BW - 9

GENERAL CORRESPONDENCE

YEAR(S):

1994 - 74

Sims & McCasland Water Sales

P.O. Box 98
Eunice, NM 88231

Mr. Robert L. Myers II
Petroleum Engineer Specialist
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504

RE: Proposed Drawings and Construction Schedule on Redesign of Loading Facilites and Construction of Evaporation Pit.

Dear Mr. Myers,

Please find enclosed, detailed drawing, construction schedule and pertinent notes for redesigning loading facilities and new construction of evaporation pit. In anticipating approval from O.C.D., some construction will begin immediately on loading facility; however, no construction will be done on proposed pit until written approval from the O.C.D.

Sincerely,

Bob Patterson, Manager
Sims & McCasland Water Sales

xc: O.C.D. - Hobbs Office
Enclosures

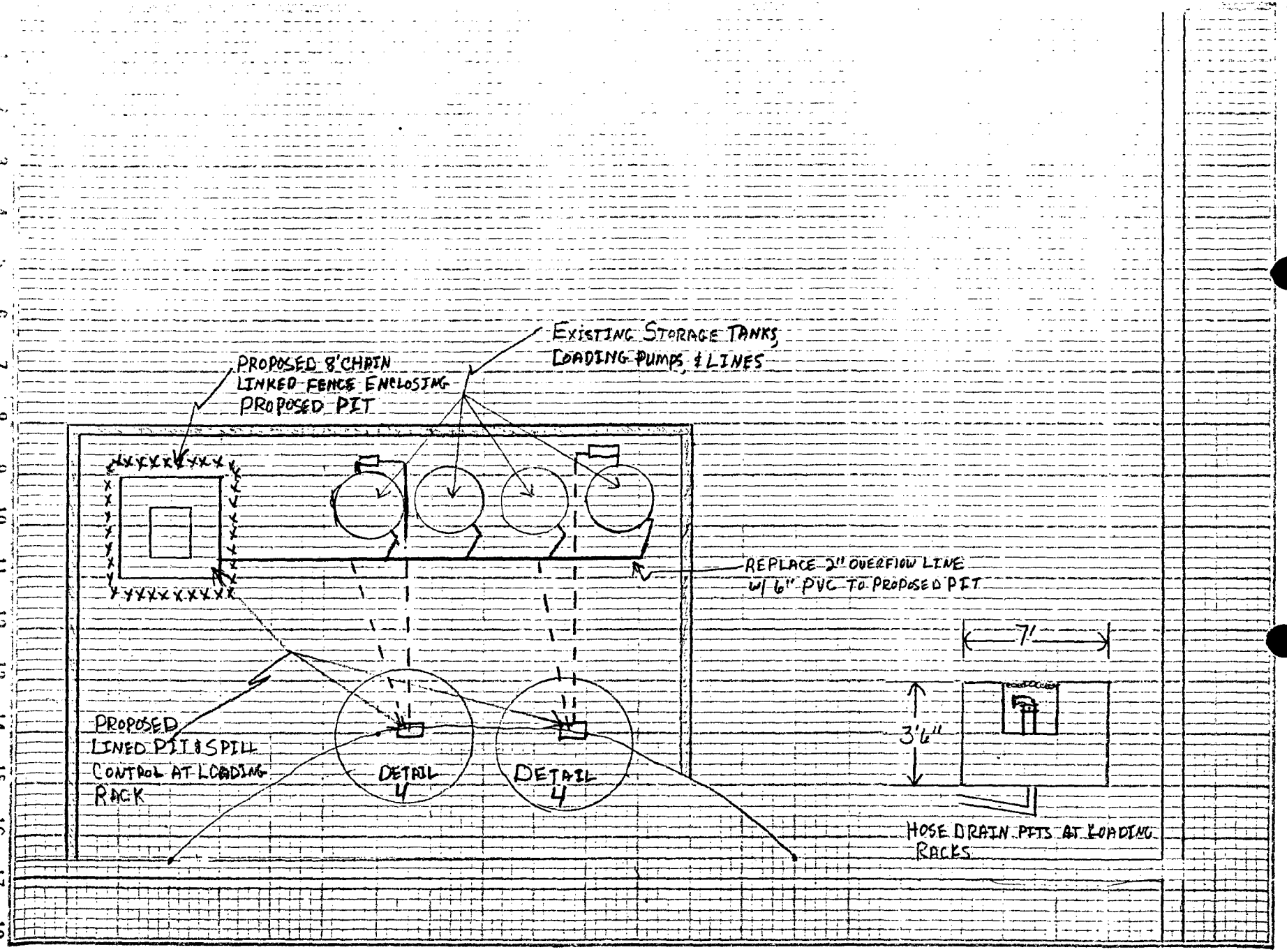
BP/sc

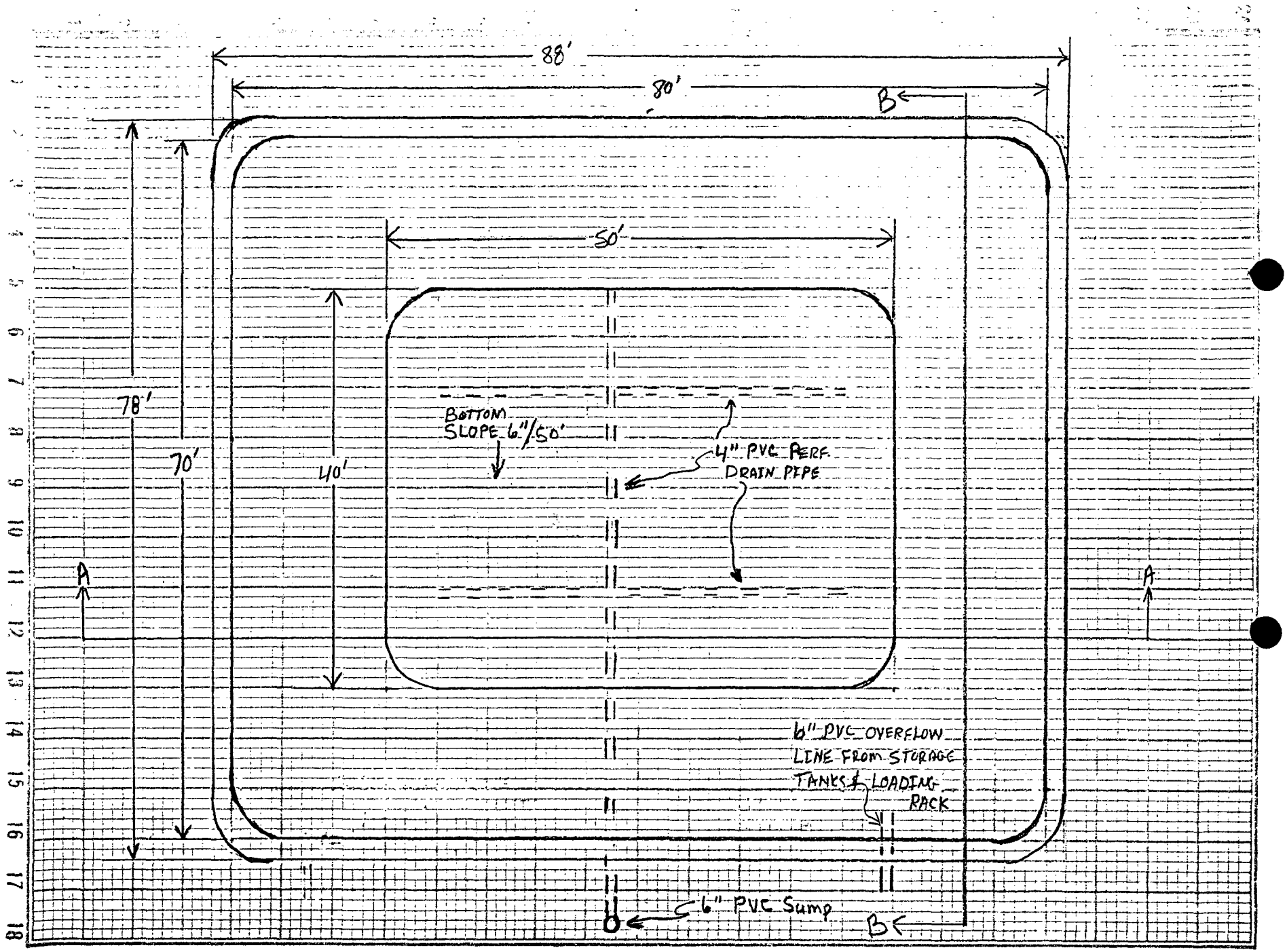
Sims & McCasland Water Sales
Construction Schedule

1. Excavation of pit: 5 working days
2. Preparation of pit, bottom and sides: 2 working days
3. Trenching & installing pipe for detection system: 2 working days
4. Lining pit & anchoring: 4 to 6 working days
5. Completion of leak detection system: 2 working days
6. Fencing of pit with chain linked: 3 working days
7. Replumbing of overflow lines from storage tanks: 2 working days
8. Installing drain pits & plumbing at loading racks: 3 working days
9. Rebuilding berms & caliche facility: 3 working days

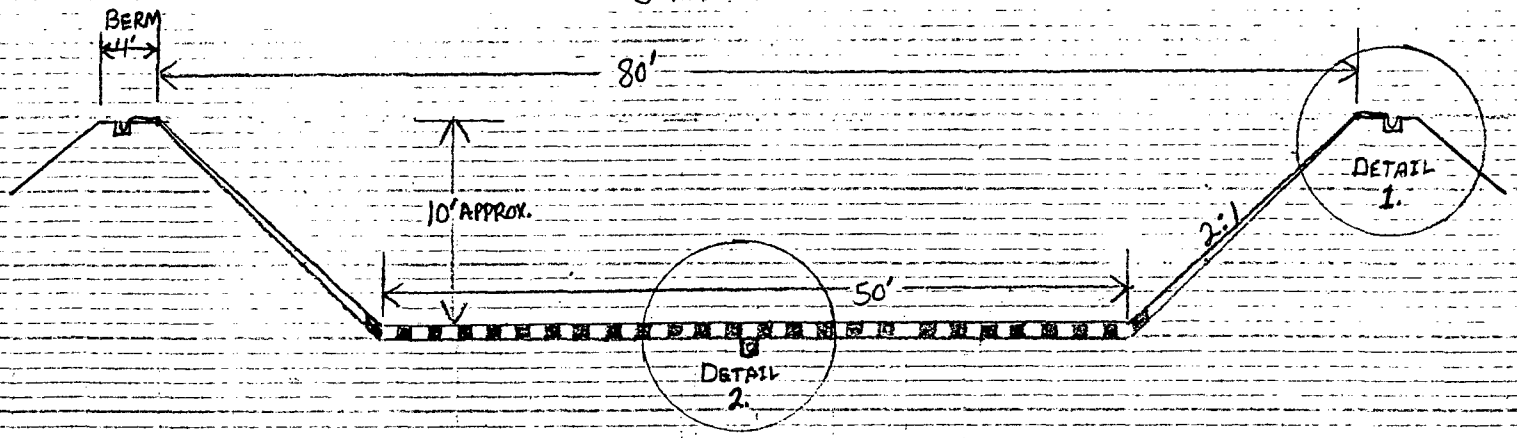
Notes

1. Anticipate 15 to 20 working days from start to completion.
2. Liner contractor requests 10 to 14 days to receive line from manufacturer.
3. Dirt contractor request 7 days notice.
4. Notes 2 & 3 are contingent upon approval of O.C.D.

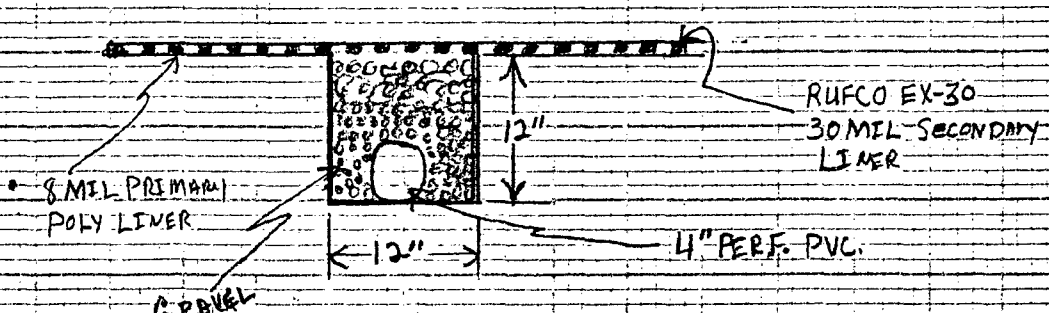

PROPOSED 8' CHAIN LINKED FENCE ENCLOSING PROPOSED PIT
EXISTING STORAGE TANKS, LOADING PUMPS & LINES
REPLACE 2" OVERFLOW LINE w/ 6" PVC TO PROPOSED PIT
PROPOSED LINED PIT & SPILL CONTROL AT LOADING RACK
DETAIL 4
DETAIL 4
7'
3'6"
HOSE DRAIN PITS AT LOADING RACKS


88'
80'
B
50'
78'
70'
40'
BOTTOM SLOPE 6"/50'
4" PVC PERF. DRAIN PIPE
A
A
6" PVC OVERFLOW LINE FROM STORAGE TANKS & LOADING RACK
6" PVC Sump
B

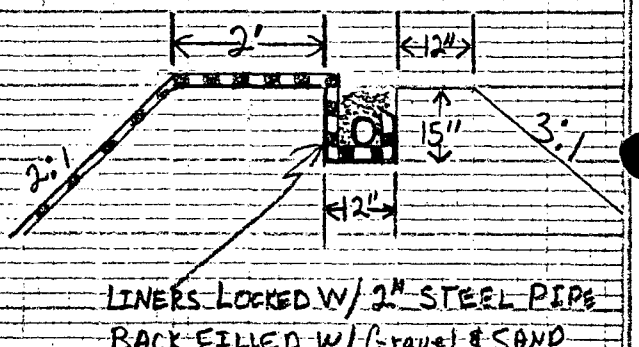
SECTION A-A
SCALE – NONE



2. LINER & LEAK DETECTION DETAIL

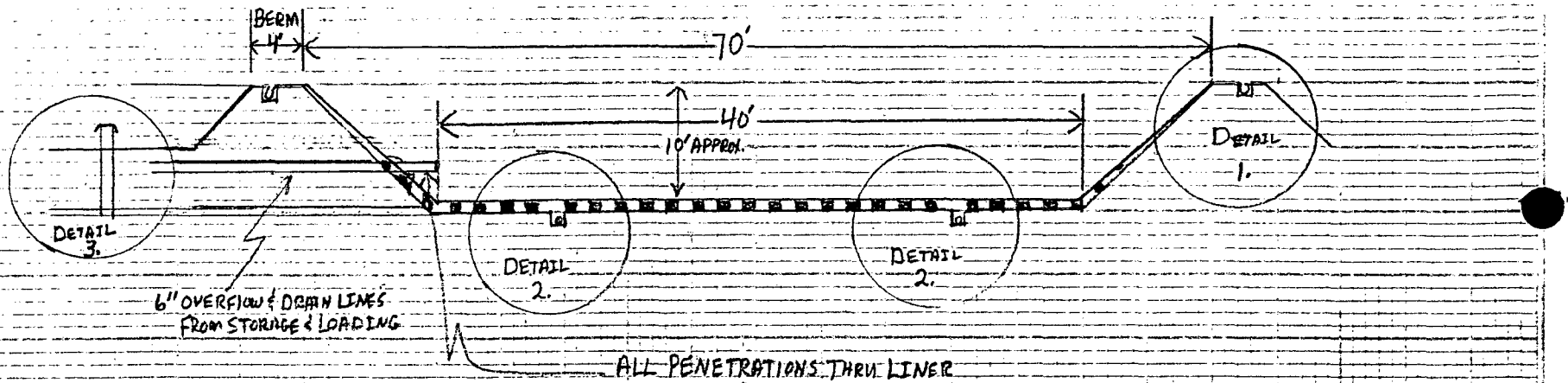


1. ANCHOR DETAIL

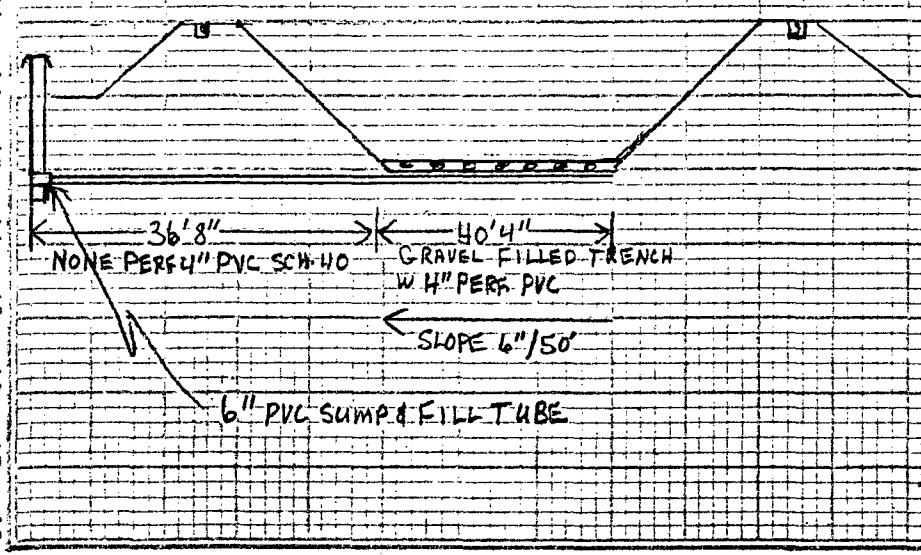


SECTION B-B

SCALE - NONE



3. DETAIL OF LEAK DETECTION SUMP & FILL TUBE



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

RECEIVED
94 JUN 8 AM 8 50

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD Inter-Correspondence

To: Roger Anderson-Environmental Bureau Chief

From: Wayne Price-Environmental Engineer District I

Date: June 6, 1994

Reference: Sims-McCasland Brine St. BW-009

Subject: Well Records

Comments: Please find enclosed well records requested by Bobby Myers.

cc: Jerry Sexton-District I Supervisor
Attachments-1

New Mexico DRUG FREE It's a State of Mind!

WELL RECORDS

COUNTY LEA FIELD Brine Well STATE 30-025-22727

OPR SIMS, G. P. MAP

WS-1 Sims, G. P.

Sec 32, T-21-S, R-37-E CO-ORD

250' FNL, 200' FEL of Sec.

Spd 9-10-68 CLASS EL

Cmp 10-1-68

FORMATION	DATUM	FORMATION	DATUM

CSG & SX - TUBING
7" at 1373'

LOGS EL GR RA IND HC A

TD 2125'

(Salt) OH 1373-2125' WATER SUPPLY WELL

DATE PROP DEPTH 1800' TYPE

F.R. 9-5-68
PD 1800' (Salt) WATER SUPPLY WELL
3-3-69 TD 2125'; COMPLETE
3-6-69 COMPLETION REPORTED.

INVENTORY OF SOLUTION MINING WELLS OIL CONSERVATION DIVISION, 1981

*.= please attach pertinent documents

I. OPERATOR / LOCATION INFORMATION G.P. Sims #1

Operator ESTATE OF G.P. SIMS

Address Box 1041

EUNICE, NM 88231 Phone

Well unit # A Location 350 N 200 E

T. 21-S R. 37-E Sec. 32 NE 1/4 NE 1/4 NE 1/4

County LEA

Purpose of well (brine supply, LPG storage, potash dissolution)

BRINE SUPPLY

II. DRILLING / SITING INFORMATION

Contractor

Date drilling started 9/10/68 Date drilling completed 10/1/68

Drilling method Rotary Rig

Elevation of ground surface N/A How measured

Date measured — Order of survey

Name of surveyor N/A

Total depth of hole 2125

Attach schematic of well ,include open hole interval, perforations, etc. *

Type of drilling fluid Brine Water

Type of drilling mud if used (brand if known) Brine

List any additives to the drilling mud, or any other chemicals put down well:

Brine mud.

Describe casing tests performed After cmt was circulated Burned plug & pressure tested to 1000# held for 30 min's

Other tests None

* = please attach pertinent documents

II. DRILLING / SITING (continued)

Casing, tubing, and cementing record (please attach copy)*

Note: if a copy is not available detail casing record on back of this sheet using the following format. Include brand or type of cement if known.

From	To	Size of Hole	Size of Casing	Weight per Foot	Sacks of Cement	Estimated Top of cmt.

Was mudcake on bore wall removed before cementing production casing? none

Was salt saturated cementing material used opposite salt formation? open hole

Is site within 1/2 mile of another well? If so, use note to explain. yes

Gulf Central Dr. Ltd. Unit

Site preparation (concrete pad, graded dirt, pit, etc)

graded dirt

Type of surface seal or well-head (locking security cap, welded, etc.)

7" x 8 5/8 locking

Comments (include problems encountered while drilling, loss of circulation, deviation of hole from vertical, centralizers used, tools lost or stuck, fracturing techniques used, etc.) 3 7" centralizers on surface csg

(use back of sheet if more space is required)

* = please attach pertinent documents

III. FORMATION INFORMATION

Formation Record

From	To	Thickness	Formation (name, description)
1375	2100'	725'	salt stringer

Logs (specify type) none

Identify where logs are on file —

* = please attach pertinent documents

IV. AQUIFER INFORMATION

Aquifers encountered during drilling

From	To	Aquifer Description	Amount of Water entering hole	Quality of Water

no flows encountered during drilling

Note: if water quality analyses are available please attach.*

Source of aquifer description —

Depth at which water was first encountered —

Depth to which water rose —

Source of water level data —

Comments (include information regarding determination of piezometric level and method of sealing off water zone) —

* = please attach pertinent documents

V. PRODUCTION / BRINE STORAGE INFORMATION

Method of production (describe fully) Injecting fresh H_2O down G.P. S.no #1 which is communicated to G.P. S.no's #2 thru the SALT section

Was well used previously for some purpose other than brine supply, potash dissolution, or LPG storage. If so use note to explain. no

Use of brine for Leach for Drlg & completion purposes

Source of injection water (be specific) City of Eunice fresh H_2O

Attach detailed production history (include dates of production, amount of water injected, injection rates, amount of brine produced, production rates, method of gaging injection/production rates)*

Note: If the cavity was used for LPG storage include volumes of product injected and withdrawn as well as a summary of the maximum and minimum pressures during injection, storage and withdrawal. N/A

Chemical analyses of injection water (attach)* [illegible] CITY OF EUN

Note : Chemical analyses should include sampling point and method, pH, temperature, method of analysis, name and location of laboratory, etc.

Chemical analyses of water produced (attach)*

* = please attach pertinent documents

V. PRODUCTION / BRINE STORAGE (continued)

Brine storage facilities (describe) 500 BBL STEEL BOLTED & WOODEN TANKS

Current condition/status of brine storage pit N/A

Is brine storage pit currently being monitored for leakage? N/A

Specify company or agency which is monitoring leakage N/A

If pit leakage has been monitored in past use note to explain. N/A

Comments on production history (note if production rates or brine concentrations have changed through time) PRODUCTION HAS BEEN CONTINUOUS SINCE 1907 TO PRESENT TIME. NO RECORDS ON AMOUNT OF WATER INJECTED OR PRESSURES. OVERALL PRODUCTION RATE IS ABOUT 2000 BBLS. NEEDED WITH AVERAGE INJECTION RATE OF ABOUT 200 BBLS. NEEDED TO MANUFACTURE WATER AND FILL STORAGE TANKS

* = please attach pertinent documents

VI. ABANDONMENT / PLUGGING RECORD

Date well abandoned/plugged —

Reason for well abandonment or plugging —

Method of Plugging (describe fully, include amounts of cement, est. top, plug type, depth, etc.) —

VII. Further comments (subsidence noted, subsidence monitoring, leakage noted, natural subsidence features noted nearby, LPG storage data, etc.)

Recorded by

Date

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W81-692

To Sims & McCasland

Box 98

Eunice, New Mexico

Date 8-12-81

Submitted by _____ Date Rec. 8-12-81

Well No. Brine Well Depth _____ Formation _____

County _____ Field _____ Source _____

Resistivity	0.039 @ 74°F.			
Specific Gravity	1.209			
pH	6.3			
Calcium (Ca)	2,200			*MF
Magnesium (Mg)	840			
Chlorides (Cl)	197,000			
Sulfates (SO_4)	2,950			
Bicarbonates (HCO_3)	120			
Soluble Iron (Fe)	Nil			

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

By W. L. Brewer
CHEMIST

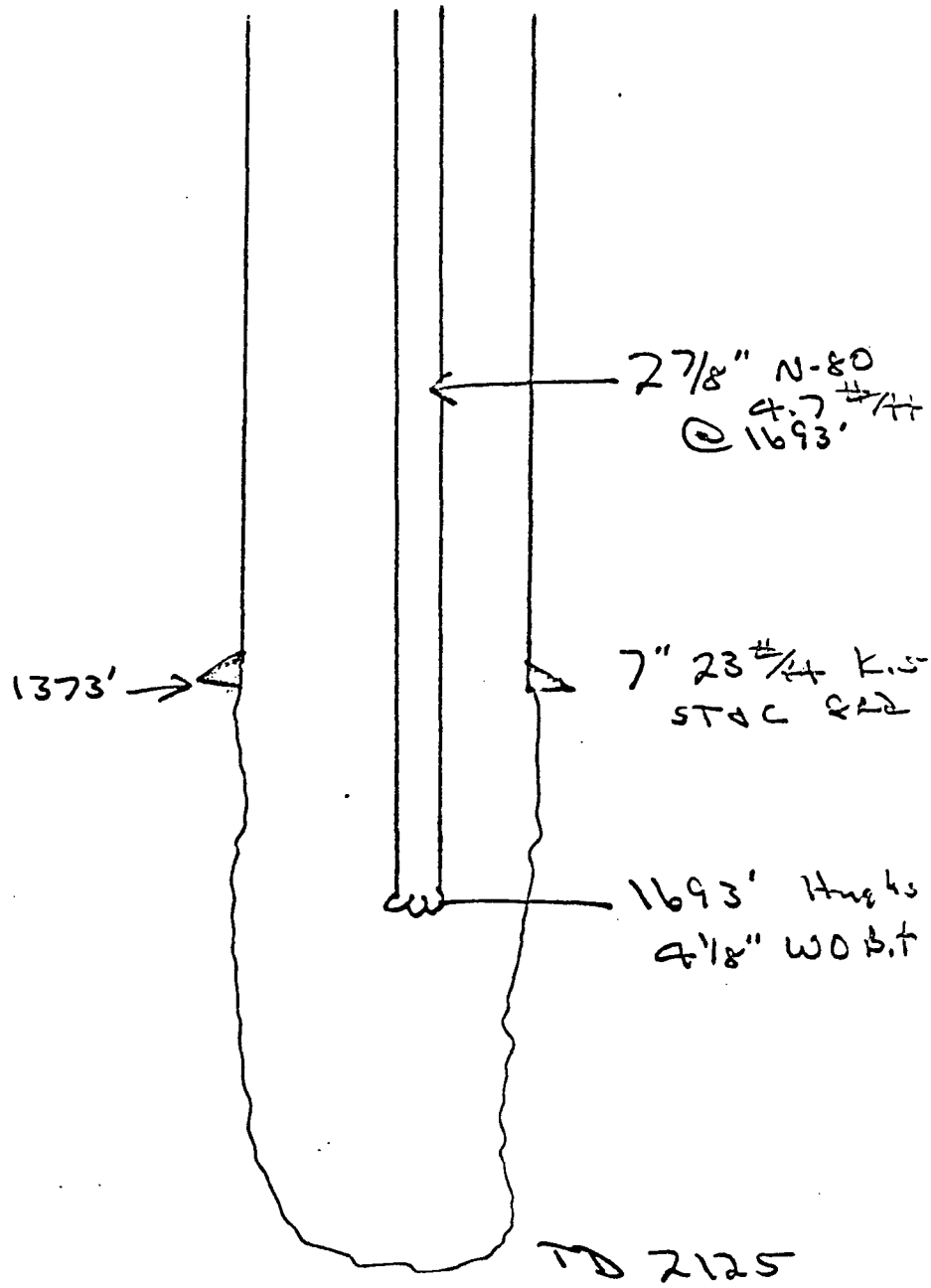
cc:

NOTICE

HALLIBURTON SERVICES
Duncan, Okla. 73533
A HALLIBURTON Company

Well No. 1 State N. M.

Lease C.P. Sims Date 11/17/71



spud well @ 9/10/68 Drill 8 3/4" hole to 1373' Ran 7" 23 #/ft K-55 ST&C & LT csg to 1373 & cmt w/ 400 sks "C" 2% CaCl2 circulated 82 sks cmt. TD 7 7/8" hole @ 2125 on 10/1/68

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Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State ☐ Fee ☒

5. State Oil & Gas Lease No.

1a. TYPE OF WELL

b. TYPE OF COMPLETION

OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER **Brine Well**

NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Unit Agreement Name

8. Farm or Lease Name: **G. P. Sims**

2. Name of Operator: **G. P. Sims**

9. Well No.: **1**

3. Address of Operator: **Box 1046, Eunice, New Mexico 88231**

10. Field and Pool, or Wildcat

4. Location of Well

UNIT LETTER **A** LOCATED **250** FEET FROM THE **north** LINE AND **200** FEET FROM THE **east** LINE OF SEC. **32** TWP. **21-S** RGE. **37-E** NMPM

12. County: **Lea**

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. *(Ready to Prod.)*	18. Elevations *(DF, RKB, RT, GR, etc.)*	19. Elev. Cashinghead
9/10/68	9/28/68	10/1/68		

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
2125			→	x	

24. Producing Interval(s), of this completion — Top, Bottom, Name

25. Was Directional Survey Made

26. Type Electric and Other Logs Run

27. Was Well Cored: **No**

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
70	20	1373	8 7/8	circulated 82 sacks in pit	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
	2019	

31. Perforation Record *(Interval, size and number)*

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

33. PRODUCTION

Date First Production	Production Method *(Flowing, gas lift, pumping — Size and type pump)*	Well Status *(Prod. or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API *(Corr.)*

34. Disposition of Gas *(Sold, used for fuel, vented, etc.)*

Test Witnessed By

35. List of Attachments

36. *I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.*

SIGNED G. P. Sims TITLE Owner DATE 12/4/68

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy		T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn		T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka		T. Pictured Cliffs		T. Penn. "D"	
T. Yates		T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen		T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya		T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T.	
T. Abo		T. Bone Springs		T. Wingate		T.	
T. Wolfcamp		T.		T. Chinle		T.	
T. Penn.		T.		T. Permian		T.	
T Cisco (Bough C)		T.		T. Penn. "A"		T.	

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease STATE ☐ FEE ☒

5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

b. Type of Well
DRILL ☒ DEEPEN ☐ PLUG BACK ☐
OIL WELL ☐ GAS WELL ☐ OTHER Brine well SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. Unit Agreement Name

8. Farm or Lease Name
G. P. Sims

2. Name of Operator
G. P. Sims

9. Well No.
1

3. Address of Operator
Box 1046 Eunice, New Mexico

10. Field and Pool, or Wildcat

4. Location of Well UNIT LETTER A LOCATED 250 FEET FROM THE North LINE
AND 200 FEET FROM THE East LINE OF SEC. 32 TWP. 21 RGE. 37 NMPM

12. County
Lea

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
1800	Salt	Rot

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
	Mult-current	Earl Emmons	9/1/68

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
9 5/8	7"	20	1175	Circulated	

Drill to 1175, run 7" pipe, circulate cement to surface. Then drill to approx. 1800'. Run tubing.

9 5/8"

11-28-68

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed G P Sims Title _____ Date 8/27/68

(This space for State Use)

APPROVED BY Leslie A. Clements TITLE Dist. I Supervisor DATE AUG 28 68

CONDITIONS OF APPROVAL, IF ANY:

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease
State ☐ Fee ☒

5. State Oil & Gas Lease No.

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. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL ☐ GAS WELL ☐ OTHER- **Brine Well**

7. Unit Agreement Name

2. Name of Operator
G. P. Sims

8. Farm or Lease Name
G. P. Sims

3. Address of Operator
Box 1046, Eunice, New Mexico 88231

9. Well No.
1

4. Location of Well
UNIT LETTER **A** , **250** FEET FROM THE **north** LINE AND **200** FEET FROM THE **east** LINE, SECTION **32** TOWNSHIP **21-S** RANGE **37-E** NMPM.

10. Field and Pool, or Wildcat

15. Elevation *(Show whether DF, RT, GR, etc.)*

12. County
Lea

16.

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐		COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	CHANGE PLANS ☐	CASING TEST AND CEMENT JOB ☐	
OTHER **Drill brine well** ☐		OTHER ☐	

17. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

Spudded 9/10/68; completed 10/1/68.
Drilled to 1380 on 9/22/68; ran 7" casing, circulated cement; started drilling on 9/25/68, drilled to 2125 on the 9/28/68; ran 2 7/8 fiber glass tubing to 2019 feet.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED [signature] TITLE **Owner** DATE **12/4/68**

APPROVED BY [signature] TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
G. P. Sims	G. P. Sims	1

Unit Letter	Section	Township	Range	County
A	32	21	37	Lea

Actual Footage Location of Well:
250 feet from the North line and 200 feet from the East line

Ground Level Elev:	Producing Formation	Pool	Dedicated Acreage:
			Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

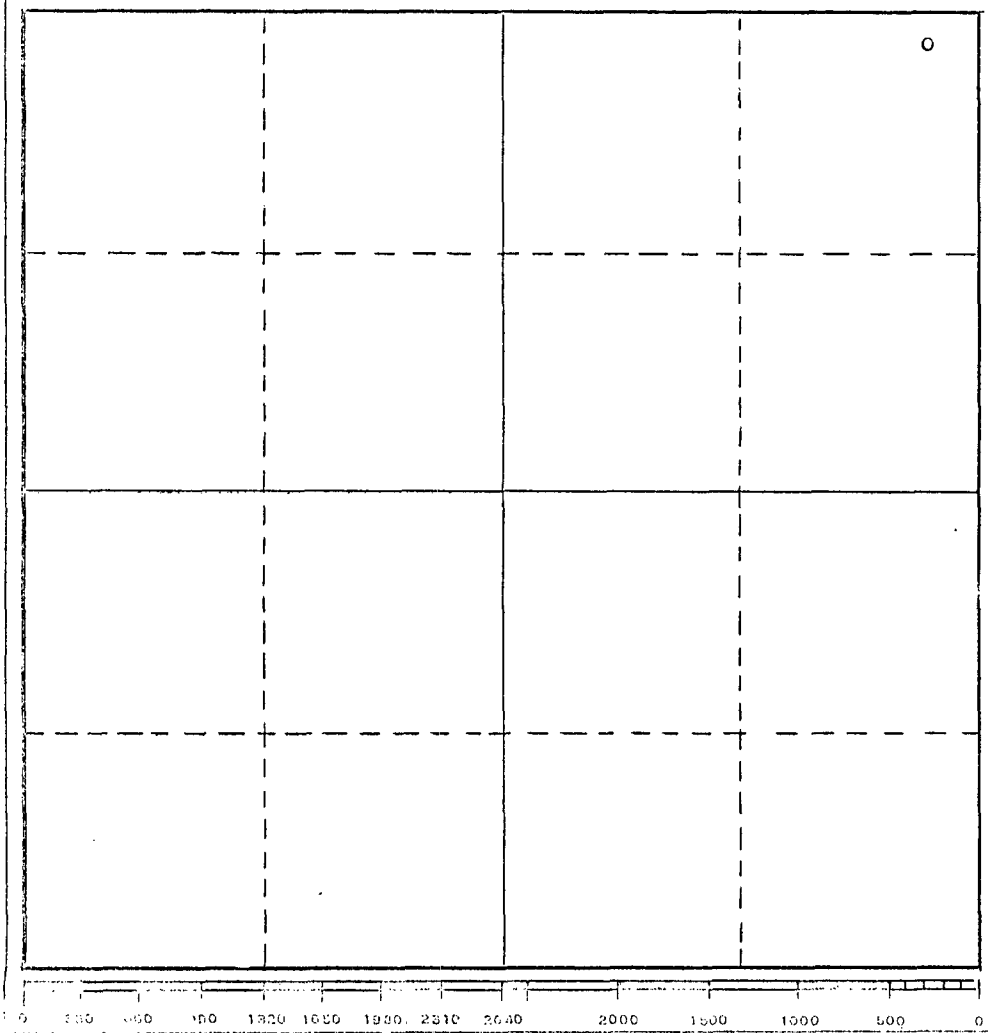
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

G. P. Sims

Name

Owner

Position

Company

Date

8/27/68

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

Petroleum Information.

COUNTY LEA [redacted] FIELD Water Supply We[redacted] STATE NM

OPR SIMS, G. P. API 30-025-25525

NO WS-2 LEASE Sims, G. P. MAP

Sec 32, T21S, R37E COORD

420' FNL, 210' FEL of Sec

1 mi W/Eunice SPD 5-2-77 CMP 5-5-77

CSG

7" at 1204' w/300 sx

WELL CLASS: INIT U FIN U ELEV L & S

FORMATION	DATUM	FORMATION	DATUM

TD 2412' (PRMN) PBD

(Permian) OH 1204-2412' WATER SUPPLY WELL

CONTR Cactus CORR ELEV 3475' TS PD 2700' RT

F.R. 5-9-77
WATER SUPPLY WELL
7-11-77 TD 2412'; Complete
7-16-77 COMPLETION ISSUED

7-3-12 NM
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SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-78

5a. Indicate Type of Lease: State ☐ Fee ☒
5. State Oil & Gas Lease No.

