Amoco Production Company
Post Office Box 68
Hobbs, New Mexico 88240

L. R. Smith
District Manager

OIL CONSERVATION DIVISION
SEP 14 198
RECEIVED

September 10, 1984

File: LRS-1933-WF

Re: Application for Salt Water Disposal
Wallaby "WZ" State Com No. 1
Lea County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Attention: Mr. Gilbert Quintana

Amoco Production Company hereby makes application for administrative approval to convert Wallaby "WZ" State Com No. 1 to a salt water disposal well. Form C-108 and the necessary documentation is attached. Your prompt consideration of this application will be appreciated.

As required, each party listed on the attached service list has been furnished a copy of this application by certified mail complete with all attachments.

If additional information is needed, contact Gary Clark (505) 393-1781.

GCC/klb
APRD03-VV

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, NM 87501

Read & Stevens
P. O. Box 1518
Roswell, NM 88201

Yates Petroleum Company
207 South Fourth Street
Artesia, NM 88201

M. L. Brown
200 Sutton Place Bldg.
Wichita, KS 67202

Tenneco Oil Company
6800 Park Ten Blvd., Suite 200 North
San Antonio, TX 78213

SERVICE LIST

Leasehold operator within 1/2 mile of proposed injection well

Yates Petroleum Corporation
207 South Fourth Street
Artesia, NM 88201

Read & Stevens
P. O. Box 1518
Roswell, NM 88201

M. L. Brown
200 Sutton Place Bldg.
Wichita, KS 67202

Tenneco Oil Company
6800 Park Ten Blvd., Suite 200 North
San Antonio, TX 78213

Surface Owner

State of New Mexico
Commissioner of Public Lands
P. O.Box 1148
Santa Fe, NM 87501

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: AMOCO PRODUCTION COMPANY

Address: P. O. Box 68, Hobbs, New Mexico 88240

* Contact party: John M. Breeden Phone: (505) 393-1781

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: Gary C. Clark Title Assist. Admin. Analyst

Signature: Gary C. Clark Date: 9-6-84

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

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division 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.

INJECTION WELL DATA SHEET

Amoco Production Company	Wallaby "WZ" State Com.			
OPERATOR	LEASE			
1	660' FSL x 1980' FWL	18	13-S	33-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

(See attached wellbore sketch)

13-3/8" CSA 388'
8-5/8" CSA 4188'
5-1/2" CSA 10,115'

Tabular Data

Surface Casing

Size 13-3/8 " Cemented with 450 sx.

TOC surface feet determined by circulation

Hole size 17-1/2"

Intermediate Casing

Size 8-5/8 " Cemented with 2185 sx.

TOC surface feet determined by circulation

Hole size 11"

Long string

Size 5-1/2 " Cemented with 1200 sx.

TOC 7395' feet determined by temp. survey

Hole size 7-7/8"

Total depth 10,115'

Injection interval

9890' feet to 10,115' feet
(perforated or open-hole, indicate which)
perforated non-continuous

Tubing size 2-7/8" lined with plastic (material) set in a

Baker lock-set (plastic coated) (brand and model) packer at 9850 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Cisco

2. Name of Field or Pool (if applicable) Baum Upper Penn

3. Is this a new well drilled for injection? /7/ Yes /X/ No

If no, for what purpose was the well originally drilled? Production of oil and gas.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) Yes, the Bough A and C horizons have been tested and the perforations are currently open. These intervals will be cement squeezed before the Cisco is used as a disposal zone.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Lower Wolfcamp (Bough A, B, and C) overlies Cisco.

AMOCO

Amoco Production Company

RESEARCH ENGINEERING CHART

SHEET NO. OF

FILE

APPN

DATE 3-26-84

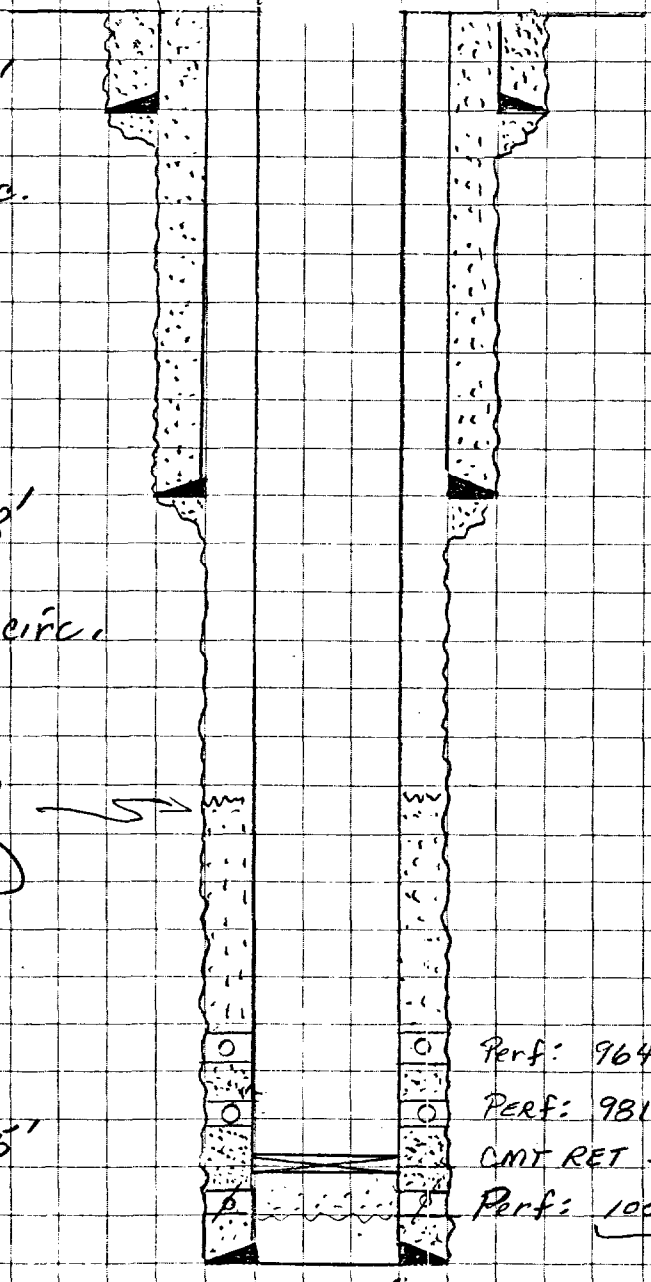
BY aga

SUBJECT Wallaby "WZ" St. Com #1
Baum Fld.

