOCO HILLS COMPANY: DIXON & YATES
 DISTANCE FROM TOWN OR WELL: **Sec. 12-188-294**
 SURVEY: **Con SE SE**
 LOCATION: **Sec. 12-188-294**
 DATES LOC FILED: **8-22-43 11-14-43**
 REMARKS: **IP 300 BOPD op. 2".**
Shot 390/2680-2773'; SIM 2943'
equals 2925'. S/Oas 2535-38, 2757-
2823, 2823-30. S/O 2515'.
CARD #1 - NM - 12-6-43.

WELL NO: **4**
 FARM: **Day**
 MAP NO: **8-5/8" 363' (50 ax.)**
 LEGAL NO: **7" 2647' (100 ax.)**
 LOG TYPED: **NO**
 PLOTTED: **NO**
 INFORMATION RECORD: **3519'**

West Loco Hills Unit
Working Interest Owners Meeting
November 1, 1991

AGENDA

I. Introduction - Randy Patterson

II. Pilot CO₂ Project - Dave Boneau

A History of Unit

- 1) Production History
 - a) Primary - 9 MMBO
 - b) WF - 14 MMBO
 - c) Present Well Status
- 2) CO₂ Background Studies
 - a) New Mexico Tech
 - b) Newmont Proposals
 - c) Lab Work - Surfactant + CO₂
 - d) NMOCD Approval - 1985
- 3) Federal UIC Program

B Proposed CO₂ Pilot

- 1) Two Injectors
- 2) Eight Producers
- 3) Barrier Injection Wells
- 4) TA Wells
 - a) 1/2 mile
 - b) UIC Program
- 5) Pilot Facilities
 - a) Production Battery
 - b) Water Injection Station
 - c) CO₂ Injection
- 6) CO₂ Pipeline
- 7) Pilot Costs
- 8) Predicted Production
- 9) The Future

C Work Schedule

- 1) Work to Date
- 2) Federal & State Approvals

III. Status of Project

A Proposal

B WIO's

C Governmental Approval

ACRES = 4243

DEPTH = 2665 FT.

NET THICKNESS = 17 FT.