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. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL ☐ GAS WELL ☐ OTHER- Brine Well
7. Unit Agreement Name: G.P. Sims
2. Name of Operator: ~~Sims McCasland Water Station~~ Estate of G. P. Sims
8. Farm or Lease Name: 2
3. Address of Operator: PO Box 98 Eunice, NM 88231
9. Well No.
4. Location of Well: UNIT LETTER A, 420 FEET FROM THE North LINE AND 210 FEET FROM THE East LINE, SECTION 32 - TOWNSHIP 21 RANGE 37 NMPM.
10. Field and Pool, or Wildcat
15. Elevation (Show whether DF, RT, GR, etc.)
12. County: Lea

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☒	ALTERING CASING ☐
TEMPORARILY ABANDON ☐		COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	CHANGE PLANS ☐	CASING TEST AND CEMENT JOB ☐	
OTHER ☐		OTHER ☐	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Rigged up pulling unit on 12/26/81. Pull tubing out of well, found tubing parted at 1243', run bit and tubing to 1441' through salt section.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Louis R Calvin TITLE Operations Manager DATE 1/4/82

APPROVED BY Orig. Signed by Jerry Sexton Dist. I Supv. TITLE DATE JAN 8 1982

CONDITIONS OF APPROVAL, IF ANY:

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LAND OFFICE		
TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRORATION OFFICE		

NEW MEXICO OIL CONSERVATION COMM

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

I.

Operator
Estate of G. P. Sims

Address
Box 1046 Eunice, New Mexico 88231

Reason(s) for filing *(Check proper box)*

New Well ☐
Recompletion ☐
Change in Ownership ☒

Change in Transporter of:
Oil ☐ Dry Gas ☐
Casinghead Gas ☐ Condensate ☐

Other *(Please explain)*
Operator Died

If change of ownership give name and address of previous owner G. P. Sims Box 1046 Eunice, New Mexico 88231

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
G. P. Sims	2	-----	State, Federal or ~~Fee~~	

Location
Unit Letter A : ~~300~~ 420 Feet From The North Line and ~~200~~ 210 Feet From The East

Line of Section 32 Township 21 Range 37 , NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS Brine Well

Name of Authorized Transporter of Oil ☐ or Condensate ☐	Address *(Give address to which approved copy of this form is to be sent)*
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☐	Address *(Give address to which approved copy of this form is to be sent)*

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
Elevations *(DF, RKB, RT, GR, etc.)*	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth
Perforations			Depth Casing Shoe

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

INVENTORY OF SOLUTION MINING WELLS OIL CONSERVATION DIVISION, 1981

* = please attach pertinent documents

I. OPERATOR / LOCATION INFORMATION

Operator ESTATE OF G. R. SIMS

Address BOX 1046

EUNICE, NM 88231 Phone

Well unit # A Location 420/N 210/E

T. 21 R. 37 Sec. 32 NE 1/4 NE 1/4 NE 1/4

County _____ G. R. SIMS # 2

Purpose of well (brine supply, LPG storage, potash dissolution)

BRINE SUPPLY

II. DRILLING / SITING INFORMATION

Contractor CACTUS DRILLING CO.

Date drilling started 2 MAY 77 Date drilling completed 5 MAY 77

Drilling method ROTARY

Elevation of ground surface N/A How measured BY OWNER

Date measured _____ Order of survey _____

Name of surveyor G. R. SIMS N/A

Total depth of hole 2434

Attach schematic of well ,include open hole interval, perforations, etc. *

Type of drilling fluid _____

Type of drilling mud if used (brand if known) _____

List any additives to the drilling mud, or any other chemicals put down well:

Describe casing tests performed _____

Other tests _____

* = please attach pertinent documents

II. DRILLING / SITING (continued)

Casing, tubing, and cementing record (please attach copy)*

Note: if a copy is not available detail casing record on back of this sheet using the following format. Include brand or type of cement if known.

From	To	Size of Hole	Size of Casing	Weight per Foot	Sacks of Cement	Estimated Top of cmt.

Was mudcake on bore wall removed before cementing production casing? _____

Was salt saturated cementing material used opposite salt formation? _____

Is site within 1/2 mile of another well? If so, use note to explain. _____

Site preparation (concrete pad, graded dirt, pit, etc) _____

Type of surface seal or well-head (locking security cap, welded, etc.) _____

Comments (include problems encountered while drilling, loss of circulation, deviation of hole from vertical, centralizers used, tools lost or stuck, fracturing techniques used, etc.)_____

_____ (use back of sheet if more space is required)

From	To	Size of Hole	Size of Casing	Weight per Foot	Sacks of Cement	Estimated Top of cmt.
0	1204	8 3/4	7	23	300	surface
ran Tubing			depth ?			

* = please attach pertinent documents

III. FORMATION INFORMATION

Formation Record

From	To	Thickness	Formation (name, description)

NOT AVAILABLE

Logs (specify type) NONE

Identify where logs are on file

* = please attach pertinent documents

IV. AQUIFER INFORMATION

Aquifers encountered during drilling

From	To	Aquifer Description	Amount of Water entering hole	Quality of Water

Note: if water quality analyses are available please attach.*

Source of aquifer description _____

Depth at which water was first encountered _____

Depth to which water rose _____

Source of water level data _____

Comments (include information regarding determination of piezometric level and method of sealing off water zone) _____

* = please attach pertinent documents

V. PRODUCTION / BRINE STORAGE INFORMATION

Method of production (describe fully) _____

_____

_____

_____

_____

_____

_____

Was well used previously for some purpose other than brine supply, potash dissolution, or LPG storage. If so use note to explain. _____

_____

Use of brine _____

Source of injection water (be specific) _____

_____

Attach detailed production history (include dates of production, amount of water injected, injection rates, amount of brine produced, production rates, method of gaging injection/production rates)*

Note: If the cavity was used for LPG storage include volumes of product injected and withdrawn as well as a summary of the maximum and minimum pressures during injection, storage and withdrawal.

Chemical analyses of injection water (attach)*

Note : Chemical analyses should include sampling point and method, pH, temperature, method of analysis, name and location of laboratory, etc.

Chemical analyses of water produced (attach)*

* = please attach pertinent documents

V. PRODUCTION / BRINE STORAGE (continued)

Brine storage facilities (describe) _____

Current condition/status of brine storage pit _____

Is brine storage pit currently being monitored for leakage? _____

Specify company or agency which is monitoring leakage _____

If pit leakage has been monitored in past use note to explain. _____

Comments on production history (note if production rates or brine concentrations have changed through time) _____

* = please attach pertinent documents

VI. ABANDONMENT / PLUGGING RECORD

Date well abandoned/plugged _____

Reason for well abandonment or plugging _____

_____

Method of Plugging (describe fully, include amounts of cement, est. top, plug type, depth, etc.) _____

_____

_____

_____

_____

_____

_____

_____

VII. Further comments (subsidence noted, subsidence monitoring, leakage noted, natural subsidence features noted nearby, LPG storage data, etc.)

_____

_____

_____

_____

_____

_____

_____

Recorded by _____

Date _____

THE REPRODUCTION OF

THE

FOLLOWING

DOCUMENT (S)

CANNOT BE IMPROVED

DUE TO

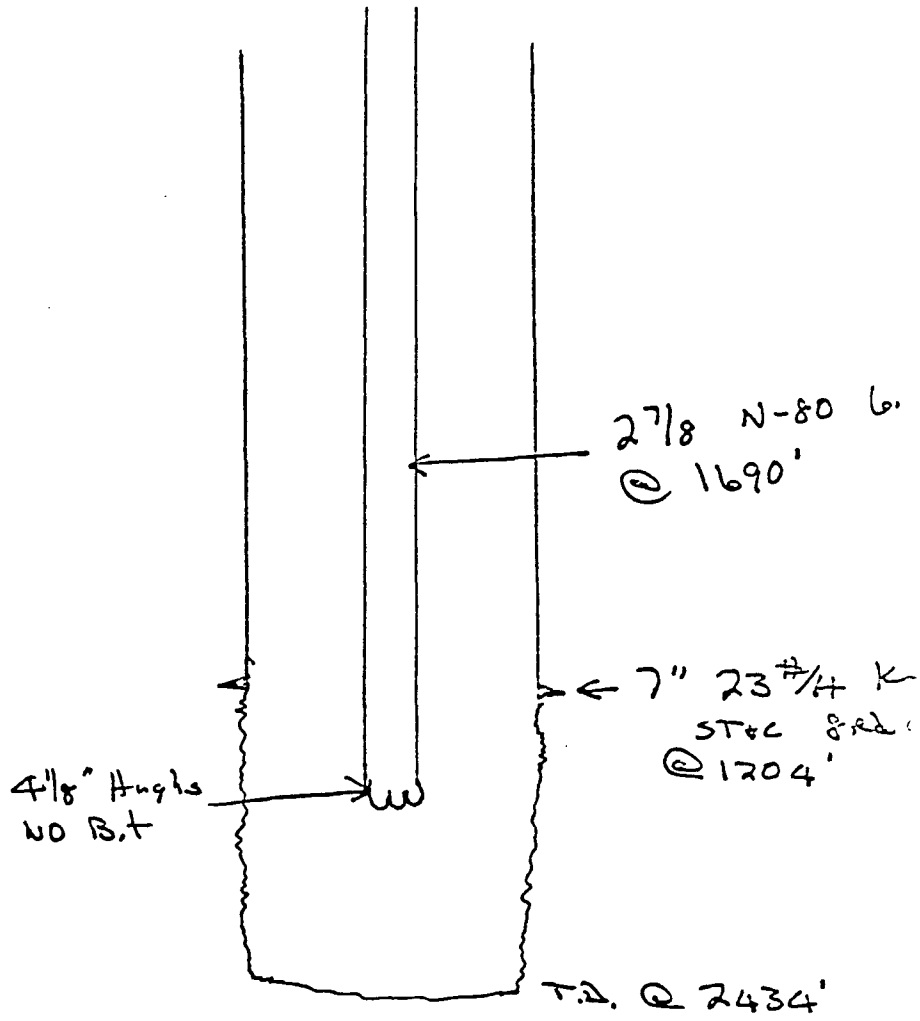
THE CONDITION OF

THE ORIGINAL

HALLIBURTON SERVICES
Duncan, Okla. 73533
A HALLIBURTON Company

Well No. 2 State N. M.

Lease G. P. Sims Date 11/17/81



Well was spudded on 5/2/77 TD 8 3/4" @ 1204', 7" 28#/ft K-55 ST&C 8R casing was then Rn to 1204' & cemt w 300 sks "C" 2% CaCl2 circulated 15 sks to surface WOC Drill out shoe jt w/7 7/8" B.t Drill to TD @ 2434' on 5/5/77

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Form C-105
Revised 11-1-76

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State ☐ Fee ☒

5. State Oil & Gas Lease No.

1a. TYPE OF WELL

b. TYPE OF COMPLETION

OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER Brine Well

NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Unit Agreement Name

8. Farm or Lease Name

2. Name of Operator: G. P. Sims

9. Well No.: 2

3. Address of Operator: Box 1046, Eunice, NM 88231

10. Field and Pool, or Wildcat

4. Location of Well

UNIT LETTER A LOCATED ~~300~~ 420 FEET FROM THE north LINE AND ~~200~~ 210 FEET FROM

THE east LINE OF SEC. 32 TWP. 21 RGE. 37E NMPM

12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
5/2/77	5/5/77	Same		

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
2434			→	Rotary	

24. Producing Interval(s), of this completion — Top, Bottom, Name

1204 to 2412

25. Was Directional Survey Made

26. Type Electric and Other Logs Run

27. Was Well Cored

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7 in	23	1204 ft.	8 3/4 in.	copy attached	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

31. Perforation Record (*Interval, size and number*)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

33. PRODUCTION

Date First Production	Production Method (*Flowing, gas lift, pumping — Size and type pump*)	Well Status (*Prod. or Shut-in*)

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API (*Corr.*)

34. Disposition of Gas (*Sold, used for fuel, vented, etc.*)

Test Witnessed By

35. List of Attachments

36. *I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.*

SIGNED G P Sims TITLE owner DATE 6-16-77

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filled in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy		T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn		T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka		T. Pictured Cliffs		T. Penn. "D"	
T. Yates		T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen		T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya		T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T.	
T. Abo		T. Bone Springs		T. Wingate		T.	
T. Wolfcamp		T.		T. Chinle		T.	
T. Penn.		T.		T. Permian		T.	
T Cisco (Bough C)		T.		T. Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from..... to..... No. 4, from..... to.....

No. 2, from..... to..... No. 5, from..... to.....

No. 3, from..... to..... No. 6, from..... to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from..... to..... feet. .....

No. 2, from..... to..... feet. .....

No. 3, from..... to..... feet. .....

No. 4, from..... to..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation

HALLIBURTON SERVICES
JOB SUMMARY

FORM 2013 R-1

HALLIBURTON DIVISION: Mid Land

HALLIBURTON LOCATION: Hobbs

BILLED ON TICKET NO.: 114903

CUSTOMER: Ballard Petroleum

LEASE: Bruce Supply Well NO.: 2

JOB TYPE: Surface

DATE: 5-3-77

WELL DATA

FIELD: Bruce Supply Well SEC. TWP. RNG. COUNTY: Lea STATE: N.M.

FORMATION NAME TYPE

FORMATION THICKNESS FROM TO

INITIAL PROD: OIL BPD. WATER BPD. GAS MCFD

PRESENT PROD: OIL BPD. WATER BPD. GAS MCFD

COMPLETION DATE MUD TYPE MUD WT.

PACKER TYPE SET AT

BOTTOM HOLE TEMP. PRESSURE

MISC. DATA

	USED	SIZE	FROM	TO	WEIGHT	MAXIMUM PSI ALLOWABLE
CASING		7"	0'	1204'	23#	
LINER						
TUBING						
OPEN HOLE		9 3/4	0	1204'	TOTAL DEPTH:	
PERFORATIONS						SHOTS/FT.
PERFORATIONS						SHOTS/FT.
PERFORATIONS						SHOTS/FT.

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE 5-3-77	DATE 5-3-77	DATE 5-4-77	DATE 5-4-77
TIME 1830	TIME 2000	TIME 0600	TIME 0930

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE 7"	1	Howco
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
OTHER		

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
L. GIBSON	HT-400	HOBBS
T. GOMEZ	3737	HOBBS
B. SELMAN	017	"
K. JONES	8758	"
H. FOSTER FIELDMAN		"

MATERIALS

TREAT. FLUID DENSITY LB/GAL. °API

DISPL. FLUID DENSITY LB/GAL. °API

PROP. TYPE SIZE LB.

PROP. TYPE SIZE LB.

ACID TYPE GAL. %

ACID TYPE GAL. %

ACID TYPE GAL. %

SURFACTANT TYPE GAL. IN

NE AGENT TYPE GAL. IN

FLUID LOSS ADD. TYPE GAL.-LB. IN

GELLING AGENT TYPE GAL.-LB. IN

FRIC. RED. AGENT TYPE GAL.-LB. IN

BREAKER TYPE GAL.-LB. IN

BLOCKING AGENT TYPE GAL.-LB.

PERFPAC BALLS TYPE QTY.

OTHER

OTHER

DEPARTMENT CEMENT

DESCRIPTION OF JOB CEMENT SURFACE WITH 300 SK. CL. "C" 2% CACl2

JOB DONE THRU: TUBING ☐ CASING ☒ ANNULUS ☐ TBG./ANN. ☐

CUSTOMER REPRESENTATIVE X

HALLIBURTON OPERATOR L. GIBSON

COPIES REQUESTED

CEMENT DATA

STAGE	NUMBER OF SACKS	TYPE	API CLASS	BRAND	BULK / SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
1	300		C			2% CACl2	1.22	14.8

PRESSURES IN PSI

CIRCULATING DISPLACEMENT

BREAKDOWN MAXIMUM

AVERAGE FRACTURE GRADIENT

SHUT-IN: INSTANT 5-MIN. 15-MIN.

HYDRAULIC HORSEPOWER

ORDERED AVAILABLE USED

AVERAGE RATES IN BPM

TREATING DISPL. OVERALL

CEMENT LEFT IN PIPE

FEET REASON

SUMMARY

VOLUMES

PREFLUSH: BBL.-GAL. TYPE

LOAD & BKDN: BBL.-GAL. PAD: BBL.-GAL.

TREATMENT: BBL.-GAL. DISPL: BBL.-GAL. 47

CEMENT SLURRY: BBL.-GAL. 20.5

TOTAL VOLUME: BBL.-GAL.

REMARKS

CIRCULATED 15 SK.

CUSTOMER

HALLIBURTON SERVICES
A Division of Halliburton Company
DUNCAN, OKLAHOMA 73533

FORM 1908 R-2

WORK ORDER CONTRACT AND PRE-TREATMENT DATA

ATTACH TO INVOICE & TICKET NO. 001803

DISTRICT HOBBS, N.M.

DATE 5-3-72

TO: HALLIBURTON SERVICES

YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO: DALLAS McCASLAND (CUSTOMER) AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. 2 LEASE BRINE SUPPLY WELL SEC. _____ TWP. _____ RANGE _____

FIELD WEST EUNICE COUNTY LEA STATE N.M. OWNED BY SAME AS ABOVE

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

PACKER: TYPE _____ SET AT _____

TOTAL DEPTH _____ MUD WEIGHT _____

BORE HOLE _____

INITIAL PROD: OIL _____ BPD, H_2O _____ BPD, GAS _____ MCF

PRESENT PROD: OIL _____ BPD, H_2O _____ BPD, GAS _____ MCF

	USED	WEIGHT	SIZE	FROM	TO	MAX. ALLOW. P.S.I.
CASING		23#	7	0	1204	
LINER						
TUBING						
OPEN HOLE			8 3/4	0	1204	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

TREATMENT INSTRUCTIONS: TREAT THRU TUBING ☐ ANNULUS ☐ CASING ☒ TUBING/ANNULUS ☐ HYDRAULIC HORSEPOWER ORDERED

CEMENT SURFACE CASING WITH 300 SK CLASS "C" 2% $CaCl_2$

CUSTOMER OR HIS AGENT STATES THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

As consideration, the above-named Customer agrees:

(a) To pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists.

(b) Halliburton shall not be responsible for and Customer shall secure Halliburton against any liability for damage to property of Customer and of the well owner (if different from Customer), unless caused by the willful misconduct or gross negligence of Halliburton, this provision applying to but not limited to subsurface damage and surface damage arising from subsurface damage.

(c) Customer shall be responsible for and secure Halliburton against any liability for reservoir loss or damage, or property damage resulting from subsurface pressure, losing control of the well and/or a well blowout, unless such loss or damage is caused by the willful misconduct or gross negligence of Halliburton.

(d) Customer shall be responsible for and secure Halliburton against any and all liability of whatsoever nature for damages as a result of subsurface trespass, or an action in the nature thereof, arising from a service operation performed by Halliburton hereunder.

(e) Customer shall be responsible for and secure Halliburton against any liability for injury to or death of persons, other than employees of Halliburton, or damage to property (including, but not limited to, injury to the well), or any damages whatsoever, irrespective of cause, growing out of or in any way connected with the use of radioactive material in the well hole, unless such damage shall be caused by the willful misconduct or gross negligence of Halliburton.

(f) Halliburton makes no guarantee of the effectiveness of the products, supplies or materials, nor of the results of any treatment or service.

(g) Customer shall, at its risk and expense, attempt to recover any Halliburton equipment, tools or instruments which are lost in the well and if such equipment, Halliburton equipment, tools or instruments are damaged in the well, Customer shall pay Halliburton the lesser of its replacement cost or the cost of repairs unless such damage is caused by the sole negligence of Halliburton. In the case of equipment, tools or instruments for marine operations, Customer shall, in addition to the foregoing, be fully responsible for loss of or damage to any of Halliburton's equipment, tools or instruments which occurs at any time after delivery to Customer at the landing until returned to the landing, unless such loss or damage is caused by the sole negligence of Halliburton.

(h) Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, Halliburton is unable to guarantee the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by Halliburton. Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton shall not be responsible for any damages arising from the use of such information except where due to Halliburton's gross negligence or willful misconduct in the preparation or furnishing of it.

(i) Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to Halliburton or, at Halliburton's option, to the allowance to the Customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.

(j) Upon Customer's default in the payment of Customer's account 60 days after date of invoice, such account will thereafter be subject to interest until paid. In the event it becomes necessary to employ an attorney to enforce collection of such account, Customer agrees to pay all collection costs and attorney fees in the amount of 20 per cent of the amount of the unpaid account.

(k) Halliburton shall not be bound by any changes or modifications in this contract, except where such change or modification is made in writing by a duly authorized executive officer of Halliburton.

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT.

SIGNED _____ (CUSTOMER)

DATE 5-3-72

TIME 1600 A.M. P.M.

We certify that the Fair Labor Standards Act of 1938, as amended, has been complied with in the production of goods and/or with respect to services furnished under this contract.

CUSTOMER

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LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease STATE ☐ FEE ☒

5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

b. Type of Well
DRILL ☒ DEEPEN ☐ PLUG BACK ☐
OIL WELL ☐ GAS WELL ☐ OTHER SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. Unit Agreement Name

8. Farm or Lease Name
G. P. Sims

2. Name of Operator
G. P. Sims

9. Well No.
2

3. Address of Operator
Box 1046, Eunice, New Mexico 88231

10. Field and Pool, or Wildcat

4. Location of Well
UNIT LETTER A LOCATED 420 FEET FROM THE North LINE
AND 210 FEET FROM THE East LINE OF SEC. 32 TWP. 21 RGE. 37 NMPM

12. County
Lea

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
2700	Salt	Rotary

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
	Multi-current	Cactus Drilling Co.	5/4/77

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8 3/4	7"	23	1200	Circulated	

Drill to 1200, run 7" pipe, circulate cememt to surface. Then drill to approximately 2700 feet. Run tubing.

THE COMMISSION MUST BE NOTIFIED 24 HOURS PRIOR TO RUNNING CASING.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed [signature] Title owner Date 4/29/77

(This space for State Use)

APPROVED BY [signature] TITLE SUPERVISOR DISTRICT II DATE APR 29 1977

CONDITIONS OF APPROVAL, IF ANY:

Form C-117A
1-1-59

NEW MEXICO OIL CONSERVATION COMMISSION
SEDIMENT OIL DESTRUCTION PERMIT

Operator G. P. Sims hereby requests authorit

to destroy the following described sediment oil: weeds, tank bottoms

Name of lease Gulf State

Location of lease 33-21S-35E

Type of sediment oil (Pit oil, tank bottoms, etc.) weeds, oil from tank bottoms

Estimated gross volume, barrels 20 barrels

Reason why sediment oil cannot be salvaged: because of weeds and not enough reclaimable oil to pay truck to come and pick it up

Operator G P Sims

By G. P. Sims

Title Owner-Operator

Date 4/29/77

Approved APR 29 1977 19

NEW MEXICO OIL CONSERVATION COMMISSION

By Jerry Sexton
Dist 1, Supv

Title

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
G. P. Sims & McCasland XXXXXXXXXXXXXX	G. P. Sims	2

Unit Letter	Section	Township	Range	County
A	32	21	37	Lea

Actual Footage Location of Well: 420 feet from the North line and 210 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
			Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

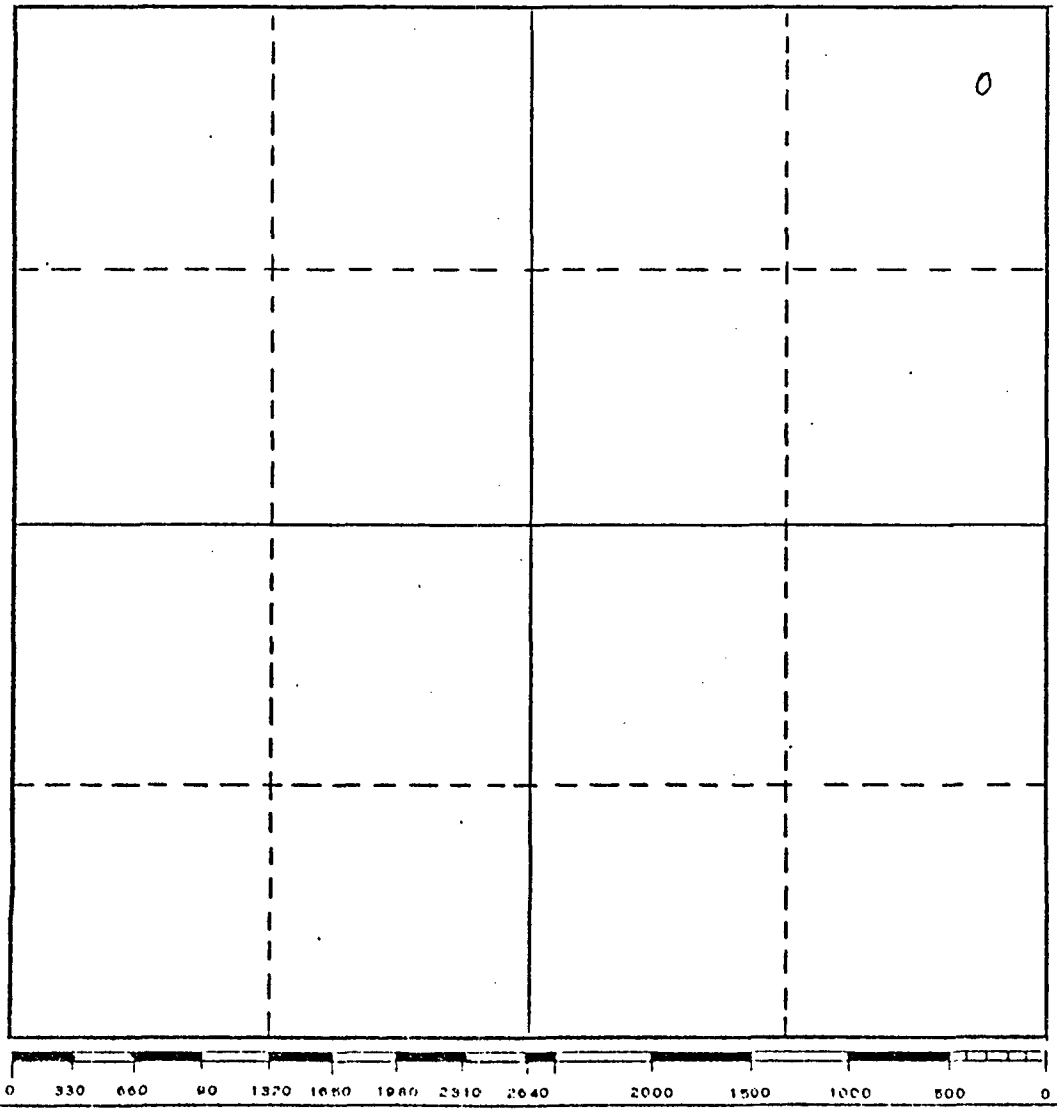
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: Owner

Position:

Company:

Date: 4/29/77

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed:

Registered Professional Engineer and/or Land Surveyor:

Certificate No.:

INTER-OFFICE MEMO

To file: Sims-McCasland Brine St. BW-009

Date: June 5, 1994

Time: 1:45 pm

Telephone call:____ Meeting:___ Other:_x__

Persons called or attending:
W. Price, NMOCD, Steve Walker, McCasland

REFERENCE: DP# BW-009

Subject: Site Inspection at the request of the District Supervisor

Comments:

Inspected facility, found McCasland crew replacing the underground line that comes from the brine well going to the brine storage tanks. Discussed this with Steve Walker. He indicated that this line is very corroded and they have experienced several leaks in the past. There was a large amount of salt crust visible on the ground in the area of the leak.

There is no unloading stations to catch the drips, leaks, etc and this brine water is presently running off into a low lying area and collecting.

According to Mr. Walker the brine well is not operating in unison with the other brine well on site. He showed me an old well that is apparently not being used anymore. He indicated that the present well is supplied by fresh water from the city of Eunice and is pumped down this well and brine is produced out of the tubing.

There is a pit being constructed, this pit presently does not have any leak detection installed. Mr. Walker indicated to me that this pit will be for emergency use only and will stay dry unless a tank is over flowed. I think he also indicated that the new unloading stations will also drain into the pit.

I ask him what they were going to do about the salt on the ground. He indicated that they normally pick it up and carry it to their trucking yard and dispose of into their wash out pit. This pit "he said" is routinely taken to Parabo when

they need to empty it.

Recommendations:

This brine station needs attention in the area of the loading/unloading stations; there needs to be some type of catch basins installed.

The emergency pit should be lined and leak detection installed.

There should be some type of investigation of the vadose zone to determine the vertical extent of the contamination.

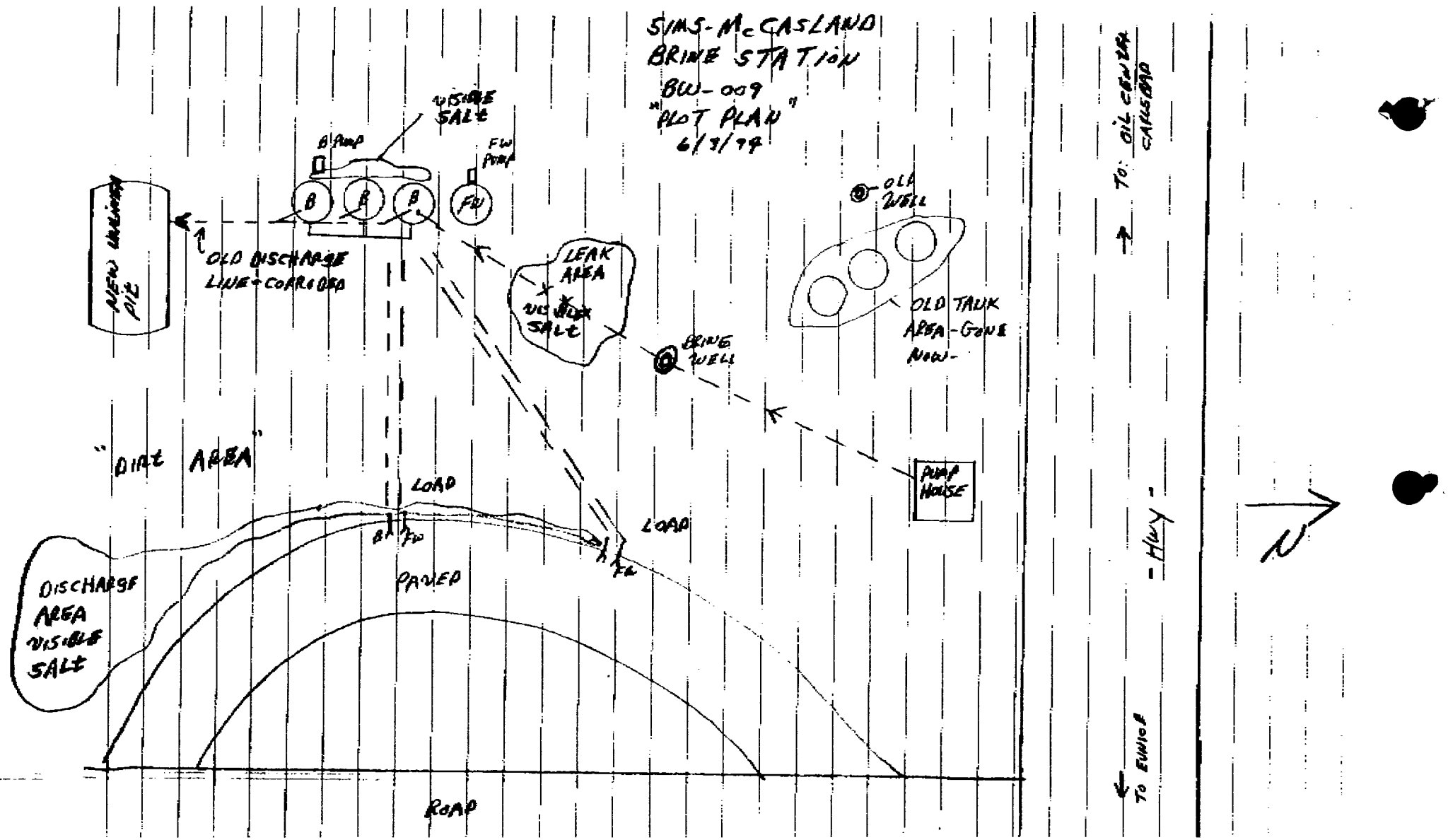
The valves and connections at the loading stations were noted to be dripping very badly; therefore these systems should be repaired.

Attached is a sketch of the facility.

Wayne Price_____

TO: BOBBY MYERS
NMOCD

FROM: WAYNE PRICE
NMOCD - DIST I



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

June 2, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P 111 334 321

Mr. Bob Patterson
Manager
Sims-McCasland Water Sales
P.O. Box 99
Eunice, NM 88231

RE: Discharge Plan BW-009 Sims-McCasland Brine Station

Dear Mr. Patterson,

On February 10, 1994 the New Mexico Oil Conservation Division (OCD) notified you that the approved discharge plan, BW-009, for the Sims-McCasland Brine Station, located in the NE/4, NE/4 of Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, would expire on April 6, 1994. A discharge plan application was received by the OCD on May 27, 1994. The following comments and requests for additional information are based on the review of this application. These comments follow the outline format of the OCD "Guidelines for the Preparation of Discharge Plans at Brine Extraction Facilities" (5/91 revision, copy enclosed). Additional comments and requests may be forthcoming, pending an OCD inspection of the facility.

Please note that unless otherwise stated, response to all comments shall be received and reviewed by the OCD prior to approval of the renewal application.

Only one copy of the discharge plan renewal application was received by the OCD Santa Fe office. Please submit a second copy to the Santa Fe office and another to the OCD Hobbs District office.

Section VI.A.1: A review of the BW-009 file reveals that Sims-McCasland first proposed to redesign the truck loading facilities at the brine station in your March 31, 1986 letter, yet no plans were ever submitted. The plan mentioned in Section VI. of the current application shall be submitted for approval to the OCD by

July 15, 1994 and shall include the proposed detailed design drawings and schedule of construction.

Section VI.A.2: The BW-009 file also includes December 19, 1988 plans for a double-lined pond for emergency overflow. Is this the same pond as that proposed in the current application? Again, plans shall be submitted for approval to the OCD by July 15, 1994 and shall include the proposed detailed design drawings and schedule of construction.

Section VI.A.4: What is the power source for the triplex injection pump? If this is run by motor, what is the final disposition of the used engine oil and filters?

Section VI.B.2: Supply a site schematic identifying all water sample points, pressure gauges (including wellhead design with annular and tubing pressures), and flow measurement devices.

Section VI.D: The OCD requires all underground brine water lines over five years old be tested for mechanical integrity every five years. Please submit a proposed schedule and method of testing.

Section VI.F.5: The well plugging and abandonment procedures in the September 22, 1988 renewal application is still adequate for the abandonment of the well. Please submit, for approval of this renewal application, a general closure plan which includes removal of equipment, reclamation of the site. and proper disposal of fluids and solids.

Section VII.C.2: Sections V and VI of the current application give the average injection pressure and production rate. Please submit maximum injection pressure and production rate as well.

Section VII.C.3: There is no record of the required five-year MIT well test or the annual open-hole pressure test. Please submit any historical test reports, plus proposed methods and schedules for current tests of each of these requirements. The results of the MIT shall be submitted and approved prior to renewal of the discharge plan.

Section VII.C.5: Based on the calculation methods outlined in Section VI of the current application, there are no procedures for determining fluid losses to the formation. Please submit a proposal for comparison of volumes of fresh water injected to volume of brine produced to detect underground losses.

Section VII.C.6: The OCD requires that any facility which has been in operation for more than fifteen years provide information on the size and extent of the solution cavern and geologic/engineering data demonstrating that continued brine extraction will not cause surface subsidence or catastrophic collapse. Since this facility

began operating in May 1977, please submit the required information.

Section VIII.B: Although Section VII.B. of the current application adequately covers the containment and cleanup of major spills, no discussion is included for the cleanup of minor spills or leaks.

Section IX.A.1: The list of water wells included in Section IX.A of the current application appears to be a reprint of the list found in the original December 12, 1982 application. If this is the case, please submit any updated information. Please identify which of these wells are down-gradient of this facility, and submit water analyses for major anions/cations for each of these wells.

Also, none of the required quarterly production reports listing injection pressure, production rate and volumes have been received since the first quarter, 1989 report. Please submit the missing records.

Submittal of the requested information and commitments in a timely fashion will expedite the final review of the application and approval of the discharge plan renewal.

If you have any questions, please contact me at (505) 827-4080.

Sincerely,

Robert L. Myers II
Petroleum Engineer Specialist

RLM/rlm

xc: OCD Hobbs Office

enclosure

Submit 3 Copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

310 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87503

'94 FEB 1 AM 8 35

WELL API NO.

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

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. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Brine Well

1. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER Brine Well

2. Name of Operator: McCasland Service, Inc.

8. Well No. 1

3. Address of Operator: PO Box 99 Eunice, NM 88231

9. Pool name or Wildcat

4. Well Location
Unit Letter J : _____ Feet From The NW/4 Line and _____ Feet From The SE/4 Line

Section 34 Township 21S Range 37E NMPM Lea County

10. Elevation (*Show whether DF, RKB, RT, GR, etc.*)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☒		
OTHER:	☐			OTHER:	☐		

12. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

1) MIRU Pulling Unit.
2) Install BOP.
3) POH with production String.
4) RIH with bit & scraper to bottom of 7" casing: POH.
5) RIH with retrievable packer & bridge plug. Set plug at 1250', test to 500# hunt hole with packer.