LOCATION: 660'FSL x 1980'FWL
Sec 18, T13S, R33E
Lea County, New Mexico

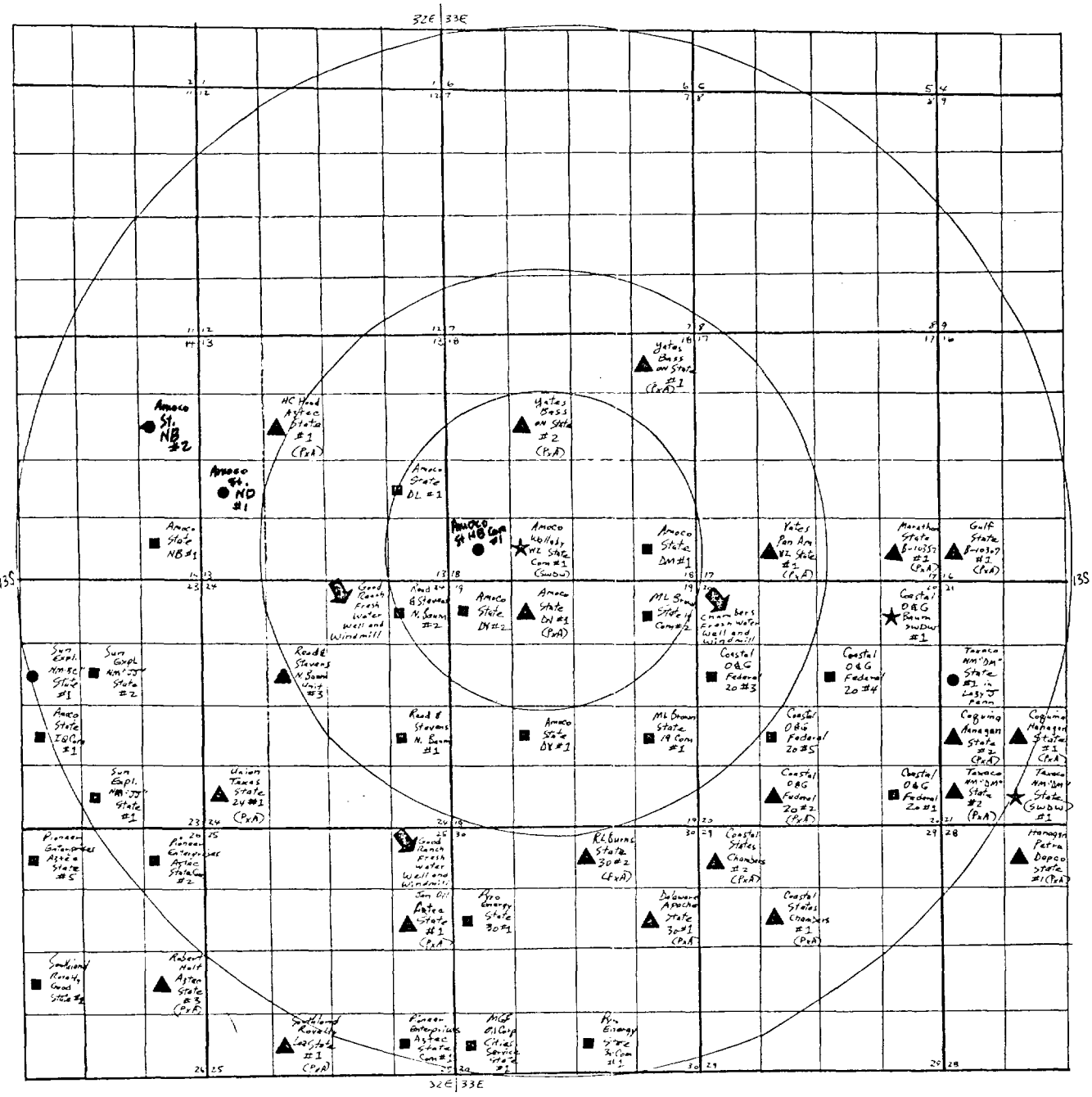
COMPLETION DATE: Incomplete

ELEVATION: 4287.3' GL.

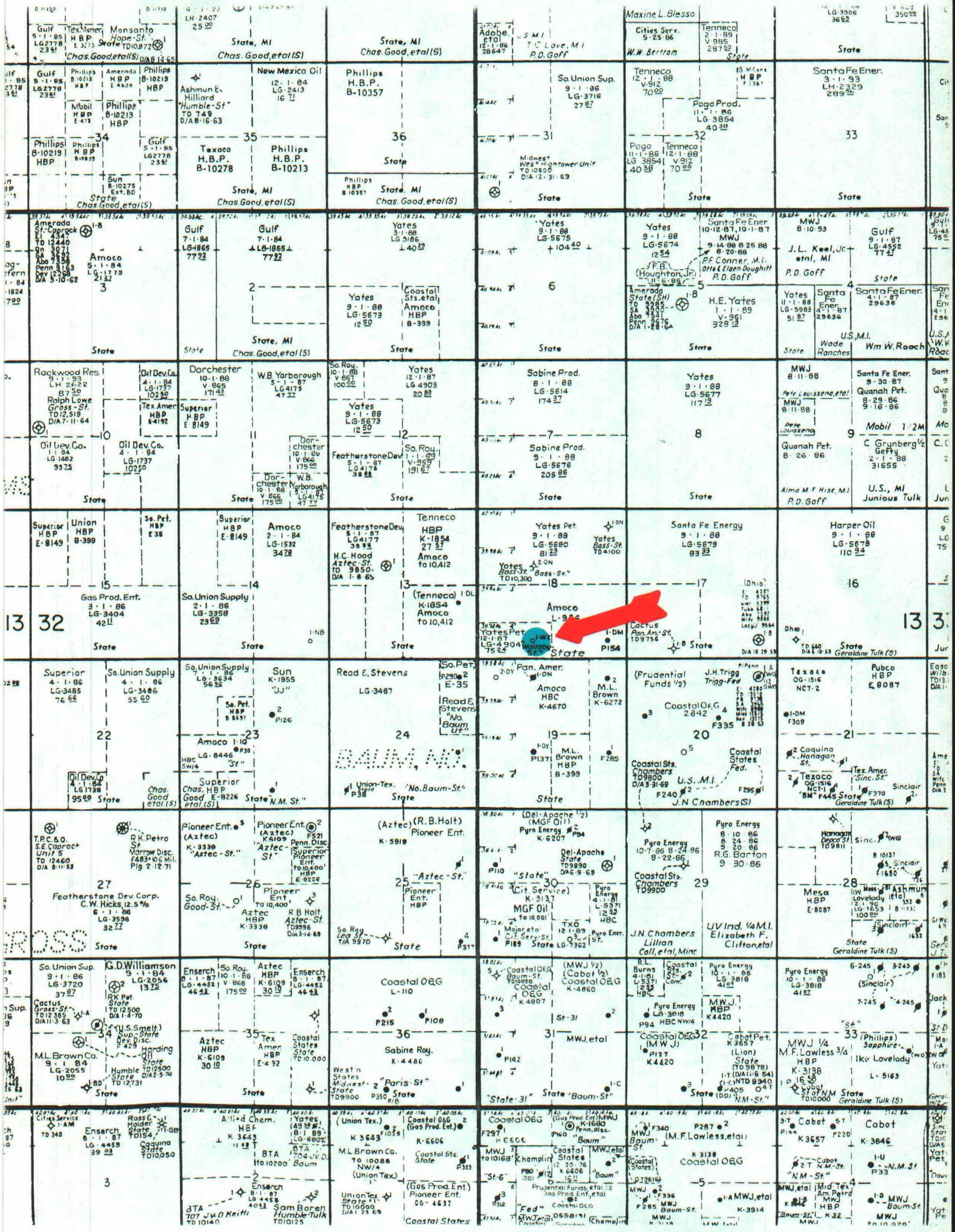


Form 380 3-73

Wallaby "WZ" Area of Review



Legend: ■ Baum Field (Upper Penn Formation) ● Incomplete Well ▲ Plugged and Abandoned ★ Disposal Well ● Proposed Well ● Lazy J Penn
Fresh Water Well and Windmill