POROSITY = 16.3%

PERMEABILITY = 27 md

OIL = 38° API

TEMPERATURE = 82° F

INITIAL PRESSURE = 1000 PSI

OOIP = 50.3 MMSTB

PRIMARY = 9.5 MMSTB

SECONDARY = 14.1 MMSTB

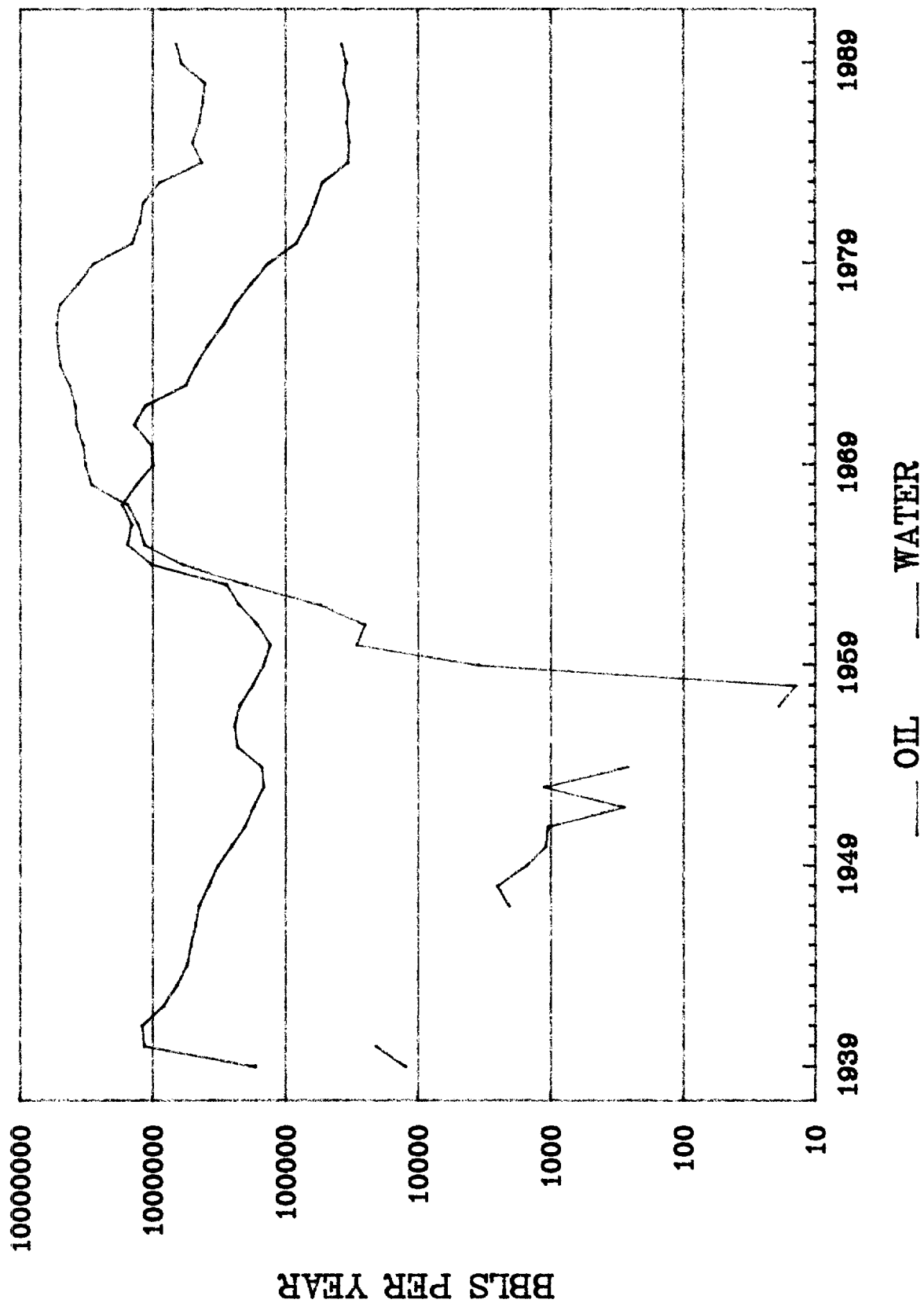
REMAINING = 26.7 MMSTB

CO₂ MMP = 950 PSI

WEST LOCO HILLS UNIT
EDDY COUNTY, NEW MEXICO

WEST LOCO HILLS UNIT

PRODUCTION HISTORY



WEST LOCO HILLS UNIT
 PRODUCTION and STATUS - SEPTEMBER 1991

A. ACTIVE PRODUCERS = 13

WELL	SEP 91 BOPD	SEP 91 BWPD
-----	-----	-----
WLHU 1-2	7	55
WLHU 1-3	10	122
WLHU 2A-2	7	109
WLHU 6-2	20	55
WLHU 6-4	8	92
WLHU 10B-5	7	147
WLHU 10B-7	5	137
WLHU 13-6	7	42
WLHU 26-1	6	168
WLHU 30-1	10	68
WLHU 32A-8	8	187
WLHU 35-1	11	626
WLHU 39-3	8	391
	-----	-----
	114	2199