Note: When hole or holes are isolated; call N.M.O.&G.C.C. with depths, rates and pressures.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE Company Representative DATE 2/1/94

TYPE OR PRINT NAME McCasland Services, Inc. TELEPHONE NO. (505) 397-2614

(This space for State Use)

APPROVED BY _____ TITLE DISTRICT 1 SUPERVISOR DATE FEB 02 1994

CONDITIONS OF APPROVAL, IF ANY:

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

February 9, 1994

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO.P-667-242-015

Mr. Bob Calhoon
Simms-McCasland Water Sales
P. O. Box 98
Eunice, New Mexico 88231

RE: DISCHARGE PLAN BW-08 RENEWAL
SIMMS-MCCASLAND WATER SALES
LEA COUNTY, NEW MEXICO

Dear Mr. Calhoon:

On December 18, 1982, the ground water discharge plan, GWB-13 for the Simms-McCasland Brine Station located in Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, was approved by the Director of the Oil Conservation Division (OCD). This discharge plan was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years. The discharge plan (DP-326, formerly GWB-13) was renewed on April 7, 1989 by the Director of the Environmental Improvement Division (EID). The approval will expire on April 6, 1994.

Authority to administer the brine program was returned to the OCD in 1989 and all brine well permits and activities are again under the OCD's jurisdiction. Please note the new discharge plan number BW-08, formerly DP-326, which will be the permanent designation used in all future correspondence.

If your facility continues to have potential or actual effluent or leachate discharges and you wish to continue operations, you must renew your discharge plan. The OCD is reviewing discharge plan submittals and renewals carefully and the review time can often extend for several months. Please indicate whether you have made, or intend to make, any changes in your discharge system, and if so, please include these modifications in your application for renewal.

To assist you in preparation of your renewal application, I have enclosed an application form and a copy of the OCD's Guidelines for the Preparation of Ground Water Discharge Plans at Brine Extraction Facilities, revised May 1991, and a copy of the Water Quality Control Commission Regulations. Note that the completed and signed application form must be submitted with your discharge plan renewal request.

The discharge plan renewal application for the Simms-McCasland Brine Facility is subject to the WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of fifty (50) dollars plus one-half of the flat fee or six-hundred and ninety (690) dollars for brine extraction facilities.

The $50 filing fee is to be submitted with the discharge plan renewal application and is nonrefundable. The flat fee for an approved discharge plan renewal may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan.

If you no longer have any actual or potential discharges a discharge plan renewal is not needed, please notify this office. If you have any questions, please do not hesitate to contact Kathy Brown at (505) 827-5884.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/kmb

Enclosures

xc: Wayne Price, OCD Hobbs Office

BW-009 Sims-McCasland Brine Sales 6/1/94
Review Following 5/91 Class III Guidelines

I. ok

II ok

III ok

IV ok

V OK

VI A. 1. OK - plans for rebuilding loading rack to be submitted 60-90 days per 5/25/94 Sect VI - originally proposed: 3/31/86 → proposed schedules

2. plans for dbl-lined pond per 5/25/94 Sect VI
* Same pond as 12/19/88 proposal?

3. N/A

4. Power source of triplex pumps in 5/25/94 Sect VII.A.
oil, filter disposal?

B. 1. see VI A 1,2

2. supply site schematic identifying sample points, pressure gauges (inc. wellhead w/ annular, tbg pressures), flowmeters

3. identify down-gradient water wells, inc. water bearing strata & depth which can substitute for monitor wells

C. N/A

D. 1. refer to VI A.1.

2. refer to VI A.2

E. MIT for underground brine water lines -- test method & schedule

F. 1. routine inspection procedures

2. N/A

3. OK

4. OK 5/25/94 Sect VII.A.

6

5. 5/25/94 Sect. 10 inadequate - refer to guidelines

VII. A. 11. P&A procedure in 9/22/88 submittal, doesn't include site reclamation
need copy of P&A bond for each well per Rule 101

B. N/A

C. 1. NA

2. 5/25/94 Sect V, VI gives avg pressures & volumes - need max

3. don't have any MIT's or open-hole pressure test (historical or proposed) Supply results or submit proposal to be done before approval

4. OK

5. based on 5/25/94 Sect VI, no way to calc fluid loss (no meter on producing well)

6. No quarterly reports since 1st qtr '89

6. Operation began May 1977 (17 yrs) - need info on soln cavern, etc (see guidelines)

VIII. A. OK

B. no discussion of minor spills

C. need commitment to Rule 116

IX. A. 1. adjacent well list should be updated from 12/21/82 submitted
also see Sect II.B.3

2. OK

3. ?

4. OK

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

April 25, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P-176-012-078

Mr. Bob Calhoun
Simms-McCasland Water Sales
P.O. Box 98
Eunice, NM 88231

RE: Discharge Plan Renewal BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Calhoun,

On February 10 1994, Sims-McCasland Water Sales received, via certified mail, notice from the Oil Conservation Division (OCD) that the discharge plan BW-009 for the Sims-McCasland Brine Station, located in Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico would expire on April 6, 1994. The letter went on to state that if your facility continues to have potential or actual effluent or leachate discharges and if you wish to continue your operations, you must renew your discharge plan.

As of this date (April 25, 1994), the OCD has not received a renewal application from Sims-McCasland Inc. Unless an application for renewal of the discharge plan is received by May 13, 1994, the OCD must assume that this facility is no longer in operation. Without an application for renewal by this date, any on-going operational activities should cease immediately.

If you wish to renew operations at this facility, a discharge plan application shall be submitted and approved by the OCD prior to operation of the facility. The application shall follow the Water Quality Control Regulations and the OCD's Guidelines for the Preparation of Ground Water Discharge Plans at Brine Extraction Facilities delivered to you with the OCD's February 9, 1994 renewal notice letter.

If there are any questions on this matter, please contact Bobby Myers at 827-4080 or Roger Anderson at 827-5812.

Sincerely,

William J. LeMay
Division Director

WJL/rlm
XC: Wayne Price, OCD Hobbs Office

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

December 6, 1989

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Bob Calhoon
SIMS-MCCASLAND WATER SALES
P. O. Box 98
Eunice, New Mexico 88231

RE: Delegation of Responsibilities Brine Manufacturing Operations

Dear Mr. Calhoon:

On June 13, 1989, the Water Quality Control Commission (WQCC) transferred the responsibility for the administration and enforcement of Commission regulations at brine manufacturing operations, including all brine production wells, holding ponds and tanks, from the Environmental Improvement Division (EID) to the Oil Conservation Division (OCD). The OCD has jurisdiction over all manufactured brine once it is transported, used or disposed of off brine plant premises for use in or directly related to oil and gas operations regulated by OCD. OCD regulates brine injection through its Class II Underground Injection Control (UIC) Program if the brine is used in the drilling for or production of oil and gas. EID shall regulate brine injection through its UIC Program if the brine is used for other purposes.

Brine production facilities that were transferred to OCD's jurisdiction must operate pursuant to an approved and current discharge plan. The discharge plan renewal process will be continued by OCD Environmental Bureau Staff. Approximately eight (8) months before the expiration date of an approved discharge plan, the discharger will be notified of the pending expiration of the plan. The discharge plan review process can, depending on circumstances, take several months. If the holder of an approved discharge plan submits a renewal application at least 180 days before discharge plan expiration, and the discharger is in compliance with his approved plan on the date of expiration, then the existing plan will not expire until the renewal application has been approved or disapproved.

Guidelines to aid you in determining what will be required for the renewal of your discharge plan are bring prepared. When the guidelines are finalized, they will be supplied to each operator of a brine production facility.

The OCD requires that any person, firm corporation or association that is in ownership of an oil, gas, or service well in the State of New Mexico shall furnish the Division with a surety bond in an amount prescribed in the OCD regulations. The current bond for well less than 5000 feet deep in Chaves, Eddy, Lea and Roosevelt Counties is $5000. I am enclosing the OCD bond forms for your use. All surety bonds previously submitted to the OCD did not include brine wells. Those surety bonds submitted to the EID must be changed to the OCD. Once the proper bond form are received and approved, all other sureties and bonds can be cancelled.

If you have any questions, please do not hesitate to contact me at (505) 827-5884.

Sincerely,

Roger C. Anderson
Environmental Engineer

RCA/sl

Enclosures

CC: Artesia District Office
Hobbs District Office

Sims - McCaslin

I General Description

-OK-

II Description of Facility

A. Surface Facilities

1. Exhibit 3A lacks reference scale / dimensions
2. need injection volumes / brine sales volumes

B. Underground Facilities

1. "not applicable" ??? need specs and schematic drawings
2. need logs & construction report
3. need avg & max injection pressure
4. need notification commitment
5. ??

III Site Characteristics

A. N.A

B. 1. need stratigraphic section; "not applicable" Maloney
depth, thickness and chem - characteristics of water bearing formations;

2. Geologic maps including faults

3.

C. Hydrology

1. maps & crossections for water < 10,000 mg/l TDS

2. need map with all water wells, oil wells and injection wells within area of review.

over

3. is there flooding potential - relief maps
4. Depth and quality groundwater (USDW)
5. -OK-
6.

IV. A.1 Corrective action prgm
(eg all wells or other conduits which penetrate the injection zone) 5-203. A, B.1, 5-203. C.5

2. -ok-

3. MIT prior to (5-204. B.1. a)
two-well system annually * during (5-204. B.1.b, 5-204 C.)
* S-M has continuos annulus pressure monitoring

4. -ok-
5 - ok
6. -ok-
7. -ok-
8. wells are upgradient
9. -ok-
10. need contingency Plan
11 -ok- emergency 48 hr notification

B.

1a need plugging and abandonment plan
b need copy of bond for our review
2. -ok-

SIMS & MCCASLAND WATER SALES
P.O. BOX 99
EUNICE, NEW MEXICO 88231

First Quarterly Report, 1989
Injected Fresh Water and Brine Produced

	January	February	March
Fresh Water Injected	31,632 bbls.	29,782 bbls.	29,046 bbls.
Produced Brine	30,850 bbls.	28,666 bbls.	27,915 bbls.

New Mexico Health and Environment Department

CARLA L. MUTH
Secretary

MICHAEL J. BURKHART
Deputy Secretary

RICHARD MITZELFELT
Director

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P 996 327 665

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

Sent to Mr. Bob Calhoon	
Street and No. McCasland Services, Inc.	
P.O. State and ZIP Code 2105 Avenue O	
Postage Eunice, New Mexico	$ 88231
Certified Fee	

February 27, 1989

Mr. Bob Calhoon
McCasland Services, Inc.
2105 Avenue O
Eunice, New Mexico 88231

Dear Mr. Calhoon:

The Ground Water Bureau of the New Mexico Health and Environment Department's (HED) Environmental Improvement Division (EID) has completed review of submittals from Sims-McCasland received January 11, 1989 toward fulfilling financial assurance requirements requisite to DP-326 renewal. Based upon an evaluation by the HED Office of Internal Audit, Sims-McCasland qualifies for self insurance to fulfill the financial assurance requirement for the purpose of conducting a hydrogeological investigation.

However, as I pointed out in a telephonic conversation with Bob Patterson, Sims-McCasland Engineer, Sims-McCasland has yet to fulfill the financial assurance requirement for plugging and abandonment as detailed in item 2. of EID's September 28, 1988 correspondence to Sims-McCasland. Mr. Patterson indicated that there may have been some confusion as to whether the self insurance documents might also fulfill the plugging and abandonment requirements. I assured Mr. Patterson that this was not the case and urged him to pursue bonding or one of the other forms of financial assurance which were enclosed with the September 28, 1988 correspondence.

Please contact this office with any questions you may have as to how to fulfill this requirement. I may be reached at telephone number (505) 827-0027. Thank you for your cooperation.

Sincerely,

John W. Parker
Water Resource Specialist
Ground Water Section

JWP/mp

— ENVIRONMENTAL IMPROVEMENT DIVISION —
Harold Runnels Building
1190 St. Francis Dr.
Santa Fe, New Mexico 87503

HEALTH AND ENVIRONMENT DEPARTMENT
OFFICE OF INTERNAL AUDIT

ENVIRONMENTAL IMPROVEMENT DIVISION
GROUNDWATER SECTION
DETERMINATION OF NET WORTH OF
McCASLAND SERVICES, INC.

EVALUATION

Review of McCasland Services, Inc. indicates tangible net worth of $553,810 at 6/30/88. Self insurance requires $35,000 tangible net worth. $307,759 of the net worth is cash.

Net income increased 142% for the year ending 6/30/88.

RECOMMENDATION

The corporation has sufficient tangible net worth for self insurance. The self insurance amount should be set aside in a separate account by McCasland Services, Inc.

eiddtrm2

HED Office of Internal Audit
EID Ground Water Section

Tangible Net Worth Evaluation of:
McCasland Services, Inc., Eunice, NM

Balance Sheet:	6/30/87	6/30/88	11/30/88
Current Assets:			
Cash	$249,831	$307,759	$389,500
Accounts Receivable	$283,204	$354,030	$268,188
Completed Jobs-Unbilled	$8,681	$8,362	$16,265
Employee Advances	$7,800	$6,400	$1,150
Prepaid Insurance	$9,430	$9,430	$12,229
Due from Related Company	$0	$5,000	$0
Total Current Assets	$558,946	$690,981	$687,332
Current Liabilities:			
Accounts Payable	$44,386	$61,874	$58,122
Salaries & Wages Payable	$2,192	$5,495	$5,553
Employee Savings	$765	$1,235	$2,433
Accrued Insurance	$3,775	$5,046	$3,497
Taxes Payable	$13,943	$46,521	$2,491
Due to McCasland Swabbing	$1,389	$0	$0
Accured Bonuses	$0	$17,000	$0
Total Current Liabilities	$66,450	$137,171	$72,096
Tangible Net Worth	$492,496	$553,810	$615,236
Acid Test Ratio	8.4 : 1	5 : 1	9.5 : 1

Income Statement:		
Revenue	$1,254,631	$1,943,520
Expenditures	$1,240,253	$1,856,665
Net Operating Income	$14,378	$86,855
Net Income	$23,832	$57,684

McCasland Services, Inc.

Balance Sheet

06/30/87

ASSETS

URRENT ASSETS		
Cash - Checking - United Bank of Lea Cty	249,830.75	
Accounts Receivable	283,203.52	
Completed Jobs-Unbilled	8,681.19	
Employee Advances	7,800.00	
Prepaid W/C Insurance	7,191.00	
Prepaid G/L Insurance	2,239.00	
TOTAL CURRENT ASSETS		558,945.46 ✓
THER ASSETS		
Utility Deposits	60.00	
Hauling Permit	4,688.66	
TOTAL OTHER ASSETS		4,748.66 ✓
ROPERTY AND EQUIPMENT		
Transports and Vacuum Trucks	658,843.76	
Acc. Depr. - Transports & Vacuum Trucks	479,217.12CR	
Other Revenue Equipment	208,348.28	
Acc. Depr. - Other Revenue Equipment	176,676.61CR	
Other Equipment	232,035.28	
Acc. Depr. - Other Equipment	95,666.92CR	
Automobiles	68,708.50	
Acc. Depr. - Automobiles	55,835.42CR	
Office Equipment	36,750.87	
Acc. Depr. - Office Equipment	32,739.74CR	
Shop Equipment	18,205.31	
Acc. Depr. - Shop Equipment	17,601.17CR	
Radio Equipment	23,281.03	
Acc. Depr. - Radio Equipment	8,613.99CR	
TOTAL RPOPERTY AND EQUIPMENT - NET		379,822.06 ✓
TOTAL ASSETS		943,516.18 ✓

✓ - foots

A-1.1

McCasland Services, Inc.

Balance Sheet

06/30/87

LIABILITIES AND STOCKHOLDERS' EQUITY

URRENT LIABILITIES		
Accounts Payable	44,385.58CR	
Salaries & Wages Payable	2,191.52CR	
Employee Savings	765.00CR	
Accrued Insurance	3,775.00CR	
Gross Receipts Tax - NM	4,926.90CR	
State Income Tax Withheld - NM	1,549.46CR	
Federal Unemployment Tax	12.30CR	
State Unemployment Tax - NM	508.36CR	
Federal Fuel Tax Payable	1,445.60CR	
N.M. Fuel Tax Payable	1,455.29CR	
New Mexico Hiway Use Tax	1,118.16CR	
New Mexico Income Tax Payable	710.00CR	
Federal Income Tax Payable	2,217.00CR	
Due to McCasland Swabbing Services,Inc.	1,388.86CR	
TOTAL CURRENT LIABILITIES		66,449.03CR ✓
ONG-TERM DEBT		
N/P - Beechcraft	103,463.04CR	
TOTAL LONG-TERM DEBT		103,463.04CR
TOCKHOLDERS' EQUITY		
Capital Stock Issued	9,600.00CR	
Treasury Stock	447,561.44	
Retained Earnings	1,187,733.09CR	
Current Year Earnings	23,832.46CR (1) A-1.5	
TOTAL STOCKHOLDERS' EQUITY		773,604.11CR ✓
TOTAL LIABILITIES & STOCKHOLDERS' EQUITY		943,516.18CR ✓

A-1.2

McCasland Services, Inc.

Income Statement

06/30/87

EVENUE		
Transports	.00	600,670.09CR
Vacuum Trucks	.00	137,563.12CR
Kill Trucks	.00	230,047.94CR
Winch Trucks	.00	8,848.57CR
Fresh Water	.00	28,106.43CR
Brine Water	.00	28,440.05CR
Disposal	.00	97,776.32CR
K C L	.00	76,395.00CR
Acid	.00	13,978.60CR
Soap	.00	1,363.00CR
Inhibitor	.00	904.96CR
Chemical	.00	1,807.77CR
Extra Labor	.00	3,139.08CR
Adamoll	.00	5,640.00CR
Frac Tanks	.00	7,179.75CR
Other Revenue	.00	12,770.69CR
OTAL REVENUE	.00	1,254,631.37CR
IRECT EXPENSE		
Salaries & Wages - Transports	.00	63,906.25
Salaries & Wages - Vacuum Trucks	.00	75,552.28
Salaries & Wages - Kill Trucks	.00	53,486.58
Salaries & Wages - Shop	.00	72,298.03
Payroll Insurance	.00	7,308.00CR
Liability Insurance	.00	15,440.58
Equipment - Rental	.00	464.31
Depreciation - Transports	.00	90,519.48
Depreciation - Other Trucks	.00	16,062.48
Fuel, Oil, Lube	.00	46,130.98
Outside Repairs	.00	7,123.12
Tires & Tubes	.00	27,939.83
Registration & Taxes	.00	1,374.60
Supplies & Parts	.00	111,532.04
Cost - Sublet	.00	171.41
Cost - Acid	.00	4,057.04
Cost - K C L	.00	25,818.00
Cost - Chemical	.00	15,298.65

McCasland Services, Inc.

Income Statement

06/30/87

Cost - Water	.00	51,161.63
Cost - Disposal	.00	95,640.24
Drivers' Meals	.00	1,421.30
Federal Hiway Use Tax	.00	7,700.00
N.M. Hiway Use Tax	.00	3,978.32
Federal Fuel Tax	.00	7,065.15
N.M. Fuel Tax	.00	5,180.11
TOTAL DIRECT EXPENSE	.00	792,014.41
GROSS MARGIN ON TRUCKS	.00	462,616.96CR
OVERHEAD EXPENSE		
Salaries - Officers	.00	79,765.00
Salaries - Office	.00	31,196.00
Salaries - Supervisors	.00	79,947.00
Taxes - Payroll	.00	32,755.81
Taxes - Other	.00	1,238.79
License & Fees	.00	61.21
Insurance - Payroll	.00	24,835.00
Insurance - Other	.00	17,378.05
Insurance - Group	.00	13,718.39
Insurance - Officers Life	.00	5,216.97
Automobile - Depreciation	.00	19,240.30
Automobile - Fuel, Oil, Lube	.00	6,011.48
Automobile - Repairs	.00	439.05
Automobiles - Tires & Tubes	.00	33.11
Automobiles - License & Taxes	.00	475.81
Automobiles - Supplies	.00	279.18
Office - Supplies & Postage	.00	3,885.26
Office - Janitor & Supplies	.00	12,849.33
Office - Repairs	.00	4,956.32
Office Equip - Depreciation	.00	1,240.80
Customer Solicitation	.00	17,991.04
Business Travel & Meetings	.00	1,739.58
Uniform & Laundry	.00	7,652.43
Building - Rental	.00	13,600.00
Building - Repairs	.00	1,726.27
Utilities	.00	8,865.83
Telephone - Answering Service	.00	13,948.74

McCasland Services, Inc.

Income Statement

06/30/87

Advertising	.00	541.85
Legal & Accounting	.00	2,923.20
Dues and Subscriptions	.00	1,406.43
Flowers & Gifts	.00	279.43
Donations	.00	125.00
Freight	.00	181.40
Radio Expense	.00	7,680.04
Depreciation - Radio Equipment	.00	5,121.84
Overhead Reimbursement	.00	18,077.93CR
Depreciation - Other Equipment	.00	47,333.04
Payroll Variance	.00	6,563.50CR
Bank Charges	.00	39.31
Airplane - Fuel, Oil	.00	1,889.38
Airplane - Repairs	.00	660.03
Airplane - Other	.00	3,652.00
TOTAL OVERHEAD EXPENSE	.00	448,238.27 ✓ (2)
EARNINGS FROM OPERATIONS	.00	14,378.69CR ✓
OTHER INCOME AND DEDUCATIONS		
Interest Income	.00	8,650.39CR
Interst Expense	.00	8,092.62
TOTAL OTHER INCOME AND DEDUCATIONS	.00	557.77CR ✓
EARNINGS BEFORE INCOME TAXES	.00	14,936.46CR ✓
PROVISIONS FOR INCOME TAXES		
Federal Income Tax	.00	9,050.00CR
New Mexico Income Tax	.00	154.00
NET EARNINGS	.00	8,896.00CR ✓
NET EARNINGS	.00	23,832.46CR ✓ (1)

(2) Total Expenses 1,240,252.68

A-1.5

McCasland Services, Inc.

Balance Sheet

06/30/88

ASSETS

CURRENT ASSETS		
Cash - Checking - United Bank of Lea Cty	307,759.39	
Accounts Receivable	354,030.03	
Completed Jobs-Unbilled	8,362.34	
Employee Advances	6,400.00	
Due from Related Company	5,000.00	
Prepaid W/C Insurance	7,191.00	
Prepaid G/L Insurance	2,239.00	
TOTAL CURRENT ASSETS		690,981.76
OTHER ASSETS		
Utility Deposits	60.00	
Hauling Permit	64,688.66	
TOTAL OTHER ASSETS		64,748.66
PROPERTY AND EQUIPMENT		
Transports and Vacuum Trucks	685,657.85	
Acc. Depr. - Transports & Vacuum Trucks	538,498.96CR	
Other Revenue Equipment	203,317.46	
Acc. Depr. - Other Revenue Equipment	188,019.39CR	
Other Equipment	232,035.28	
Acc. Depr. - Other Equipment	140,869.48CR	
Automobiles	88,795.18	
Acc. Depr. - Automobiles	63,728.50CR	
Office Equipment	36,750.87	
Acc. Depr. - Office Equipment	33,331.62CR	
Shop Equipment	19,205.31	
Acc. Depr. - Shop Equipment	17,601.17CR	
Radio Equipment	23,281.03	
Acc. Depr. - Radio Equipment	13,503.03CR	
TOTAL PROPERTY AND EQUIPMENT - NET		292,490.83
TOTAL ASSETS		1,048,221.25

B-1.1

McCasland Services, Inc.

Balance Sheet

06/30/88

LIABILITIES AND STOCKHOLDERS' EQUITY

CURRENT LIABILITIES		
Accounts Payable	61,874.03CR	
Salaries & Wages Payable	5,494.84CR	
Accrued Bonuses	17,000.00CR	
Employee Savings	1,235.00CR	
Accrued Insurance	5,045.74CR	
Gross Receipts Tax - NM	7,524.88CR	
State Income Tax Withheld - NM	2,008.58CR	
Federal Unemployment Tax	28.74CR	
State Unemployment Tax - NM	623.16CR	
N.M. Fuel Tax Payable	2,746.88CR	
New Mexico Hiway Use Tax	1,560.57CR	
New Mexico Income Tax Payable	4,547.00CR	
Federal Income Tax Payable	27,480.85CR	
TOTAL CURRENT LIABILITIES		137,170.27CR
LONG-TERM DEBT		
N/P - Beechcraft	79,763.12CR	
TOTAL LONG-TERM DEBT		79,763.12CR
STOCKHOLDERS' EQUITY		
Capital Stock Issued	9,600.00CR	
Treasury Stock	447,561.44	
Retained Earnings	1,211,565.55CR	
Current Year Earnings	57,683.75CR (1)	
TOTAL STOCKHOLDERS' EQUITY		831,287.86CR
TOTAL LIABILITIES & STOCKHOLDERS' EQUITY		1,048,221.25CR

McCasland Services, Inc.

Income Statement

06/30/88

REVENUE		
Transports	.00	1,096,307.80CR
Vacuum Trucks	.00	162,959.88CR
Kill Trucks	.00	216,814.25CR
Winch Trucks	.00	28,376.81CR
Fresh Water	.00	43,901.00CR
Brine Water	.00	49,582.45CR
Disposal	.00	133,823.75CR
K C L	.00	128,594.29CR
Acid	.00	13,377.98CR
Soap	.00	2,139.00CR
Inhibitor	.00	1,100.50CR
Chemical	.00	4,717.89CR
Extra Labor	.00	6,069.38CR
Adamoll	.00	4,072.00CR
Frac Tanks	.00	29,555.00CR
Other Revenue	.00	22,128.02CR
TOTAL REVENUE	.00	1,943,520.00CR ✓
DIRECT EXPENSE		
Salaries & Wages - Transports	.00	258,245.69
Salaries & Wages - Vacuum Trucks	.00	709.25
Salaries & Wages - Kill Trucks	.00	30,888.80
Salaries & Wages - Shop	.00	82,406.76
Liability Insurance	.00	38,191.27
Equipment - Rental	.00	6,651.67
Depreciation - Transports	.00	105,742.12
Depreciation - Other Trucks	.00	15,870.52
Fuel, Oil, Lube	.00	77,956.98
Outside Repairs	.00	31,214.28
Tires & Tubes	.00	74,717.22
Registration & Taxes	.00	3,010.50
Supplies & Parts	.00	146,430.32
Cost - Sublet	.00	6,553.22
Cost - Acid	.00	43,623.46
Cost - K C L	.00	2,772.00
Cost - Chemical	.00	11,108.65
Cost - Water	.00	90,304.04

McCasland Services, Inc.

Income Statement

06/30/88

Cost - Disposal	.00	136,417.82
Drivers' Meals	.00	4,366.16
Federal Hiway Use Tax	.00	6,600.00
N.M. Hiway Use Tax	.00	6,379.69
Federal Fuel Tax	.00	7,792.02
N.M. Fuel Tax	.00	11,875.10
TOTAL DIRECT EXPENSE	.00	1,199,827.54
GROSS MARGIN ON TRUCKS	.00	743,692.46CR
OVERHEAD EXPENSE		
Salaries - Officers	.00	136,755.00
Salaries - Office	.00	56,282.66
Salaries - Supervisors	.00	103,900.00
Taxes - Payroll	.00	45,103.17
Taxes - Other	.00	877.92
License & Fees	.00	624.30
Insurance - Payroll	.00	37,763.79
Insurance - Other	.00	13,736.97
Insurance - Group	.00	23,860.69
Insurance - Officers Life	.00	4,890.00
Automobile - Depreciation	.00	14,256.04
Automobile - Fuel, Oil, Lube	.00	12,606.86
Automobile - Repairs	.00	627.85
Automobiles - Tires & Tubes	.00	1,266.60
Automobiles - License & Taxes	.00	556.02
Automobiles - Supplies	.00	1,421.80
Office - Supplies & Postage	.00	10,986.61
Office - Janitor & Supplies	.00	13,726.05
Office - Repairs	.00	4,852.95
Office Equip - Depreciation	.00	591.88
Customer Solicitation	.00	20,937.23
Business Travel & Meetings	.00	2,885.53
Uniform & Laundry	.00	7,227.94
Building - Rental	.00	40,000.00
Building - Repairs	.00	492.74
Utilities	.00	12,606.08
Telephone - Answering Service	.00	15,136.88
Advertising	.00	1,767.48

McCasland Services, Inc.

Income Statement

06/30/88

Legal & Accounting	.00	8,238.31
Dues and Subscriptions	.00	1,370.39
Flowers & Gifts	.00	44.33
Donations	.00	2,725.00
Freight	.00	185.32
Penalties and Fines	.00	820.24
Radio Expense	.00	11,435.26
Depreciation - Radio Equipment	.00	4,889.04
Overhead Reimbursement	.00	20,635.22CR
Depreciation - Other Equipment	.00	45,202.56
Payroll Variance	.00	3,303.32
Bank Charges	.00	5.58CR
Airplane - Fuel, Oil	.00	1,552.99
Airplane - Repairs	.00	1,149.96
Airplane - Other	.00	3,164.00
Bad Debts	.00	7,656.98
TOTAL OVERHEAD EXPENSE	.00	656,837.94 ✓ (2)
EARNINGS FROM OPERATIONS	.00	86,854.52CR ✓
OTHER INCOME AND DEDUCATIONS		
Interest Income	.00	16,014.14CR
Equipment Junked	.00	3,345.53
Interest Expense	.00	6,701.38
TOTAL OTHER INCOME AND DEDUCATIONS	.00	5,967.23CR ✓
EARNINGS BEFORE INCOME TAXES	.00	92,821.75CR ✓
PROVISIONS FOR INCOME TAXES		
Federal Income Tax	.00	30,591.00
New Mexico Income Tax	.00	4,547.00
NET EARNINGS	.00	35,138.00 ✓
NET EARNINGS	.00	57,683.75CR ✓ (1)

(2) = Total Expenses 1,856,665.48

6-15

McCasland Services, Inc.

Balance Sheet

11/30/88

ASSETS

CURRENT ASSETS		
Cash - Checking - United Bank of Lea Cty	389,500.21	
Accounts Receivable	268,187.54	
Completed Jobs-Unbilled	16,264.99	
Employee Advances	1,150.00	
Prepaid W/C Insurance	11,291.00	
Prepaid G/L Insurance	938.00	
TOTAL CURRENT ASSETS		687,331.74
OTHER ASSETS		
Utility Deposits	60.00	
Hauling Permit	64,688.66	
TOTAL OTHER ASSETS		64,748.66
PROPERTY AND EQUIPMENT		
Transports and Vacuum Trucks	685,657.85	
Acc. Depr. - Transports & Vacuum Trucks	584,577.36CR	
Other Revenue Equipment	203,317.46	
Acc. Depr. - Other Revenue Equipment	189,688.69CR	
Other Equipment	232,035.28	
Acc. Depr. - Other Equipment	159,511.38CR	
Automobiles	129,039.09	
Acc. Depr. - Automobiles	67,145.20CR	
Office Equipment	36,750.87	
Acc. Depr. - Office Equipment	33,572.27CR	
Shop Equipment	18,205.31	
Acc. Depr. - Shop Equipment	17,601.17CR	
Radio Equipment	23,281.03	
Acc. Depr. - Radio Equipment	15,540.13CR	
TOTAL PROPERTY AND EQUIPMENT - NET		260,650.69
TOTAL ASSETS		1,012,731.09

C-1.1

McCasland Services, Inc.

Balance Sheet

11/30/88

LIABILITIES AND STOCKHOLDERS' EQUITY

CURRENT LIABILITIES		
Accounts Payable	58,121.77CR	
Salaries & Wages Payable	5,553.24CR	
Employee Savings	2,432.76CR	
Accrued Insurance	3,497.00CR	
Gross Receipts Tax - NM	5,796.84CR	
State Income Tax Withheld - NM	1,717.40CR	
Federal Unemployment Tax	181.02CR	
State Unemployment Tax - NM	87.78CR	
N.M. Fuel Tax Payable	2,085.75CR	
New Mexico Hiway Use Tax	271.92CR	
Federal Income Tax Payable	7,650.00	
TOTAL CURRENT LIABILITIES		72,095.48CR
LONG-TERM DEBT		
N/P - Beechcraft	69,806.75CR	
TOTAL LONG-TERM DEBT		69,806.75CR
STOCKHOLDERS' EQUITY		
Capital Stock Issued	9,600.00CR	
Treasury Stock	447,561.44	
Retained Earnings	1,269,249.30CR	
Current Year Earnings	39,541.00CR	
TOTAL STOCKHOLDERS' EQUITY		870,828.86CR
TOTAL LIABILITIES & STOCKHOLDERS' EQUITY		1,012,731.09CR

C-4.2

Self Insurance for a Hydrogeologic Investigation

I, Bob Calhoon, am owner of the McCasland Services. This letter is in support of the use of the financial test of self-insurance to demonstrate financial responsibility for undertaking a hydrogeologic investigation for ground water contamination arising from operating the Sims-McCasland, Inc., brine facility located in Section 32, T21S, R37E, Lea County, New Mexico.

McCasland, Inc., or McCasland Services, has neither received an adverse opinion or a disclaimer of opinion from an independent auditor on their financial statements for the latest completed fiscal year.

[Fill in the following information. Tangible net worth is to be derived from the year-end financial statements of McCasland Services, Inc., for the latest completed fiscal year.]

1. Amount of hydrogeologic investigation costs covered by the financial test----------$35,000.00.
2. Tangible net worth----------$ 870,828.86
3. Is line 2 at least 10 times line 1? YES .

[Signature]

[Name]

[Title]

1/4/89
[Date]

JP/mw

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

ENVIRONMENTAL IMPROVEMENT DIVISION
Harold Runnels Bldg.-1190 St. Francis Drive
Santa Fe, New Mexico 87503

Richard Mitzelfelt
Director

GARREY CARRUTHERS
Governor
CARLA L. MUTH
Secretary
MICHAEL J. BURKHART
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P 965 375 932

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

Sent to Bob Calhoon	
Street and No. McCasland Services, Inc.	
P.O. State and ZIP Code 2105 Avenue O	
Postage Eunice, New Mexico	$ 88231
Certified Fee	

April 7, 1989

Bob Calhoon
McCasland Services, Inc.
2105 Avenue O
Eunice, New Mexico 88231

RE: Renewal DP-326

Dear Mr. Calhoon:

The renewal of the discharge plan (DP-326) for the Sims-McCasland brine facility located in Eunice, Lea County, New Mexico is hereby approved subject to the following condition, which is part of the financial assurance required pursuant to Section 5-210.17 of the New Mexico Water Quality Control Commission (WQCC) Regulations.

Sims-McCasland establishes a trust fund using the enclosed trust agreement, funded by the Performance Bond submitted March 24, 1989 (surety number B01626).

The approved discharge plan renewal consists of materials dated: June 16, 1987, September 22, 1988, September 27, 1988, December 19, 1988, and January 23, 1989, plus the information and materials submitted as part of the original discharge plan approved December 18, 1982.

Further, approval of this ground-water discharge plan does not relieve you of your responsibility to comply with applicable local laws and regulations, such as zoning requirements and nuisance ordinances.

The discharge plan renewal application was submitted pursuant to WQCC Regulation 3-106. It is approved pursuant to WQCC Regulation 3-109. Please note WQCC Regulations 3-109.E. and 3-109.F., which provide for possible future amendment of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

Monitoring and reporting shall be as specified in the discharge plan and supplements thereto. These requirements are summarized on the attached sheet(s). Any inadvertent omissions from this summary of a discharge plan monitoring or reporting requirement shall not relieve you of responsibility for compliance with that requirement.

Pursuant to WQCC Regulation 3-109.G.4., this conditional plan renewal is for a period of 5 years. This approval will expire April 6, 1994, and you should submit an application for new approval in ample time before that date.

On behalf of the staff of the Ground Water Section, I wish to thank you for your cooperation during this discharge plan review.

Sincerely,

Stuart P. Castle

Stuart P. Castle
Bureau Chief
Ground Water Bureau

SPC/mp

cc: Garrison McCaslin, EID District IV Field Office Manager, Roswell

GROUND WATER SECTION
Environmental Improvement Division
Health and Environment Department
Santa Fe, N.M. 87503
Phone: (505) 827-2900

Summary of Discharge Plan

April 5, 1989

DP number: 326 Facility name: SIMS-MCCASLAND WATER SALES
Alternate name:
Type of facility: MINING - SALT - INSITU
Means of discharge: HOLDING TANKS STEEL ABOVE GR

County: LEA EID District 4 T21S, R37E, Sec. 32.000
Location: W OF EUNICE XSEC HW8&CITY 21 Nearest city: EUNICE

	Responsible person:	Contact or consultant person:
	BOB CALHOON	BOB PATTERSON
Title:	OWNER	ENGINEER
Address:	P.O. BOX 98	P.O. BOX 98
City, zip:	EUNICE NM 88231	EUNICE NM 88231
Phone:	505-394-2581	505-394-2581

The Ground Water Section staff reviewer is JOHN PARKER.
Application was received 06/16/87 and Public Notice published 07/01/87.
The modification was approved / / and the plan expires 12/18/87.
(Application for renewal should be submitted in ample time before expiration.)

Monitoring Requirements summary

No. of monitoring reports required annually: 4
Monitoring reports are due no later than January 31, October 31, July 31, and April 30 of each year.