Gulf
Tex. Amer.
Monsanto Hope-St.
Chas. Good, etal (S)
State, MI
LH-2407
Adobe, etal
T.C. Love, M.I.
P.D. Goff
Maxine L. Blesso
Cities Serv. 5-25-86
Tenneco
W.W. Bertram
State
Phillips B-10213 HBP
Amerada
Ashmun & Hilliard "Humble-St"
New Mexico Oil 12-1-84 LG-2413
Phillips H.B.P. B-10357
So. Union Sup. 9-1-86 LG-3716
Tenneco
Pogo Prod. 11-1-86 LG-3854
Santa Fe Ener. 3-1-93 LH-2329
Mobil HBP
34
35
36
31
32
33
Texaco H.B.P. B-10278
Phillips H.B.P. B-10213
Midwest West Hightower Unit
Pogo
Sun B-10275
Amerada St.-Caprock
Amoco 5-1-84 LG-1779
Gulf 7-1-84 LG-1865
Yates 3-1-88 LG 5186
Yates 9-1-88 LG-5675
Yates 9-1-88 LG-5674
Santa Fe Ener.
MWJ 9-14-88 8-25-88 8-20-88
P.F. Conner, M.I.
Otto & Elaen Doughitt
P.D. Goff
(Houghton, Jr.)
H.E. Yates 1-1-89 V-961
J.L. Keel, Jr. etal, MI
Gulf 9-1-87 LG-4552
Santa Fe Ener. 4-1-87 29636
U.S. M.I.
Wade Ranches
Wm W. Roach
1
2
3
4
5
6
Yates 9-1-88 LG-5673
Coastal Sts. etal
Amoco HBP B-399
State, MI
Chas. Good, etal (S)
Rockwood Res. 9-1-93 LH 2622
Ralph Lowe Gross-St.
Oil Dev. Co.
Dorchester 10-1-88 V-865
Tex Amer HBP
Superior HBP E-8149
W.B. Yarborough 5-1-87 LG4175
Yates 12-1-87 LG 4903
So. Roy.
Featherstone Dev.
Dor-chester
W.B. Yarborough
Sabine Prod. 8-1-88 LG-5614
Sabine Prod. 9-1-88 LG-5676
Yates 9-1-88 LG-5677
MWJ 8-11-88
Pete Louissena, etal
Santa Fe Ener. 9-30-87
Quanah Pet. 8-29-86 9-16-86
Mobil 1/2M
C. Grynberg 1/2 Getty 2-1-88 31655
Quanah Pet. 8-26-86
Alma M. F. Hise, M.I.
P.D. Goff
U.S., MI
Junious Tulk
7
8
9
10
11
12
Superior HBP E-8149
Union HBP B-399
So. Pet. HBP E35
Superior HBP E-8149
Amoco 2-1-84 LG-1532
Featherstone Dev. 5-1-87 LG4177
H.C. Hood Aztec-St.
Tenneco HBP K-1854
Amoco to 10,412
Yates Pet. 9-1-88 LG-5680
Yates Bass-St.
Santa Fe Energy 9-1-88 LG-5679
Harper Oil 9-1-88 LG-5678
13
14
15
16
17
18
13
32
13
Gas Prod. Ent. 3-1-86 LG-3404
So. Union Supply 2-1-86 LG-3358
(Tenneco) K-1854 Amoco to 10,412
Amoco
Yates Pet. 12-1-87 LG-4904
Wallaby St.
Cactus Pan. Am.-St.
State
Geraldine Tulk (S)
Superior 4-1-86 LG-3485
So. Union Supply 4-1-86 LG-3486
So. Union Supply 7-1-86 LG-3634
Sun K-1955 "JJ"
Read & Stevens
LG-3487
So. Pet. E-35
Read & Stevens "No. Baum Ut."
Pan. Amer.
Amoco HBC K-4670
M.L. Brown K-6272
(Prudential Funds 1/2)
J.H. Trigg Trigg-Fed
Coastal O.&G. 2842
Texaco OG-1516 NCT-2
Pubco HBP E 8087
22
23
24
19
20
21
Amoco
BAUM, NO.
M.L. Brown HBP B-399
Coastal Sts. Chambers
Coastal States Fed.
U.S. M.I.
J.N. Chambers (S)
Coquina Hanagan St.
Texaco
Tex. Amer. "Sinc.-St."
Sinclair
Oil Dev. Co.
Superior Chas. HBP
Chas. Good etal (S)
Union-Tex.
"No. Baum-St."
State "N.M. St."
T.P.C. & O. S.E. Caproc Unit 5
R.K. Petro
Pioneer Ent. (Aztec) K-3330 "Aztec-St."
Pioneer Ent. (Aztec)
Superior Pioneer
(Aztec) (R.B. Holt) Pioneer Ent. K-5919
(Del-Apache 1/2) (MGF Oil)
Pyro Energy K-6207
Del-Apache State
Pyro Energy
Coastal Sts. Chambers
Pyro Energy
R.G. Barton
Sinclair
Featherstone Dev. Corp. C.W. Hicks, 12.5%
So. Roy. Good-St.
Pioneer Ent
Aztec HBP K-3338
R.B. Holt Aztec-St.
"Aztec-St."
Pioneer Ent. HBP
"State"
(Cit. Service) K-3137
MGF Oil
Pyro Energy
TXO
J.N. Chambers Lillion Coll, etal, Mins
UV Ind. 1/4 M.I. Elizabeth F. Clifton, etal
Mesa HBP E-8087
Ashmun
27
26
25
30
29
28
So. Roy. Lea St.
State
Geraldine Tulk (S)
So. Union Sup. 9-1-86 LG-3720
G.D. Williamson 9-1-84 LG-2056
Ensearch
So. Roy. 10-1-88 V-868
Aztec HBP K-6109
Ensearch
Coastal O&G L-110
Coastal O&G
(MWJ 1/2) (Cabot 1/2) Coastal O&G K-4860
Pyro Energy 10-1-86 LG-3818
Pyro Energy 10-1-86 LG-3818
(Sinclair)
Cactus Gross-St.
RK Pet. State
(U.S. Smelt.) Sup.-State
Harding Oil
M.L. Brown Co. 9-1-84 LG-2055
Humble State
Aztec HBP K-6109
Tex Amer HBP
Coastal States State
Sabine Roy. K-4480
West'n States Midwest-State
"Paris-St"
St-31
MWJ, etal
Coastal O&G (M.W.J.) K4420
Cabot Pet. K3657
MWJ K4420
MWJ 1/4 M.F. Lawless 3/4 HBP K-3138
(Phillips) Sapphire
Ike Lovelady
34
35
36
31
32
33
"State-31"
State "Baum-St"
Geraldine Tulk (S)
Cities Service
Ensearch 8-1-87 LG-4459
Ross & Holder State
Coquina State
Allied Chem. HBP K 3643
Yates
BTA
(Union Tex.) K 3643
Coastal O&G (Gas Prod. Ent.) K-6606
M.L. Brown Co. to 10088 NW/4 (Union Tex.)
Coastal Sts. State
Coastal O&G
Champlin
Coastal States
"Baum"
MWJ (M.F. Lawless, etal)
Coastal O&G K 3138
Cabot K3657
Cabot K-3846
3
2
5
4
Ensearch 8-1-87 LG 4458
BTA J.&D. Keith
Sam Boren Humble-Tulk
Union Tex State
(Gas Prod. Ent.) Pioneer Ent. OG-4637
Coastal States
"Fed"
Prudential Funds, etal 1/2 Gas Prod. Ent., etal
MWJ, etal
MWJ Baum-St.
Champlin

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR: Yates Petroleum Corp.

WELL NAME: Wallaby "WZ" State Com #1

LOCATION: 660/s x 1980/w, Unit N SEC. 18 T- 13 -S, R- 33 -E

ELEVATION: 4287 GL _____ DF _____ KB

TD: 10,115 PBTD 9,995

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8	54.5	388	450	circ
11	8-5/8	32	4,188	2185	circ
7-7/8	5-1/2	17	10,115	1200	7395 by temp survey

PRODUCING INTERNAL: Proposed injection well

COMPLETION DATE: Dry hole

CURRENT STATUS: Incomplete

COMMENTS: Plan to inject into Upper Penn (Cisco)

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: State "HB" Com No. 1

LOCATION: 570 FSL x 540' FWL SEC. 18 T- 13 -S, R- 33 -E

ELEVATION: 4291.6' GL 4314.1' DF 4315.1' KB

TD: 10,000' PBTD -

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8	54.5	439	475	Circ.
11	8-5/8	24/32	4051	1960	225 (temp. sur.)
7-7/8	5-1/2	15.5/17	10000	2225	Circ.

PRODUCING INTERNAL: Proposed Bough A, B, and C

COMPLETION DATE: August 1984 (Projected)

CURRENT STATUS: Incomplete

COMMENTS:

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Yates Petroleum Corp.

WELL NAME: Bass "ON" State #2

LOCATION: 1980/n x 1980/w, Unit F SEC. 18 T- 13 -S, R- 33 -E

ELEVATION: 4290 GL _____ DF _____ KB

TD: 10,300 PBTD PxA

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8	48	410	400	circ
12-1/4	8-5/8	24-32	4167	2467	circ
7-7/8	No additional csg run in well - PxA				

PRODUCING INTERNAL: PxA in 1981

COMPLETION DATE: PxA as incomplete well

CURRENT STATUS: PxA w/45 sx 9800-9700, w/50 sx 9130-9030, w/40 sx 7650-7550, w/40 sx 5445-5345, w/40 sx 4217-4117, w/35 sx 1725-1025, w/10 sx at surface.

COMMENTS: Dry hole spudded 12-18-80

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

Amoco Production Company

ENGINEERING CHART

SHEET NO. ____ OF ____

FILE ____

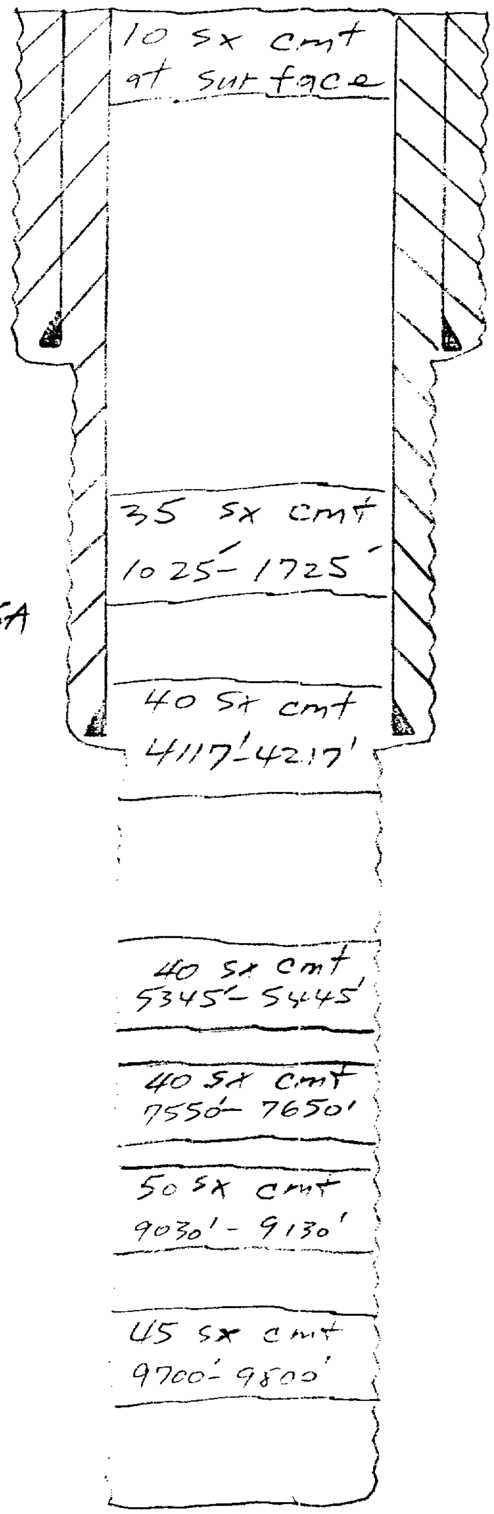
APPN ____

DATE 5-12-84

BY [illegible]