B. ACTIVE INJECTORS = 3

WELL	SEP 91 BWPD	SEP 91 PSI
-----	-----	-----
WLHU 1-4	671	1350
WLHU 6-1	657	1400
WLHU 37-2	871	1300

	2199	

C. INACTIVE WELLS = 136

SI PRODUCERS	69
SI INJECTORS	16
PLUG + ABANDON	51
2-1952	
1-1966	
1-1972	
41-1983	
3-1984	
1-1985	
1-1987	
1-1988	

	136

D. TOTAL WELLS = 152

WEST LOCO HILLS FOURTH GRAYBURG SAND UNIT
STATUS of WELLS

TRACT	WELL	LOCATION	STATUS
-----	-----	-----	-----
1	1	D 7-18S-30E	SI PROD - 2/83
	2	E 7-18S-30E	ACTIVE PRODUCER
	3	L 7-18S-30E	ACTIVE PRODUCER
	4	M 7-18S-30E	ACTIVE INJECTION
	5	K 7-18S-30E	SI INJECTION
	6	F 7-18S-30E	SI PROD - 2/84
	7	C 7-18S-30E	SI INJECTION
	8	E 7-18S-30E	SI INJECTION
2A	2	D 7-18S-30E	ACTIVE PRODUCER
	4	P 7-18S-30E	P + A 1983
	5	J 7-18S-30E	SI INJECTION
2B	3	B 18-18S-30E	P + A 1983
3	1	C 12-18S-29E	SI PROD - 2/84
	2	D 12-18S-29E	SI INJECTION
	3	C 12-18S-29E	SI PROD - 10/83
	4	C 12-18S-29E	SI PROD - 6/73
4	1	K 12-18S-29E	SI INJECTION
	2	N 12-18S-29E	P + A 1983
5	1	C 10-18S-29E	SI PROD - 3/86
	2	F 10-18S-29E	P + A 1983
	3	C 10-18S-29E	SI PROD - 3/86
6	1	I 12-18S-29E	ACTIVE INJECTION
	2	J 12-18S-29E	ACTIVE PRODUCER
	3	O 12-18S-29E	P + A 1983
	4	P 12-18S-29E	ACTIVE PRODUCER
7	1	A 13-18S-29E	SI INJECTION
8A	1	E 10-18S-29E	SI PROD - 5/81
	2	L 10-18S-29E	SI PROD - 8/84
	3	E 10-18S-29E	SI PROD - 3/86
8B	3	C 15-18S-29E	SI PROD - 3/86
	4	D 15-18S-29E	P + A 1983
	6	D 15-18S-29E	P + A 1983
8D	5	B 15-18S-29E	P + A 1983

WEST LOCO HILLS FOURTH GRAYBURG SAND UNIT
STATUS of WELLS

TRACT	WELL	LOCATION	STATUS
-----	-----	-----	-----
9	1	P 3-18S-29E	P + A 1983
	2	O 3-18S-29E	SI PROD - 7/83
	3	P 3-18S-29E	SI PROD - 3/86
10A	1	M 3-18S-29E	SI PROD - 3/86
	2	N 3-18S-29E	P + A 1983
	3	K 3-18S-29E	SI PROD - 2/84
	4	L 3-18S-29E	SI PROD - 3/83
	5	E 3-18S-29E	P + A 1983
	6	F 3-18S-29E	P + A 1983
	7	L 3-18S-29E	SI INJECTION
	8	C 3-18S-29E	SI PROD - 11/89
10B	1	J 3-18S-29E	P + A 1983
	2	I 3-18S-29E	SI PROD - 2/84
	3	H 3-18S-29E	SI PROD - 2/84
	5	G 3-18S-29E	ACTIVE PRODUCER
	6	A 3-18S-29E	P + A 1983
	7	H 3-18S-29E	ACTIVE PRODUCER
11	1	C 11-18S-29E	P + A 1983
	2	D 11-18S-29E	P + A 1983
	3	E 11-18S-29E	SI PROD - 2/84
	4	F 11-18S-29E	SI PROD - 11/79
	7	K 11-18S-29E	SI PROD - 2/84
	8	L 11-18S-29E	P + A 1983
	9	M 11-18S-29E	SI PROD - 3/91
	10	N 11-18S-29E	P + A 1983
	11	F 11-18S-29E	SI INJECTION
12	1	J 9-18S-29E	SI PROD - 2/84
	2	I 9-18S-29E	P + A 1983
	3	P 9-18S-29E	SI PROD - 2/84
	4	J 9-18S-29E	SI PROD - 3/86
	5	P 9-18S-29E	SI PROD - 3/86
13	1	A 12-18S-29E	P + A 1983
	2	B 12-18S-29E	SI INJECTION
	4	H 12-18S-29E	SI PROD - 2/84
	5	G 12-18S-29E	P + A 1983
	6	F 12-18S-29E	ACTIVE PRODUCER
	7	A 12-18S-29E	SI PROD - 10/87
	8	L 12-18S-29E	SI PROD - 2/84
	9	E 12-18S-29E	SI INJECTION