Sampling required	Annual freq.	# of sites	Comments, description
Water levels:	0	0	
Disch. vols:	4	1	VOLUME OF FRESH WATER INJECTED, BRINE PRODUCED
Major ions:	0	0	
Heavy metals:	0	0	
N Species:	0	0	
Organics:	0	0	
Other:	0	0	

___ If this space is checked, monitoring requirements are summarized or explained in more detail on the attached sheet.
Any inadvertent omission from this summary does not relieve the discharger of responsibility for compliance with that requirement.
Send monitoring reports to the address at top, "Attention: JOHN PARKER, re: DP-326".

EID BUCKSLIP

CHECK ONE:

☒ LETTER TO Bob Calhoon

FOR Stuart Castle SIGNATURE

☐ MEMO TO _____

☐ PRESS RELEASE

☐ OTHER

SUBJECT: Conditional DP- 326 Approval

DRAFTED BY: John Parker 4-4-89 (DATE)

CONCURRENCES:

NAME:		INITIAL	DATE REC'D	DATE APPROVED
Ernest Rebuck	Prog. Mgr.	ER	4/6	4/6
Stuart P. Castle	Bur. Chief	fl		4/7
_____	Deputy Dir.			
Jon Thompson	Deputy Dir.			
Richard Mitzelfelt	Director			
_____	Legal Review			
_____	Branch Admin.			

FINAL DECISION NEEDED BY _____ (Date) BECAUSE _____

COMMENTS BY DRAFTER OR REVIEWER(S):

Discharger has met all technical requirements. Financial assurance is the only remaining requirement not completely fulfilled.

SIMS & MCCASLAND WATER SALES
P.O. BOX 99
EUNICE, NEW MEXICO 88231

Quarterly Report
Injected Fresh Water and Brine Produced

	October 1988	November 1988	December 1988
Fresh Water Injected	26,438 bbls.	15,200 bbls.	27,093 bbls.
Produced Brine	24,580 bbls.	13,603 bbls.	15,462 bbls.

394-2581

393-3531

John,
Here's the rest of the info to be attached to the original set of documents.

Thanks
Bob Patterson

McCasland Services, Inc.

Balance Sheet

11/30/88

ASSETS

CURRENT ASSETS		
Cash - Checking - United Bank of Lea Cty	389,500.21	
Accounts Receivable	268,187.54	
Completed Jobs-Unbilled	16,264.99	
Employee Advances	1,150.00	
Prepaid W/C Insurance	11,291.00	
Prepaid G/L Insurance	938.00	
TOTAL CURRENT ASSETS		687,331.74
OTHER ASSETS		
Utility Deposits	60.00	
Hauling Permit	64,688.66	
TOTAL OTHER ASSETS		64,748.66
PROPERTY AND EQUIPMENT		
Transports and Vacuum Trucks	685,657.85	
Acc. Depr. - Transports & Vacuum Trucks	584,577.36CR	
Other Revenue Equipment	203,317.46	
Acc. Depr. - Other Revenue Equipment	189,688.69CR	
Other Equipment	232,035.28	
Acc. Depr. - Other Equipment	159,511.38CR	
Automobiles	129,039.09	
Acc. Depr. - Automobiles	67,145.20CR	
Office Equipment	36,750.87	
Acc. Depr. - Office Equipment	33,572.27CR	
Shop Equipment	18,205.31	
Acc. Depr. - Shop Equipment	17,601.17CR	
Radio Equipment	23,281.03	
Acc. Depr. - Radio Equipment	15,540.13CR	
TOTAL PROPERTY AND EQUIPMENT - NET		260,650.69
TOTAL ASSETS		1,012,731.09

McCasland Services, Inc.

Balance Sheet

11/30/88

LIABILITIES AND STOCKHOLDERS' EQUITY

CURRENT LIABILITIES		
Accounts Payable	58,121.77CR	
Salaries & Wages Payable	5,553.24CR	
Employee Savings	2,432.76CR	
Accrued Insurance	3,497.00CR	
Gross Receipts Tax - NM	5,796.84CR	
State Income Tax Withheld - NM	1,717.40CR	
Federal Unemployment Tax	181.02CR	
State Unemployment Tax - NM	87.78CR	
N.M. Fuel Tax Payable	2,085.75CR	
New Mexico Hiway Use Tax	271.92CR	
Federal Income Tax Payable	7,650.00	
TOTAL CURRENT LIABILITIES		72,095.48CR
LONG-TERM DEBT		
N/P - Beechcraft	69,806.75CR	
TOTAL LONG-TERM DEBT		69,806.75CR
STOCKHOLDERS' EQUITY		
Capital Stock Issued	9,600.00CR	
Treasury Stock	447,561.44	
Retained Earnings	1,269,249.30CR	
Current Year Earnings	39,541.00CR	
TOTAL STOCKHOLDERS' EQUITY		870,828.86CR
TOTAL LIABILITIES & STOCKHOLDERS' EQUITY		1,012,731.09CR

Exhibit XI

Costs to Plug and Abandon Brine Well

The following costs are based on 10 hours to complete plugging procedures:

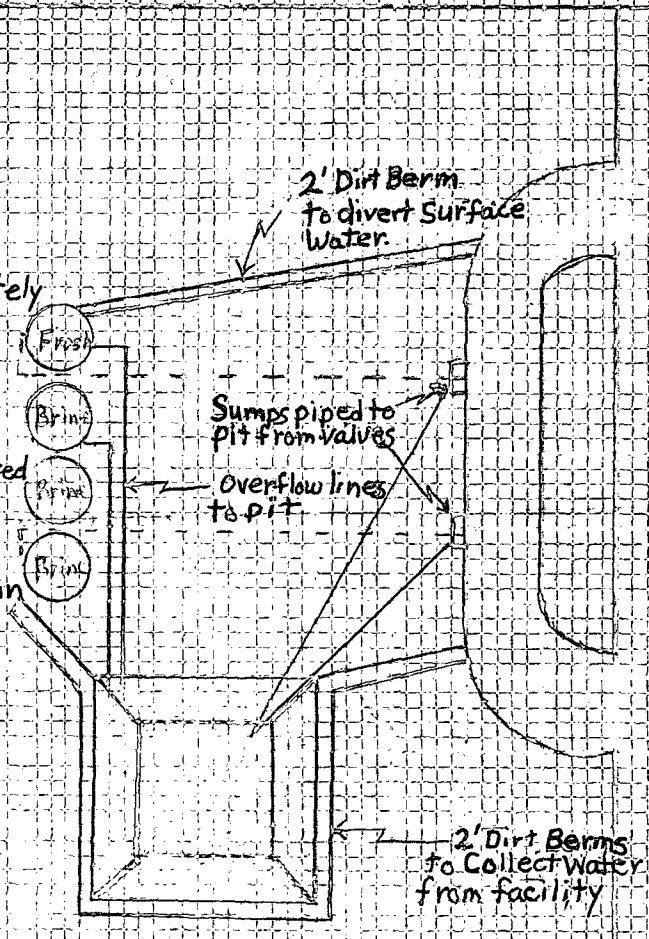
Pulling unit	$ 890.00
Wireline Truck & Cast Iron Bridge Plug	1050.00
Salt Gel	20.00
Pump Truck	354.00
Transport	262.44
Brine Water	12.50
Fresh Water	3.75
Cement	326.25
Welder and pipe	102.50
Misc. Expense	453.16
Total	$3474.60

The total cost to plug and abandon both of the G.P. Sims #1 and #2 wells would be $6,949.20.

Exhibit XII

Sims-McCasland Water Sales

We propose to construct a double-lined opened-topped pit with an approved leak detection system. It would be 30' square at the top, sloping to a 20' square at the bottom and approximately 6' deep. It would hold about 650 bbls. of water. 2' high dirt Berms would be built on the North side of the facility to divert rain water away from pit area. The same type of berm would be constructed on the South side in order to collect from spills. A chain link fence would be built around the pit with a 3' walk-in gate. Sumps would be installed under each load line with 2" lines running to the pit for collection. The materials and construction will be in accordance with the standards of the E.I.D.



RECEIVED

DEC 19 1988

GROUND WATER BUREAU

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

ENVIRONMENTAL IMPROVEMENT DIVISION
Harold Runnels Bldg.-1190 St. Francis Drive
Santa Fe, New Mexico 87503

Richard Mitzelfelt
Director

GARREY CARRUTHERS
Governor
CARLA L. MUTH
Secretary
MICHAEL J. BURKHART
Deputy Secretary

December 22, 1988

Mr. Bob Patterson, Engineer
Sims-McCasland
P.O. Box 98
Eunice, New Mexico 88231

Dear Mr. Patterson:

The Underground Injection Control staff of the New Mexico Environmental Improvement Division Ground Water Section would like to thank you for your cooperation during our recent inspection of the Sims McCasland brine facility. A copy of the inspection forms is attached for your reference. Deficiencies noted during the inspection are as follows:

1. Brine spillage around loading area and wellhead. Need a leakage collection system.

2. Operator on site cleaning up spillage. Need to file spill report with EID.

Thank you for your continued cooperation. Should you have any questions feel free to contact me (827-2902) or John Parker (827-0027).

Sincerely,

Kevin Lambert
Hydrologist
Ground Water Section - UIC Program

KL/JP/mw

cc: Roelf Ruffner, EID Hobbs Field Office

Enclosure

No. of Samples	Ion
1	Na
1	K
1	Ca
1	Mg
1	Cl
1	HCO3
1	CO3
1	SO4
1	TDS
////////	////////////
	NO3+ NO2
	NH3
	kjeld N
////////	////////////
	As
	Ba
	Cd
	CN
	Cr
	F
	Pb
	Hg
	Se
	Ag
	U
	V
	Ra 226
	Ra 228
////////	////////////
	Cu
	Fe
	Mn
	Phenols
	Zn
////////	////////////
	Al
	B
	Co
	Mo
	Ni
////////	////////////
	pH
	Conduct.

FIELD TRIP REPORT
GROUND WATER SECTION

SLD USER CODES

County Eddy/Lea

Ground Water: 59300

NO_3, HC, & Toxics: 59600

UIC: 59500

FACILITY VISITED

Name of Facility: 20 Brine Facilities & Climax Chemical

Location: Carlsbad/Hobbs in Southeast NM

Discharge Plan Number: DP- See Below

Type of Operation: Brine Production / Chemical Manufacturing

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT

EID Inspector(s): Lambert

Date of Inspection or Visit: 12/5-8/88

Discharger's Representative Present During EID Visit:

Name:

Title or Position:

Purpose of Visit:

a. Evaluation of Proposed Discharge Plan

b. Compliance Inspection of Discharge with Approved Plan

c. Other (specify)

Inspection Activities During Field Visit:

a. Inspection of Facilities or Construction (specify)

b. Sampling of Effluents (give sampling locations)

c. Sampling of Ground Water (give names or locations of wells)
Sampled M.W. at Marathon

d. Evaluation of geology, soils, water levels or other physical characteristics of the location (specify)

e. Other (specify)

Observations and Information Obtained during the Visit:
The 20 Brine Facilities & Climax are listed below by DP#. See Individual File for specifics

ACTION REQUIRED

#	#	#	#	#
	323	354	370	298
318	324	355	371	426
319	325	360	372	
320	326	361	394	
321	351	369	401	
322				

BRINE STATION INSPECTION FORM

DATE 12/7 1988 1253 EID INSPECTOR Lambert
FACILITY Sims-McCasland LOCATION Eunice
FACILITY REP ON SITE Bob Patterson COUNTY Lea

WELL OPERATION 2 well system valved for reversal

WELL IS INJECTING: __ THROUGH ANNULUS __ THROUGH TUBING
SOURCE OF FRESH WATER City of Eunice Well
TRACE INJECTION/PRODUCTION LINES Underground
WELL HEAD PRESSURE _____ PSIG PUMP PRESSURE _____ PSIG
LEAKS AROUND WELL OR PUMP None
12/6 Brine spill from trucker fall asleep ~ 60 barrels clean up 12/7

STORAGE AREA

FOR PONDS: 4 tanks 3 brine South 1 fresh north
GENERAL LINER APPEARANCE _____
AMOUNT OF FREEBOARD _____
ANY SIGN OF OVERFLOW OR LEAKS _____
LEAK DETECTION SYSTEM __ FLUIDS __ DRY

FOR TANKS:
GENERAL APPEARANCE Looks Good Brand New
LABLED PLAINLY ✓ YES __ NO tell by piping
BERMED TO PREVENT RUNOFF ✓ YES __ NO
CHECK CONTENTS TO ASSURE PROPER FLUID/LABLE MATCH _____
NUMBER OF TANKS FOR BRINE 3 FRESH WATER 1
Recent brine spill operator cleaning site upon arrival

LOADING AREA

PROPERLY GRADED AND BERMED TO CONTAIN SPILLAGE	✓ YES	__ NO
ANY EVIDENCE OF RECENT SPILLAGE	✓ YES	__ NO
* DOES FACILITY HAVE A SPILL COLLECTION SYSTEM	__ YES	✓ NO
ANY EVIDENCE OF OIL SPILLING/DUMPING	✓ YES	__ NO

* spill collection system under design negotiating w/ John Parker

Trucker fell asleep had brine spillage operator cleaning facility (regrading) during visit

MONITORING WELLS

DEPTH _____ FT STATIC WATER LEVEL _____ FT BELOW CASING
SAMPLED THIS VISIT __ YES __ NO TEMP _____ Ec _____

COMMENTS Brine spillage around loading area & wellhead operator was actively cleaning up site regrading

RECEIVED
OCT 04 1988
GROUND WATER BUREAU

September 27, 1988

Mr. John Parker
Environmental Improvement Division
P.O. Box 968
Santa Fe, NM 87504-0968

RE: Discharge Plan DP-326 Renewal Commitment

Dear Mr. Parker:

Sims & McCasland Water Sales commits to perform the following work or service in order to meet the requirements of the E.I.D.:

1. To conduct a cement bond log, or a radioactive tracer, or any other appropriate procedure required by the E.I.D. within the five year renewal period.

2. To notify the E.I.D. prior to commencement of any well workover other than routine surface mechanical work.

3. To provide E.I.D. with quarterly analysis of injected fluids, and quarterly reports of volumes of injected fluids and produced brine.

4. To provide a plugging/surety bond in an amount satisfactory to E.I.D. on both wells, or to demonstrate adequate financial responsibility.

Sims & McCasland Water Sales authorizes Mr. R.G. (Bob) Patterson to conduct any and all correspondence, including telephone, between Sims & McCasland and the E.I.D.; however, any major financial commitment will not be authorized.

Sincerely,

Bob Calhoon

Bob Calhoon
Sims & McCasland Water Sales

BC/sc

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARLA L. MUTH
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P-484 099 151

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

U.S.G.P.O. 153-506

Sent to Bob Calhoon	
Street and No. 2105 Avenue O	
P.O.; State and ZIP Code NM 88231	
Postage	$
Certified Fee	
Special Delivery Fee	

September 28, 1988

Bob Calhoon
McCasland Services, Inc.
2105 Avenue O
Eunice, NM 88231

Subject: DP-326 Renewal

Dear Mr. Calhoon:

The Environmental Improvement Division (EID) Ground Water Section has completed review of Sims-McCasland's response to EID's November 25, 1987 request for additional information in support of DP-326 renewal. The following items still need to be addressed before we can approve your application for renewal:

(1) Sims-McCasland needs to commit to the following:
(New Mexico Water Quality Control Commission (WQCC) Regulatory reference follows in parenthisis).

a. Notifying EID "prior to commencement of drilling, cementing and casing, well logging, mechanical integrity tests and any other well workover . . ." (5-205.A.5)

b. Performing a cement-bond log or other acceptable proceedure at some time during the 5 year renewal period. (5-204.A,B)

c. Submitting quarterly reports to EID giving the total volume of brine sold and fresh water injected. (5-207,5-208)

(2) Sims-McCasland needs to have in place financial assurrances for the purpose of plugging and abandoning the two wells. EID is not accepting salvage-value of equipment for this purpose. Please provide one of the following acceptable forms of financial assurance (documentation attached):

1. Financial Guarantee Bond;
2. Performance Bond;
3. Trust Agreeement;
4. Irrevocable Standby Letter of Credit.

(3) In order to determine the sum of the financial assurance needed, please submit a cost estimate for plugging and abandoning the two Sims-McCasland wells. (The estimate provided in your September 22 submittal is for only one well.)

(4) Sims-McCasland needs to have in place additional financial assurance for the costs of conducting a hydrogeologic investigation. This requirement, pursuant to Section 5-210.B.17 of the WOCC regulations is being imposed to cover the costs of a hydrogeological investigation should an operator abandon a brine facility when there has been a history of non-compliance or other evidence indicating the possiblity of ground water contamination resulting from the operation of the facility. EID has developed a detailed cost estimate for such an investigation which totals $35,000.00 You can use any of the four previously listed forms of financial assurance for this purpose, or you may wish to propose another form of financial assurance. EID has accepted self insurance for this purpose. This option entails submission of a recent financial statement which shows the companies tangible net worth to be in excess of 10 times the costs of the investigation (eg $350,000.00).

(5) EID's 1987 inspection reported by letter to you of December 31, 1987, found the existing spillage collection system to be inadequate. Prior to approval of your application for renewal, Sims-McCasland will have to submit; and have approved by EID, plans to renovate the spill collection system. In addition, the plan must contain a completion schedule subject to EID's approval.

(6) Sims-McCasland needs to provide a letter of authorization for Bob Patterson if he will be signing correspondence to EID. His signature following the certification in your September 22, 1988 submittal in support of DP-326 renewal does not comply with Section 5-101.H. of the NMWCC regulations. Pursuant to the regulations, the signature needs to be by "a principle executive officer of at least the level of vice-president". (Your signature would obviously fullfill this requirement).

Thank you in advance for your prompt response. Should you have any questions, or wish to discuss any of the previous items before formally responding, you may call me at telephone number (505) 827-0027.

Sincerely,

John W. Parker
Water Resource Specialist
Ground Water Section

attachments

JWP:tr

Sims & McCasland Water Sales
In Situ Extraction Facility

I. General Description

A. Sims & McCasland Water Sales - Mr. Bob Calhoon
P.O. Box 99 Eunice, New Mexico 88231
B. Please Reference Original Discharge Plan
C. Please Reference Exhibit I, Attached
D. Please Reference Original Discharge Plan

II. Description of Facility

A. Surface Facilities
1. thru 4. Reference Exhibit I
B. Underground Facilities
1. Please Reference Exhibit II, Attached
2. Of the information requested, all that is available is the cementing summary shown in Exhibit III, Attached
3. Not Applicable - Information not available
4. Please Reference Original Discharge Plan
5. Not Applicable

III. Site Characteristics

A. Please reference your letter of December 31, 1987, and Brine Station Inspection Form.
B. Geology
1. thru 3. Drilling logs are not available locally, however, they could be on file with the O.C.D. in Santa Fe. Please refer to Exhibit IV and V for the lithology, stratigraphy, and geology of the local area. The calculated maximum formation pressure at an approximate injection pressure of between 100 and 200 pounds is 865 psi @ 2434 feet.
C. Hydrology
1. Please reference Exhibit V
2. Please reference Exhibit VI
3. Please reference Exhibit VII
4. thru 6. Please reference Exhibits VIII and IX

IV. Procedures to Protect Ground Water

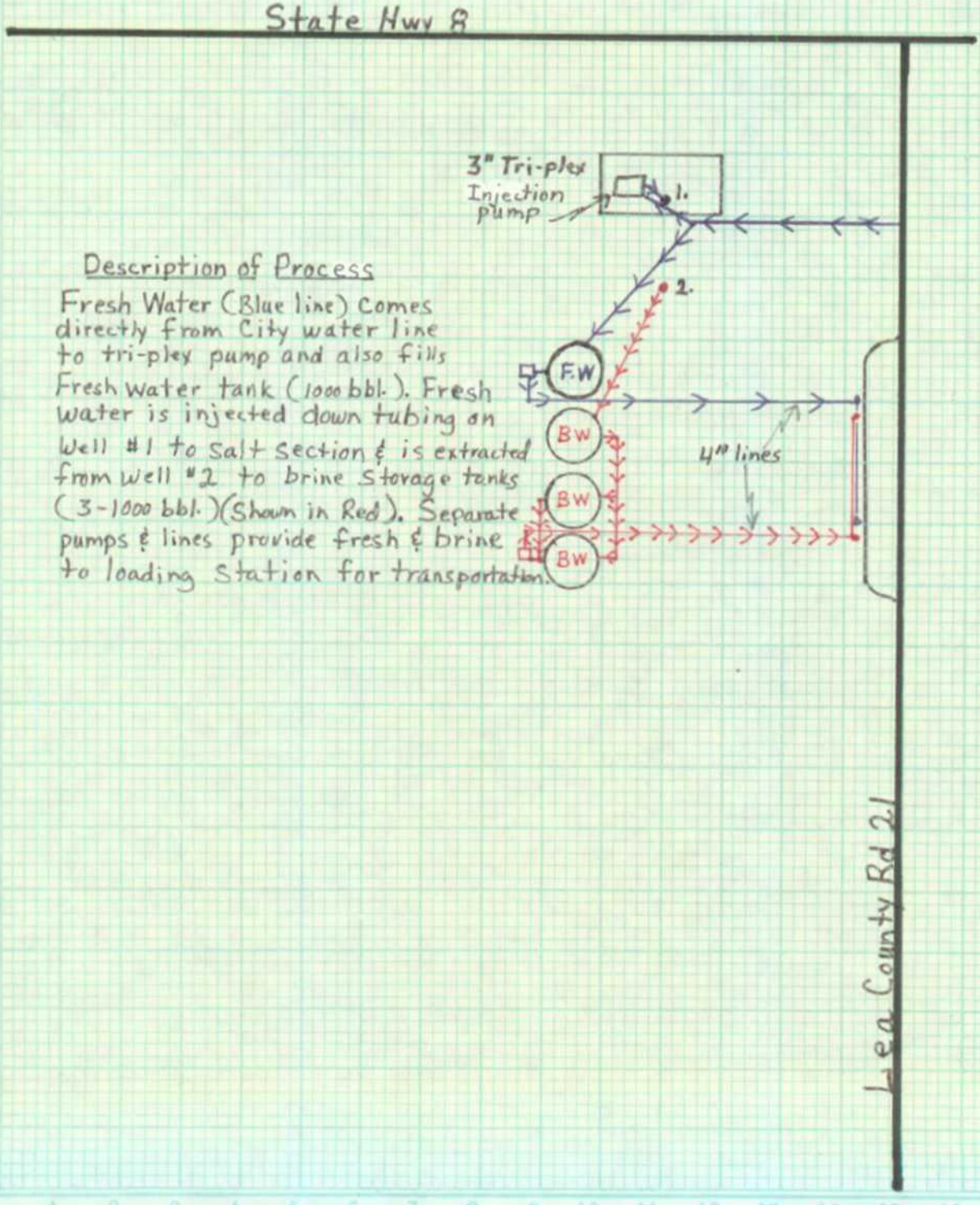
A. During Operations
1. thru 11. Please refer to original plan

B. Post-operational commitments
   1. Plugging and abandonment
      a. Please reference Exhibit X
      b. The approximate cost to P/A would be $3500.00. Please reference Exhibit XI for breakdown of costs. Salvage value of the four 1000 bbl tanks, the tri-plex injection pump, and the 2 surface loading pumps would be approximately $9600.00 based on 25% of new value.

V. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Exhibit I.

Sims-McCasland Water Sales
Section 32 Township 21 Range 37
Lea County



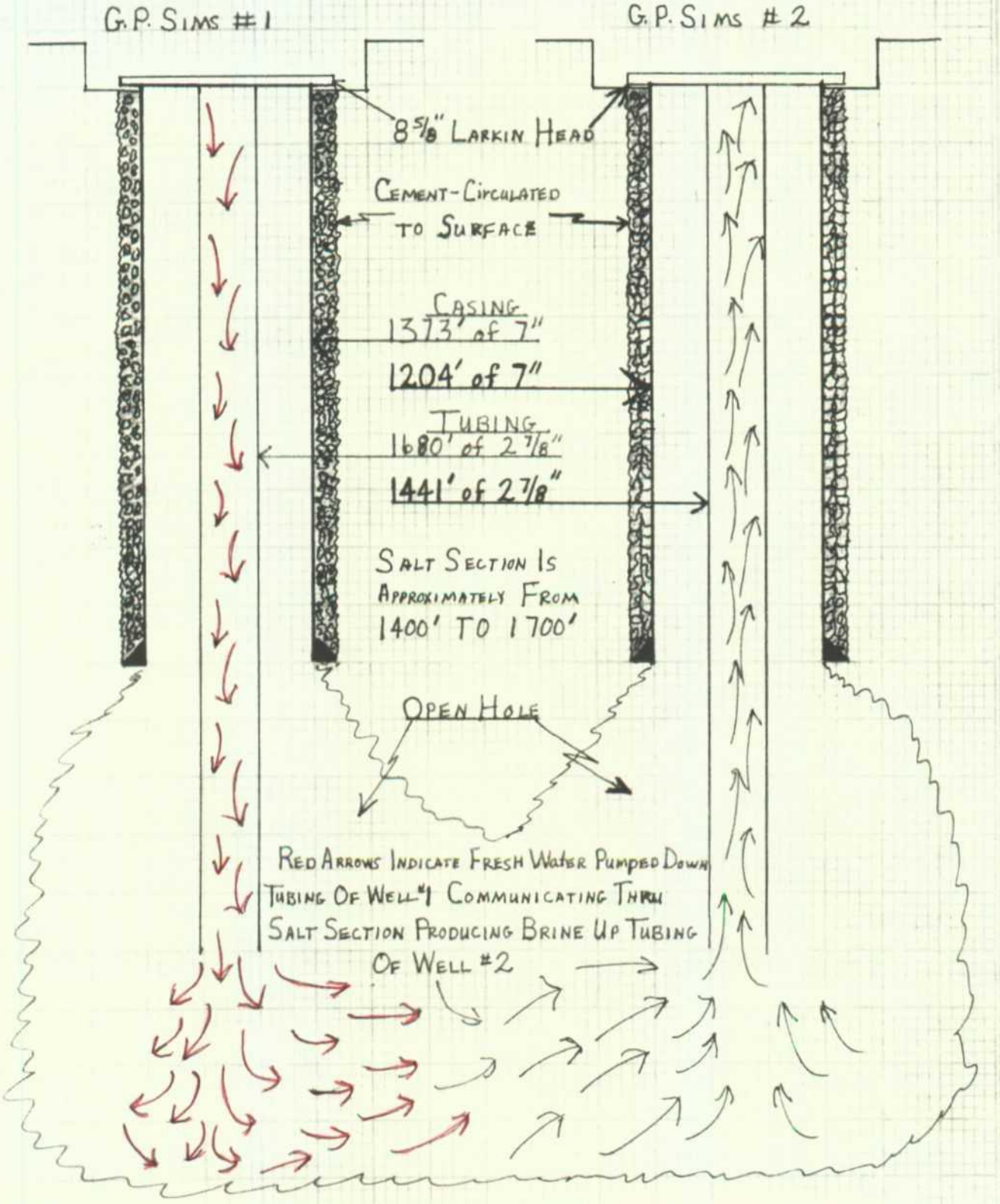
Description of Process

Fresh Water (Blue line) comes directly from City water line to tri-plex pump and also fills Fresh water tank (1000 bbl.). Fresh water is injected down tubing on Well #1 to salt section & is extracted from well #2 to brine Storage tanks (3-1000 bbl.)(Shown in Red). Separate pumps & lines provide fresh & brine to loading Station for transportation.

Exhibit II

Sims-McCasland Water Sales

Section 32 Township 21 Range 37 Lea County



ALLIBURTON SERVICES
JOB SUMMARY

DIVISION MID CONTINENT

HALLIBURTON LOCATION Hobbs, N.M.

BILLED ON TICKET NO. 114803

WELL DATA

Price Supply Well SEC. TWP. RNG. COUNTY Lea STATE N.M.

ATION NAME TYPE

ATION THICKNESS FROM TO

L PROD: OIL BPD. WATER BPD. GAS MCFD

NT PROD: OIL BPD. WATER BPD. GAS MCFD

LETION DATE MUD TYPE MUD WT.

R TYPE SET AT

M HOLE: TEMP. PRESSURE

DATA

	AMOUNT USED	SIZE	FROM	TO	WEIGHT	MAXIMUM PSI ALLOWABLE
CASING		7"	0'	1204'	23#	
LINER						
TUBING						
OPEN HOLE		9 3/4	0	1204'	TOTAL DEPTH:	
PERFORATIONS						SHOTS/FT.
PERFORATIONS						SHOTS/FT.
PERFORATIONS						SHOTS/FT.

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
COLLAR		
SHOE		
SHOE 7"	1	HOWCO
ALIZERS		
M PLUG		
LUG		
ER		

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE 5-3-77	DATE 5-3-77	DATE 5-4-77	DATE 5-4-77
TIME 1830	TIME 2000	TIME 0600	TIME 0930

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
L. GIBSON	HT-400	HOBBS
T. GOMEZ	3737	"
B. SELMAN	017	"
R. JONES	8758	"
H. FOSTER FIELDMAN		"

Exhibit III

MATERIALS

FLUID DENSITY LB/GAL. API

FLUID DENSITY LB/GAL. API

TYPE SIZE LB.

TYPE SIZE LB.

TYPE GAL. %

TYPE GAL. %

TYPE GAL. %

ACTANT TYPE GAL. IN

ENT TYPE GAL. IN

LOSS ADD. TYPE GAL.-LB. IN

NG AGENT TYPE GAL.-LB. IN

RED. AGENT TYPE GAL.-LB. IN

KER TYPE GAL.-LB. IN

ING AGENT TYPE GAL.-LB.

AC BALLS. TYPE QTY.

DEPARTMENT CEMENT

DESCRIPTION OF JOB CEMENT SURFACE WITH 300 SK. CL. "C" 2% CACl2

JOB DONE THRU: TUBING ☐ CASING ☒ ANNULUS ☐ TBG./ANN. ☐

CUSTOMER REPRESENTATIVE X

HALLIBURTON OPERATOR L. GIBSON

COPIES REQUESTED

CEMENT DATA

NUMBER OF SACKS	TYPE	API CLASS	BRAND	BULK / SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
300		C			2% CACl2	1.32	14.8

PRESSURES IN PSI

LATING DISPLACEMENT

DOWN MAXIMUM

GE FRACTURE GRADIENT

I: INSTANT 5-MIN. 15-MIN.

HYDRAULIC HORSEPOWER

ED AVAILABLE USED

AVERAGE RATES IN BPM

ING DISPL. OVERALL

CEMENT LEFT IN PIPE

REASON

SUMMARY

VOLUMES

PREFLUSH: BBL.-GAL. TYPE

LOAD & BKDN: BBL.-GAL. PAD: BBL.-GAL.

TREATMENT: BBL.-GAL. DISPL: BBL.-GAL. 47

CEMENT SLURRY: BBL.-GAL. 70.5

TOTAL VOLUME: BBL.-GAL.

REMARKS

CIRCULATED 15 SK.

CUSTOMER

ORDER NO. DALLAS MID-CONTINENT

LEASE Price Supply Well WELL NO. 2

JOB TYPE Surface

DATE 5-3-77

HALLIBURTON
services
A Division of Halliburton Company
DUNCAN, OKLAHOMA 73533

FORM 1908 R-2

WORK ORDER CONTRACT AND PRE-TREATMENT DATA

ATTACH TO INVOICE & TICKET NO. 001803

DISTRICT HOBBS, N.M. DATE 5-3-77

TO: HALLIBURTON SERVICES YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO: DALLAS McCASLAND (CUSTOMER) AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. 2 LEASE BRINE SUPPLY WELL SEC. _____ TWP. _____ RANGE _____

FIELD WEST EUNICE COUNTY LEA STATE N.M. OWNED BY SAME AS ABOVE

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

PACKER: TYPE _____ SET AT _____

TOTAL DEPTH _____ MUD WEIGHT _____

BORE HOLE _____

INITIAL PROD: OIL _____ BPD, H2O _____ BPD, GAS _____ MCF

PRESENT PROD: OIL _____ BPD, H2O _____ BPD, GAS _____ MCF

	USED	WEIGHT	SIZE	FROM	TO	MAX. ALLOW. P.S.I.
CASING		23#	7	0	1204	
LINER						
TUBING						
OPEN HOLE			8 3/4	0	1204	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

TREATMENT INSTRUCTIONS: TREAT THRU TUBING ☐ ANNULUS ☐ CASING ☒ TUBING/ANNULUS ☐ HYDRAULIC HORSEPOWER ORDERED _____

CEMENT SURFACE CASING WITH 300 SK CLASS C W/ 2% CACL2

CUSTOMER OR HIS AGENT STATES THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

Exhibit III

For consideration, the above-named Customer agrees:

1) To pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists.

2) Halliburton shall not be responsible for and Customer shall secure Halliburton against any liability for damage to property of Customer and of the well owner (if different from Customer), unless caused by the willful misconduct or gross negligence of Halliburton, this provision applying to but not limited to subsurface damage and surface damage arising from subsurface damage.

3) Customer shall be responsible for and secure Halliburton against any liability for reservoir loss or damage, or property damage resulting from subsurface pressure, losing control of the well and/or a well blowout, unless such loss or damage is caused by the willful misconduct or gross negligence of Halliburton.

4) Customer shall be responsible for and secure Halliburton against any and all liability of whatsoever nature for damages as a result of subsurface trespass, or an action in the nature thereof, arising from a service operation performed by Halliburton hereunder.

5) Customer shall be responsible for and secure Halliburton against any liability for injury to or death of persons, other than employees of Halliburton, or damage to property (including, but not limited to, injury to the well), or any damages whatsoever, irrespective of cause, growing out of or in any way connected with the use of radioactive material in the well hole, unless such damage shall be caused by the willful misconduct or gross negligence of Halliburton.

6) Halliburton makes no guarantee of the effectiveness of the products, supplies or materials, nor of the results of any treatment or service.

7) Customer shall, at its risk and expense, attempt to recover any Halliburton equipment, tools or instruments which are lost in the well and if such equipment, tools or instruments are not recovered, Customer shall pay Halliburton its replacement cost unless such loss is due to the sole negligence of Halliburton. If Halliburton equipment, tools or instruments are damaged in the well, Customer shall pay Halliburton the lesser of its replacement cost or the cost of repairs unless such damage is caused by the sole negligence of Halliburton. In the case of equipment, tools or instruments for marine operations, Customer shall, in addition to the foregoing, be fully responsible for loss of or damage to any of Halliburton's equipment, tools or instruments which occurs at any time after delivery to Customer at the landing until returned to the landing, unless such loss or damage is caused by the sole negligence of Halliburton.

8) Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, Halliburton is unable to guarantee the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by Halliburton. Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton shall not be responsible for any damages arising from the use of such information except where due to Halliburton's gross negligence or willful misconduct in the preparation or furnishing of it.

9) Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to Halliburton or, at Halliburton's option, to the allowance to the Customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.

10) Upon Customer's default in the payment of Customer's account 60 days after date of invoice, such account will thereafter be subject to interest until paid. In the event it becomes necessary to employ an attorney to enforce collection of such account, Customer agrees to pay all collection costs and attorney fees in the amount of 20 per cent of the amount of the unpaid account.

11) Halliburton shall not be bound by any changes or modifications in this contract except where such change or modification is made in writing by a duly authorized executive officer of Halliburton.

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT

SIGNED _____ CUSTOMER

DATE 5-3-77

TIME 1030 A.M. P.M.

I certify that the Fair Labor Standards Act of 1938, as amended, has been complied with in the production of goods and/or with respect to services furnished under this contract.