SUBJECT Lass "ON" State Well #2 (operated by Yates)
1980'/N x 1980'/W (F-15-?-33) in Lea Co., NM

Elevation @ GL is 4290'
Well was PxA as a dry hole in 1981



13 3/8" 48# CSA 410'
w/400 sx. CMT CIRC.
(17½" Hole)

8 5/8" 24# and 32# CSA
4167' in 12¼" hole
w/2467 sx. CMT CIRC.

TD 10,300'
7 7/8" bit used to TD

Form 371 2-71

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: State "DL" No. 1

LOCATION: 660/e x 1980/s, Unit I SEC. 13 T- 13 -S, R- 32 -E

ELEVATION: 4292 GL 4308 DF 4309 KB

TD: 10,313 PBTD 10,255

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8	48	395	450	circ
12-1/4	9-5/8	32.3-36	4088	950	calc at 84'
8-3/4	5-1/2	14-17	10,313	600	calc at 7178'

PRODUCING INTERNAL: Baum Upper Penn perfs 9590-9763 (gross interval)

COMPLETION DATE: 12/28/68

CURRENT STATUS: Active Producer

COMMENTS: None

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Read & Stevens

WELL NAME: North Baum #2

LOCATION: 660/n x 660/e, Unit A SEC. 24 T- 13 -S, R- 32 -E

ELEVATION: 4298 GL _____ DF _____ KB

TD: 10,050 PBTD 9,699

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8	48	415	425	circ
11	8-5/8	24-32	4010	1650	circ
7-7/8	5-1/2	14-17	10,050	1050	calc at 2050

PRODUCING INTERNAL: Baum Upper Penn perfs 9650-9792 (gross interval)

COMPLETION DATE: 04/29/83

CURRENT STATUS: Active Producer

COMMENTS: None

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: State "DY" No. 2

LOCATION: 660/n x 660/w, Unit D SEC. 19 T- 13 -S, R- 33 -E

ELEVATION: 4296.5 GL 4313.5 DF 4314.5 KB

TD: 9,991 PBTD 9,908

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8	48	440	475	circ
11	8-5/8	32	4086	1650	circ
7-7/8	5-1/2	15.5-17	9984	1925	circ

PRODUCING INTERNAL: Baum Upper Penn perfs 9650-9820 (gross interval)

COMPLETION DATE: 3/13/84

CURRENT STATUS: Active Producer

COMMENTS: None

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: State "DN" No. 1

LOCATION: 660/n x 1980/ w, Unit C SEC. 19 T- 13 -S, R- 33 -E

ELEVATION: 4290 GL _____ DF _____ KB

TD: 9,878 PBTD PxA

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8	48	397	450	circ
12-1/4	8-5/8	24-32	3982	650	calc at 1904
7-7/8	5-1/2	14-17	9878	300	calc at 7592

PRODUCING INTERNAL: PxA in 1971

COMPLETION DATE: 1969 in Baum - Upper Penn

CURRENT STATUS: PxA

COMMENTS: None

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

AMOCO

Amoco Production Company

ENGINEERING CHART

SHEET NO. OF

FILE

APPN

DATE

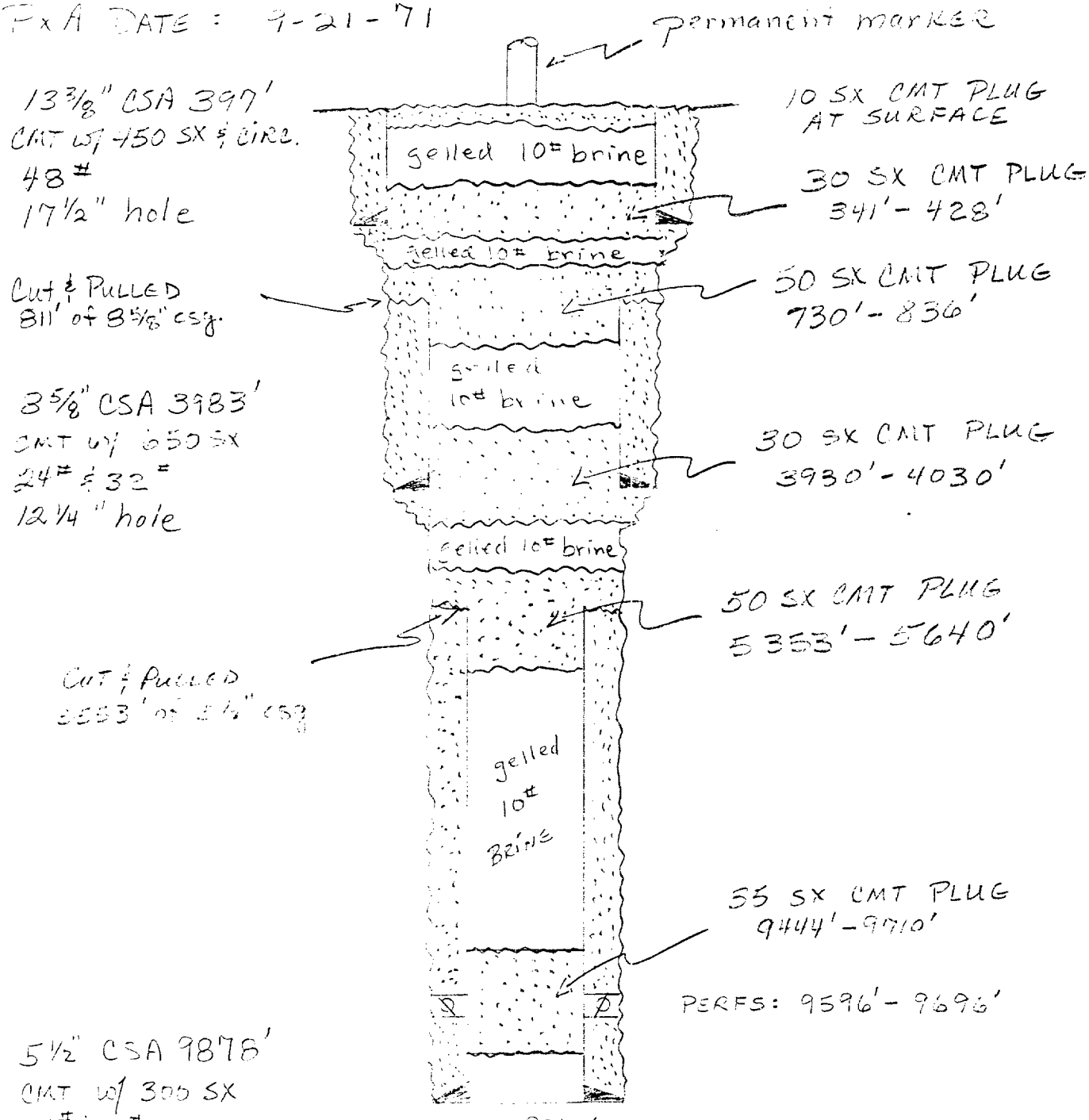
BY

SUBJECT Amoco Production Company

State "DN" No. 1

LOCATION: 1650' FNL x 1980' FWL
Sec. 19, T-13-S, R-33-E

P x A DATE: 9-21-71



Form 371 271

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: M. L. Brown

WELL NAME: State 19 Com No. 2

LOCATION: 660/n x 660/e, Unit A SEC. 19 T- 13 -S, R- 33 -E

ELEVATION: 4281 GL _____ DF _____ KB

TD: 10,324 PBTD 10,292

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	11-3/4	42	350	400	circ
11	8-5/8	24-32	4100	400	calc at 2023
7-7/8	5-1/2	17	10,324	500	calc at 6515

PRODUCING INTERNAL: Baum Upper Penn perfs 6996-9738 (gross interval)

COMPLETION DATE: 12/23/68

CURRENT STATUS: Active Producer

COMMENTS: Amoco WI = 50%

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: State "DM" No. 1

LOCATION: 660/s x 660/e, Unit C SEC. 18 T- 13 -S, R- 33 -E

ELEVATION: 4286 GL 4297 DF 4298 KB

TD: 9874 PBTD 9862

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8	48	398	450	circ
11	8-5/8	24-32	4008	800	circ
7-7/8	5-1/2	14-17	9874	300	calc at 7588

PRODUCING INTERNAL: Baum Upper Penn perfs 9685-9738 (gross interval)

COMPLETION DATE: 05/19/69

CURRENT STATUS: Active Producer

COMMENTS: None

* Note: Must attach a wellbore schematic for all PxA wells illustrating details.