WEST LOCO HILLS FOURTH GRAYBURG SAND UNIT
STATUS of WELLS

TRACT	WELL	LOCATION	STATUS
-----	-----	-----	-----
	10	L 12-18S-29E	SI PROD - 3/86
	11	H 12-18S-29E	SI PROD - 11/89
14	1	O 1-18S-29E	P + A 1983
	2	P 1-18S-29E	SI PROD - 1/91
15	1	F 1-18S-29E	P + A 1983
	2	C 1-18S-29E	SI INJECTION
	3	C 1-18S-29E	SI PROD - PRE 6/73
16	1	D 1-18S-29E	SI PROD - 3/86
	2	E 1-18S-29E	P + A 1983
17	1	B 10-18S-29E	P + A 1983
	2	G 10-18S-29E	SI PROD - 2/84
	3	J 10-18S-29E	P + A 1983
	4	O 10-18S-29E	SI PROD - 12/82
	5	H 10-18S-29E	SI INJECTION
	6	P 10-18S-29E	P + A 1983
	7	I 10-18S-29E	SI PROD - 2/84
	8	A 10-18S-29E	SI PROD - 3/83
	9	G 10-18S-29E	SI PROD - 7/83
	10	I 10-18S-29E	SI PROD - 3/86
	11	O 10-18S-29E	P + A 1983
18	1	M 10-18S-29E	SI PROD - 3/86
19A	1	O 9-18S-29E	SI PROD - 2/84
	2	O 9-18S-29E	SI PROD - 3/86
19B	1	A 9-18S-29E	SI PROD - 3/86
	2	D 9-18S-29E	SI PROD - 8/83
	3	H 9-18S-29E	P + A 1952
	4	G 9-18S-29E	P + A 1983
	5	H 9-18S-29E	SI PROD - 3/86
	6	B 9-18S-29E	P + A 1972
	7	B 9-18S-29E	P + A 1983
19C	1	A 15-18S-29E	SI PROD - 2/84
20	1	D 10-18S-29E	P + A 1983
21A	2	D 18-18S-30E	SI PROD - 3/86
	3	C 18-18S-30E	SI PROD - 11/87

WEST LOCO HILLS FOURTH GRAYBURG SAND UNIT
STATUS of WELLS

TRACT	WELL	LOCATION	STATUS
-----	-----	-----	-----
21B	5	F 18-18S-30E	P + A 1983
	6	E 18-18S-30E	P + A 1983
22	1	N 7-18S-30E	P + A 1983
23	1	N 36-17S-29E	SI PROD - 3/86
24	2	M 36-17S-29E	SI INJECTION
25	1	K 1-18S-29E	SI PROD - 8/77
	2	K 1-18S-29E	SI PROD - PRE 6/73
26	1	N 1-18-29E	ACTIVE PRODUCER
	2	N 1-18-29E	P + A 1988
27	1	L 1-18S-29E	P + A 1984
	2	L 1-18S-29E	P + A 1983
28	3	K 10-18S-29E	SI PROD - 3/86
29	1	N 2-18S-29E	SI PROD - 2/84
	2	K 2-18S-29E	P + A 1984
	3	N 2-18S-29E	SI PROD - 3/86
30	1	O 11-18S-29E	ACTIVE PRODUCER
	2	P 11-18S-29E	P + A 1983
31	3	M 2-18S-29E	SI PROD - 3/86
32A	6	J 11-18S-29E	P + A 1983
	7	J 11-18S-29E	SI PROD - 2/84
	8	J 11-18S-29E	ACTIVE PRODUCER
33	1	C 2-18S-29E	P + A 1983
34	4	E 2-18S-29E	SI PROD - 2/84
35	1	G 11-18S-29E	ACTIVE PRODUCER
	2	H 11-18S-29E	SI INJECTION
36	2	F 2-18S-29E	SI PROD - 2/84
37	1	B 11-18S-29E	SI PROD - 2/83

WEST LOCO HILLS FOURTH GRAYBURG SAND UNIT
STATUS of WELLS

TRACT	WELL	LOCATION	STATUS
	2	A 11-18S-29E	ACTIVE INJECTION
	3	A 11-18S-29E	SI PROD - 2/84
38	1	G 2-18S-29E	SI INJECTION
	2	H 2-18S-29E	SI PROD - 2/84
	3	A 2-18S-29E	P + A 1987
	4	D 2-18S-29E	SI PROD - 2/84
39	1	O 2-18S-29E	P + A 1984
	2	P 2-18S-29E	P + A 1966
	3	J 2-18S-29E	ACTIVE PRODUCER
	4	I 2-18S-29E	P + A 1983
	5	P 2-18S-29E	SI PROD - 1/91
	6	I 2-18S-29E	SI PROD - 3/86
40	1	M 1-18S-29E	SI PROD - 10/87
	2	M 1-18S-29E	SI PROD - PRE 6/73
41	1	L 2-18S-29E	P + A 1983
42	1	N 10-18S-29E	P + A 1983
43	1	P 4-18S-29E	SI PROD - 3/86
	2	I 4-18S-29E	P + A 1952
	3	I 4-18S-29E	P + A 1985