CUSTOMER

Exhibit IV

RODUCTION

Surficial geology concerns the origin, distribution, and significance of deposits and soils at or near the earth's surface. Completely bare bedrock forms probably less than 5 percent of New Mexico's land surface; consequently surficial materials form by far the largest and most-used part of the ground around us. Several aspects of surficial geology that contribute significantly to an understanding of our environment are water yielding properties of the ground; its susceptibility to flooding and erosion; its susceptibility to such hazards as landslides, avalanches, and earthquakes; ease of excavation; suitability for foundations and road building; agricultural potential, including suitability for irrigation or pasturage; and mineral resources potential

Surficial materials commonly are poorly consolidated, consisting partly of bedrock weathered in situ (residuum), but mostly of sediments derived by erosion and transported by water, wind, ice, or gravity (mass wasting) to a site of temporary deposition before being further eroded and transported downslope

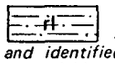
Four major categories of surficial materials are distinguished on the map by color: residual materials, transitional deposits, transported deposits, and miscellaneous types of ground

RESIDUAL MATERIALS

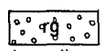
Materials generally formed in place, including: residuum, *formed in situ by weathering of a parent formation;* caliche; travertine and related spring deposits; shale or sandstone baked by coal beds burning in situ (clinker); karst and related deposits in sinks; *and the following, which are not distinguished on the map --* organic deposits; desert pavement; cave deposits; and desert varnish

RESIDUUM

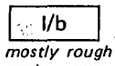
In New Mexico, residuum tends to be thin, generally less than 2 ft thick -- rarely as much as 5 ft. Texture depends upon composition of parent rock, and ranges from clay to coarse sand; texture may be bouldery in granitic areas. Areas shown as residuum include small outcrops of parent rocks and some alluvial or eolian deposits either mistaken for residuum or too small to show on the map. These materials are predominantly of late Pleistocene (Wisconsinan) or Holocene age. Ground is hummocky with slopes less than 10 percent; scattered small outcrops of resistant beds form small ledges



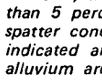
LOAMY RESIDUUM — *Texture variable -- mixed clay, silt, and sand. Thickness 1 to 5 ft. Parent formations fine grained, shallow, and identified by subscripts. Where clayey, this residuum generally contains appreciable amounts of swelling clay and is highly susceptible to sodium exchange, especially over the Chinle Formation (subscript* Trc*), Cretaceous shale (subscript* Ksh*), and Tertiary clayey volcanic formations. Slopes locally 10 percent and subject to washing. Although the unit is distinctive, the indicated boundaries are approximate*



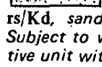
STONY RESIDUUM — *Stony residuum, with accompanying sand and silt. Thickness mostly less than 3 ft. Texture variable depending on parent material, indicated by subscript. Boundaries gradational with* co *and* fg



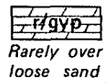
STONY LOAM OVER BASALT — *Lithology highly variable; locally abundant clay and silt, probably loessial; stones basaltic, mostly rough scoriae or angular blocks and flakes. Includes alluvium along small washes; numerous basalt mounds and low scarps along some washes and at edges of flows; thickness generally less than 3 ft. Surface smooth; slopes usually less than 5 percent except at sides of washes, bases of volcanic cones (including spatter cones), and edges of flows. Not subject to severe erosion. Boundaries indicated are fairly well defined despite variable lithology; boundaries with alluvium are approximate*



SANDY OR SANDY LOAM RESIDUUM — *The shallow sandy or sandy silt substrates are distinguished by subscripts (e.g.,* rs/Kd, *sandy residuum over Dakota Sandstone). Thickness commonly 1 ft. Subject to wind erosion where vegetation is sparse; minimal washing. A distinctive unit with adequate boundaries, except in the San Juan Basin and along the Canadian River*

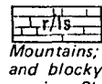


GYPSIFEROUS AND SANDY RESIDUUM ALONG PECOS RIVER VALLEY — *Parent material Artesia* (Pat) *and related formations. Rarely over 2 ft thick. Numerous small outcrops of gypsum thinly mantled by loose sand with or without small pebbles. A distinctive unit; boundaries are approximate*



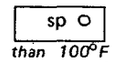
RESIDUUM ON LIMESTONE — *Widespread on east slope of Sacramento Mountains, Chupadera Mesa, and flanks of Zuni Mountains; less extensive on Cretaceous limestone beds south of Raton. Stony and blocky; generally well cemented with calcium carbonate; little subject to erosion. Slopes average steeper than most residuum. Thickness generally less than 2 ft, rarely as much as 5 ft. A distinctive unit; boundaries indicated are adequate*

CALICHE



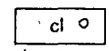
CALICHE — *Partly indurated zone of calcium carbonate accumulation formed in upper layers of surficial deposits; 2 to 10 ft thick; commonly overlain by windblown sand. Much caliche shown on the map consists of tough, slabby surface layers underlain by calcium carbonate nodules that grade downward to fibers and veinlets. Especially well developed in Basin and Range and Great Plains parts of the state. Thick caliches (locally >20 ft) associated with undissected High Plains surfaces of the Great Plains commonly comprise an upper sequence of several carbonate-cemented zones interlayered with reddish loamy paleosol horizons over a basal caprock zone developed on Ogallala* (To) *sediments. Forms on various types of parent formations, indicated by subscripts. The extensive caliche along Rio Salado northwest of Socorro is partly a travertine deposit. Where buried by sand, the caliche is identified by subscript* ca. *A distinctive unit; boundaries are well defined where the caliche forms rimrock and approximate where exposed in deflation hollows. Where thick and well indurated, caliche is quarried for road metal and other aggregate, subject to minimal erosion*

SPRING DEPOSITS



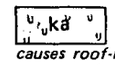
TRAVERTINE AND RELATED DEPOSITS — *Most deposits shown have been formed at springs discharging water hotter than 100°F (34°C). Travertine mounds and benches to 50 ft high. Deposits at east base of Mesa Lucero may not have been created by hot springs*

CLINKER



SLAGGY COAL ASH AND VITRIFIED SHALE AND SANDSTONE MASSES FUSED BY BURNING COAL BEDS -- *Incompletely shown -- coal may ignite spontaneously, by lightning or ground fire. Depending on oxygen availability, the coal may burn tens of feet back into the ground. Common in coal-bearing formations of San Juan Basin and Raton district. Used for road metal*

KARST DEPRESSION DEPOSITS



KARST-RELATED DEPOSITS — *Underground solution of limestone and gypsum produces caverns or smaller subsurface voids, and causes roof-rock collapse, forming closed karst depressions (sinkholes) at the surface, mantled with blocks of the roof rock. Widespread in San Andres Formation (subscript* Pca*) north of the Sacramento Mountains and on Chupadera Mesa. Sinks commonly 50 ft deep and 500 to 1,000 ft wide. Similar deposits composed of slumped gravel and alluvium along the Pecos River valley are attributed to solution of underlying gypsum or other salts, Slumped beds dip 1 to 5 degrees into the depression; may be overlain by undisturbed gravels, Thickness to 300 ft. Although these are distinctive features, extent and boundaries, largely derived from the 1/250,000 quadrangle maps, are approximate*

Exhibit IV cont'

DESERT PAVEMENT

Not shown on map. Consists of a single layer of closely-spaced stones, angular or rounded, over a vesicular layer of loam and silt. Stones collect at the surface by a sorting action, apparently due to frost and/or salt heaving, or swelling and shrinking of clay. Silt layer beneath the pavement may be partly eolian in origin. In general, within a particular part of the state, thickness of silt increases from about 1 to 12 inches with increasing age of the surface, due to advanced weathering and rock disintegration. Some areas of desert pavement also form where wind or water removes fine-grained sediments, leaving behind the coarser lag deposits. While desert pavement favors high runoff, it protects the ground from erosion

CAVE DEPOSITS

Not shown on map. Commonly have gravel at base, recording an early stage of substantial water flow that eroded the cave. The gravel is overlain by clay or ochre deposited as the flow of water diminished, and this in turn is overlain by stalagmites. Stalagmites are overlain by dust. Fossil remains of Pleistocene animals may occur in deposits below the stalagmites; remains of Holocene animals characterize the overlying deposits. Other cave deposits occur in basaltic lavas, especially in the area southwest of the Zuni Mountains. These deposits include blocks fallen from the roofs, dust, and some ice

ORGANIC DEPOSITS

Not shown on map. Accumulations of fibrous peat in sedge marshes border many New Mexico lakes. Both fibrous and woody peat accumulated in small, poorly-drained depressions and mountain meadows. Mostly less than 15 ft

DESERT VARNISH

Not shown on map. A black stain of iron and manganese oxides on bare rock surfaces and on pebbles of desert pavement. Predates prehistoric pottery-bearing occupations of the region. Predominantly middle Holocene, partly late Pleistocene. Many of these stained surfaces have petroglyphs carved by prehistoric peoples

TRANSITIONAL DEPOSITS

Deposits transitional between those formed in situ and those transported; deposits moved downslope chiefly by gravity, particularly slow creep (colluvium). Also includes rock falls. Landslides and avalanches are shown as periglacial features

Colluvium includes the heterogenous mantle of soil and rock fragments derived from residuum, bedrock, and/or unconsolidated surficial deposits moved slowly downslope by gravitational force and sheet wash. Slopes generally steeper than 20 percent. Mass wasting, the process causing debris to move downslope, is aided by added weight and lubrication of water-saturated debris, frost heaving, alternate wetting and drying of clays, crystallization of salts, growth of roots, burrowing and trampling by animals, falling of trees, and impact of hail or rain. These, like other erosional processes, may be accelerated by man's activities

Colluvium is basically a chaotic mixture of angular rock fragments and finer grained materials. In New Mexico colluvium is generally less than 10 ft thick (rarely 25 ft or more) but may grade into thick cones of debris at bases of hillsides. In the northeast and northwest parts of the state where steep shale slopes underlie resistant caprock of sandstone or lava, two, and locally three, ages of colluvium may be distinguished. These are thought to be mid-Holocene, late Wisconsinan and early Wisconsinan, respectively. Such occurrences provide an index of retreat of cliffs. Some shale slopes are armored and protected against erosion by blocks of the caprock.

On long dip slopes such as flanks of the Zuni Mountains and east flank of the Sacramento Mountains, the colluvium is generally thin (commonly 1 to 2 ft thick) except near the base of steep hillsides and is composed of the resistant rock, forming the dip slope. Some of this colluvium could as well be mapped as stony residuum over limestone. Hillsides on granitic and volcanic rocks may also be overlain by thin but bouldery sandy colluvium. Colluvium on steep, faulted mountain fronts consists of a mixture of stones representing all the exposed formations upslope

co — COLLUVIUM — *Subscripts indicate the underlying hillside formations (e.g.,* co/Tv, *colluvium on Tertiary volcanic rocks)*

TRANSPORTED DEPOSITS

Most surficial deposits are rocks and particles weathered from bedrock in one area, transported by water, wind, ice, or gravity to an area of deposition, and are susceptible to further erosion and transportation. These deposits are much younger than – and unrelated to – the underlying bedrock. They are classified according to their mode of transportation to the site of deposition

ALLUVIUM IN FLOODPLAINS AND STREAM CHANNELS

Well-stratified sandy and silty stream deposits with gravel lenses; gravel terraces along valley sides. Generally, alluvial deposits record complex response to Quaternary climatic shifts. In New Mexico climates were comparatively wet during the Pleistocene glacial stages. Conversely, during the interglaciations, climates were drier, with conditions similar to Holocene environments. Alluvial deposits locally contain fossils, including bones of mammals and rodents, and shells of freshwater snails and clams. Late Pleistocene deposits contain fossil remains of extinct animals such as elephants, camels, horses (not re-introduced until the arrival of the Spaniards), sloths, and long-horned bison. Archaeological remains are common in and on Holocene deposits and help date them. Three ages of alluvium generally can be distinguished -- late Pleistocene, mid-Holocene, and historic. At least three recognized types of alluvial floodplain deposits reflect relative capacity for sediment transport by the main stream and its tributaries. A fourth type, along the Pecos River in the southeastern part of the state, is characterized by saline ground. A fifth is restricted to basalt-capped mesas

al — FLOODPLAIN AND CHANNEL DEPOSITS ALONG MAIN STREAMS — *Ground nearly flat but includes terraces to about 10 ft high, shallow curved swales at cutoff meanders, and local stabilized dunes. Mostly sand, silt, and some layers of gravel. Caliche absent or weakly developed in thin veinlets, fibers, coatings on cracks, and soft nodules. Deposits commonly 25 ft thick. Ground water shallow; subject to pollution. Extensively farmed; subject to flooding*

al_2 — FLOODPLAIN AND CHANNEL DEPOSITS ALONG GENERALLY DRY ARROYOS AND WASHES — *Includes deposits along some perennial mountain streams. Extent exaggerated to emphasize drainage patterns. Sandier than* al_1, *gradients 5 to 15 percent. Arroyos 10 ft deep common. Surface flat where deposit was formed by stream overflowing its banks; hummocky where built of coalescing fans at mouths of tributaries that crowd the main stream against its far bank; or V-shaped where alluvium grades laterally into fan sand washed from adjoining hillsides. Ephemeral perched water tables under some deposits. Width of deposits represented has been exaggerated but total area probably about right because small deposits had to be omitted*

al_3 — COALESCING SILTY AND SANDY ALLUVIAL FANS — *Intermediate between* al *and alluvial fan deposits* fs *and* fsi

al_4 — SALINE ALLUVIUM — *Borders Pecos River south of Fort Sumner*

al/b — ALLUVIUM OVER BASALT — *Restricted to basalt-capped mesas. Stony, organic-rich alluvium in old valleys; thickness commonly 10 ft or more. Acid soils*

tg — GRAVEL TERRACES — *Well-rounded stream gravels with cobbles 6 inches or more in diameter; some terraces 250 ft higher than the streams. Especially well developed along the San Juan River, less so along the Pecos, Gila, and Canadian Rivers; most represent deposits by Pleistocene melt waters from mountains. Abundant caliche deposits, especially on the higher terraces, which may be Kansan; lowest are Wisconsinan*

ALLUVIAL FAN DEPOSITS

In alluvial fans, unlike floodplain alluvium, beds tend to be thick, massive, and highly lenticular rather than well stratified. This is characteristic of all the facies, whether boulder, gravel, sand, or silt. Beds lenticular and elongated down the slope of the fans; slopes 2 to 20 percent. Deposition mostly by flash floods, with poor sorting and mixed textures. Coarse-textured lenses commonly form ridges extending down the fan onto generally finer grained sediment. Boundaries between the textural facies of the deposits roughly parallel the fan contour, but detailed boundaries are irregularly lobate; those shown are approximations. Fan textures and slopes depend partly on composition of the parent rocks and partly on height and steepness of the bordering hill or mountain. Fans extensive in the Basin and Range part of the state where they comprise about half the total area; in other parts of the state, fans are small. On the larger fans, arroyos become shallower towards the toe; many head at low mounds that probably mark old mudflows. Ground subject to sheet flooding

fg — GRAVEL FACIES — *Bouldery towards apex of fan, grading downslope to cobble and fine gravel with increasing proportion of sand and finer grained material. Commonly dissected to form 2 to 3 levels of gravel benches up to 50 ft above present washes. A few streams (e.g., Mulligan Wash, Alamosa River, Cuchillo Negro Creek, and Rincon Arroyo are incised 100 ft below fan surfaces, On short, steep fans, depths of valleys generally decrease downslope. On the broad Palomas surface, west of the Rio Grande above Hatch, valleys maintain their depth. Except near the apex, extensive surfaces have smooth desert pavement. On short, steep fans, gravels show minimal weathering and are weakly cemented with caliche; age probably Wisconsinan and Holocene. On broad, more gently sloping fans, gravels are more weathered and commonly cemented by caliche; age probably pre-Wisconsinan. In south half of the state, gravel facies is characterized by creosote bush cover. Thin alluvial gravel covering pediments is denoted by* fg *over subscript that identifies parent formation*

fs — SAND FACIES — *Sandy alluvium with subordinate amounts of fine gravel, silt, and clay. Forms at least four kinds of ground: 1) On short, steep fans sloping from the mountains of granitic or gneissic rock (e.g., parts of the Florida Mountains), this facies may form a smooth sandy layer a few feet thick covering gravel below; slopes 5 to 20 percent; washes 1 to 10 ft deep may expose underlying gravel. 2) On other short fans, sand facies may form arcuate belt at toe of fan with slopes averaging 10 percent, commonly reworked into coppice dunes 3 to 7 ft high* (sm). *3) Other belts of smooth sandy ground commonly slope 5 percent or less and consist of sand mounds approximately 1 ft high over caliche* (fs_2). *4) Gypsiferous sand* (fs_3), *especially in the Jornada del Muerto, Tularosa Valley and east side of the Pecos Valley. Sand facies absent on the broad Las Palomas surface. Thin fan sand covering pediments is denoted by* fs *over subscript that identifies underlying formation. Boundary with residual sand, fan gravel, and fan silt is approximate*

fsi — SILT FACIES — *In Basin and Range parts of the state, toes of fans may be silty and clayey rather than sandy; surface smooth, with slopes less than 5 percent. Slow infiltration rates and low slopes result in sluggish runoff. Forms a belt below the sand facies and grades downward to playa silt* (psi) *with slopes less than 2 percent. Abundant swelling clays and exchangeable sodium. Surface layers predominantly Holocene; subject to sheet flooding, gradational with* al_3. *East and west of Sangre de Cristo Mountains, also forms fans of sandy or silty loam with little gravel in upper 3 to 4 ft, but abundant gravel below the loam. Caliche soft. Includes loess on isolated hilltops. Boundary with residual loam* (rl), *playa silt* (psi), *and fan sand* (fs) *approximate*

EOLIAN DEPOSITS

Eolian deposits are laid down by wind, mostly as sheets of sand or silt (loess). Rarely, after prolonged drought on shale desert in the San Juan Basin, shale flakes may accumulate in rippled sheets or even small dunes, but with the next rain, these become mud. Sand dune shapes depend on topography, relative strength of the winds, supply of sand, and vegetation. Some dunes are concave towards the windward (parabolic), others are concave towards the leeward (barchans), and others are longitudinal or transverse. Some dune clusters (e.g., Great White Sands) have all four kinds. Dunes may climb a windward slope or fall on a leeward slope. Most of New Mexico's eolian sand sheets have a basal layer of weathered, partly cemented, reddish stabilized sand; some sand surfaces on such layers are smooth. In the Basin and Range and Great Plains parts of the state, these surfaces are generally underlain by caliche; in the San Juan Basin, sand sheets commonly overlie residuum, fan deposits, or bedrock. Where sand is thick, as on sand facies of fans in the Basin and Range and at climbing dunes east of the Pecos River (Mescalero Sands) the sand is in mounds (coppice dunes) with profuse growth of vegetation -- mesquite, and saltbush in the Basin and Range; sand sage, shinnery oak, small soapweed yucca, and occasional mesquite on the Mescalero Sands. Sand sheets are predominantly late Pleistocene; mounds and dunes are largely Holocene

s/b — SAND UNDERLAIN BY BASALT — *Extensive on basaltic plains south and east of Zuni Mountains and on West Potrillo Mountains. At Kilbourne Hole and Hunt's Hole, the sand is of volcanic origin*

s/ca/QTs — SAND UNDERLAIN BY CALICHE ON SANTA FE GROUP *Mostly on La Mesa and south part of the Jornada del Muerto*

s_1/ca/To — THIN SAND ON CALICHE ON OGALLALA FORMATION — *Thickness about 1 ft. Chips of caliche comprise 30 percent of the sand. Generally too shallow for farming, but good shallow source for aggregates*

s_2/ca/To — MODERATELY THICK SAND ON CALICHE ON OGALLALA FORMATION — *Sand 1 to 3 ft thick. Surface layers noncalcareous over reddish loam. Local sand mounds. Ground favored for farming. Boundaries approximate*

s_3/ca/To — THICK SAND ON CALICHE ON OGALLALA FORMATION — *Sand 3 to 5 ft thick. Local mounds. Brownish-red, fine sandy loam over reddish-brown, sandy clay loam; noncalcareous to depths of 3 ft; calcareous subsoil contains filaments of lime carbonate. Where farmed, ground is subject to wind erosion. Boundaries approximate*

sm — LOOSE SAND IN MOUNDS — *Coppice dunes, commonly 3 to 7 ft high and 25 to 50 ft in diameter; generally elongated north of east but a local exception lies east of Columbus where elongation is south of east. Age is Holocene. Boundaries fairly accurate*

es, s — SAND SHEETS — *Surfaces smooth except for ripples 2 to 3 inches high and scattered sand mounds 3 to 12 inches high, especially around small shrubs. Thickness of loose sand generally no more than about 12 to 24 inches, but commonly overlies stabilized sand. Underlying material where known identified by subscript*

ds — LONGITUDINAL DUNES — *Sand commonly 6 ft thick, locally 10 ft. Forms distinct ridges generally oriented north of east. Locations diagrammatic and width exaggerated*

ds — OTHER DUNES — ds_1, *quartzose sand,* ds_2, *gypsiferous sand*

l/b — LOAM ON OLD BASALTIC LAVA — *Probably pre-Wisconsinan loess*

si — EOLIAN SILT

EXPLANATION OF SURFICIAL GEOLOG

by Charles B. Hunt 1977

Exhibit III Cont.

EXPLANATION FOR GEOLOGIC MAPS 40, 41, 42 AND 43

LAKE AND PLAYA DEPOSITS

New Mexico has five kinds of lake deposits in addition to those forming today in artificial reservoirs. The most extensive deposits were laid down in Pleistocene lakes that flooded closed basins now marked by playas. Many of these deposits in the Basin and Range are alkaline flats. Most numerous are the so-called "buffalo wallows" of the Great Plains on the Ogallala Formation. Some of these wallows are deflation hollows with sand mounds on the lee side; others may be due to solution and sagging of the surface. Still others may be attributed to warping. Third are sinkholes clearly due to solution, like Bottomless Lakes; sinks at Santa Rosa, and some of the depressions (related to karst) of the San Andres Formation and caliche-covered ground north of the Sacramento Mountains. A fourth type is represented by ephemeral ponds in swales marking cutoff meanders on alluvial floodplains. A fifth type occurs only in the maar volcanoes at Kilbourne Hole, Hunt's Hole, and Zuni Salt Lake. Only the first three types appear on the map. Area of deposits represented has been exaggerated because of map scale, but total area probably about right because smaller deposits are omitted

psi — SILTY LAKE OR PLAYA DEPOSITS — *Ground mostly bare, gypsiferous deposits labeled* psi_2

ps — SANDY LAKE OR PLAYA DEPOSITS — *Gypsiferous deposits labeled* ps_2

be, bg — BEACH DEPOSITS — *Sand or gravel; sandy stretches mostly reworked into low dunes. Incompletely shown*

ev — EVAPORITES — *Saline or alkaline deposits precipitated from brines in playas having high evaporation rates, notably Estancia Valley, Animas Valley, and Zuni Salt Lake. Salts are gradational with playa silt* (psi) *and occur in orderly concentric zones reflecting relative solubility of the salts. Thicknesses range from 1 to several inches, but salts mixed with mud may be tens of feet deep. Efflorescent crusts subject to wind erosion contribute to salinity of ground to leeward*

GLACIAL AND PERIGLACIAL DEPOSITS

During the Pleistocene New Mexico had mountain (alpine) glaciers high on the Sangre de Cristo Range, Tusas Mountains, and Sierra Blanca Peak. The source of such glaciers was in nearly circular, steep-sided basins (cirques) at valley heads. High valleys eroded by the glacial tongues tend to be U-shaped; at lower elevations where eroded by streams, these valleys are V-shaped. Gravels deposited along each side of valley ice represent debris that rolled down the mountainside onto the ice to form lateral moraines. Hummocky ridges of sand and gravel deposited across the lower ends of the glaciers form terminal moraines. Within the cirques generally stand two ramparts of boulders. An inner rampart, forming today, is located at the lower edge of the snowbank that accumulates annually in the cirque; it represents rocks broken by frost from the headwall of the cirque, rolled down the snowbank, and collected at the ridge. These inner ridges are treeless. Farther out in the cirque -- perhaps at the mouth -- is a second ridge, forested, with firm unweathered rock darkly stained with iron and manganese oxide. These outer cirque ridges formed during the mid-Holocene "little ice age"

mg — DEPOSITS AND GEOMORPHIC FEATURES OF PLEISTOCENE MOUNTAIN GLACIERS — *Extent exaggerated*

pg — PERIGLACIAL DEPOSITS ON MOUNTAIN TOPS — *Primarily represented by boulder fields and patterned ground where frost action was intensive during the glaciations. Extent and boundaries approximate; graded laterally to stony residuum and colluvium*

av — AVALANCHE DEPOSITS — *Bouldery; some are lag concentrates of boulders where fine-grained sediments have been removed by erosion. Deposits narrow and long downslope; commonly 10 to 50 ft thick. Apparently deposited as mudflows during late Pleistocene time when there were numerous perennial mountain snowfields. Frost action at the time was vigorous; sudden thaws could trigger floods or mudflows on the mountainsides. Slow movement downslope may be reactivated in artificial cuts through these deposits if water enters the plane of slippage*

lds — LANDSLIDE DEPOSITS — *Abundant on slopes of Cretaceous shale. Whereas avalanche deposits are elongate downslope, landslide deposits are short downslope but wide along the contour. Characteristically, they retain a cap of the lava or sandstone sloping into the hillside atop a steep colluvial-covered shale slope. Stabilized landslides may be reactivated if water is allowed to enter the plane of slippage*

MISCELLANEOUS TYPES OF GROUND

Tb — BASALT — *Includes lava flows, lava cones, cones of scoriae, necks, and fields of scoriae. Predominantly Quaternary and late Tertiary; some young enough to have sustained minimal weathering and retained their original structures and shapes are commonly referred to as malpais (Spanish, bad ground). Includes some Tertiary basalt that conspicuously controls the topography. Locally covered by loam (*l/b, *eolian deposits,* al/b, *stream deposits). These older surfaces are more deeply eroded, tilted, and faulted. Individual flows generally less than 50 ft thick; locally, several flows may aggregate a few hundred feet thick. Commonly interbedded with volcanic ash (tuff). Excludes lavas mantled by loess or other sediments; such areas indicated by subscript (e.g.,* l/b *-- loam over basalt;* fs/b *-- fan sand over basalt). Boundaries shown are adequate*

OTHER BEDROCK — *Colluvium or other cover amounts to less than half the area. Only extensive areas are shown; age and rock type keyed by symbol to State geologic map (e.g.,* Kd, *Cretaceous Dakota Sandstone,* Rs, *Triassic Santa Rosa Sandstone). Many small areas omitted; indicated boundaries are approximate. Principal formations and subscripts used are:*

Qg – *Gatuna Fm.*
Qbt – *Bandelier Tuff*
Qvr – *Rhyolite flows*
QTsf – *Upper Santa Fe Group*
QTs – *Santa Fe Group, undivided, and related formations*
QTg – *Gila Conglomerate*
To – *Ogallala Fm.*
Tsa – *Lower Santa Fe Group*
Tc – *Chuska Sandstone*
Tu – *Alluvial and lacustrine deposits*
Tca – *Carson Conglomerate (generally equivalent to Los Pinos Fm.*
Tpi – *Picuris Tuff*
Tp – *Potosi volcanic series*
Tv – *Tertiary volcanics; largely Datil Fm. in SW; includes some pre-and post-Datil volcanic sequences*
Tbb – *Blanco Basin Fm.*
Tg – *Galisteo Fm.*
Tsj – *San Jose Fm.*
Tn – *Nacimiento Fm.*
T – *Tertiary sedimentary formations in Raton district*
TKpc – *Poison Canyon Fm.*
TKa – *Animas Fm.*
TKr – *Raton Fm.*
TKoa – *Ojo Alamo Sandstone*
Kv – *Volcanics of Cretaceous age; various composition*
Kkf – *Kirtland Shale and Fruitland Fm.*
Kpc – *Pictured Cliffs Sandstone*
Kl – *Lewis Shale*
Kmv – *Cretaceous sandstone and shale, mostly Mesaverde Fm.*
Kch – *Cliffhouse Sandstone*
Kpl – *Point Lookout Sandstone*
Ksh – *Cretaceous shale*
Kg – *Gallup Sandstone*
Km – *Mancos Shale*
Kd – *Dakota Sandstone*
J – *Jurassic, undivided*
Jm – *Morrison Fm.*
Jz – *Zuni Sandstone*
TR, J – *Triassic and Jurassic, undifferentiated*
TR – *Triassic, undifferentiated*
TRgc – *Glen Canyon Sandstone*
TRc – *Chinle Fm.*
TRs – *Santa Rosa Sandstone*
Pr – *Rustler Fm.*
Pat – *Artesia Group*
Psa – ***San Andres Fm. (limestone)***
Pg – *Glorieta Sandstone*
Pc – *Cutler Fm.*
Py – *Yeso Fm.*
Pa – *Abo Fm.*
Ph – *Hueco Fm.*
Pal – *Paleozoic, undivided*
Pms – *Madera Limestone and Sandia Fm., undivided*
P, IP – *Permian, Pennsylvanian*
M, D – *Mississippian, Devonian*
S, O, C – *Silurian, Ordovician, Cambrian*
pC – *Precambrian*
gr – *Granitic, gneissic, and intrusive rocks of various ages*

D — *Disturbed ground. Mostly urban areas large enough to show on state base; farmed lands excluded. Includes airports, mined areas, tailings dumps, and feedlots. Incompletely shown*

X — *Open pits for road fill, sand, gravel, caliche, or other aggregates*

o° — *Playa-lake depressions. Mostly small closed basins produced by eolian activity and local solution subsidence*

REFERENCES

Dane, C.H., and Bachman, G.O., 1965, Geologic map of New Mexico: U.S. Geological Survey, Washington, D.C.

Hawley, J.W., Bachman, G.O., and Manley, Kim, 1976, Quaternary stratigraphy in the Basin and Range, and Great Plains provinces, New Mexico and Western Texas, in The Quaternary stratigraphy of North America, W.C. Mahaney, ed: Stroudsburg, Pennsylvania, Dowden, Hutchinson and Ross, p. 235-274

New Mexico State University, Agricultural Experiment Station, Research reports showing soil association and land classification for irrigation for each county

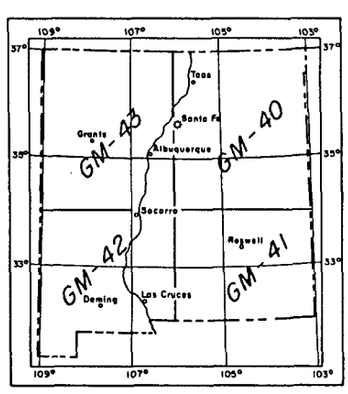
New Mexico State Highway Department supplied data for aggregate resources in New Mexico

Soil Conservation Service, 1/62,500 aerial mosaics of New Mexico Quadrangles

Data from these and other sources were plotted on the 1/250,000 quadrangle maps, field checked with about 40,000 mi of automobile traverses and 20 hours aerial reconnaissance over areas difficult of ground access. Mapping began spring 1974 and was completed June 1976

ACKNOWLEDGMENTS

The author wishes to thank John W. Hawley and Robert H. Weber of the New Mexico Bureau of Mines and Mineral Resources for critically reviewing the maps and explanation; also Neila M. Pearson, for editing the explanation and for handling total cartographic compilation

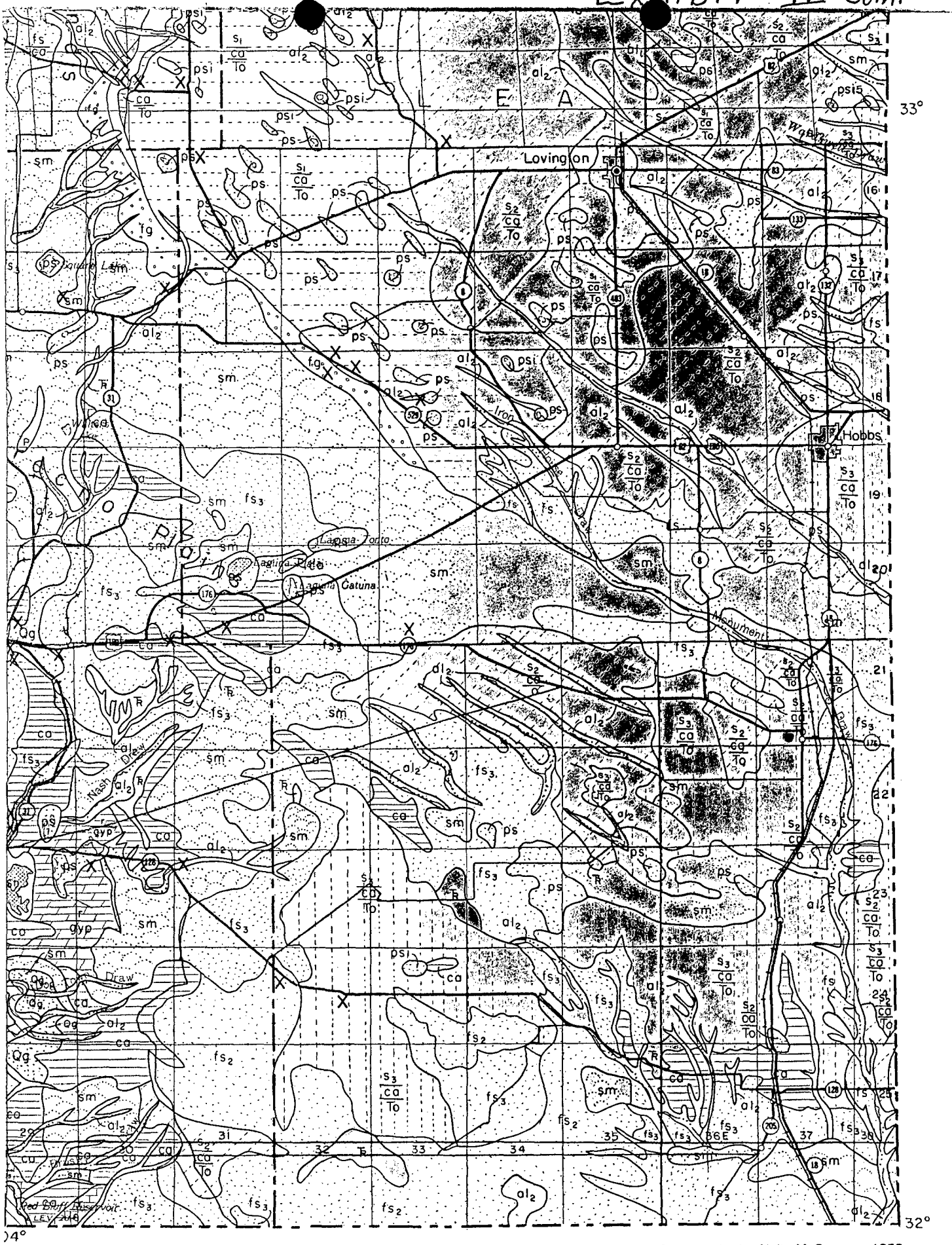


Index map of New Mexico

YUCCA PLANTS

OF NEW MEXICO

Exhibit IV cont.