JSB/tjt
EPPRI1-DD

ITEM No. 7

DATA ON PROPOSED OPERATION
WALLABY "WZ" STATE COM NO. 1

1. Proposed average and maximum daily rates to be injected:

   Average daily rate of 800 BWPD
   Maximum daily rate of 2000 BWPD

2. System will be closed with water being transferred through line pipe from producing wells to the injection well.

3. The maximum surface injection pressure will be limited to 0.2 psi/ft (1980 psi) or the actual fracture pressure will be determined by a step-rate test. The average injection pressure is expected to be approximately 400 psi.

4. The source of injected fluids will be from Amoco Production Company's nearby leases, the State "DY", State "DL", State "NB", State "DM", and State "IQ" Com. Water analysis and compatibility data are included.

5. Injection will be into the Cisco horizon which is non-productive within 1 mile.

GCC/klb
APRD03-VV

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS, NEW MEXICO 88240

COMPANY AMOCO PRODUCTION
DATE 4-4-86
FIELD,LEASE&WELL BAUM STATE DI WELL #1
SAMPLING POINT
DATE SAMPLED : 4-2-86

SPECIFIC GRAVITY = 1.049
TOTAL DISSOLVED SOLIDS = 76070
RESISTIVITY AT 78F IS .1 OHMS
PH = 6.23

		MEQ/L	MG/L
CATIONS			
CALCIUM	(CA)+2	200	4008
MAGNESIUM	(MG)+2	50	607.
SODIUM	(NA) CALC.	1068.	24537.
ANIONS			
BICARBONATE	(HCO3)-1	1.8	109.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	16.4	787.
CHLORIDES	(CL)-1	1300	46000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1670
BARIUM	(BA)+2	0	.06
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =1.529

SCALING INDEX	TEMP 30C 86F	62.7C 145F
CARBONATE INDEX	-.82	0.0
CALCIUM CARBONATE SCALING	UNLIKELY	LIKELY
CALCIUM SULFATE INDEX	-25.	-25.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : AMOCO PRODUCTION
DATE : 4-4-84
FIELD,LEASE&WELL : BAUM STATE DM WELL #1
SAMPLING POINT:
DATE SAMPLED : 4-2-84

SPECIFIC GRAVITY = 1.06
TOTAL DISSOLVED SOLIDS = 91073
RESISTIVITY AT 72F IS .1 OHMS
PH = 6.2

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)++2	226.	4542.
MAGNESIUM	(MG)++2	143.	1742.
SODIUM	(NA),CALC	1256.	28753.
ANIONS			
BICARBONATE	(HCO3)-1	3	183.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	17.7	850
CHLORIDES	(CL)-1	1600	55000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		882
BARIUM	(BA)++2	0	09
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =1.907

SCALING INDEX	TEMP 30C 86F	62.7C 145F
CARBONATE INDEX	-.52	.335
CALCIUM CARBONATE SCALING	UNLIKELY	LIKELY
CALCIUM SULFATE INDEX	-24.	-25.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS NEW MEXICO 88240

COMPANY AMOCO PRODUCTION
DATE 4-4-84
FIELD,LEASE&WELL # EAUM STATE DY WELL #1
SAMPLING POINT
DATE SAMPLED 4-2-84

SPECIFIC GRAVITY = 1.058
TOTAL DISSOLVED SOLIDS = 86317
RESISTIVITY AT 73F 1? .1 OHMS
PH = 6.47

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	173.	3473.
MAGNESIUM	(MG)+2	96.6	1175.
SODIUM	(NA) CALC.	1249.	28717.
ANIONS			
BICARBONATE	(HCO3)-1	2.2	134.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	16.9	812
CHLORIDES	(CL)-1	1500	52000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		36.5
BARIUM	(BA)+2	0	4
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =1.745

SCALING INDEX	TEMP 30C 86F	62.7C 145F
CARBONATE INDEX	-.58	.294
CALCIUM CARBONATE SCALING	UNLIKELY	LIKELY
CALCIUM SULFATE INDEX	-32.	-32.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : AMOCO PRODUCTION
DATE : 4-4-84
FIELD,LEASE&WELL : BAUM STATE DY WELL #2
SAMPLING POINT
DATE SAMPLED : 4-2-84

SPECIFIC GRAVITY = 1.058
TOTAL DISSOLVED SOLIDS = 86237.
RESISTIVITY AT 73F IS .1 OHMS
PH = 6.41

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	180	3607
MAGNESIUM	(MG)+2	90	1094.
SODIUM	(NA),CALC.	1247	28676.
ANIONS			
BICARBONATE	(HCO3)-1	2	122
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	15.3	737.
CHLORIDES	(CL)-1	1500	52000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		49.8
BARIUM	(BA)+2	0	.4
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =1.742

SCALING INDEX	TEMP 30C 86F	62.7C 145F
CARBONATE INDEX	-.62	.258
CALCIUM CARBONATE SCALING	UNLIKELY	LIKELY
CALCIUM SULFATE INDEX	-.32	-.32
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS, NEW MEXICO 88240

COMPANY AMOCO PRODUCTION
DATE 4-9-84
FIELD,LEASE&WELL BAUM STATE 10 WELL #1
SAMPLING POINT
DATE SAMPLED 4-2-84

SPECIFIC GRAVITY = 1.049
TOTAL DISSOLVED SOLIDS = 74793
RESISTIVITY AT 78F IS .1 OHMS
PH = 6.96

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	133.	2672
MAGNESIUM	(MG)+2	106.	1296.
SODIUM	(NA),CALC	1079.	24819
ANIONS			
BICARBONATE	(HCO3)-1	5	305.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	14.5	700
CHLORIDES	(CL)-1	1300	45000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		65.3
BARIUM	(BA)+2	0	.2
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =1.508

SCALING INDEX	TEMP 30C 86F	62.7C 145F
CARBONATE INDEX	.172	1.04
CALCIUM CARBONATE SCALING	LIKELY	LIKELY
CALCIUM SULFATE INDEX	-39.	-39.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : AMOCO PRODUCTION
DATE : 4-4-84
FIELD,LEASE&WELL : BAUM UPPER PENN - Compatibility DATA
SAMPLING POINT STATE DL#1 4%/DM#1 16%/IG#1 20%/DY#1 46%/DY#2 14%
DATE SAMPLED 4-2-84

SPECIFIC GRAVITY = 1.057
TOTAL DISSOLVED SOLIDS = 85010
RESISTIVITY AT F IS : OHMS
PH = 6.4838

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	175.	3524.
MAGNESIUM	(MG)+2	103.	1260.
SODIUM	(NA).CALC.	1239.	28506.
ANIONS			
BICARBONATE	(HCO3)-1	2.8	173
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	16.3	784
CHLORIDES	(CL)-1	1500	50800
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	0	0
HYDROGEN SULFIDE	(H2S)	0	0
OXYGEN	(O2)	0	0
IRON(TOTAL)	(FE)		244.
BARIUM	(BA)+2	0	.29
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =1.732

SCALING INDEX	TEMP 30C 86F	62.7C 145F
CARBONATE INDEX	-.40	.473
CALCIUM CARBONATE SCALING	UNLIKELY	LIKELY
CALCIUM SULFATE INDEX	-.33.	-.32.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

Note: Percentages based on producing ratio's.