-10-

\$3.00

33 - \$10

\$13.15

\$13.80

\$33.00

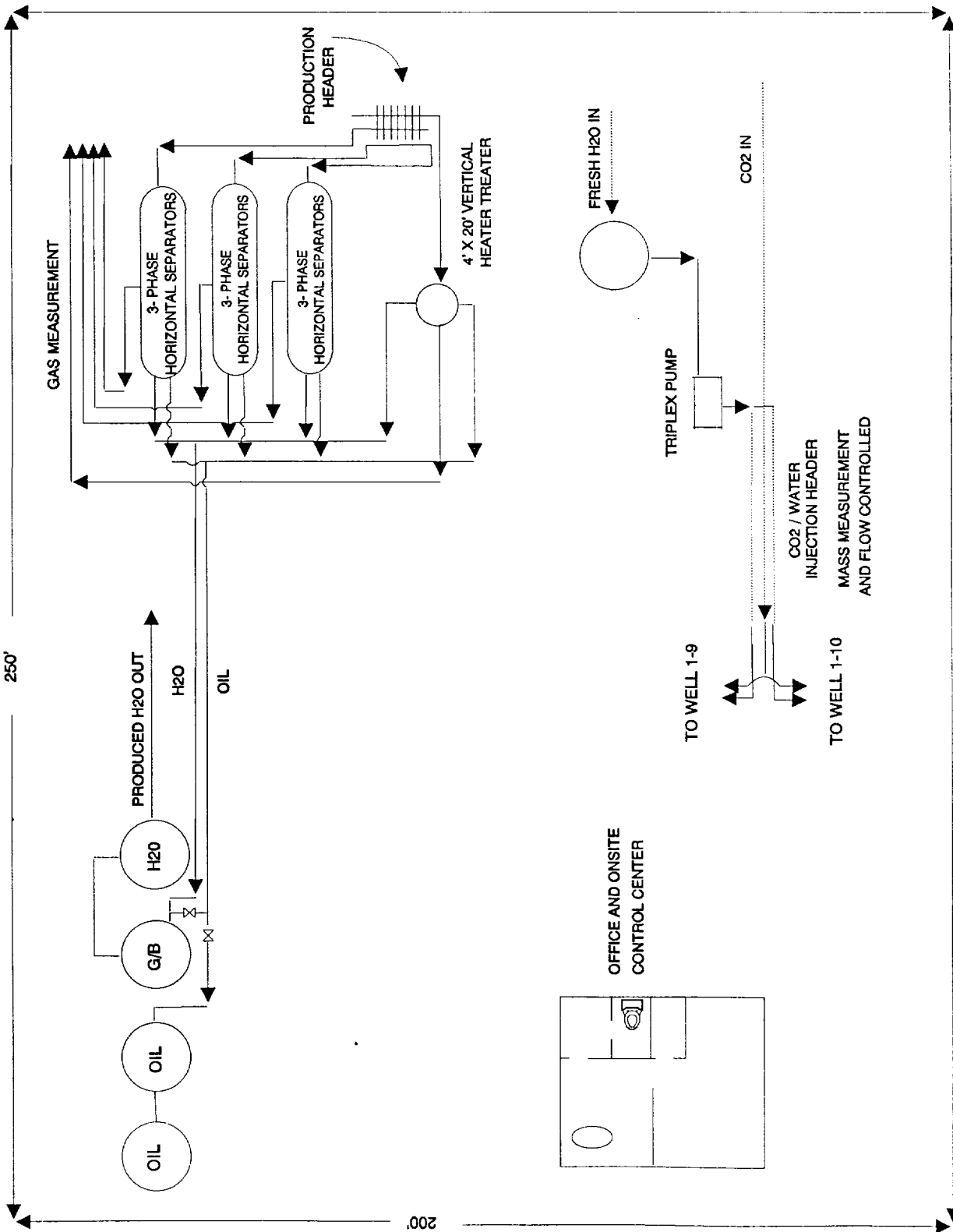
**MARTINEOR STUDY
PRRC IN SOCORRO**

EOB AT WEST LOCO HILLS UNIT

NOV., 1980	NEWMONT PROPOSES CO ₂ MINI-PILOT	\$35.00
MAR., 1981	YATES PROPOSES LAB TESTS FOR SURFACTANTS AND CO ₂	\$36.00
JAN., 1982	YATES PROPOSES CO ₂ PILOT (\$2.2MM)	\$33.00
OCT., 1982	PRRC + YATES PROPOSAL TO NMRDI	\$32.00
MAR., 1984	YATES BUYS NEWMONT INTEREST	\$29.00