Geology by Charles B. Hunt, 1974 - 1976 Cartography by Neila M. Pearson, 1976

Exhibit V

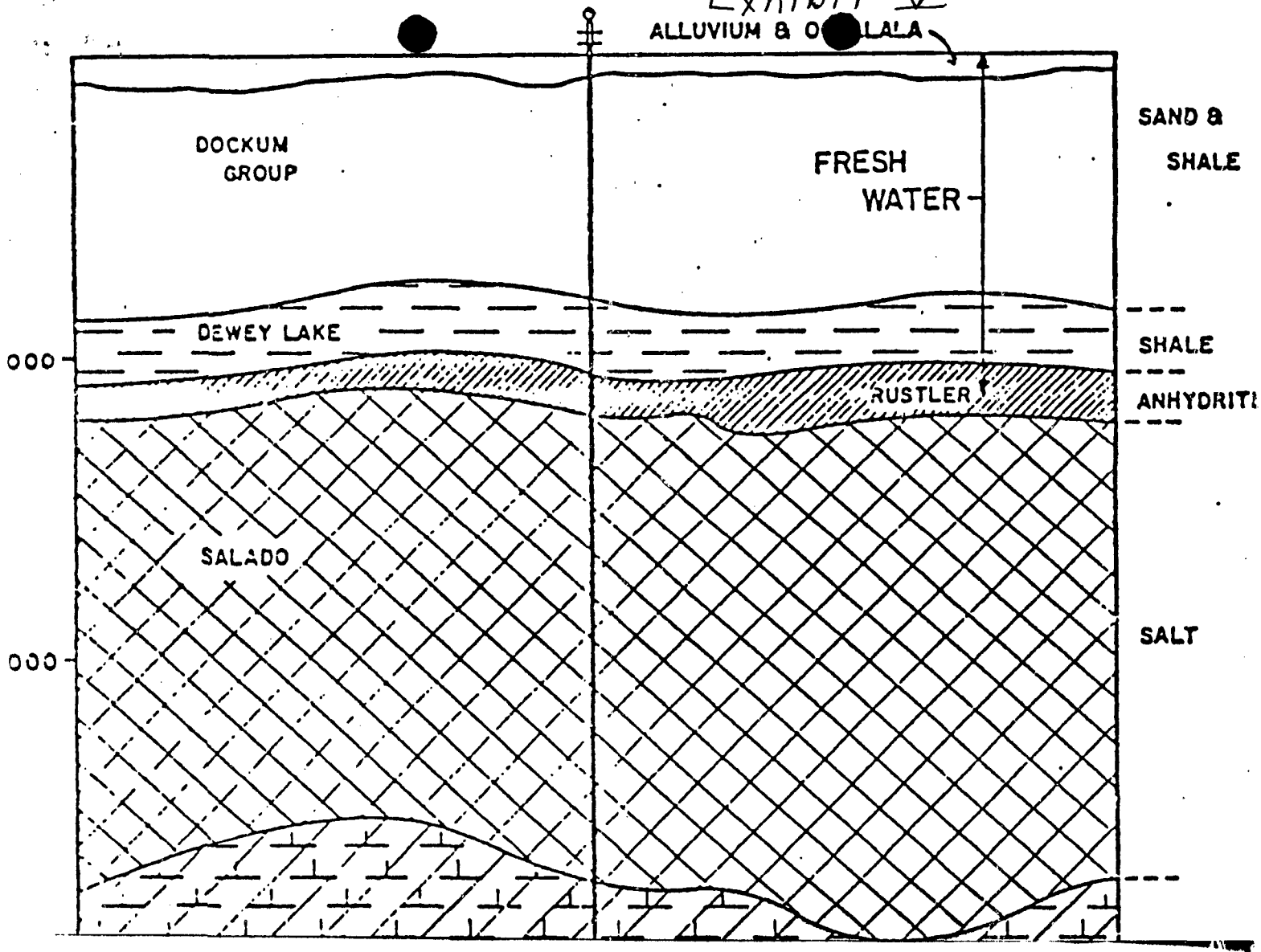
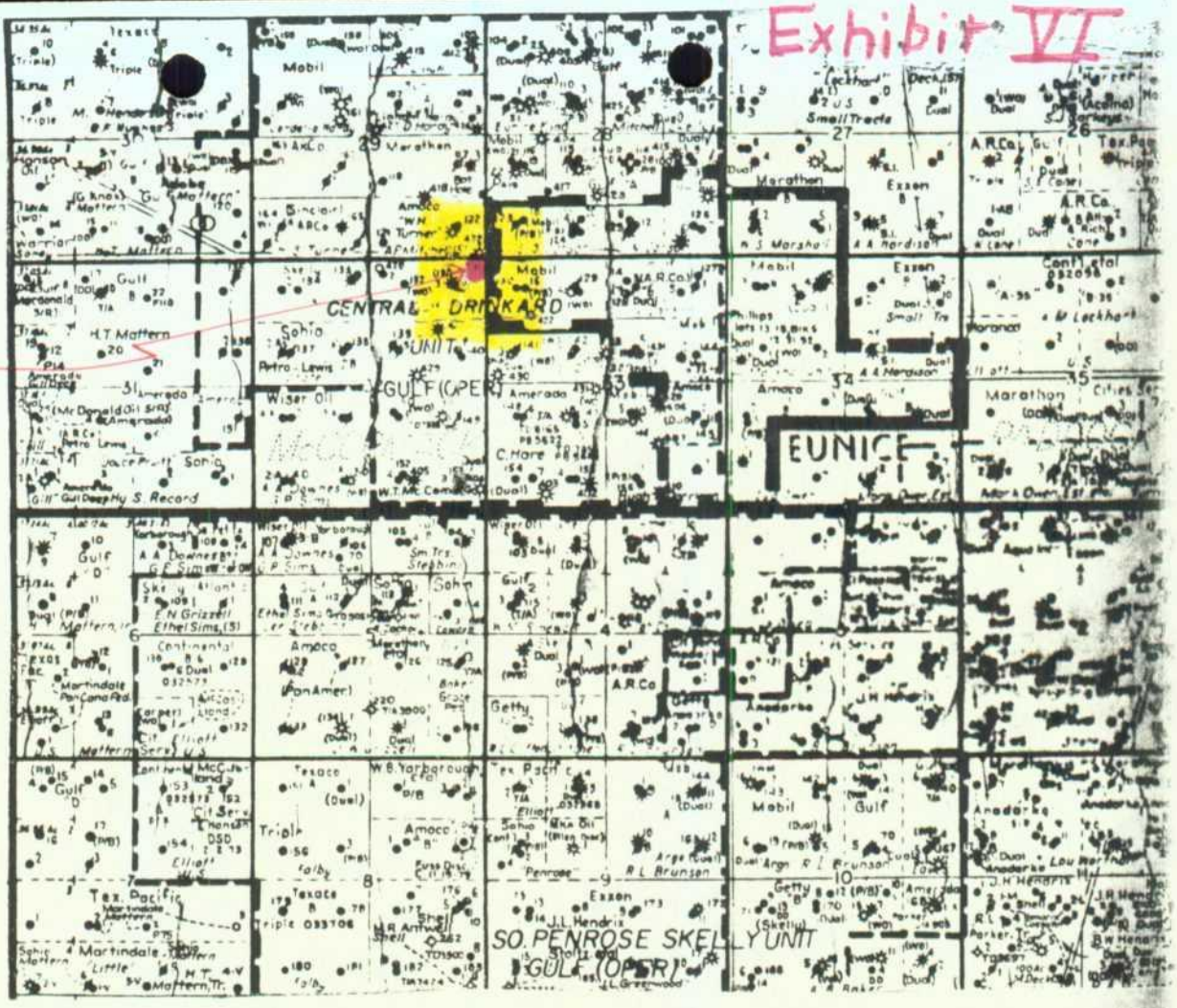
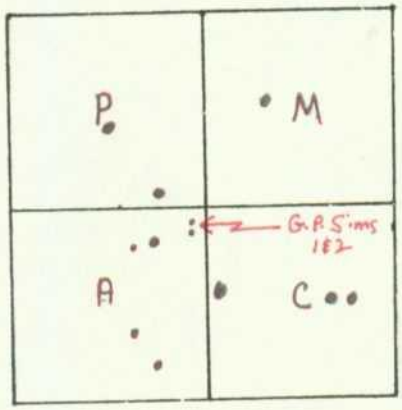

ALLUVIUM & OGALLALA
DOCKUM GROUP
FRESH WATER
SAND & SHALE
DEWEY LAKE
SHALE
RUSTLER
ANHYDRITE
SALADO
SALT

Exhibit VI



Company	Lease & Well No.	Location
Mobil	E.O. Carson #18	Unit 'M' 28-21S-37E
Mobil	E.O. Carson #16	C 33-21S-37E
Mobil	E.O. Carson #15	C 33-21S-37E
Amoco	W.H. Turner #3	P-29-21S-37E
Chevron	W.T. McComack #1	A-32-21S-37E
Chevron	W.T. McComack #11	A-32-21S-37E
Chevron	CDU #131	A-32-21S-37E
Chevron	CDU #426	A-32-21S-37E
Chevron	CDU #122	P-29-21S-37E
Chevron	CDU #129	C-33-21S-37E



Possible Conduits for Migration Of Contaminants

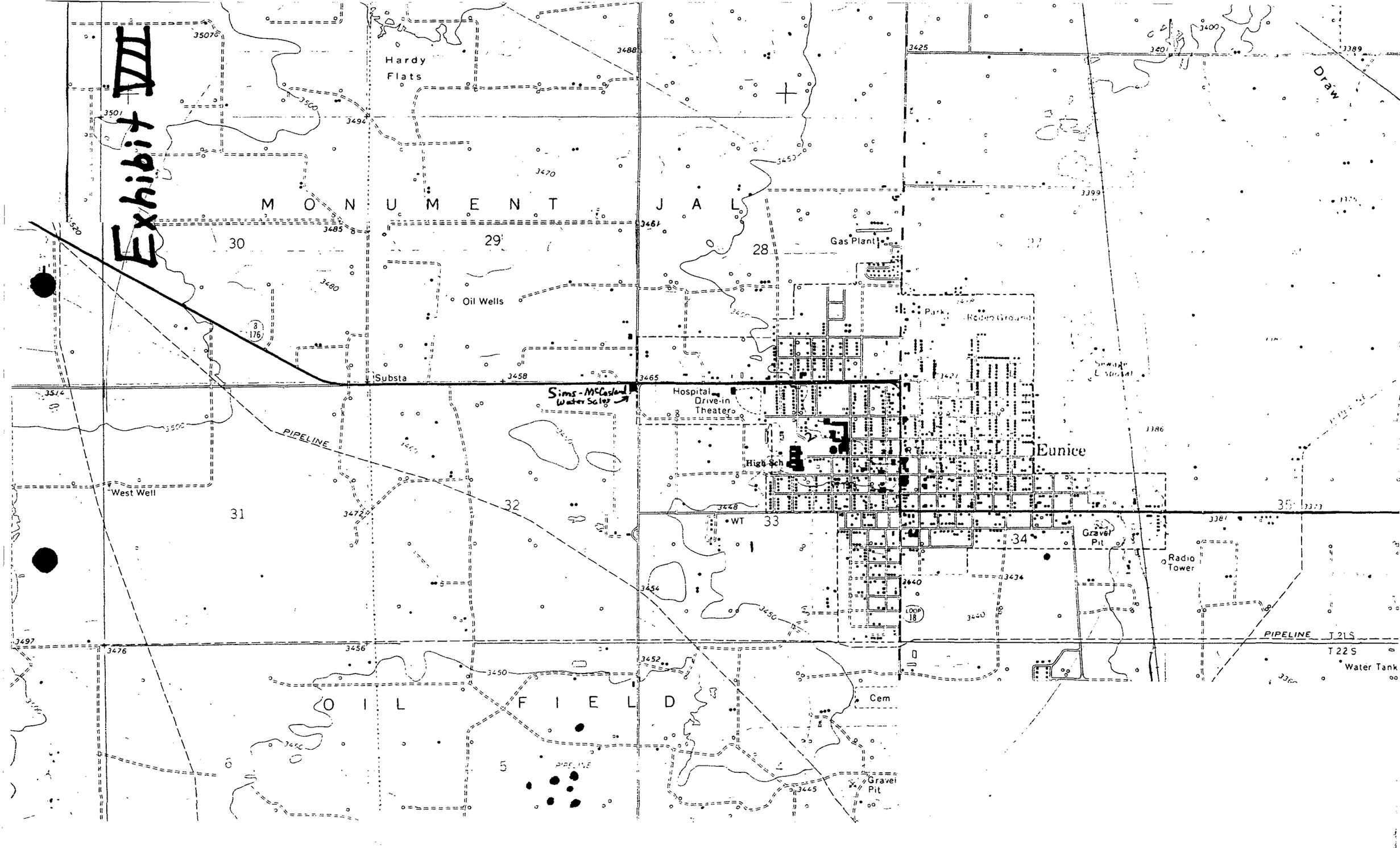


Exhibit VIII
Hardy Flats
MONUMENT
JAL
OIL FIELD
Gas Plant
Oil Wells
Park
Rodeo Ground
Sewage Disposal
Hospital
Drive-in Theatre
Sims-McCasland Water Sales
Eunice
High Sch
West Well
WT
Gravel Pit
Radio Tower
Cem
Water Tank
Draw
PIPELINE
T 21 S
T 22 S
Substa
30
29
28
31
32
33
34
35
5
6

Exhibit VIII

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : McCasland
Date : 05-20-1988
Location: Fresh Water (on 05-18-1988)

	Sample 1
Specific Gravity:	1.000
Total Dissolved Solids:	527
pH:	6.54
IONIC STRENGTH:	0.012

CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	3.60	72.0
Magnesium	(Mg^{+2})	3.07	37.3
Sodium	(Na^{+1})	1.21	27.8
Iron (total)	(Fe^{+2})	0.037	1.02
ANIONS:			
Bicarbonate	(HCO_3^{-1})	3.60	220
Carbonate	(CO_3^{-2})	0	0
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	1.46	70.0
Chloride	(Cl^{-1})	2.82	100

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C	-0.76	-17

Exhibit IX

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : McCasland
Date : 05-20-1988
Location: Brine Water (on 05-18-1988)

	Sample 1
Specific Gravity:	1.229
Total Dissolved Solids:	319937
pH:	6.09
IONIC STRENGTH:	5.582

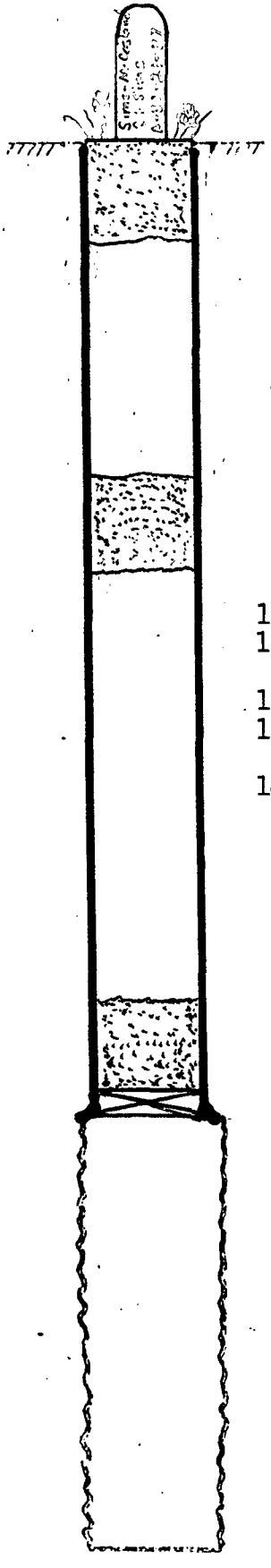
CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	76.0	1520
Magnesium	(Mg^{+2})	36.0	437
Sodium	(Na^{+1})	5350	123000
Iron (total)	(Fe^{+2})	0.075	2.10
ANIONS:			
Bicarbonate	(HCO_3^{-1})	1.20	73.2
Carbonate	(CO_3^{-2})	0	0
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	102	4900
Chloride	(Cl^{-1})	5360	190000

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C	0.71	-3.1

Exhibit X

OPERATOR	Sims-McCasland	DATE	
LEASE	G.P. Sims	WELL No.	LOCATION Unit A 32-21-37



PROPOSED PLUGGING AND ABANDONMENT PROCEDURE

1. Leave cavity full of water.
2. Move in and rig up pulling unit. Pull tubing and stand back.
3. Rig up wire line truck and set cast iron bridge plug at bottom of casing.
4. Go back in hole with tubing.
5. Rig up pump truck - mix and pump 25 saks of Class "C" cement on top of CIBP to ± 1300.
6. Flush tubing with 10 bbls of 10 lb. per gal mud.
7. Pull out of hole to ± 900' and pump 10 lb per gal mud.
8. Pull out of hole to ± 800' and pump 25 saks of Class "C" cement.
9. Flush tubing with 10 bbls of 10 lb per gal mud.
10. Pull out of hole to ± 100' and pump 10 lb per gal mud.
11. Pull out of hole to ± 25' and pump cement to within 3' of ground level.
12. Pull out of hole with 1 jt of 2 3/8" tubing and lay down.
13. Cut off casing 3' below ground level and weld a 1/4" thick steel plate over casing.
14. Install abandonment marker with well name and location inscribed on it.

Exhibit XI

Costs to Plug and Abandon Brine Well

The following costs are based on 10 hours to complete plugging procedures:

Pulling unit	$ 890.00
Wireline Truck & Cast Iron Bridge Plug	1050.00
Salt Gel	20.00
Pump Truck	354.00
Transport	262.44
Brine Water	12.50
Fresh Water	3.75
Cement	326.25
Welder and pipe	102.50
Misc. Expense	453.16
Total	$3474.60

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 1:30 PM	Date 9/20/88
~~Originating~~ Party	originating ~~Other~~ Parties	
Bob Patterson	John W Parker WRS II	

Subject DP - 326 Renewal

Discussion

Mr. Patterson indicated that his response to my Dec. 1987 letter was being typed as we spoke, and that it would be in the mail this afternoon. I informed him of our financial assurance for hydrogeological investigation requirements and informed him that a financial statement would be acceptable to satisfy this requirement (only if tangible net worth ≥ $350,000.00)

Conclusions or Agreements

I agreed to phone Bob with my reaction to his submittal before formally responding.

Distribution

File

Signed JWP

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

ENVIRONMENTAL IMPROVEMENT DIVISION

Michael J. Burkhart
Director

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARLA L. MUTH
Deputy Secretary

December 31, 1987

Bob Calhoon
McCasland Services, Inc.
2105 Avenue O
Eunice, NM 88231

Dear Mr. Calhoon:

The Underground Injection Control staff of the New Mexico Environmental Improvement Division Ground Water Section would like to thank you for your cooperation during our recent inspection of McCasland Services, Inc. brine facility. A copy of the inspection form is attached for your reference. Deficiencies noted during the inspection are as follows:

1. Existing spillage collection system consisting of unlined trench and depression inadequate. Need to redesign collection system with lined trench and pond/or subsurface collection tank.

2. Depression contained spilled brine and produced waters with oily residues. Ponding of brine or produced waters should be removed when detected and facility should be inspected frequently. (Daily when possible.)

Thank you for your continued cooperation. Should you have any questions feel free to contact me (827-2902) or John Parker (827-0027).

Sincerely,

John W Parker

for Kevin Lambert
Hydrologist
Ground Water Section

KL:JP:egr

Enclosure

BRINE STATION INSPECTION FORM

DATE 12/2 19 87 EID INSPECTOR Lambert/Parker
FACILITY Sims - McCasland LOCATION Eunice
FACILITY REP ON SITE Bob Paterson COUNTY LEA

WELL OPERATION

2 well system

WELL IS INJECTING: __ THROUGH ANNULUS __ THROUGH TUBING
SOURCE OF FRESH WATER Eunice Water
TRACE INJECTION/PRODUCTION LINES Buried lines

WELL HEAD PRESSURE _____ PSIG PUMP PRESSURE _____ PSIG
LEAKS AROUND WELL OR PUMP ~~None~~ Only minor leaks at the valves
Nothing Major

STORAGE AREA

FOR PONDS:
GENERAL LINER APPEARANCE _____
AMOUNT OF FREEBOARD _____
ANY SIGN OF OVERFLOW OR LEAKS _____
LEAK DETECTION SYSTEM __ FLUIDS __ DRY

FOR TANKS:
GENERAL APPEARANCE Looks Good only ~~one~~ year old
LABLED PLAINLY ✓ YES __ NO
BERMED TO PREVENT RUNOFF ✓ YES __ NO
CHECK CONTENTS TO ASSURE PROPER FLUID/LABLE MATCH _____

NUMBER OF TANKS FOR BRINE 3 S FRESH WATER 1 N

LOADING AREA

PROPERLY GRADED AND BERMED TO CONTAIN SPILLAGE	✓ YES	__ NO
ANY EVIDENCE OF RECENT SPILLAGE	✓ YES	__ NO
DOES FACILITY HAVE A SPILL COLLECTION SYSTEM	✓ YES	__ NO
ANY EVIDENCE OF OIL SPILLING/DUMPING	✓ YES	__ NO

Spill Collection system unlined depression
Need some general housekeeping

MONITORING WELLS

DEPTH _____ FT STATIC WATER LEVEL _____ FT BELOW CASING
SAMPLED THIS VISIT __ YES __ NO TEMP _____ Ec _____

COMMENTS Need to redesign collection system so that there is more control of. Right now have earthen ditches to unlined depression containing spilled ~~fresh~~ brine & produced waters
Need to send letter to address Problem

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

ENVIRONMENTAL IMPROVEMENT DIVISION

Michael J. Burkhart
Director

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARLA L. MUTH
Deputy Secretary

November 25, 1987

Bob Calhoon
McCasland Services, Inc.
2105 Avenue O
Eunice, NM 88231

RE: Discharge Plan DP-326 Renewal

Dear Mr. Calhoon:

The Environmental Improvement Division's (EID) Ground Water Section has completed review of Sims-McCasland's discharge plan renewal application DP-326 received on June 16, 1987. As was stated in the February 25, 1987 letter from Kevin Lambert, Water Resource Specialist, EID Ground Water Section, your renewal must address the New Mexico Water Quality Control Commission (WQCC) regulations. Our review indicates your submittal is wanting in this regard. Comments regarding your renewal submittal are itemized as follows (WQCC regulatory reference follows in parenthesis):

1. Please submit a map delineating the ¼ mile area of review, the map should include a reference scale (5-202.).

2. Please submit location of any water wells, ponds or stream courses within the area of review (3-106.C.2.).

3. Exhibit 4A referred to in your submittal is missing. Please report the depth and quality of the uppermost water bearing formation having less than 10,000 mg/l TDS (3-106.C.3.).

4. Please address flooding potential of the site. An area relief map would help address this issue (3-106.C.4.).

5. With regard to possible conduits for migration of contaminants you state: "To our knowledge there are no such conduits that exist in our area of operation." Please submit locations for all known wells (oil and gas or water), drill holes or other conduits within the area of review that penetrate the injection zone (5-203.A.). Since the most likely wells that penetrate the injection zone are either oil or gas wells, the Hobbs Oil Conservation Division (OCD) office would be a good source of information.

6. Please submit documentation on all potential conduits identified above which demonstates that they are properly completed and sealed or that they are properly plugged and abandoned (5-203.A.,B.; 5-210.B.4.).

7. In order to demonstrate compliance with the Part V MIT requirements, Sims-McCasland needs to perform a pressure test (see attached procedure) and submit the results to this office prior to DP-326 renewal. In addition, Sims-McCasland needs to commit to performing a cement bond log at some point during the five year renewal period (5-204.A., B.).

8. Sims-McCasland needs to make a commitment to notify this office "prior to commencement of drilling, cementing and casing, well logging, mechanical integrity tests and any other well workover..." (5-205.A.5.).

9. In order to demonstrate that under normal operating conditions there will be no initiation or propagation of fractures within the injection zone, please provide a comparison of fracture pressure for salt at the injection interval (between 1,204 feet and 2,434 feet) with the down-hole pressure resulting from the maximum operating pressure (5-206.A., C.).

10. Sims-McCasland needs to commit to providing EID with quarterly analysis of the injected fluids, and quarterly reports of volumes of injected fluids and produced brines (5-207.C., 5-208.B.). (Analysis of injected water should be available from City of Eunice.)

11. Sims-McCasland needs to submit a plugging and abandonment plan for our review. This plan should include well plugging procedures as well as decommissioning of surface facilities. In addition, please submit a copy of the blanket plugging/surety bond on file with the OCD and documentation demonstrating the adequacy of the sum of this bond to finance the plan (5-209.A., 5-210.B.17.).

12. Please provide maps and cross-sections detailing the geology and geologic structure of the local area (5-210.B.6.).

13. As part of your contingency plan please specify how a loss of mechanical integrity will be detected and what measures you would undertake, such as immediate cessation of injection and investigation of whether the leak may have contaminated ground water (3-107.A.10.).

Should you have any questions, you may call me at my office (827-0027).

Sincerely,

John W. Parker

John Parker
Water Resource Specialist
Ground Water Section - UIC Program

JP:egr

Attachment

cc: Garrison McCaslin, EID District IV Manager, Roswell
Roelf Ruffner, EID Field Office, Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Ecological Services
Suite D, 3530 Pan American Highway NE
Albuquerque, New Mexico 87107

July 7, 1987

Mr. Michael J. Burkhart, Director
New Mexico Health and Environment Department
Environmental Improvement Division
P. O. Box 968-Crown Building
Santa Fe, New Mexico 87504-0968

Dear Mr. Burkhart:

This responds to your public notice dated July 1, 1987 in which several proposed groundwater discharge plans were described. We have reviewed all of the plans and have not identified any resource issues of concern to our agency in the following:

DP-381, Conoco Incorporated, Lea County, Hobbs, NM.
DP-497, Kirtland Air Force Base, Bernalillo County, Kirtland AFB, NM.
DP-496, Phelps Dodge Corp., Grant County, Tyrone, NM.
DP-320, Salado Brine Sales, Lea County, Jal, NM.
DP-326, Sims-McCasland Water Sales, Lea County, Eunice, NM.
DP-297, U.S. Army White Sands Missile Range, Otero County, NM.

These comments represent the views of the Fish and Wildlife Service. If you have any questions concerning our comments, please contact Tom O'Brien at FTS 474-7877 or (505) 883-7877.

Sincerely yours,

John C. Peterson
Field Supervisor

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Regional Administrator, Environmental Protection Agency, Dallas, Texas
Regional Director, FWS, FWE, Albuquerque, New Mexico

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARLA L. MUTH
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P-573 875 587

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

Sent to	Sims-McCasland Water Sales
Street and No.	2105 Avenue O
P.O. State and ZIP Code	Eunice, New Mexico 88231
Postage	$
Certified Fee	

U.S.G.P.O. 153-506

June 23, 1987

Sims-McCasland Water Sales
2105 Avenue O
Eunice, New Mexico 88231

Gentlemen:

Enclosed is a copy of the public notice pertaining to your proposed discharge which was issued by this division pursuant to New Mexico Water Quality Control Commission Regulations, Section 3-108.

If you have any questions, please do not hesitate to contact me at the address listed above or at phone number (505) 827-2900.

Sincerely,

Ernest C. Rebuck
Program Manager
Ground Water Section

ECR/mp

Enclosure

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARLA L. MUTH
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P-573 875 576
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to	JoAnn Martin, Mayor
Street and No.	City of Hobbs
P.O., State and ZIP Code	P.O. Box 1117
Postage	Hobbs, New Mexico 88240
Certified Fee	

U.S.G.P.O. 153-506

June 23, 1987

The Honorable JoAnn Martin, Mayor
City of Hobbs
P.O. Box 1117
Hobbs, New Mexico 88240

Dear Mayor Martin:

Enclosed is a public notice which includes notice of a proposed discharge plan(s) for one or more operations in or near your city.

If you have any questions, please do not hesitate to contact me at the address given above or at 827-2900.

Sincerely,

Ernest C. Rebuck
Program Manager
Ground Water Section

ECR/mp

Enclosure

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARLA L. MUTH
Deputy Secretary

P-573 875 580

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

U.S.G.P.O. 152-506

Sent to Board of County Commissioners	
Street and No Lea County Courthouse	
P.O. State and ZIP Code Hobbs, New Mexico 88240	
Postage	$
Certified Fee	

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 23, 1987

Board of County Commissioners
Lea County Courthouse
Hobbs, New Mexico 88240

Board of County Commissioners:

Enclosed is a public notice for one or more operations located in your county.

If you have any questions, please do not hesitate to contact me at the address listed above or at phone number (505) 827-2900.

Sincerely,

Ernest C. Rebuck
Program Manager
Ground Water Section

ECR/mp

Enclosure

TO BE PUBLISHED ON OR BEFORE JULY 1, 1987

PUBLIC NOTICE
NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

Notice is hereby given that, pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plans have been submitted for approval to the Director of the New Mexico Environmental Improvement Division, P.O. Box 968, Santa Fe, New Mexico 87504-0968; telephone (505) 827-2900.

(DP-318) CONOCO INCORPORATED, P.O. Box 460, Hobbs, New Mexico 88240, proposes to renew their approved discharge plan (DP-318) for a brine water in situ extraction well and surface facility located at Section 2, T20S, R38E, Lea County, New Mexico. The operation involves the injection of fresh water into an underlying salt formation thereby dissolving the salt and forming a brine water solution which is then extracted via a production well and used for oil and gas production. The groundwater below the site is at a depth of 70 to 145 feet and has a total dissolved solids concentration of 1,150 mg/l.

(DP-497) KIRTLAND AIR FORCE BASE, Harry M. Davidson, contact person, 1606 ABW/DEEV, Kirtland AFB, New Mexico 87117-5000, has submitted a discharge plan application for their existing sewage lagoons. Approximately 440,000 gallons per day of mixed sewage effluent (30% domestic, 70% nondomestic) are applied to their 161 acre golf course during the months of March thru October. The effluent is mixed with ground water from a water supply well near the golf course before it is applied. The location of the discharge site is T4N, R4E, Section 8 in Bernalillo County, New Mexico. During the months of November through February, approximately 27,370,000 gallons are stored in two 7 acre lagoons located at T9N, R4E, Section 6. The effluent is pumped from the lagoons to a holding pond at the gold course from which they irrigate. The depth to ground water is estimated by the discharger to be approximately 580 feet with a total dissolved solids concentration of 380 mg/l.

(DP-496) PHELPS DODGE CORPORATION, Tyrone Branch, Tyrone, New Mexico 88065, Richard E. Rhoades, Manager, has submitted a proposed discharge plan for the 1D copper leach dump located in Sections 13 and 14, T19S, R15W, NMPM in Grant County. The dump area covers approximately 266 acres. Copper is leached out of the dump by low pH, acidic fluids. The copper bearing solution is then pumped to a solvent extraction/electrowinning plant for removal of the copper. The barren solution is then returned to the leach circuit. The flowrate is approximately 6000 gpm. The ground water most likely to be affected is at a depth ranging from 200 to 600 feet with a total dissolved solids concentration ranging from 300 to 2500 mg/l.

(DP-320) SALADO BRINE SALES, W.H. Brininstool, Owner-Operator, Drawer A, Jal, New Mexico 88252, proposes to renew its approved discharge plan (DP-320) for their brine in situ extraction well and surface facility located in T25S, R37E, Section 14, Lea County, New Mexico. Brine is manufactured by injecting fresh water down their injection well to an underlying salt formation. The brine water solution has a total dissolved solids content of approximately 350,000 mg/l. Ground water most likely to be affected is at a depth of 200 feet with a total dissolved solids concentration of about 1000 mg/l.

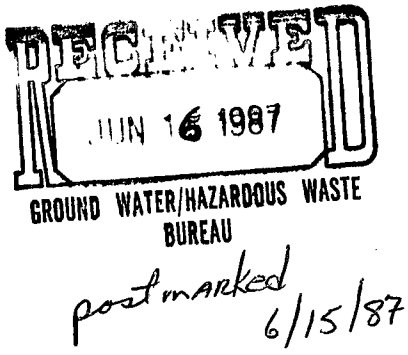
(DP-326) SIMS-McCASLAND WATER SALES, 2105 Avenue O, Eunice, New Mexico 88231, proposes to renew their approved discharge plan (DP-326) for a brine water in situ extraction well and surface facility located at Section 32, T21S, R37E, Lea County, New Mexico. The operation involves the injection of fresh water into an underlying salt formation thereby dissolving the salt and forming a brine water solution with a total dissolved solids content of approximately 300,000 mg/l. The brine solution is then extracted via a production well and sold to other companies for oil and gas production use. The groundwater below the site is at a depth of 140 feet and has a total dissolved solids concentration of 2,500 mg/l.

(DP-297) U.S. ARMY WHITE SANDS MISSILE RANGE, White Sands Missile Range, New Mexico 88002-5076, proposes to renew and modify previously approved discharge plan DP-297. The original discharge plan was for the discharge of 15,000 gallons per day of domestic wastewater from the High Energy Laser Systems Test Facility into Hypalon lined evaporation lagoons located in Section 28, T19S, R6E, Otero County, New Mexico. The proposed modification is to discharge overflow from the lined lagoons into an adjacent unlined lagoon during emergency situations. Wastewater from the lined lagoons would also be used to water trees. The ground water below the site is at a depth of 90 to 130 feet and has total dissolved solids concentration of approximately 6,700 mg/l.

Any interested person may obtain further information from the Ground Water Section, Ground Water/Hazardous Waste Bureau, EID, and may submit written comments to the Director of the EID at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of EID will allow thirty (30) days after the date of publication of this Notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why the hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

SIMS-McCASLAND WATER SALES

ADDEND TO DISCHARGE PLAN



postmarked 6/15/87

New Mexico Health and Environment Department
Mr. Kevin Lambert
Hydrologist

Following is an updated and amended discharge plan for your consideration of approval.

I. General Description

A. Refer to existing plan

B. Refer to existing plan

C. See Exhibit 3A

D. Refer to existing plan

II. Description of Facility

A. Surface Facilities - see Exhibit 3A

B. Not Applicable

III. Site Characteristics

A. Not Applicable

B. Not Applicable

C. Not Applicable - However, see Exhibit 4A for updated analysis of fresh water injected and brine water extracted.

IV. Procedures to Protect Ground Water Quality

A. During Operation

1. To our knowledge there are no such conduits that exist in our area of operation.

2. Not Applicable

3. Mechanic Integrity Testing

a. Not applicable

b. Fluid-filled 300 pound gauges are monitoring annulus pressure continuously as well as tubing pressures.

4. Visual daily inspection of surface water holding area is conducted. Should an excess amount be noticed, an immediate check of system would be initiated and cause determined and corrective action taken. As this area is normally dry on a day-by-day basis, an outflow would not be a detectable item.

5. Fresh water, for injection, is metered through the city water meter. Injected amount is computed by subtracting the amount of fresh sales from the total amount metered. Extracted fluids are computed on brine sales.

6. Refer to existing plan

7. Not applicable

8. As shown is Exhibit 3A, we have 2 fresh water supply wells in which we could monitor if required. Listed in existing plan are several wells which could be monitored for contamination.

9. The 2 loading lines, shown on Exhibit 3A are equipped with pressure sensitive solenoid switches which will shut down the system when the trucks reach their runover point, which helps minimize spills. On both fresh and brine fill lines there are in-line valves which operate from float switches. These switches are set approximately 3 feet from the top of the tanks. Should these float switches fail, there are solenoid switches at the top overflow that shut down the system. These should also minimize spills.

10. Contingency Plans

    a. Refer to existing plan

    b. Should mechanical integrity of well be lost, protection and clean up would be conducted in accordance with the instructions from the E.I.D.

11. Should there be a significant amount of water contaminants on the surface of the facility or underground, the E.I.D. Ground Water Section will be notified within 48 hours.

B. Post-operational Commitments

1. Plugging and abandonment

    a. Should plugging be a necessity, it would be in accordance with existing State requirements and with approval from E.I.D.

b. Sims-McCasland Water Sales maintains a plugging bond that meets the requirement of the New Mexico Conservation Commission.

2. Pond Closure

a. Not applicable

b. Not applicable

c. Not applicable

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Bob Calhoon

Bob Calhoon
Partner

BC/sc

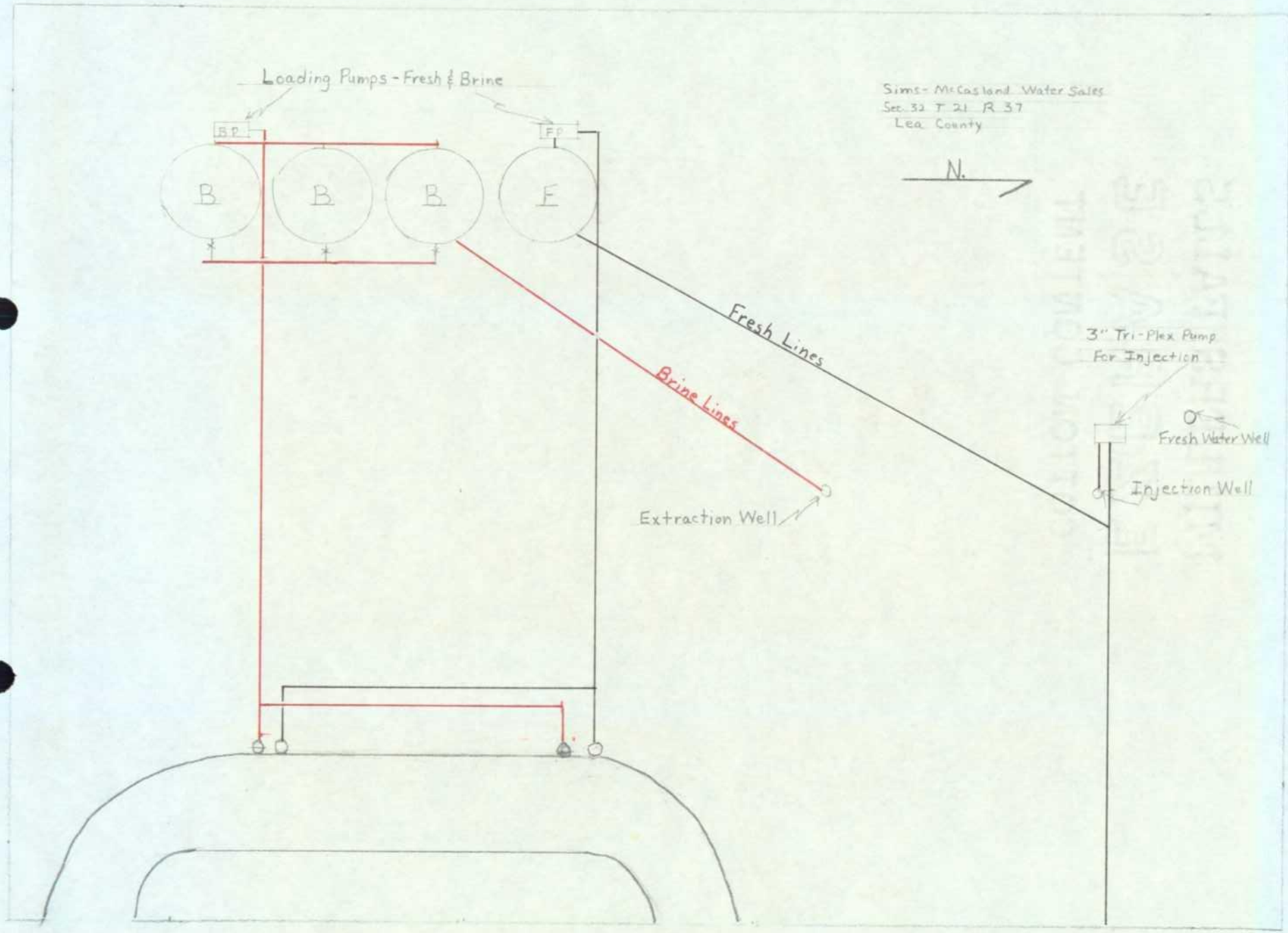

Loading Pumps - Fresh & Brine
B.P.
F.P.
B
B
B
F
Sims - McCasland Water Sales
Sec. 32 T 21 R 37
Lea County
N.
Fresh Lines
Brine Lines
3" Tri-Plex Pump
For Injection
Fresh Water Well
Injection Well
Extraction Well
Fresh Water Well

Exhibit 3-A

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARLA L. MUTH
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 25, 1987

Bob Calhoon
McCasland Services, Inc.
2105 Avenue O
Eunice, NM 88231

RE: Discharge Plan DP-326

Dear Mr. Calhoon:

In the summer of 1983, the Water Quality Control Commission (WQCC) transferred its delegation of authority from the Oil Conservation Division (OCD) to the Environmental Improvement Division (EID) to administer discharge plans for brine extraction facilities. On December 18, 1982, the discharge plan DP-326 for your brine facility near Eunice located in Lea County was approved by the Director of the OCD. This discharge plan was required and submitted pursuant to WQCC Regulations and it was approved for a period of up to five years. The approval will expire on December 18, 1987.

If you are still discharging at this facility and wish to continue discharging, please submit your application for renewal of plan approval, including a complete Part 5 discharge plan amendment/renewal, as quickly as possible. The necessary forms for making those submissions are enclosed. Submitting your application in a timely fashion will aid the EID in processing your discharge plan prior to the expiration date. Also, please indicate whether you have made or intend to make any changes in your discharge.