ITEM NO. 8

GEOLOGICAL INFORMATION

The Cisco horizon is a carbonate formation with some thin shale stringers. The total thickness is approximately 500 feet with the top of the Cisco at ±9890'. The only source of drinking water in the area is the Ogallala. The base of the Ogallala is approximately 250 feet deep. There are no drinking water sources below the Cisco horizon.

ITEM NO. 9

PROPOSED STIMULATION PROGRAM

The proposed injection well will be reperforated in the Cisco zones which have porosity and permeability indications on openhole logs. The perforations will then be acidized with approximately 50 gallons per foot 15% HCl. If acceptable injection rates and pressures are not obtained, a small fracture stimulation may be used.

Yates Petroleum Corp. - Wallaby "WZ" St Com #1 (Unit N) 18-13S-33E Lea Co., NM

5-18-83	TD 10115'. Overnight SITP 0 psi. Fluid level at 8500'. Made 5 swab runs. Had 5 barrel recovery on 2nd swab run. Dry to seating nipple on last run. Waited 2 hours. 1/2 barrel recovery. No oil or gas. Load recovered - 106 barrels. Swab recovery total - 75 barrels. Shut down due to darkness.
5-19-83	TD 10115'. Fluid level 9000'. Overnight SITP 0#. Pull tubing, packer and RBP. Reset RBP at 9751' and test to 1000#, OK. WIH on wireline with Steel Carrier gun and perforated 9646-75' with 9 .42" holes. GIH with tubing and packer. Spot acid over perforations. Set packer 9587' and broke formation 5500#. Open by-pass and spot acid to end of tubing. Acidized with 5000 gallons 15% Spearhead acid and 7 ball sealers (dropped at 3000 gallons). Treating pressures: Max 6900#, Avg 6800# @ 4.5 BPM. ISDP 5900#, 5 minutes 5800#. Load recovered 180 bbls. Begin flowing well back.
5-20-83	TD 10115'. Overnight flow on 24/64" choke, 40 bbls. Fluid level 1000'. Made 13 swab runs, 40 bbl recovery. On 13th swab run, dry to seating nipple. Made 35 gallons water, 3.5 gallons oil on last 2 runs. Wait 1 hours. Load recovered 180 bbls, total swab recovery 80 bbls. Shut in for night.

WATER ANALYSIS: (5-19-83)

Sp Gravity	1.125 @ 73° F	Sod & Pot	17757
Ph	6.8	Resistivity	.052 @ 73°
Iron	fair/strong	Sulfate	730
Hardness	113000	Bicarbonate	1.464
Calcium	21200	Chloride	106000
Magnesium	14580	Sod Chloride	174,370

5-21-23-83	TD 10115'. Overnight SITP 0#. Fluid level 9000'. Made 3 swab runs, 2 bbls recovered to seating nipple. On 2nd swab run recovered 35 gallons water, 5.25 gallons oil. Pull tubing, packer and RBP. Prep to plug and abandon.
5-24-83	TD 10115'. Prep to plug and abandon. Laid down pipe and moved.
5-25-83	TD 10115'. Lay tubing on ground. Rigging down and moving.
5-26-83	TD 10115'. No report.
5-27-83	TD 10115'. No report.
5-28-31-83	TD 10115'. No report.
6-1-83	TD 10115'. No report.
6-2-83	TD 10115'. No report.
6-3-83	TD 10115'. No report.
6-4-6-83	TD 10115'. No report.
6-7-83	TD 10115'. No report.
6-8-83	TD 10115'. No report.
6-9-83	TD 10115'. No report.
6-10-83	TD 10115'. No report.
6-11-13-83	TD 10115'. No report.
6-14-83	TD 10115'. No report.
6-15-83	TD 10115'. No report.
6-16-83	TD 10115'. No report.
6-17-83	TD 10115'. No report.
6-18-20-83	TD 10115'. No report.
6-21-83	TD 10115'. No report.
6-22-83	TD 10115'. No report.
6-23-83	TD 10115'. No report.
6-24-83	TD 10115'. No report.
6-25-27-83	TD 10115'. No report.
6-28-83	TD 10115'. No report

TEMPORARILY DROPPED FROM REPORT UNTIL OPERATIONS ARE RESUMED

7-9-11-83	TD 10115'. Waiting on AMOCO's decision to take well over.

TEMPORARILY DROPPING FROM REPORT UNTIL OPERATIONS ARE RESUMED

8-13-15-83	TD 10115'. AMOCO TOOK WELL OVER! FINAL REPORT!

Quanta
State Friday

DRILLING REPORT

Yates Petroleum Corp. - Wallaby "WZ" St Com #1 (Unit N) 18-13S-33E Lea Co., NM

5-3-83 TD 10115'. Ran bond logs. Second log at 10000# on casing.

5-4-83 TD 10115'. WIH on wireline with Steel Strip gun and perforated 100085-90' with 10 .50" holes at 2 SPF. Ran packer and tubing. Prep to acidize, set packer 10022' and test casing and cement to 5000#, OK. Circulate hole and spot 1 bbl acid over perforations. Formation broke 4000#. Acidized with 1000 gallons 15% Spearhead acid. Treating pressures: Max 5600#; Abg 5500# @ 4.5 BPM. ISDP 4200#, 5 minutes 3400#, 10 minutes 3000#. Shut in. Flowed 20 bbls, made 4 swab runs.

5-5-83 TD 10115'. Overnight SITP 0#. Fluid level at surface. Made 16 swab runs, recovered 47 bbls fluid (87 bbl total recovery). Recovered 85 bbls, oil stain on last 3 runs. Swabbing off on 300 recovery.

WATER ANALYSIS: 5-4-83

Sp Gravity	1.045 @ 78°	Magnesium	607
pH	6	Sod & Pot	19,207.3
Iron	fair/strong	Resistivity	.15 @ 78°
Hydrogen Sulfide	none	Bicarbonate	1.3 793
Hardness	2.5	Chloride	38000
Calcium 2	4000	Sodium Chloride	62510

5-6-83 TD 10115'. Overnight SITP 0#. Fluid level 8000'. Made 12 swab runs, recovered 16 bbls fluid. Total recovery 103 bbls. Made 6 swab runs, wait 1 hour. 300' in tubing, small amount of gas on swab run (brown looking fluid) small emulsion on bbl after each run.

WATER ANALYSIS: 5-5-83

Sp Gravity	1.060 @ 84°	Resistivity	.12 @ 70°
pH	7	Bicarbonate	793
Iron	fair/strong	Chloride	48000
Hydrogen Sulfide	none	Sodium Chloride	78760
Calcium	5800	Hardness	2.6

5-7-9-83 TD 10115'. Overnight SITP 0#. Fluid level 7800'. Pull tubing and packer. WIH on wireline with Steel Carrier gun and perforated 10014-10019' with 10 .50" holes. Go in hole with tubing, packer and RBP (38 stands in hole). Shut down due to wind.

5-10-83 TD 10115'. Go in hole with tubing, packer and RBP. Pressure test RBP to 1000#. Spot 1 bbl acid over perforations. Pull packer up and broke formations 3200#, open by-pass. Spot acid at end of tubing and treat with 2000 gallons 15% HCL Spearhead acid. Treating pressures: Max 6100#; Avg 6000# @ 5 BPM. ISDP 4700#, 5 minutes 3700#, 10 minutes 3000#. Start to flow back. Recovered 108 bbls. Flowed 5 bbls. Made 20 swab runs, recovered 90 bbls. Shut in.

5-11-83 TD 10115'. Overnight SITP 35#. Fluid level 2500'. Made 36 swab runs, recovered 130 bbls. Fluid level 6000'.

5-12-83 TD 10115'. Overnight SITP 0#. Fluid level 2500'. Made 10 swab runs, recovered 30 bbls fluid. Total recovery 255 bbls, no oil show. Pull tubing and RBP. Set cement retainer at 10000'. GIH with tubing to squeeze perforations at 10014-19' and 10085-90'.

5-13-83 TD 10115'. GIH with tubing to squeeze perforations at 1014-19' and 10085-90' with 150 sacks Class "C" . Cement retainer leaking. Pull tubing and prep to drill out.

5-14-83 TD 10115'. Drilled out cement retainer at 10000#. Run tubing and bit to 10095'. Pulled tubing and bit.

5-15-16-83 TD 10115'. Set cement retainer at 9995'. Squeezed perforations at 10014-10019' and 10085-10090' with 150 sacks Class "C" Neat with 5000# squeeze. Reverse out. Pulled tubing. WIH w/Steel Carrier guns and perforated 9812-9816' w/5 .42" holes. WIH with tubing, packer and RBP. Prep to acidize.