EOR AT WEST LOCO HILLS UNIT

APR., 1984	YATES BUYS OTHER SMALL INTERESTS BALLOT ON CO ₂ PILOT APPROVED	\$29.00
FEB., 1985	NMOCD APPROVES CO ₂ PILOT	\$26.25
OCT., 1985	YATES REDUCES PILOT SIZE	\$26.95
DEC., 1985	WELL WORK BEGINS FOR PILOT	\$27.85
APR., 1986	PILOT WORK STOPS	\$12.35



200'

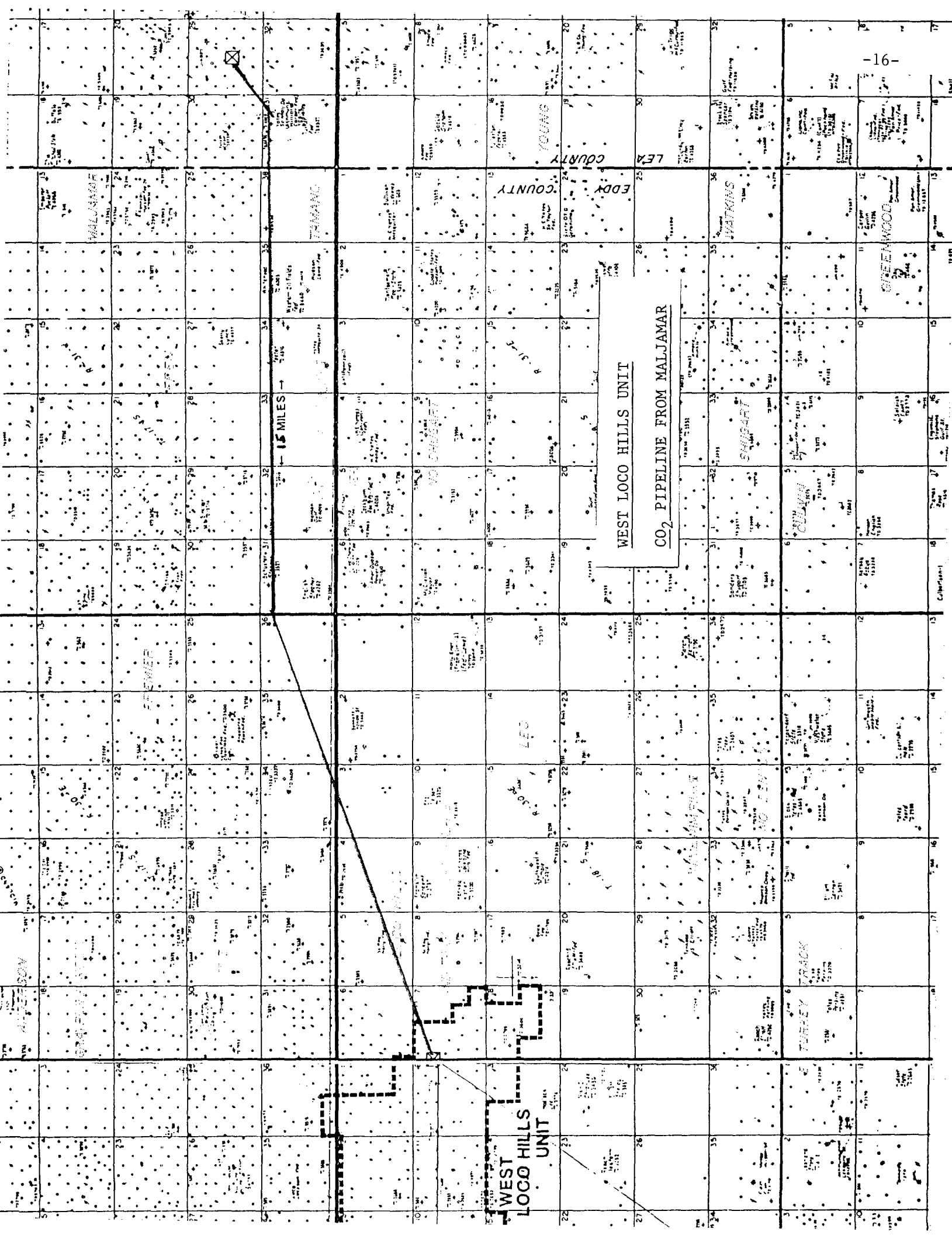
250'