Section 5-101.G. of the WQCC regulations assures that those who are in compliance with their approved discharge plan on the date of its expiration, and who submit a complete application for a discharge plan renewal at least 180 days before the expiration date, which in this case would be June 15, 1987, will remain in compliance until the application for discharge plan renewal has been approved or disapproved. Applications for renewals submitted after June 15, 1987 may result in a discharge not in compliance, if EID is not provided sufficient time to process the application. Therefore, the EID recommends you submit an application for discharge plan renewal which include and adequately address all of the information necessary for evaluation of a new discharge plan well in advance of June 15, 1987.

If you are no longer discharging and discharge plan renewal is not needed, please notify this office.

If you have any questions, please do not hesitate to contact me at the address listed on the letterhead or telephone number 827-2902.

Sincerely,

Kevin Lambert
Hydrologist
Ground Water Section/Underground
Injection Control

KL:egr

Enclosures

cc: Garrison McCaslin, EID District IV Manager, Roswell

P 307 966 850

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

Sent to Bob Calhoon	
Street and No. 2105 Avenue O	
P.O., State and ZIP Code Eunice, NM	
Postage	$
Certified Fee	
Special Delivery Fee	

★ U.S.G.P.O. 1985-480-794

No. of Samples	Ion
	Na
	K
	Ca
	Mg
	Cl
	HCO3
	CO3
	SO4
	TDS
////////	////////////
	NO3+ NO2
	NH3
	kjeld N
////////	////////////
	As
	Ba
	Cd
	CN
	Cr
	F
	Pb
	Hg
	Se
	Ag
	U
	V
	Ra 226
	Ra 228
////////	////////////
	Cu
	Fe
	Mn
	Phenols
	Zn
////////	////////////
	Al
	B
	Co
	Mo
	Ni
////////	////////////
	pH
	Conduct.

FIELD TRIP REPORT
GROUND WATER SECTION

County Eddy. Lea

SLD USER CODES
Ground Water: 59300
~~NO3, HC, & Toxics~~: 59600
UIC: 59500

FACILITY VISITED
Name of Facility: Loco Hills Brine Co., Semco-McCasland, Permian Brine S KTS Brine
Location: Loco Hills, Eunice, Jal, Crossroads

Discharge Plan Number: DP- 394, 326, 324, 355
Type of Operation: Brine Production Facilities

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT
EID Inspector(s): Lambert and Koschal
Date of Inspection or Visit: 1/26/87 - 1/29/87
Discharger's Representative Present During EID Visit:
Name: Maloney, ~~Patterson, Hickerson~~ Price, Stern
Title or Position: Mgrs/Owners
Purpose of Visit:
a. Evaluation of Proposed Discharge Plan
b. Compliance Inspection of Discharge with Approved Plan
c. Other (specify) Pressure Test Brine Wells
Inspection Activities During Field Visit:
a. Inspection of Facilities or Construction (specify)

Ran Pressure Tests. KTS was not done due to break in fresh water line Will do next time in area

b. Sampling of Effluents (give sampling locations)

c. Sampling of Ground Water (give names or locations of wells)

d. Evaluation of geology, soils, water levels or other physical characteristics of the location (specify)

e. Other (specify)

Observations and Information Obtained during the Visit:

Ran 3 of 4 pressure tests. Unable to run 4th due to break in fresh water line which prevents us from pressuring up. Well Also was to able to get in touch w/ a contact of Marathon Road Water Station. Will be able to commence deficiency in '86 M&R Requirements

ACTION REQUIRED

BRINE STATION INSPECTION FORM

#

DATE 12/10 1986 EID INSPECTOR Lambert, Koschal / Baker
FACILITY Sims McCasland LOCATION EUNICE
FACILITY REP ON SITE _____ COUNTY LEA

DP-326

WELL OPERATION → 2 well system

WELL IS INJECTING: __ THROUGH ANNULUS __ THROUGH TUBING
SOURCE OF FRESH WATER City of Eunice
TRACE INJECTION/PRODUCTION LINES Buried Lines

WELL HEAD PRESSURE _____ PSIG PUMP PRESSURE _____ PSIG
LEAKS AROUND WELL OR PUMP None

STORAGE AREA

FOR PONDS:
GENERAL LINER APPEARANCE _____

AMOUNT OF FREEBOARD _____
ANY SIGN OF OVERFLOW OR LEAKS _____
LEAK DETECTION SYSTEM __ FLUIDS __ DRY

FOR TANKS:
GENERAL APPEARANCE Good Shape New Tanks
LABLED PLAINLY __ YES X NO Can tell difference
BERMED TO PREVENT RUNOFF X YES __ NO
CHECK CONTENTS TO ASSURE PROPER FLUID/LABLE MATCH _____

NUMBER OF TANKS FOR 4 BRINE 3 (South) FRESH WATER 1 (North)

LOADING AREA

PROPERLY GRADED AND BERMED TO CONTAIN SPILLAGE	__ YES X	→ see below __ NO	
ANY EVIDENCE OF RECENT SPILLAGE	__ YES	X NO	see below
DOES FACILITY HAVE A SPILL COLLECTION SYSTEM	__ YES X	__ NO	see below
ANY EVIDENCE OF OIL SPILLING/DUMPING	__ YES	X NO	

MONITORING WELLS

DEPTH _____ FT STATIC WATER LEVEL _____ FT BELOW CASING
SAMPLED THIS VISIT __ YES __ NO TEMP _____ Ec _____

COMMENTS Old Facility out-of-service will be dismantled as weather permits. Overflow/Collection Sump will be installed after old facility removed. Surface will be graded and berded appropriately as weather permits

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P 307 994 277

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

Sent to Bob Calhoon	
Street and No. 2105 Ave O	
P.O. State and ZIP Code Eunice, NM	
Postage	$
Certified Fee	
Special Delivery Fee	

★ U.S.G.P.O. 1985-480-794

July 16, 1986

McCasland Services, Inc.
Bob Calhoon, President
2105 Ave. O
Eunice, NM 88231

Dear Mr. Calhoon:

Enclosed is a copy of the public notice pertaining to your proposed discharge which was issued by this division pursuant to New Mexico Water Quality Control Commission Regulations, Section 3-108.

If you have any questions, please do not hesitate to contact me at the address listed below or at phone number (505) 827-2924.

Sincerely,

Peter Maggiore

Peter Maggiore
Program Manager
Ground Water Section

PM/egr

Enclosure

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 16, 1986

Board of County Commissioners
County of Lea
Lea County Courthouse
Lovington, NM 88260

Board of County Commissioners:

Enclosed is a public notice for one or more operations located in your county.

If you have any questions, please do not hesitate to contact me at the address listed below or at phone number (505) 827-2910.

Sincerely,

Peter Maggiore

Peter Maggiore
Program Manager
Ground Water Section

PM/egr

Enclosure

P 307 994 271

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

Sent to County Commissioners	
Street and No. Lea Co. Courthouse	
P.O., State and ZIP Code Lovington, NM	
Postage	$
Certified Fee	
Special Delivery Fee	

* U.S.G.P.O. 1985-480-794

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 16, 1986

The Honorable Charles F. Sissel, Mayor
City of Eunice
P.O. Box 147
Eunice, New Mexico 88231

Dear Mayor Sissel:

Enclosed is a public notice which includes notice of a proposed discharge plan(s) for one or more operations in or near your city.

If you have any questions, please do not hesitate to contact me at the address given below or at 827-2910.

Sincerely,

Peter Maggiore

Peter Maggiore
Program Manager
Ground Water Section

PM/egr

Enclosure

P 307 994 267

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

Sent to Charles Sissel, Mayor	
Street and No. P.O. Box 147	
P.O., State and ZIP Code Eunice, NM	
Postage	$
Certified Fee	
Special Delivery Fee	

★ U.S.G.P.O. 1985-480-794

JULY 15, 1986

TO BE PUBLISHED ON OR BEFORE JULY 24, 1986

PUBLIC NOTICE
NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

Notice is hereby given that, pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plans have been submitted for approval to the Director of the New Mexico Environmental Improvement Division, P.O. Box 968, Santa Fe, New Mexico 87504-0968; telephone (505) 827-2910.

(DP-85) RIVER VALLEY VIEW SUBDIVISION, Lester Nemesh, Owner, 611 Dalrymple Road, Las Cruces, NM 88005, has requested a modification of their approved ground water discharge plan located approximately 1¼ miles northwest of the U.S. 70, I-25 intersection in Section 36, T22S, R1W, Dona Ana County, New Mexico. The approved discharge plan consists of an existing septic tank with a conventional drainfield. The modification consists of installing a new 900 square foot drainfield to replace the existing drainfield. The estimated flow for the subdivision is 8,000 gallons per day of domestic waste. The ground water beneath the site is at a depth of approximately 70 feet with a total dissolved solids concentration of approximately 423 mg/1.

(DP-254) THE CITY OF RATON, Eric Honeyfield, Public Works Director, P.O. Box 910, Raton, NM 87740, proposes to modify its previously approved discharge plan DP-254. The previously approved plan is for disposal of treated sludge from the City's wastewater treatment plant on a land application site adjacent to the plant, and for irrigation of the municipal golf course and football fields and the Charles Springer Cattle Company properties with treated effluent from the plant. The proposed modification involves additional treatment of the sludge before disposal which will result in an increased volume (to total 43,000 gallons per day) of sludge of better quality. The sludge land application site is unchanged and remains in T30N, R24E, Section 6 (projected), south of the City of Raton in Colfax County, New Mexico. The ground water most likely to be affected is at an estimated depth of 65 feet and has a total dissolved content of approximately 900 mg/1.

(DP-296) LEACHING TECHNOLOGY, INC. (LTI), Alan Jager, Vice-President, P.O. Box 220, Cuba, NM 87013, is proposing to modify its approved discharge plan for in situ copper leaching. The modification would add bio-oxidation piles for the conversion of iron from the ferrous ion to the ferrite ion for use in the in situ leaching process. The proposed bio-oxidation piles are located in T20N, R1W. Pile B would be located in the NE¼ of the NE¼ of the SE¼ of Section 2 and Pile C would be located in the SE¼ of the NW¼ of the SW¼ of Section 1. The fluids to be applied to the piles would have a pH of 2.0 to 2.4 and a total dissolved solids (TDS) content of about 8,000 milligrams per liter. Fluids would be contained by shale formations underlying the piles and by synthetically lined catchment ponds for leachate captured from the piles. The nearest aquifer is the Poleo Sandstone which is estimated to be 150 feet below Pile C. Pile B is underlain by at least 500 feet of Morrison Formation shales. TDS in the Poleo is thought to be 400-600 milligrams per liter.

(DP-326) McCASLAND SERVICES, INC., Bob Calhoon, President, 2105 Ave. O, Eunice, NM 88231, has proposed a modification to their existing discharge plan. McCasland Services operates a brine production and storage facility located in Section 32, T21S, R37E, Lea County, New Mexico in the Town of Eunice. Brine is produced by injecting fresh water into dry salt beds and returning brine to the surface. Brine contains approximately 300,000 mg/l total dissolved solids and is produced at a rate of 140 gallons per minute when needed. The proposed modification is to replace existing wood storage tanks with steel welded epoxy-coated tanks, replace transfer lines, and install an emergency run-over pit to catch spills. Ground water at the site occurs at a depth of 150 feet with a total dissolved solids concentration of 2,500 mg/l.

(DP-440) PRICE'S SOUTH VALLEY DAIRY, Galen Zens, Manager, Rt. 9, Box 858-B, Albuquerque, NM 87105, has submitted a discharge plan for an existing 1,500 cow dairy located in Section 30, T9N, R3E, NMPM in Bernalillo County. Approximately 92,000 gallons per day of milking center wastewater is land applied to 445 acres of irrigated crop land. The ground water most likely to be affected is at a depth of 5 to 16 feet with an estimated total dissolved solids content of 500 to 1,000 mg/l.

(DP-441) JEMEZ MOUNTAIN SCHOOL DISTRICT, Gilbert Archuleta, Superintendent, P.O. Box 121, Gallina, New Mexico 87017, proposes to discharge approximately 15,000 gallons per day of domestic sewage from a septic tank to total retention hypalon lined lagoons located in T15N, R1E, SEC 15, NE¼ of NW¼, Rio Arriba County. The wastewater originates from a public school. The groundwater most likely to be affected is at a depth of approximately 140 feet with a total dissolved solids content of 950 mg/l.

CORRECTION: (DP-439) LADSHAW EXPLOSIVES, INC., Tom Moulden, Manager, Industrial Air Park, P.O. Box 1754, Hobbs, NM 88240. In the public notice published on or before June 29, 1986, the location of the site was stated incorrectly. Ladshaw Explosives is located in the NE¼ of Section 12, T18S, R37E.

Any interested person may obtain further information from the Ground Water Section, Ground Water/Hazardous Waste Bureau, EID, and may submit written comments to the Director of the EID at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of EID will allow thirty (30) days after the date of publication of this Notice during which comments may be submitted to her and a public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why the hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

TELEPHONE CONVERSATION
7/1/86 1105 am

I TALKED TO BOB CALHOON, went over his June 4 letter. The New tanks are in. He's looking for pipe to hook up new lines. My only questions were 1) What liner material is going to be used; and 2) make sure loading area is graded to spill pit.

Calhoon will send letter to address questions

McCASLAND SERVICES, INC.

2105 AVE. O P. O. BOX 98 (505) 394-2581
EUNICE, NEW MEXICO 88231

June 4, 1986

Mr. Paul Clements
State of New Mexico
Environmental Imporvement Division
P. O. Box 968
Santa Fe, New Mexico 87504-0968

Dear Mr. Clements:

I have enclosed a drawing of our proposed re-construction plan for the Sims and McCasland Water Sales. I have ordered the 1,000 bbl tanks and their scheduled manufacture date is approx. June 20, 1986. The only hang-up on starting this project is delivery of the equipment.

Very truly yours,

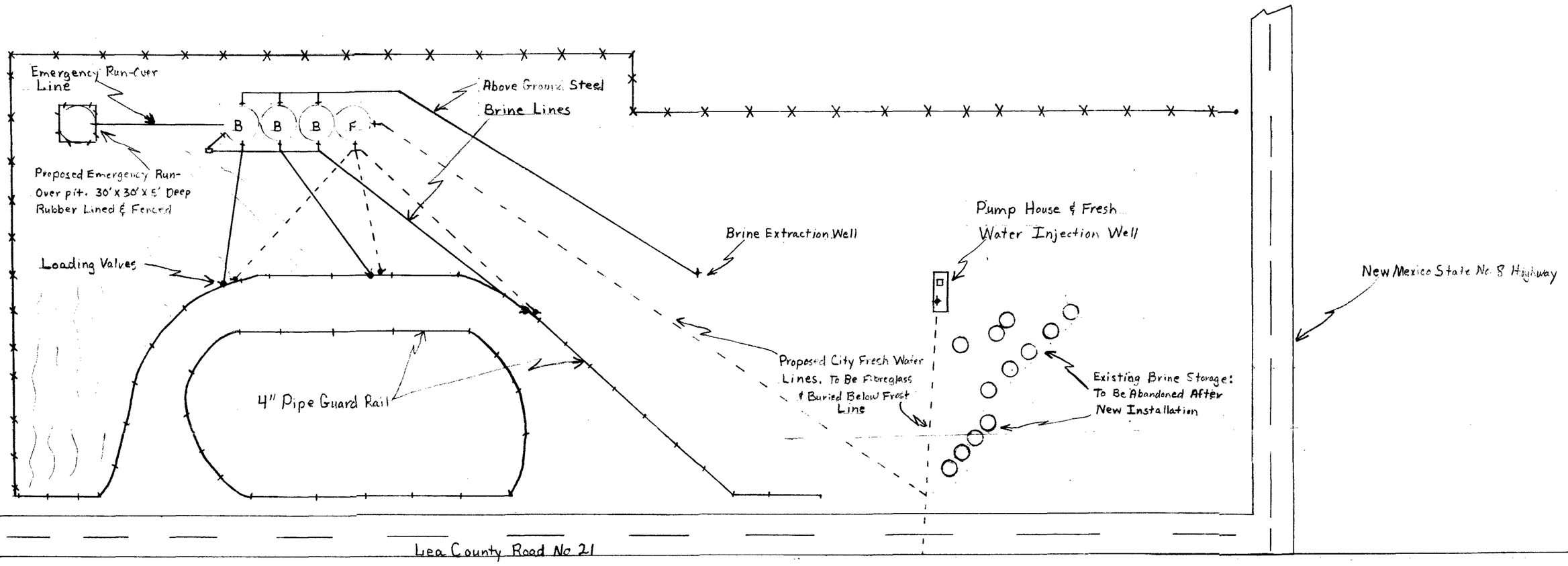
Bob Calhoon
President

bc
Enc.

Proposed Re-construction Plan For Sims-McCasland Water Sales

1. To replace all lines - Fresh & Brine water
2. To abandon existing Storage tanks & replace with New 1000 Lbl. Steel Welded Epoxy-Coated tanks -(Marked With B & F below)
3. To install an earthen rubber-lined pit to handle emergency spills or overflows enclosed with a chain-linked Fence.
4. To install overhead float switches on storage tanks with in-line valves as a back-up.
5. To install run-over line from storage tanks to pit in case of a malfunction of switches & valves.
6. To create a sufficient Slope (Approx. 2% grade) to pit from loading area to handle surface spills

Shipping date for the 1000 Lbl. tanks is approximately July 1, 1986.
Upon your approval, construction can began shortly thereafter



HEALTH & ENVIRONMENT department

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION

P.O. Box 968, Santa Fe, New Mexico 87504-0968

TONEY ANAYA
GOVERNOR

DENISE D. FOR
DIRECTOR

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P 612 426 223

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

U.S.G.P.O. 1983-403-517

Sent to Robert Calhoun	
Street and No. P.O. Box 98	
P.O., State and ZIP Code Eunice, NM	
Postage	$

May 14, 1986

Robert Calhoun
Sims-McCasland Water Sales
P.O. Box 98
Eunice, NM 88231

RE: Ground Water Discharge Plan 326

Dear Mr. Calhoun:

As we discussed over the telephone on May 13, 1986, you need to submit concrete plans, to EID, of how you will repair any source of leakage in your Sims-McCasland Brine Station surface facilities. EID needs construction diagrams and construction commencement dates.

This is EID's **last** attempt to gain your voluntary compliance with the New Mexico Water Quality Control Commission Regulations, so lets start communicating concerning your current and future brine station plans. Your Sims-McCasland Water Sales file (DP-326) will be forwarded to the EID Legal Bureau for enforcement if nothing is forthcoming from you by June 6, 1986.

I look forward to your next submittal and I am confident that we can reach an agreement concerning repairs to your Sims-McCasland Brine Station surface facilities. If you have any questions, please call me at 827-2892.

Sincerely,

Paul Clement

Paul Clement
Water Resource Specialist
Ground Water Section

PC:egr

cc: EID Legal Bureau, Santa Fe
Garrison McCaslin, EID District IV Manager, Roswell

May 13, 1986

Bob Calhoun called. I told him that he needed to get us some concrete plans of how he plans to improve his water sales operation. We need diagrams and construction schedules. He said he would see what he could do.

Paul C.

DP-3

I don't know if the legal workload allows it at this point, but I think it's time to get tough with these characters. The 1/30 letter from Ernie (attached) was very specific that the amendment needed to have "written specifications and drafted plans". Their response is thoroughly inadequate. Let's see what happens if we revoke their DP approval. (Easy for me to say!!)

Patsy
4/11

McCASLAND SERVICES, INC.

2105 AVE. O P. O. BOX 98 (505) 394-2581

EUNICE, NEW MEXICO 88231

March 31, 1986

State of New Mexico
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87504-0968

RE: Sims & McCasland Water Sales

Ms. Paige Morgan:

In response to your letter dated January 30, 1986, we submit the following amendments for your consideration.

In the immediate future, we propose to replace all underground lines (Ref: Exhibit 3 of discharge plan) with a synthetic pipe. As economic conditions permit, we propose to renovate our entire facility to include replacing our wooden and metal storage tanks with fiberglass, installation of new electronic high level shut-off switches and valves and installation of a rubber lined sump that will accommodate flushing of trucks and spills.

Due to the decline in drilling activity over the past 18 months, our brine sales have been on a continuous decrease from approximately 300,000 barrels in 1984 to about 40,000 barrels in 1985. With the dropping of oil prices, we are experiencing a decrease in remedial work by the oil companys which will contribute to a further decrease in brine sales. In view of this continuing decrease in sales, we ask that you consider this in your determination.

Sincerely yours,

Bob Calhoon

Bob Calhoon
President

bc

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P 612 426 691

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

U.S.G.P.O. 1983-403-517

Sent to Robert Calhoun
Street and No. P.O. Box 98
P.O. State and ZIP Code Eunice, N.M.
Postage $ 88231

January 30, 1986

Robert Calhoun
Sims-McCasland Water Sales
P.O. Box 98
Eunice, New Mexico 88231

Dear Mr. Calhoun:

Your company was notified in a November 14, 1985 letter from EID staff member Paige Morgan that surface facilities at the Sims-McCasland Brine Station were inadequate to deal with spillage of brine, oil and other contaminants in such a way that ground water quality would be protected. In an attempt to obtain your voluntary compliance, Ms. Morgan requested that you modify your discharge plan to address this problem, and to submit such modification within 45 days of the date of her letter, i.e. by December 29, 1985. Subsequently, Ms. Morgan spoke by telephone with you and with Bob Patterson of your staff, but no discharge plan amendment has been forthcoming.

Therefore, on behalf of the EID Director and pursuant to Section 3-109.E of the New Mexico Water Quality Control Commission regulations, you are hereby required to submit an amendment to your discharge plan describing how you will repair any source of leakage in your surface facilities, provide a safe collection system for any contaminants spilled from overflowing tanks or trucks, and in short anticipate and address all potential sources of ground water contamination from the surface facilities at your brine station. The amendment to your discharge plan must consist of written specifications and drafted plans so that the EID can review and, if necessary, suggest modifications to your discharge plan amendment before any construction has taken place.

This written amendment to your discharge plan must be submitted to the EID within 60 days of the date of this letter. This is a substantial extension of the original deadline, and should allow ample time for you to prepare the necessary materials. Failure to submit a discharge plan amendment within the specified time will place you in jeopardy of having your discharge plan approval revoked. It is illegal to operate a brine extraction facility in the State of New Mexico without an approved discharge plan.

If you have any questions about the contents of this letter, please contact Paige Morgan at 827-2901.

Sincerely,

Ernest Rebuck, chief
Ground Water/Hazardous Waste Bureau

ER/mp

cc: Garrison McCaslin, Acting Manager, EID District IV
EID Legal Bureau

EID BUCKSLIP

CHECK ONE:

[XX] LETTER TO Robert Calhoun

for Ernest Rebuck's signature

[ ] MEMO TO _____

[ ] PRESS RELEASE

[ ] OTHER

SUBJECT: Sims-McCasland Water Sales - OP amendment required

DRAFTED BY: Paige Morgan 1/28/86 (Date)

CONCURRENCES:

NAME:		INITIAL	DATE REC'D	DATE APPROVED
Ron Conrad	Sect. Mgr.	RC	1/29/86	1/29/86
Ernest Rebuck	Bur. Chief			
Richard Holland	Dep. Dir.			
Denise Fort	Director			

FINAL DECISION NEEDED BY 1/30/86 (date) BECAUSE _____ (just because) of

What kind of a reason is this? Lame ducks take liberties ???

COMMENTS BY DRAFTER OR REVIEWER(S):

pretty self-explanatory - this is another OCS-permitted discharge plan for a sand & extraction station, and the owners have been very cooperative about cleaning up their act.

No. of Samples	Ion
	Na
	K
	Ca
	Mg
	Cl
	HCO3
	CO3
	SO4
	TDS
////////	////////////
	NO3+ NO2
	NH3
	kjeld N
////////	////////////
	As
	Ba
	Cd
	CN
	Cr
	F
	Pb
	Hg
	Se
	Ag
	U
	V
	Ra 226
	Ra 228
////////	////////////
	Cu
	Fe
	Mn
	Phenols
	Zn
////////	////////////
	Al
	B
	Co
	Mo
	Ni
////////	////////////
	pH
	Conduct.

FIELD TRIP REPORT
GROUND WATER SECTION

SLD USER CODES

County LEA

Ground Water: 59300

NO_3, HC, & Toxics: 59600

UIC: 59500

FACILITY VISITED

Name of Facility: McCasland Brine

Location: EUNICE

Discharge Plan Number: DP-

Type of Operation: Brine well

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT

EID Inspector(s): SAREY/BAKER

Date of Inspection or Visit: 2/11/86

Discharger's Representative Present During EID Visit:

Name: NONE - SPOT CHECK

Title or Position:

Purpose of Visit:

a. Evaluation of Proposed Discharge Plan _____

b. Compliance Inspection of Discharge with Approved Plan ✓

c. Other (specify) _____

Inspection Activities During Field Visit:

a. Inspection of Facilities or Construction (specify)

Station did not look up to par - standing oil & water in puddles throughout area

b. Sampling of Effluents (give sampling locations)

c. Sampling of Ground Water (give names or locations of wells)

d. Evaluation of geology, soils, water levels or other physical characteristics of the location (specify)

e. Other (specify)

Observations and Information Obtained during the Visit:

ACTION REQUIRED

11/17/86 — Calhoun of Sims-McCasland called - said they were working on plans. I said they were overdue. He said the problem was with the brine lines leaking, and what could they do about that? I said it sounded to me like they needed to replace some lines, but before they did any construction they should draw up plans and let us look them over from the standpoint of whether their proposal would be adequate to protect ground water. He said he had to be in Santa Fe next week and he would drop in to talk with me about it then. I said he should be prepared with something drawn up by then. He said he would.

Patsy Morgan.

11/19/85: Bob Patterson of Sims-McCasland called me. Said we had caught them on a bad day, if was a holiday and they hadn't had a chance to get the spills picked up. I said they should anticipate such spillage occuring from time to time and plan their surface facilities accordingly. He said he would be in touch with the owners about putting in a spill collection system and would have plans in to me within the 45 days specified in my letter.

Patsy Morgan

1/16/86: Called & spoke w/ Patterson. ~~He~~ I pointed out 45 days had expired. He said he had reminded the owners of that fact on Monday, and it was out of his hands. I asked name of owner: Bob Calhoun - owner of Sims? McCasland? Walter Sendre & partner in Brine Station. Patterson said he would have Calhoun call me the following morning.

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

November 14, 1985

Sims-McCasland Water Sales
P.O. Box 98
Eunice, New Mexico 88231

Re: Modification of DP-326: Discharge Plan of Sims-McCasland Brine Station, Eunice, New Mexico.

Dear Sirs:

On a surface inspection of your brine sales facility on November 11, I noted that there had been considerable spillage of oily fluid on the ground adjacent to the loading station on County Road 21. The only arrangement that appears to have been made in anticipation of such spillage is an unlined pit near the extraction well. That is clearly not adequate to address the problem, particularly in view of the fact that if all spillage at the facility were to flow into the unlined pit instead of being spread over a larger area, there would be sufficient head in the unlined pit to increase the seepage rate of contaminated fluids into the underlying alluvium and ultimately the Ogallala Formation, both of which supply water wells within a mile of your facility.

Therefore, under the terms of Section 3-109.E of the New Mexico Water Quality Control Commission (WQCC) regulations (enclosed), I request that you modify your discharge plan to provide adequate arrangements at your brine station for capturing surface spillage of oil, brine or other contaminants and retaining it or disposing of it in such a way that New Mexico ground water standards (see Section 3-103 and 1-101.UU of the enclosed regulations) will not be exceeded. Please submit this modification within 45 days of receipt of this letter.

Note that this request is made by way of an attempt to obtain your voluntary compliance with the WQCC regulations. If I receive no response or an inadequate response to this request within 45 days, I will recommend that the Director of the Environmental Improvement Division require such a modification under Section 3-109.E. If an adequate response is not forthcoming at that juncture, then your discharge plan may be terminated.

Please be in touch with me at the above address or by phone at 827-2901, if I can help in any way to clarify the request made in this letter or the terms of the WQCC regulations.

Sincerely,

Paige Grant Morgan

Paige Grant Morgan
Water Resource Specialist
Ground Water Section

PGM/mp

cc: John Guinn, EID District IV Manager

No. of Samples	Ion
	Na
	K
	Ca
	Mg
	Cl
	HCO3
	CO3
	SO4
	TDS
////////	////////////
	NO3+ NO2
	NH3
	kjeld N
////////	////////////
	As
	Ba
	Cd
	CN
	Cr
	F
	Pb
	Hg
	Se
	Ag
	U
	V
	Ra 226
	Ra 228
////////	////////////
	Cu
	Fe
	Mn
	Phenols
	Zn
////////	////////////
	Al
	B
	Co
	Mo
	Ni
////////	////////////
	pH
	Conduct.

FIELD TRIP REPORT
GROUND WATER SECTION

SLD USER CODES

County *Lea*

Ground Water: 59300

NO_3, HC, & Toxics: 59600

UIC: 59500

FACILITY VISITED

Name of Facility: *Sims/McCasland Brine Station*

Location: *western edge of Eunice, corner of State Hwy 8 and County Hwy 21*

Discharge Plan Number: DP- *326*

Type of Operation: *brine sales*

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT

EID Inspector(s): *Sares, Morgan*

Date of Inspection or Visit: *11/11/85*

Discharger's Representative Present During EID Visit:

Name: *NONE*

Title or Position:

Purpose of Visit:

a. Evaluation of Proposed Discharge Plan _____

b. Compliance Inspection of Discharge with Approved Plan *X*

c. Other (specify) _____

Inspection Activities During Field Visit:

a. Inspection of Facilities or Construction (specify)

General housekeeping.

b. Sampling of Effluents (give sampling locations)

c. Sampling of Ground Water (give names or locations of wells)

d. Evaluation of geology, soils, water levels or other physical characteristics of the location (specify)

e. Other (specify)

Observations and Information Obtained during the Visit:

One brine tank has slow leak. Considerable spillage of oil on field adjacent to loading area. Unlined pit for emergency catchment.

ACTION REQUIRED

Write letter requiring modification.

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020

Steven Asher, Director

TONEY ANAYA
GOVERNOR

ROBERT McNEILL
SECRETARY

ROBERT L. LOVATO, M.A.P.A.
DEPUTY SECRETARY

JOSEPH F. JOHNSON
DEPUTY SECRETARY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

P 506 253 721

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Sims-McCasland Water Sales	
Street and No. P.O. Box 98	
P.O., State and ZIP Code Eunice, NM	
Postage	$

February 9, 1984

Sims-McCasland Water Sales
P.O. Box 98
Eunice, NM 88231

Dear Sirs:

For your information, the responsibility for regulating brine extraction wells in the state of New Mexico was transfered in September, 1983 from the Oil Conservation Division (OCD) of the Energy and Minerals Department, to the Environmental Improvement Division (EID) of the Health and Environment Department.

The transfer will probably have no effect on your operation until 1986, when, if you plan to continue producing brine at your facility, you will need to start the process of applying for renewed approval of your discharge plan. Your present approval expires December 18, 1987, five years after the date the plan was approved.

At that time, you will need to prepare a discharge plan which includes the elements required under Section 5 as well as Section 3 of the Water Quality Control Commission (WQCC) Regulations (copy enclosed). Prior to December 20, 1982, a discharge plan consisted of only those elements listed in Section 3. Section 5 was added to the regulations in order to comply with federal Environmental Protection Agency (EPA) regulations to protect drinking water from pollution that might occur due to injection of fluids underground. The preparation of a Part 5 UIC application will require you to provide considerably more technical information than was needed for Part 3 discharge plan approval. It is for this reason that we recommend you begin to prepare your discharge plan renewal about eighteen months before the date that you current permit lapses. This should allow ample time for preparation, review, correction and final submittal of your new plan.

In the meantime, you are required to operate your facility in compliance with the standards of Section 3 of the WQCC Regulations. As time permits, we will

undertake a review of your present discharge plan and your field operation, to assure that it meets those standards.

If you have any questions or require further information, please contact me at the above address and telephone number (ext. 285).

Sincerely,

Paige Grant

Paige Grant
Hydrologist
Ground Water Section

PG:egr

Enclosure

cc: John Guinn, EID District IV, Manager
EID Field Office, Hobbs
Joe Ramey, Director, OCD

mss

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

December 18, 1982

Sims - McCasland Water Sales
P.O. Box 98
Eunice, New Mexico 88231

RE: GWB-13
Discharge Plan

Gentlemen:

The discharge plan submitted for the brine production facility and in situ extraction wells located in Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, is hereby approved.

The discharge plan was submitted pursuant to Section 3-106 of the Water Quality Control Commission regulations. It is approved pursuant to Section 109. Please note subsections 3-109.E and 3-109.F which provide for possible future amendment of the plan. Please also be advised that the approval of this plan does not relieve you of liability should your operations result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

Yours very truly,

Joe D. Ramey,
Director

JDR/OS/dp

NOTICE OF PUBLICATION

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

SANTA FE, NEW MEXICO

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plan has been submitted for approval to the Director of the Oil Conservation Division, P. O. Box 2088, State Land Office Building, Santa Fe, New Mexico 87501, telephone (505) 827-3260.

(DP-326) ESTATE OF G. P. SIMS through McCOSTIN SERVICES. P. O. Box 1046, Eunice, New Mexico 88231, telephone (505) 394-2581, Bob Patterson requests approval of their discharge plan for their brine in situ extraction well and facility located in Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. The operators of the Sim's Estate inject water down their injection well to an underlying salt formation thereby dissolving the salt, forming a brine water solution with a total dissolved solids content of approximately 300,000 mg/L. McCostin Services extracts and sells the brine water solution to various companies for use in oil and gas production.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice [redacted] may be requested

G.P. SIMS #1

04

INVENTORY OF SOLUTION MINING WELLS OIL CONSERVATION DIVISION, 1981

*.= please attach pertinent documents

I. OPERATOR / LOCATION INFORMATION G.P. SIMS #1

Operator ESTATE OF G.P. SIMS

Address BOX 1046

EUNICE, NM 88231 Phone

Well unit # A Location 250/N 200/E

T. 21-S R. 37-E Sec. 32 NE 1/4 NE 1/4 NE 1/4

County LEA

Purpose of well (brine supply, LPG storage, potash dissolution)

BRINE SUPPLY

II. DRILLING / SITING INFORMATION

Contractor

Date drilling started 9/10/68 Date drilling completed 10/1/68

Drilling method Rotary Rig

Elevation of ground surface N/A How measured

Date measured — Order of survey

Name of surveyor N/A

Total depth of hole 2125

Attach schematic of well ,include open hole interval, perforations, etc. *

Type of drilling fluid Brine Water

Type of drilling mud if used (brand if known) Brine

List any additives to the drilling mud, or any other chemicals put down well:

Brine gel

Describe casing tests performed After cement was circulated Bumped plug & pressure tested to 1000# held for 30 min's

Other tests none

SPACING = 170 feet

* = please attach pertinent documents

II. DRILLING / SITING (continued)

Casing, tubing, and cementing record (please attach copy)*

Note: if a copy is not available detail casing record on back of this sheet using the following format. Include brand or type of cement if known.

From	To	Size of Hole	Size of Casing	Weight per Foot	Sacks of Cement	Estimated Top of cmt.

Was mudcake on bore wall removed before cementing production casing? none

Was salt saturated cementing material used opposite salt formation? open hole

Is site within 1/2 mile of another well? If so, use note to explain. yes

GULF CENTRAL DRINKARD UNIT

Site preparation (concrete pad, graded dirt, pit, etc)

graded dirt

Type of surface seal or well-head (locking security cap, welded, etc.)

7" x 8 5/8 LOCKING

Comments (include problems encountered while drilling, loss of circulation, deviation of hole from vertical, centralizers used, tools lost or stuck, fracturing techniques used, etc.) 3 7" centralizers on surface csg

(use back of sheet if more space is required)

* = please attach pertinent documents

III. FORMATION INFORMATION

Formation Record

From	To	Thickness	Formation (name, description)
1375	2100'	725'	salt stringer

Logs (specify type) none

Identify where logs are on file —

* = please attach pertinent documents

IV. AQUIFER INFORMATION

Aquifers encountered during drilling

From	To	Aquifer Description	Amount of Water entering hole	Quality of Water

no flows encountered during drilling

Note: if water quality analyses are available please attach.*

Source of aquifer description ~

Depth at which water was first encountered ~

Depth to which water rose ~

Source of water level data ~

Comments (include information regarding determination of piezometric level and method of sealing off water zone) ~

INVENTORY OF SOLUTION MINING WELLS OIL CONSERVATION DIVISION, 1981

* = please attach pertinent documents

V. PRODUCTION / BRINE STORAGE INFORMATION

Method of production (describe fully) Injecting fresh H_2O down G.P. S.mo #1 which is communicated to G.P. S.mo's #2 thru the SALT section

Was well used previously for some purpose other than brine supply, potash dissolution, or LPG storage. If so use note to explain. no

Use of brine for Fresh for Drlg & completion purposes

Source of injection water (be specific) City of Eunice fresh H_2O

Attach detailed production history (include dates of production, amount of water injected, injection rates, amount of brine produced, production rates, method of gaging injection/production rates)*

Note: If the cavity was used for LPG storage include volumes of product injected and withdrawn as well as a summary of the maximum and minimum pressures during injection, storage and withdrawal. N/A

Chemical analyses of injection water (attach)* FRESH WATER FURNISHED BY CITY OF EUNICE

Note : Chemical analyses should include sampling point and method, pH, temperature, method of analysis, name and location of laboratory, etc.