5-17-83 TD 10115'. WIH w/tubing, packer and RBP. Acidized perforations 9812-9816' with 2000 gallons 15% Spearhead HCL acid. Spot 1 barrel over perforations. Formation broke at 5800#. Spot acid at end of tubing and treat. Pressures: Max 7500#; Min 6000#; Avg 6400# at 4.4 BPM. ISDP 5300#; 5 min 5200#; 10 min 5100#. Flowed down and swabbed load. Recovery - 106 barrels. Made 16 swab runs. Had 70 barrel recovery. Swabbed to seating nipple. Shut in due to darkness.

1 Guanila
1 State Friday

Yates Petroleum Corp. - Wallaby "WZ" St Com #1 (Unit N) 18-13S-33E Lea Co., NM

4-9-83	Drilling 5575' dolomite. Made 590'. MW 8.4, Vis 28, pH 10.5, Cl 7500. Deviation 5332' 3/4°.
4-10-83	Drilling 6117' dolomite. Made 542'. MW 8.4, Vis 28, pH 10.5. Deviation 5824' 1/2°.
4-11-83	Drilling 6607' dolomite. Made 490'. MW 8.4, Vis 28, ph 10.5.
4-12-83	Drilling 7104' Made 497', 21.3'/hour. MW 8.4, Vis water, pH 10.5, Cl 10000, Solids .5%. Deviation 6826' 3/4°.
4-13-83	TD 7550'. Made 446', 23.47'/hour. Testing BOP. MW 8.4, Vis water, pH 10.5, Cl 10000, Solids .5%. Deviations 7324' 3/4°, 7550' 1/2°.
4-14-83	Drilling 7775' Abo shale. Made 225', 16.3'/hour. MW 8.5, Vis water, pH 10.5, Cl 5000, Solids .5%. Tested blind rams, choke valve, 4" manifold and kelly cock with 3000#. Abo tested hydril with 1500#.
4-15-83	Drilling 8145' dolomite, shale and anhydrite. MW 8.6, Vis 29, pH 10.5. Deviation 8042' 1-1/4°.
4-16-83	Drilling 8598' dolomite, lime and anhydrite. Made 453', 19.7'/hour. MW 8.6, Vis 29, pH 10.5, Cl 24000, KCL 4%. Deviation 8538' 2°.
4-17-83	Drilling 8953' lime and shale. Made 355',15.4'/hour. MW 8.6, Vis 29, pH 10, Cl 24000, KCL 4%. Deviation 8783' 2°.
4-18-83	Drilling 9221' lime and shale. Made 268', 16.7'/hour. MW 8.6, Vis 29, pH 10, Cl 24000, KCL 4%. Deviation 9092' 1-3/4°.
4-19-83	Drilling 9559' dolomite and shale. Made 338', 15.2'/hour. MW 8.6, Vis 32, WL 26, FC film, pH 95, Solids 1.5%, KCL 2%, Cl 35000. Bit #7 in 973'. 22-1/4 hours drilling; 1/4 hour service rig and work BOP's; 1-1/2 hour circulate samples at 9503'. WOB 50000#; RPM 60; SPM 64; PP 1550#.
4-20-83	TD 9776'. Tripping for down hole leak. Lime and shale. Made 217'. Drilling 10.0' per hour. Deviation 9590' 1-1/2 degree. MW 8.9, Vis 32, PH 10, WL 9.8, FC 1/32, Solids 2%, KCL 2%, CL 38000. Bit #7 has made 603' in 47-1/4 hours. WOB 50,000; RPM 60, SPM 64; PP 1600
4-21-83	Drilling 9960' lime, shale and dolomite. Made 184', 9.2'/hour. MW 9, Vis 32, WL 11.2, p H 10, Cl 42000, KCL 2%, Solids 2.5%. WOB 50000# @ 58 RPM. PP 1600# @ 62 SPM.
4-22-83	TD 10115' dolomite. Made 155', 13.3'/hour. MW 9.2, Vis 36, WL 10.8, pH 9.5, Cl 54000, KCL 2%, Solids 2%, FC 2/32. WOB 50000# @ 58 RPM. PP 1600# @ 62 SPM.
4-23-25-83	TD 10115'. Circulating. Rigging up to lay down drill pipe. MW 9.3, Vis 36, WL 10.8, pH 9.5, Cl 54000, FC 2/32, Solids 2%. Deviation 10115' 1/4°. Ran 268 joints of 5-1/2" 17# J-55 & N-80 (10119') of casing as follows: 58 joints of 5-1/2" 17# N-80 LT&C (1941.22'); 171 joints of 5-1/2" 17# J-55 (6872.88'); 39 joints 5-1/2" 17# N-80 (1304.90') of casing set 10115'. 1-regular guide shoe set 10115'. Float collar set 10081'. Cemented with 1000 sacks 50/50 Poz "H", .5% CF-9, .4% TF-4. Tailed in with 200 sacks Class "H", .4% TF-4, .5% CF-9. Compressive strength of cement - 1000 psi in 12 hours. PD 9:00 PM 4-23-83. Bumped plug to 1000 psi, released pressure and float held okay. WOC. (1200 sx) NOTE: Ran Temperature Survey and found top of cement -7395'
4-26-83	TD 10115'. Waiting on completion unit.
4-27-83	TD 10115'. Waiting on completion unit.
4-28-83	TD 10115'. Waiting on completion unit.
4-29-83	TD 10115'. Rig up, prep to drill out.
4-30/5-1-83	TD 10115'. Go in hole with mill tooth bit, 5-1/2" casing scraper, (4) 3-1/2" drill collars adn 2-7/8" J-55 tubing. Drilled out 16' cement on top plug, drill float collar and 20'. TD 10103', test casing to 2000#, OK. Start out of hole.
5-2-83	TD 10115'. Pull tubing, collars, scraper and bit. Ran Gamma Ray Neutron, CBL and Collar logs. Shut well in.

Canada
Scott Bridges

CHRONOLOGICAL DRILLING REPORT
YATES PETROLEUM CORPORATION
Wallaby "WZ" State Com #1
Unit N
18-13S-33E
Lea County, New Mexico

3-29-83	Location: 660' FSL & 1980' FWL of Section 18-13S-33E Lea County, New Mexico. Elevation: 4287.3' GL. Drilling Contractor: Landis Drilling Company Rig #3. PTD: 10300' Bough "C". Location complete. Moving in and rigging up rotary tools.
3-30-83	Prep to spud.
3-31-83	Drilling 650'. MW 8.4, Vis water, pH 9.5. Deviation 388' 1°. Spudded 17-1/2" hole 8:00 AM 3-30-83. Ran 9 joints of 13-3/8" J-55 54.5# 8rd (390.50') of casing set 388'. 1-Texas Pattern notched guide shoe set 388'. Insert float set 345'. Cemented with 450 sacks Class "C" 2% $CaCl_2$. Compressive strength of cement - 1250 psi in 12 hours. PD 3:15 PM 3-30-83. Bumped plug to 1000 psi, released pressure and float held okay. Cement circulated 50 sacks. WOC. Drilled out 4:15AM 3-31-83. WOC 13 hours. Cut off and welded on flow nipple. Reduced hole to 11". Drilled plug and resumed drilling.
4-1-83	Drilling 1890' salt. Made 1240'. MW 9.5, Vis 32. Deviations 900' 3/4°, 1423' 3/4° and 1728' 1-1/4°.
4-2-83	No report.
4-3-83	No report.
4-4-83	Drilling 3769' anhydrite. Made 434'. Drilling 18.4' per hour. MW 10.1, vis 31, CL 152000, Solids 2%. Deviation 3352' 1 degree.
4-5-83	Drilling 4048' anhydrite and dolomite. Made 279'. Drilling 11.8' per hour. MW 10.1 Vis 31, Solids 2%, CL 175000, Oil 5%. Deviation 3854' 1 degree.
4-6-83	TD 4188'. Washing 75' to bottom. Made 140'. Deviation 4188' 3/4 degree. Reached TD to run casing at 7:00 PM 4-5-83. Ran 104 joints of 8-5/8" 32# J-55 8rd (4191') of casing set at 4188'. 1-Texas Pattern notched guide shoe set at 4188'. Float collar set at 4148'. Cemented with 1985 sacks Pacesetter Lite "C", 5#/sack salt and 1/4#/sack celloseal. Tailed in with 200 sacks Class "C" and 1/4#/sack celloseal. Compressive strength of cement - 950 psi in 12 hours. PD 7:15 AM 4-6-83. Bumped plug to 1000 psi, released pressure and float held okay. Cement circulated 50 sacks. WOC. (2185 sacks). BREAKDOWN: 13-3/4 hours drilling; 2-1/4 hour tripping; 1/4 hour deviation; 1/4 hour rig service; 6-1/2 hours running 8-5/8" casing; 1 hour washing 75' to bottom.
4-7-83	Drilling 4300' dolomite. Made 112'. Drilling 29.8' per hour. MW 8.4, Vis 28 (water), PH 10. BREAKDOWN: 3-3/4 hours drilling; 1/2 hour wash casing to bottom; 1-3/4 hours cementing with Western; 18 hours WOC, nippling up, TIH, drill plug and float collar and drilling 40' of cement. TOC - 4148'. WOB - 50,000; RPM 60; SPM 64; PP 1500. NOTE: Drilled cut at 2:15 AM 4-7-83. WOC 19 hours. Nippled up and tested to 1000# for 30 minutes, OK. Reduced hole to 7-7/8". Drilled plug and resumed drilling.
4-8-83	Drilling 4985' dolomite. Made 575'. Drilling 24.4' per hour. MW 8.4, Vis water, PH 10.5, CL 2000. Deviation 4832' 1 degree. BREAKDOWN: 23-1/2 hours drilling; 1/4 hour deviation; 1/4 hour service rig and work BOP. BIT: Bit #5 Reed 7-7/8" HPMH; in at 4188' - made 797' in 27-1/4 hours. WOB 50,000; RPM 60; SPM 64; PP 1500