CARBON DIOXIDE SUPPLY

WEST LOCO HILLS UNIT

EDDY COUNTY, NEW MEXICO



WEST LOCO HILLS UNIT
CO₂ PIPELINE FROM MALJAMAR

WEST
LOCO HILLS
UNIT

15 MILES

EDDY COUNTY
LEA COUNTY

GREENWOOD

SHUPART

TURKEY

LEO

NO CHILBERT

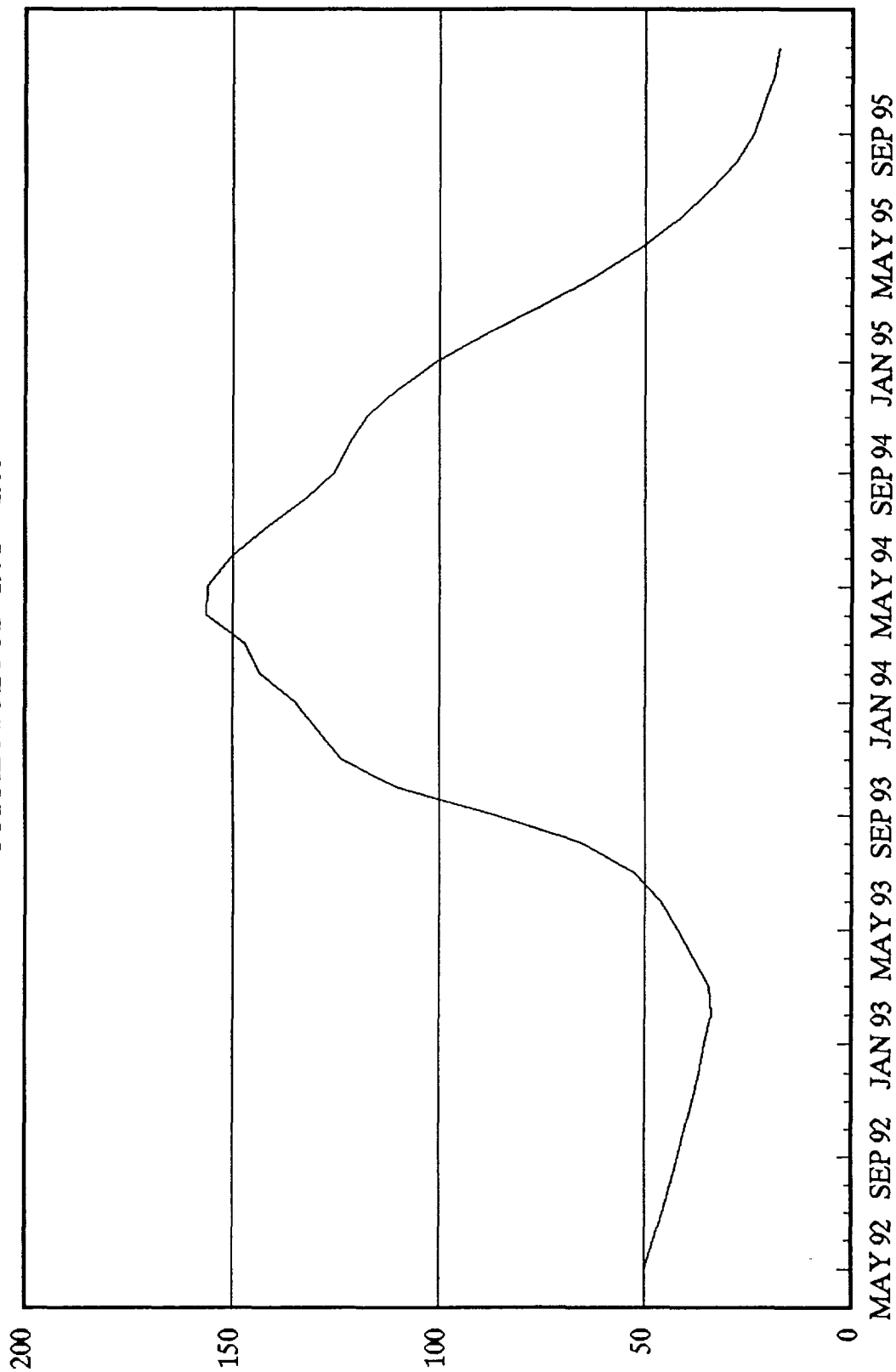
MALJAMAR

TAMMING

WATKINS

WEST LOCO HILLS UNIT PRODUCTION FORECAST

CO₂ PILOT FLOOD 1991 - 1995



— BOPD

WEST LOCO HILLS UNIT
 PRODUCTION FORECAST
 CO2 PILOT FLOOD - 1991 to 1995

MONTH	WATERFLOOD BOPD	PATTERN 1-9 BOPD	PATTERN 1-10 BOPD	TOTAL BOPD
MAY 92	50.0	0.0	0.0	50
JUN 92	47.9	0.0	0.0	48
JUL 92	45.9	0.0	0.0	46
AUG 92	44.0	0.0	0.0	44
SEP 92	42.2	0.0	0.0	42
OCT 92	40.4	0.0	0.0	40
NOV 92	38.7	0.0	0.0	39
DEC 92	37.1	0.0	0.0	37
JAN 93	35.6	0.0	0.0	36
FEB 93	34.1	0.0	0.0	34
MAR 93	32.7	2.0	0.0	35
APR 93	31.3	7.0	0.0	38
MAY 93	30.0	12.0	0.0	42
JUN 93	29.4	17.0	0.0	46
JUL 93	28.9	24.0	0.0	53
AUG 93	28.4	35.0	2.0	65
SEP 93	27.8	55.0	4.0	87
OCT 93	27.3	72.0	11.0	110
NOV 93	26.8	80.0	17.0	124
DEC 93	26.3	78.0	25.0	129
JAN 94	25.9	75.0	34.0	135
FEB 94	25.4	69.0	49.0	143
MAR 94	24.9	58.0	64.0	147
APR 94	24.4	49.0	83.0	156
MAY 94	24.0	37.0	95.0	156
JUN 94	23.6	25.0	102.0	151
JUL 94	23.1	16.0	103.0	142