ITEM NO. 11

CHEMICAL ANALYSIS OF FRESH WATER
WELLS WITHIN A 1 MILE RADIUS

UNICHEM INTERNATIONAL

401 NORTH LEROY P O BOX 1499

HOBBS NEW MEXICO 88240

COMPANY AMOCO PRODUCTION
DATE 6 6 91
FIELD LEASE/WELL NORTH BAUM #1 (SCOTT RANCH) WEST OF REED AND STEVENS
SAMPLING POINT WINDMILL STOCK TANK
DATE SAMPLED 6 5 91

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 52[illegible]
RESISTIVITY AT 78F IS 1[illegible] OHMS
PH = 7 92

		MG/L	MG/L
CATIONS			
CALCIUM	(CA) +2	3 4	68 1
MAGNESIUM	(MG) +2	1 4	17 0
SODIUM	(NA) CALC	3 1	71 7
ANIONS			
BICARBONATE	(HCO3) -1	2 8	170
CARBONATE	(CO3) -2	0	0
HYDROXIDE	(OH) -1	0	0
SULFATE	(SO4) -2	2 1	101
CHLORIDES	(CL) -1	3	100
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		6
BARIUM	(BA) +2	0	1
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = 011

SCALING INDEX	TEMP 30C 86F	65.7C 149F
CARBONATE INDEX	1.96	2.83
CALCIUM CARBONATE SCALING	LIKELY	LIKELY
CALCIUM SULFATE INDEX	-.17	-.17
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O BOX1499

HOBBS, NEW MEXICO 88240

COMPANY AMOCO PRODUCTION
DATE 4-4-84
FIELD LEASE/WELL NORTH BAUM #1 (GOOD RANCH) SOUTH OF REED AND STEVENS
SAMPLING POINT WINDMILL STOCK TANK
DATE SAMPLED 4-2-84

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 410
RESISTIVITY AT 75F IS 13.5 OHMS
PH = 8.73

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	3.4	68.1
MAGNESIUM	(MG)+2	1.4	17.0
SODIUM	(NA)+CALC.	2.5	57.9
ANIONS			
BICARBONATE	(HCO3)-1	.4	24.4
CARBONATE	(CO3)-2	.8	24
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	2.1	101.
CHLORIDES	(CL)-1	4	140
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		13.3
BARIUM	(BA)+2	.0	1
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .011

SCALING INDEX	TEMP	
	30C 86F	62.7C 145F
CARBONATE INDEX	2.82	3.69
CALCIUM CARBONATE SCALING	LIKELY	LIKELY
CALCIUM SULFATE INDEX	-17.	-17.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O. BOX1499

HOBBS, NEW MEXICO 88241

COMPANY AMOCO PRODUCTION
DATE 4-4-84
FIELD,LEASE&WELL STATE 19 COMM #2 (CHAMBERS) EAST OF M L BROWN'S
SAMPLING POINT WINDMILL STOCK TANK
DATE SAMPLED 4-1-84

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 617
RESISTIVITY AT 75F IS 11.7 OHMS
PH = 8.07

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	5.8	116.
MAGNESIUM	(MG)+2	1.8	21.8
SODIUM	(NA),CALC	1.5	34.3
ANIONS			
BICARBONATE	(HCO3)-1	7.8	170.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	3.3	162.
CHLORIDES	(CL)-1	3	110
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		16.1
BARIUM	(BA)+?	0	1
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .015

SCALING INDEX	TEMP 30C 86F	62.7C 145F
CARBONATE INDEX	2.42	3.29
CALCIUM CARBONATE SCALING	LIKELY	LIKELY
CALCIUM SULFATE INDEX	-.15	-.13
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

ITEM NO. 12

AFFIRMATIVE STATEMENT

While evaluating the proposed well for injection purposes and gathering the required information for this application, no evidence of open faults or any other hydrologic connection between the proposed injection zone and any underground source of drinking water was found.

ITEM NO. 13

"PROOF OF NOTICE" INFORMATION

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

I, _____

Robert L. Summers

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 in a supplement thereof for a period

of _____

One weeks.

Beginning with the issue dated

September 9, 19 84

and ending with the issue dated

September 9, 19 84

Robert L Summers

Publisher.

Sworn and subscribed to before me this 10 day of Sept., 1984

Jane Paulowsky

Notary Public.

My Commission expires

3-24, 1987

(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.

OFFICIAL SEAL

Signature Jane Paulowsky

JANE PAULOWSKY

NOTARY PUBLIC - NEW MEXICO

NOTARY BOND FILED WITH SECRETARY OF STATE

My Commission Expires 3-24-87

36

LEGAL NOTICE
September 9, 1984

TO WHOM IT MAY CONCERN:

Amoco Production Company has applied for administrative approval to convert Wallaby "WZ" State Com No. 1 to a salt water disposal well. The well is located in Unit letter N, Section 18, Township 13 South, Range 33 East, Lea County, New Mexico. The purpose of this work is to dispose of produced water from properties located in the Baum field into the subject wellbore located on the Wallaby "WZ" State Com Lease. The water will be injected into the Upper Penn formation at an average daily rate of 800 BWPD with a maximum surface injection pressure of 1980 psi. Any questions concerning this project may be directed to Mr. John M. Breeden, District Foreman, Amoco Production Company, P.O. Box 68, Hobbs, New Mexico, Phone: 505/393-1781. Interested parties must file objections or request for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within 15 days.

P 267 162 717

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Tenneco Oil Company

STREET AND NO.
6800 Park Ten Blvd., Ste 20

P.O., STATE AND ZIP CODE
San Antonio, TX 78213

POSTAGE	$ 1.56
CERTIFIED FEE	.75 ¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	.60 ¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES	$ 2.91

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

POSTMARK OR DATE

GCC

PS Form 3800, Apr. 1976

P 267 164 458

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Read & Stevens

STREET AND NO.
P. O. Box 1518

P.O., STATE AND ZIP CODE
Roswell, NM 88201

POSTAGE	$ 1.56
CERTIFIED FEE	.75 ¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	.60 ¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES	$ 2.91

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

POSTMARK OR DATE

GCC

PS Form 3800, Apr. 1976

P 267 164 456

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Yates Petroleum Corp.

STREET AND NO.
207 S. Fourth Street

P.O., STATE AND ZIP CODE
Artesia, NM 88210

POSTAGE	$ 1.56
CERTIFIED FEE	.75 ¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	.60 ¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES	$ 2.91

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

POSTMARK OR DATE

PS Form 3800, Apr. 1976

P 267 164 459

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
State of New Mexico

STREET AND NO.
P. O. Box 1148

P.O., STATE AND ZIP CODE
Santa Fe, NM 87501

POSTAGE	$ 1.56
CERTIFIED FEE	.75 ¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	.60 ¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES	$ 2.91

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

POSTMARK OR DATE

PS Form 3800, Apr. 1976

P 267 164 457

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
M. L. Brown

STREET AND NO.
200 Sutton Place Bldg.

P.O., STATE AND ZIP CODE
Wichita, KS 67202

POSTAGE	$ 1.56
CERTIFIED FEE	.75 ¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	.60 ¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES	$ 2.91

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

POSTMARK OR DATE

PS Form 3800, Apr. 1976