AUG 94	22.7	8.0	102.0	133
SEP 94	22.3	2.0	101.0	125
OCT 94	21.9	1.0	99.0	122
NOV 94	21.5	1.0	95.0	117
DEC 94	21.1	1.0	88.0	110
JAN 95	20.7	0.0	80.0	101
FEB 95	20.3	0.0	68.0	88
MAR 95	19.9	0.0	55.0	75
APR 95	19.6	0.0	43.0	63
MAY 95	19.2	0.0	32.0	51
JUN 95	18.9	0.0	23.0	42
JUL 95	18.5	0.0	16.0	35
AUG 95	18.2	0.0	10.0	28
SEP 95	17.8	0.0	6.0	24
OCT 95	17.5	0.0	4.0	22
NOV 95	17.2	0.0	2.0	19
DEC 95	16.9	0.0	1.0	18

WEST LOCO HILLS UNIT - AFTER THE PILOT

A. IF THE PILOT IS SUCCESSFUL

EXPAND CO2 IN STAGES TO REST OF UNIT

RECOVERY = 8.2 MMBO over 25 YEARS

COST = \$105 MILLION over 25 YEARS

COST/BO = \$12.80

PAYOUT = 2000 AD for \$23/BO

\$12 MILLION in the HOLE at WORST POINT

EXAMPLE for STAGE 1

YEAR	COST, \$MM	MBO
1995	9.59	87.0
1996	3.77	239.0
1997	3.77	391.5
1998	3.77	587.0
1999	3.77	369.5
2000	1.13	282.5
2001	1.13	174.0
2002	1.13	43.5
	28.06	2174.0

COST/BO = \$12.91

B. IF PILOT IS NOT SUCCESSFUL

PLUG OUT WEST LOCO HILLS UNIT

BEFORE PILOT

13 ACTIVE PRODUCERS
 3 ACTIVE INJECTORS
 69 SHUTIN PRODUCERS
 16 SHUTIN INJECTORS
 plus 3 TO BE DRILLED for PILOT

 104 WELLS to PLUG

PLUGGING COST = \$40,000/WELL

TOTAL PLUGGING LIABILITY = (104)*(\$40,000) = \$4.16 MILLION