Chemical analyses of water produced (attach)*

INVENTORY OF SOLUTION MINING WELLS OIL CONSERVATION DIVISION, 1981

* = please attach pertinent documents

V. PRODUCTION / BRINE STORAGE (continued)

Brine storage facilities (describe) 500 BBL STEEL BOLTED & WOODEN TANKS

Current condition/status of brine storage pit N/A

Is brine storage pit currently being monitored for leakage? N/A

Specify company or agency which is monitoring leakage N/A

If pit leakage has been monitored in past use note to explain. N/A

Comments on production history (note if production rates or brine concentrations have changed through time) PRODUCTION HAS BEEN CONTINUOUS SINCE 1907 TO PRESENT TIME. NO RECORDS ON AMOUNT OF WATER INJECTED OR REPRODUCED. CURRENT PRODUCTION RATE IS APPROX. 200 BBL PER MO. AS METERED WITH CORRESPONDING INJECTION RATE OF APPROX. 200 BBLS. NEEDED TO CHARGE WATER AND FILL STORAGE TANKS.

* = please attach pertinent documents

VI. ABANDONMENT / PLUGGING RECORD

Date well abandoned/plugged —

Reason for well abandonment or plugging —

Method of Plugging (describe fully, include amounts of cement, est. top, plug type, depth, etc.) —

VII. Further comments (subsidence noted, subsidence monitoring, leakage noted, natural subsidence features noted nearby, LPG storage data, etc.)

Recorded by [signature]

Date 11/2/81

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W81-692

To Sims & McCasland

Box 98

Eunice, New Mexico

Date 8-12-81

Submitted by _____ Date Rec. 8-12-81

Well No. Brine Well Depth _____ Formation _____

County _____ Field _____ Source _____

Resistivity	0.039 @ 74°F.		
Specific Gravity	1.209		
pH	6.3		
Calcium (Ca)	2,200		*MPL
Magnesium (Mg)	840		
Chlorides (Cl)	197,000		
Sulfates (SO_4)	2,950		
Bicarbonates (HCO_3)	120		
Soluble Iron (Fe)	Nil		

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

By W. L. Brewer
CHEMIST

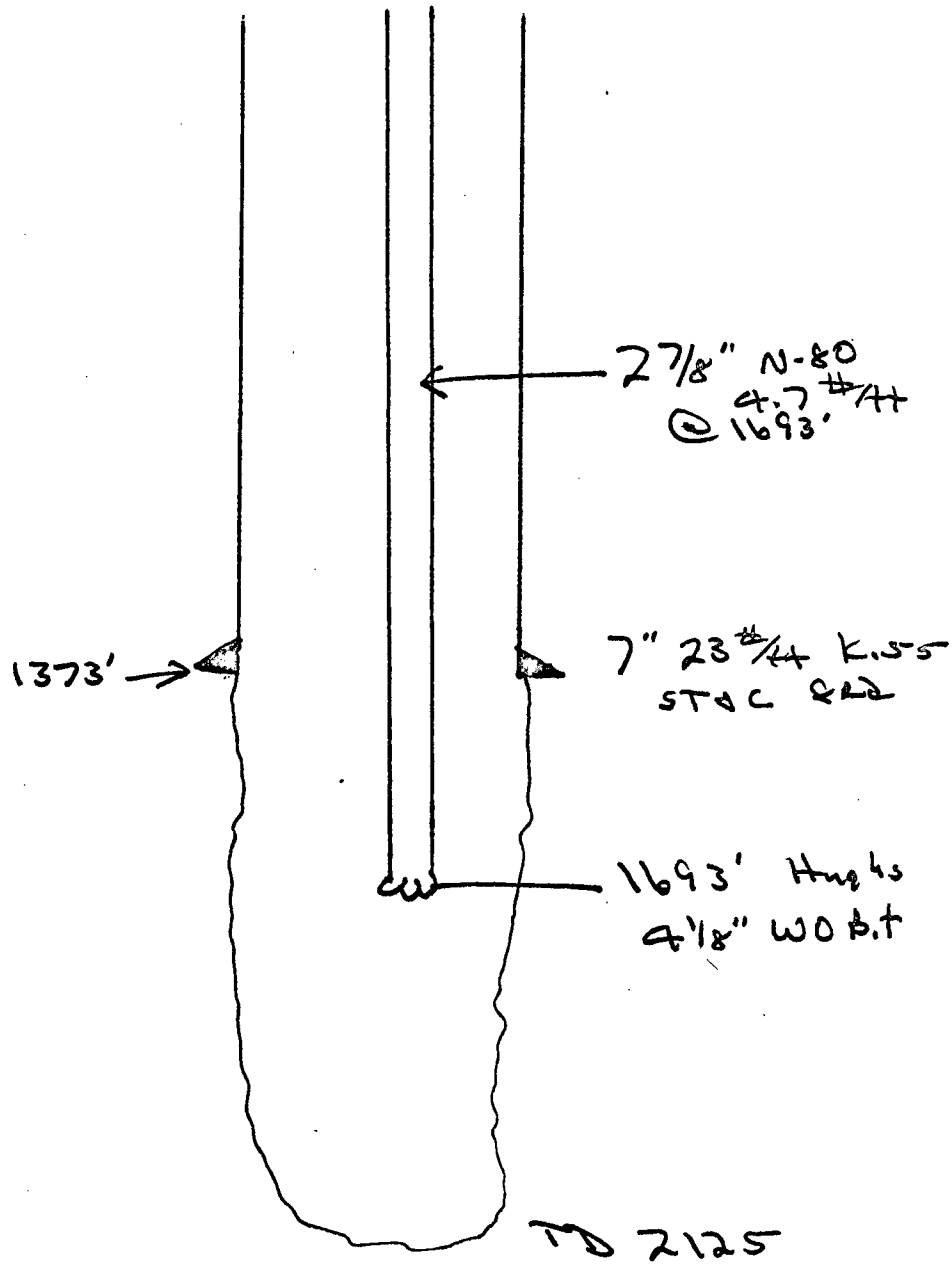
cc:

NOTICE

HALLIBURTON
SERVICES
Duncan, Okla. 73533
A HALLIBURTON Company

Well No. 1 State N. M.

Lease G.P. Sims Date 11/17/81



spud well @ 9/10/81 Drill 8 3/4" hole to 1373' Ran 7" 23 #/ft K-55 ST&C &RD csg to 1373 & cmt w/ 400 sks "C" 2% CaCl2 circulated 82 sks cmt. TD 7 7/8" hole @ 2125 on 10/1/81

G.P. SIMS #2

B5

INVENTORY OF SOLUTION MINING WELLS OIL CONSERVATION DIVISION, 1981

* = please attach pertinent documents

I. OPERATOR / LOCATION INFORMATION

Operator ESTATE OF G. P. SIMS

Address BOX 1046

EUNICE, NM 88231 Phone

Well unit # A Location 420/N 240/E

T. 21 R. 37 Sec. 32 NE 1/4 NE 1/4 NE 1/4

County G.P. SIMS #2

Purpose of well (brine supply, LPG storage, potash dissolution)

BRINE SUPPLY

II. DRILLING / SITING INFORMATION

Contractor CACTUS DRILLING CO.

Date drilling started 2 MAY 77 Date drilling completed 5 MAY 77

Drilling method ROTARY

Elevation of ground surface NA How measured BY OWNER

Date measured Order of survey

Name of surveyor ~~G. P. SIMS~~ NA

Total depth of hole 2434

Attach schematic of well ,include open hole interval, perforations, etc. *

Type of drilling fluid

Type of drilling mud if used (brand if known)

List any additives to the drilling mud, or any other chemicals put down well:

Describe casing tests performed

Other tests

* = please attach pertinent documents

II. DRILLING / SITING (continued)

Casing, tubing, and cementing record (please attach copy)*

Note: if a copy is not available detail casing record on back of this sheet using the following format. Include brand or type of cement if known.

From	To	Size of Hole	Size of Casing	Weight per Foot	Sacks of Cement	Estimated Top of cmt.

Was mudcake on bore wall removed before cementing production casing? _____

Was salt saturated cementing material used opposite salt formation? _____

Is site within 1/2 mile of another well? If so, use note to explain. _____

Site preparation (concrete pad, graded dirt, pit, etc) _____

Type of surface seal or well-head (locking security cap, welded, etc.) _____

Comments (include problems encountered while drilling, loss of circulation, deviation of hole from vertical, centralizers used, tools lost or stuck, fracturing techniques used, etc.)_____

_____ (use back of sheet if more space is required)

From	To	Size of Hole	Size of Casing	Weight per Foot	Sacks of Cement	Estimated Top of cmt.
0	1204	$8\frac{3}{4}$	7	23	300	surface
ran Tubing depth ?						

* = please attach pertinent documents

III. FORMATION INFORMATION

Formation Record

From	To	Thickness	Formation (name, description)

NOT AVAILABLE

Logs (specify type) NONE

Identify where logs are on file _____

* = please attach pertinent documents

IV. AQUIFER INFORMATION

Aquifers encountered during drilling

From	To	Aquifer Description	Amount of Water entering hole	Quality of Water

Note: if water quality analyses are available please attach.*

Source of aquifer description _____

Depth at which water was first encountered _____

Depth to which water rose _____

Source of water level data _____

Comments (include information regarding determination of piezometric level and method of sealing off water zone) _____

* = please attach pertinent documents

V. PRODUCTION / BRINE STORAGE INFORMATION

Method of production (describe fully) _____

_____

_____

_____

_____

_____

_____

Was well used previously for some purpose other than brine supply, potash dissolution, or LPG storage. If so use note to explain. _____

_____

Use of brine _____

Source of injection water (be specific) _____

_____

Attach detailed production history (include dates of production, amount of water injected, injection rates, amount of brine produced, production rates, method of gaging injection/production rates)*

Note: If the cavity was used for LPG storage include volumes of product injected and withdrawn as well as a summary of the maximum and minimum pressures during injection, storage and withdrawal.

Chemical analyses of injection water (attach)*

Note : Chemical analyses should include sampling point and method, pH, temperature, method of analysis, name and location of laboratory, etc.

Chemical analyses of water produced (attach)*

* = please attach pertinent documents

V. PRODUCTION / BRINE STORAGE (continued)

Brine storage facilities (describe) _____

Current condition/status of brine storage pit _____

Is brine storage pit currently being monitored for leakage? _____

Specify company or agency which is monitoring leakage _____

If pit leakage has been monitored in past use note to explain. _____

Comments on production history (note if production rates or brine concentrations have changed through time) _____

* = please attach pertinent documents

VI. ABANDONMENT / PLUGGING RECORD

Date well abandoned/plugged _____

Reason for well abandonment or plugging _____

_____

Method of Plugging (describe fully, include amounts of cement, est. top, plug type, depth, etc.) _____

_____

_____

_____

_____

_____

_____

_____

VII. Further comments (subsidence noted, subsidence monitoring, leakage noted, natural subsidence features noted nearby, LPG storage data, etc.)

_____

_____

_____

_____

_____

_____

_____

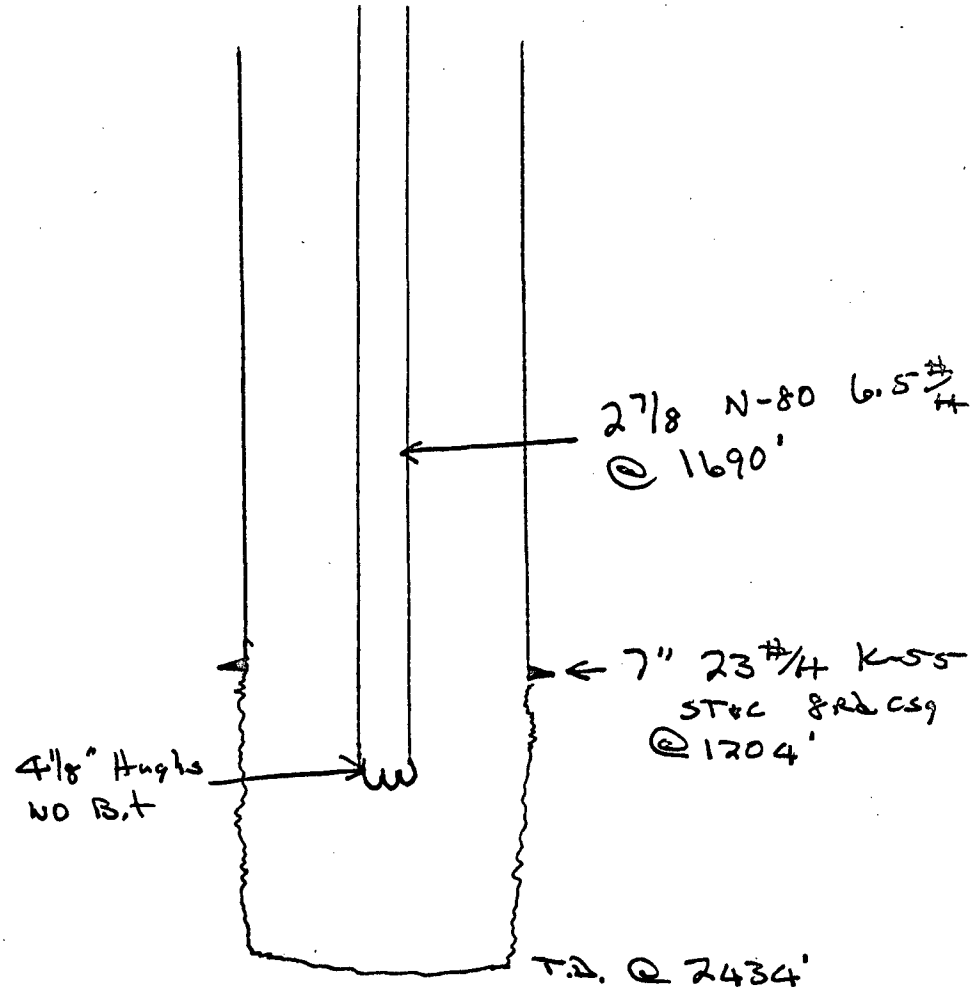
Recorded by _____

Date _____

HALLIBURTON SERVICES
Duncan, Okla. 73533
A HALLIBURTON Company

Well No. 2 State N. M.

Lease G. P. Sims Date 11/17/81



Well was spudded on 5/2/77 TD 8 3/4" hole @ 1204', 7" 23 #/ft K-55 ST&C 8Rd casing was then Rnd to 1204' & cemt w/ 300 sks "C" 2% $CaCl_2$ circulated 15 sks to surface WOC Drill out shoe jt w/ 7 7/8" B.t Drill to TD @ 2434' on 5/5/77

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W81-692

Sims & McCasland

Box 98

Eunice, New Mexico

Date 8-12-81

Submitted by _____ Date Rec. 8-12-81

Well No. Brine Well Depth _____ Formation _____

County _____ Field _____ Source _____

Resistivity ohms/m²	0.039 @ 74°F.		
Specific Gravity	1.209	= 273.85 ‰	
pH	6.3		
Calcium (Ca)	2,200		*MPL
Magnesium (Mg)	840		
Chlorides (Cl)	197,000 × 1.65 = salinity		
Sulfates (SO_4)	2,950		
Bicarbonates (HCO_3)	120		
Soluble Iron (Fe)	Nil		

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

By W. L. Brewer
CHEMIST

cc:

NOTICE

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NOTICE OF PUBLICATION

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

SANTA FE, NEW MEXICO

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plan has been submitted for approval to the Director of the Oil Conservation Division, P. O. Box 2088, State Land Office Building, Santa Fe, New Mexico 87501, telephone (505) 827-3260.

ESTATE OF G. P. SIMS through McCOSTIN SERVICES, P. O. Box 1046, Eunice, New Mexico 88231, telephone (505) 394-2581, Bob Patterson requests approval of their discharge plan for their brine in situ extraction well and facility located in Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. The operators of the Sim's Estate inject water down their injection well to an underlying salt formation thereby dissolving the salt, forming a brine water solution with a total dissolved solids content of approximately 300,000 mg/L. McCostin Services extracts and sells the brine water solution to various companies for use in oil and gas production.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 4:52 | Date 1/23/84

Originating Party	Other Parties
Paige Grant	representative of Sims-McCasland 394-2581

Subject

Discussion

In sorting out the Sims well files inherited from OCD, Jeannette discovered that the original letter dated 12/18/82 from Joe Ramey, approving their discharge plan, had never been sent. I called Sims-McCasland to see if they'd received a copy by mistake, and they had not. I said I'd send them this one.

He said Oscar Simpson had inspected their facility and said something about monitoring fresh water wells, and they were willing to do anything "reasonable" to be "good citizens", but they'd never heard any more about it. Also said Simpson was concerned about oil spillage from tank trucks. I said he'd be receiving a form letter from me before long explaining the

Conclusions or Agreements

Distribution
file

Signed

change in administration and the new requirements for their next discharge plan, and then we'd go back and review the plans OCD had approved, as time allowed.

Paige Grant

Sim - McCaslin, approx 11/27/84
spillage apparently into water daily
photo: Paige Grant Morgan

McCasland, approx 11/27/84

Prime Loading in Vicksburg area

of Yanks

photo: Lady Grant Morgan

SDMS - McCLELLAND - [redacted] - BW
9-20-96 EXCISE

10

SIMS - Mc CASLAND - [redacted] - BW
EWELL
9-20-96

SDMS - McCASLAND - JIM GASKE - BW 12

9-20-96

SDMS - McCLELLAN - ELMHURST - BW

9-20-96

SIMS- McCASKLAND- EUNICE.BW
9-20.96

...s McCASLAND · EUNICE-BW
8-20-96

R

APPLICATION FOR
DISCHARGE PLAN APPROVAL

SUBMITTED BY

SIMS-McCASLAND WATER SALES
P.O. Box 98
Eunice, New Mexico
88231

RECEIVED
DEC 21 1982
EID: WATER
POLLUTION CONTROL

I. History of Brine wells

On September 10,1968, the G. P. Sims No. 1 was spudded and completion was accomplished on October 1, 1968. G. P. Sims No. 1 is located 250 feet from the North line and 200 feet from the East line of Section 32, Township 21 South, Range 37 East, in Lea County, New Mexico. It has a hole size of 8 7/8" with 7" 20 pound casing set at 1373 feet and cement circulated to surface. There was a Baker Lok-set Packer set at approximately 1350 feet with an on-off tool. 2 7/8" tubing is set at approximately 2100 feet open-ended into the salt section. Until May, 1977, the procedure of injection of fresh water down tubing and extraction of brine through the casing was used for production.

On May 2, 1977, the G. P. Sims No.2 was spudded and completed on May 5, 1977, located 420 feet from the North line and 210 feet from the East line of Section 32, Township 21, Range 37 East, in Lea County, New Mexico. G. P. Sims No. 2 is a 8 3/4" hole with 7", 23 pound casing set at 1204 feet and cement circulated to the surface. 2 7/8" tubing, schedule N-80 plastic coated, was set at approximately 1441 feet.

Since 1977, brine production has been accomplished by injecting fresh water down the tubing of the G. P. Sims No. 1, communicating through the salt section and flowing back through the tubing of the G. P. Sims No. 2 into storage tanks. (Exhibits 1 and 3) Exhibit No. 1 shows a detail schematic of the two wells as they are presently. Brine production has been continuous since 1977; however, no records on the amount of fresh injected or brine

produced have been kept. The current production rate is approximately 200 barrels per hour at about 200 pounds, as needed, to keep storage facilities filled. Based on brine sales, an average of about 300,000 barrels a year are produced. The brine produced weighs about 10.2 pounds per gallon and has a viscosity of approximately 1.2.

II. As shown in Exhibit No. 2, the discharge site is located in the Northeast corner of Section 32, Township 21, Range 37 of Lea County.

Following is a list of water wells within a one mile and two mile radius of the discharge site showing location, formation, and usage:

WATER WELLS WITHIN A ONE MILE RADIUS

YEAR OF PERMIT OR DECLARATION	FORMATION	USAGE	LOCATION
1944	TRC	NON	21-37-33 (233)
1946	TRC	NON	21-37-33 (412)
1947	TRC	NON	21-37-33 (4121)
1933	TRC	NON	21-37-33 (431)
1968	TOG	DOM	21-37-29 (444)
1955	QAL	COM	21-37-29 (443)
1946	QAL	INP	21-37-29 (4434)
1935	TRC	COM	21-37-29 (442)
1964	TRC	INP	21-37-29 (4421)
1937	QAL	COM	21-37-29 (241)
1964	QAL	INP	21-37-29 (2414)
1939	QAL	COM	21-37-29 (424)

Water wells within a one mile radius (continued)

YEAR OF PERMIT OR DECLARATION	FORMATION	USAGE	LOCATION
1964	QAL	INP	21-37-29 (4241)
1955	TOG	DOM	21-37-29 (443)
1964	TOG	INP	21-37-29 (4433)
1951	TOG	DOM	21-37-29 (442)
1964	TOG	INP	21-37-29 (4422)
1960	QAL	IRR	21-37-32 (4224)
1961	QAL	IRR	21-37-32 (4241)
1961	QAL	COM	21-37-32 (424A)
1963	QAL	IRR	21-37-32 (2222)
1963	QAL	COM	21-37-32 (222A)
1963	QAL	COM	21-37-32 (222B)
1964	QAL	PPP	21-37-28 (2432)
1966	TOG	DOM	21-37-28 (340)
1966	TOG	DOM	21-37-28 (3433)
1957	TOG	MTU	21-37-33 (3221)
1954	TOG	MTU	21-37-33 (321)

WATER WELLS BETWEEN ONE AND TWO MILE RADIUS

YEAR OF PERMIT OR DECLARATION	FORMATION	USAGE	LOCATION
1947	TOG	MUN	22-37-04 (212)
1948	TOG	MUN	22-37-04 (232)

Water wells between one and two mile radius (continued)

YEAR OF PERMIT OR DECLARATION	FORMATION	USAGE	LOCATION
1946	TOG	MUN	22-37-04 (2321)
1948	TOG	MUN	22-37-04 (2233)
1951	TOG	MUN	22-37-04 (2314)
1951	TOG	MUN	22-37-04 (233)
1951	TOG	MUN	22-37-04 (231)
1952	TOG	MUN	22-37-04 (213)
1953	TOG	MUN	22-37-04 (211)
1959	TOG	NON	21-37-28 (2422)
1965	PSA	SRO	22-37-05 (230)
1963	QAL	IRR	21-37-27 (3113)
1955	QAL	IRR	21-37-27 (3131)
1965	QAL	COM	21-37-28 (4422)
1960	TOG	IRR	21-37-20 (2244)
1944	QAL	MTU	21-37-34 (3124)
1960	TOG	IRR	21-37-22 (3333)
1960	TOG	IRR	21-37-21 (4321)
1960	TOG	IRR	21-37-21 (1322)
1960	TOG	IRR	21-37-21 (132A)
1960	TOG	IRR	21-37-20 (2441)
1965	TOG	NON	21-37-27 (2133)
1965	QAL	PPP	21-37-28 (1333)
1953	TOG	DOM	21-37-27 (1113)

Water wells between one and two mile radius (continued)

YEAR OF PERMIT OR DECLARATION	FORMATION	USAGE	LOCATION
1945	TOG	PPP	21-37-27 (3344)
1967	TOG	DOM	22-37-05 (2423)
1948	TOG	PPP	21-37-27 (2322)
1972	TRC	CPS	22-37-04 (3113)
1958	QAL	PPP	21-37-27 (2433)
1970	TOG	DOM	22-37-05 (224)
1950	TOG	PPP	22-37-04 (1424)
1975	QAL	DOM	21-37-34 (1131)
1954	TOG	PPP	22-37-04 (1414)
1966	TRC	NOT	22-37-05 (2423)
1964	TRC	COM	22-37-05 (2244)

Following is a key to the abbreviations used in the above listings:

FORMATIONS

QAL------Quaternary Alluvium

TOG------Ogallala

TRC------Triassic

PSA------San Andres Limestone

USAGE

IND------Industrial

PPP------Petroleum Processing Plant

Abbreviations (continued)

USAGE

NON------Water Rights Retired

MUN------Municipal

SRO------Sceondary Recovery of Oil

IRR------Irrigation of Crops

DOM------Domestic

MTU------Municipal Type Use

COM------Commercial Sales of Water

INP------Irrigated Native Pasture

NOT------Well Not Drilled or Water Not Being Used

STK------Stock

CPS------Cathodic Protection System

The above wells are also plotted at their approximate locations according to their depths on Exhibit No. 2. Sims-McCasland Water sales has available three wells in the Quaternary Alluvium formation for monitoring purposes, should that be required. As close as can be determined, the nearest ground water is at a depth of between 140 feet and 160 feet with a Total Dissolved Solids of between 2500 and 3000.

III. Based on past experience, flooding from rain or surface water has not been a problem. Please note on Exhibit No. 2 that the elevation at the site is at it's highest point in all directions

and also bing located at a junction of two paved roads, the bar ditches provide surface drainage away from the site. Within the site, a natural ground sump was created to contain a spill or overflow from the facility; however, to date, no such overflow has occurred. Installed on the brine system are very sensitive high-low level shut-off switches and a manual high level shut-off switch to prevent overflows. What surface water that does accumulate from rain is removed with vacuum pump trucks to an approved disposal system.

IV. As shown on Exhibit No.3, the production of brine is accomplished thru the filling of two 500 barrel tanks from three on-site fresh water wells to furnish a 3" tri=plex pump for injection down the tubing of the G.P. Sims No. 1. The fresh water is pumped into the salt formation and communicates thru the formation to the G.P. Sims No. 2, where it is stored in nine 500 barrel tanks for resale at the loading valves. At present, the only means of measurement or calculation of brine production is thru sales receipts. Metering of fresh being injected and brine produced could be achieved but not without significant expense. Samples are taken and laboratory analysis are performed on a routine basis. These samples are taken from the well heads of the individual wells. (Exhibit No. 4)

Exhibit # 1

SIMS-McCASLAND WATER SALES
SECTION 32 TOWNSHIP 21 RANGE 37 LEA COUNTY

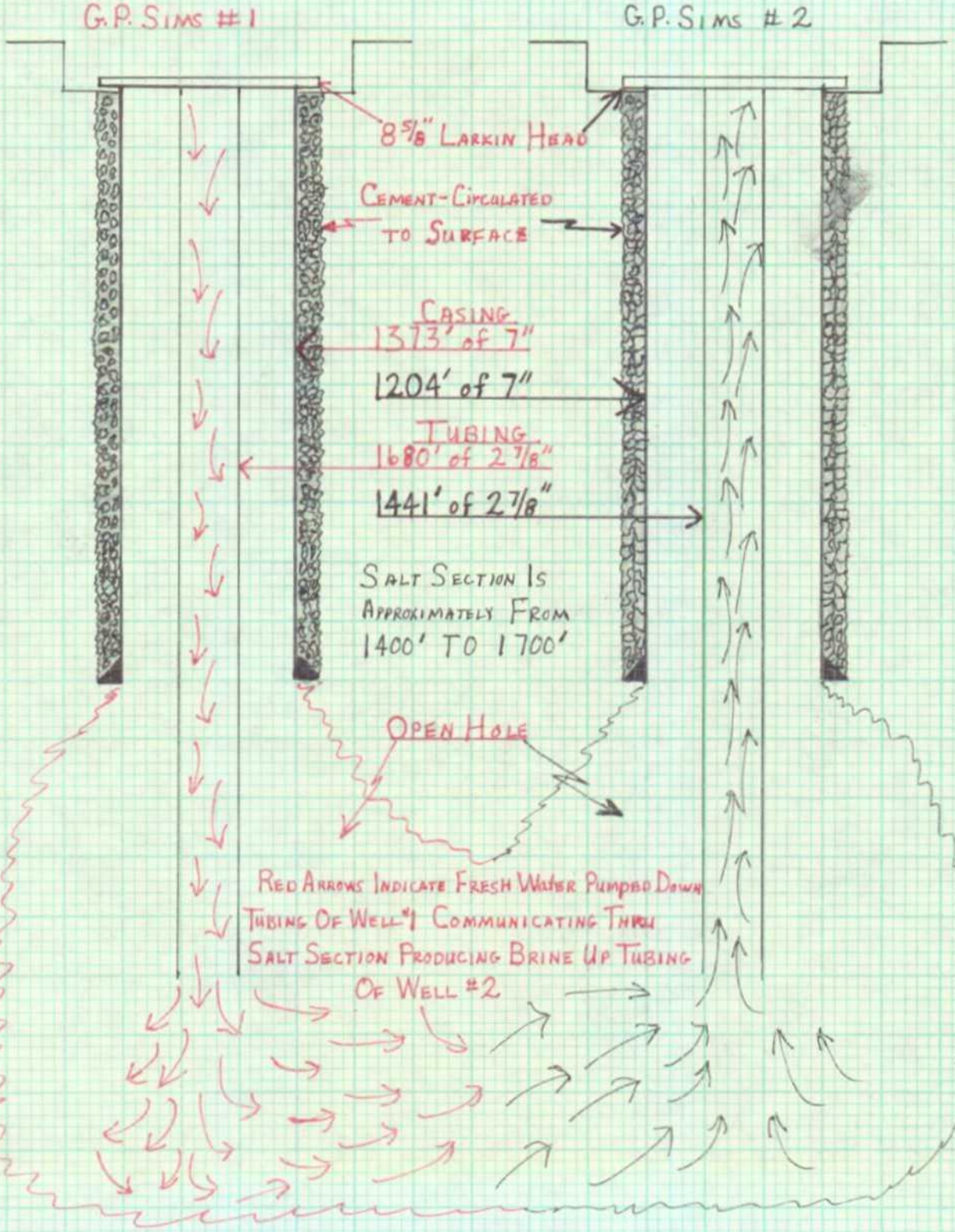

Exhibit #2

TWO MILE RADIUS

ONE MILE RADIUS

Gravel Pits

Gravel Pits

NEW MEXICO

Hardy Flats

21-37

MONUMENT JAL

Oil Wells

Gas Plant

Substa

STATE HIGHWAY 128

Sims-McCasland Water Sales

PAVED COUNTY ROAD 21

Hospital Drive-in Theater

High Sch

Eunice

West Well

Gravel Pit

Radio Tower

22-37

OIL FIELD

Cem

Gravel Pit

PIPELINE

Legend

- Quaternary Alluvium 0-180 Feet
- Triassic 800-900 Feet
- Ogallala 0-200 Feet
- San Andres Limestone Below 3600 Feet

Exhibit #3

Sims-McCasland Water Sales

Section 32 Township 21 Range 37 Lea County

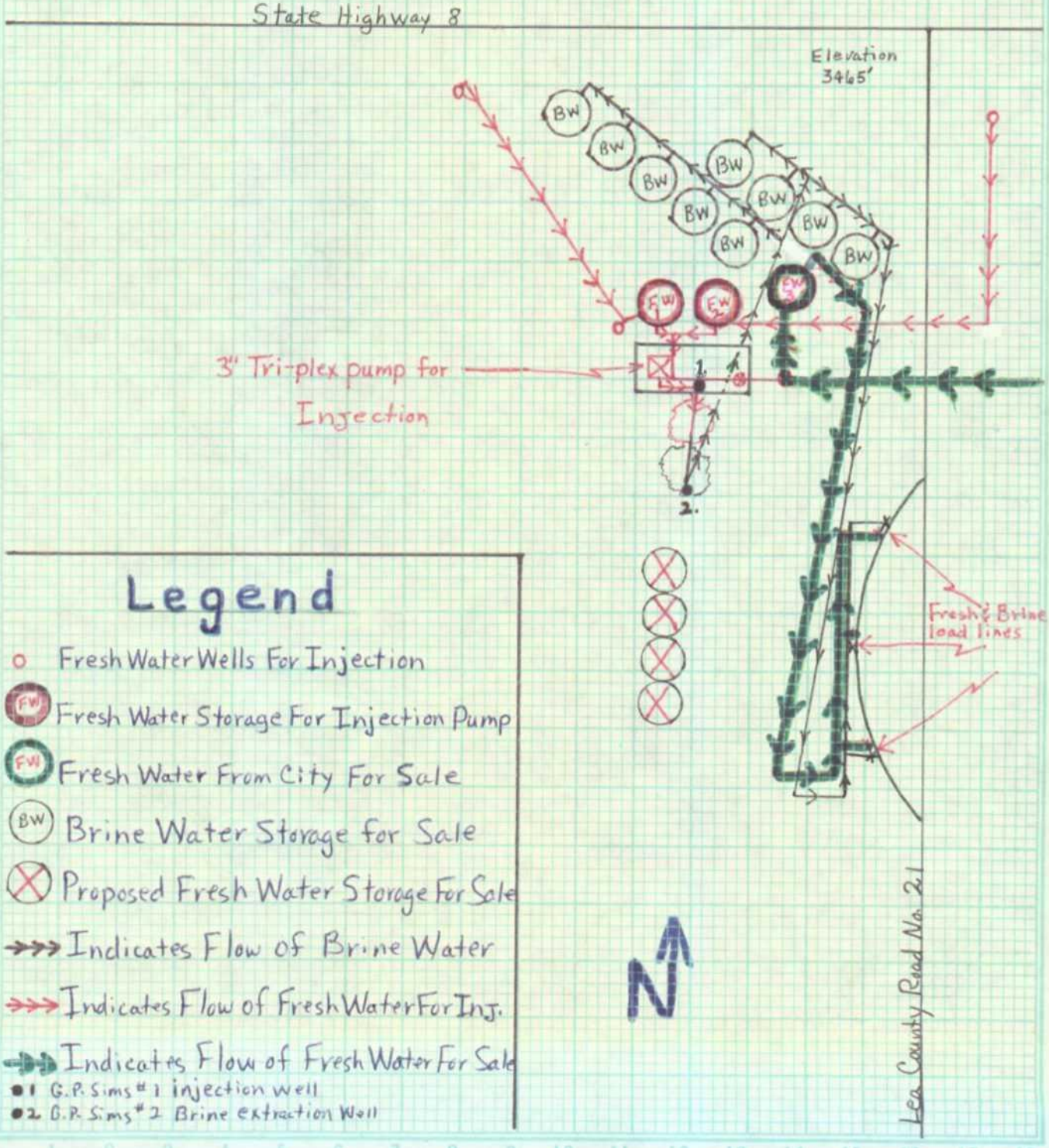

Exhibit #4

1342-A

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W82-741

To McCasland Services

Box 98

Eunice, New Mexico

Date 10-20-82

Submitted by _____ Date Rec. 10-20-82

Well No. As Marked Depth _____ Formation _____

County _____ Field _____ Source _____

	Sims-McCasland Brine Water	Continental Wtr. Sales Fresh Water		
Resistivity	0.047 @ 74°F.	2.04 @ 74°F.		
Specific Gravity	1.210	1.005		
pH	6.0	7.0		
Calcium (Ca)	1,600	230		*MPL
Magnesium (Mg)	240	60		
Chlorides (Cl)	198,000	800		
Sulfates (SO_4)	2,250	690		
Bicarbonates (HCO_3)	135	270		
Soluble Iron (Fe)	Nil	Nil		
Sodium, Na (Calc.)	127,264	517		
Total Dissolved Solids	329,489	2,567		

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

By W. L. Brewer
CHEMIST

cc:

NOTICE

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Feb. 5, 1974

Block #1 East Side of Sims
Water Station at E.P. Sims
Well #1 - A 32-21.37

Leslie A. Clements

F 3103222DC

Photo #2 Feb. 5, 1974

South Side of

Water Station at L.P. Lewis

Water Station "A" 32-21-37

Leslie A. Clement

F 3 1 0 3 2 2 D C

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

February 14, 1974

Mr. Joe Ramey
Oil Conservation Commission
P. O. Box 1980
Hobbs, New Mexico 88240

Re: Requested action on G. P. Sims - Brine Supply Well

Dear Joe:

Subsection 65-3-11(15) NMSA, 1953 Compilation, which enumerates the powers of the New Mexico Oil Conservation Commission directs the Commission:

> To regulate the disposition of water produced or used in connection with the drilling for or production of oil and gas, or both, and to direct surface or subsurface disposal of such water in a manner that will afford reasonable protection against contamination of fresh water supplies designated by the state engineer. (Emphasis added)

In my opinion, this section of statute gives the Oil Conservation Commission jurisdiction over brine supply wells.

We have one problem, however, in bringing an action against Mr. Sims. Although we have jurisdiction, the Commission has never enacted a rule, regulation, or order which would govern this situation. As you know, Sections 65-3-24 and 65-3-27 provide that we may recover penalties for violations of rules, regulations or orders, but this does not apply to statutes.

This requested action does not fall under R-3221 nor is it, in my opinion, within the scope of Rule 116 governing spills. I am convinced, therefore, that we cannot successfully bring an action against Mr. Sims. We should, however, amend Order No. R-3221 to cover future situations of this nature.

Very truly yours,

WILLIAM F. CARR
General Counsel

WFC/dr

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO 88240

February 7, 1974

G. P. Sims
P. O. Box 1046
Eunice, New Mexico 88231

Dear Mr. Sims:

As you know, you are the operator of a brine supply well located in Unit A of Section 32, T-21-S, R-37-E. This well furnishes brine water for a water station which is located nearby.

An inspection of this well and water station on February 5, 1974, indicated the area to be in a very unsatisfactory condition. The well was pumping during our inspection and a full 2 inch stream of water was escaping from the well and was diverted through a man-made ditch to a depression south of the well. At the water station proper, there was a considerable volume of water in and around the drive in area in front of the tanks. Tanks were leaking salt water and the area would, in my opinion, be considered a quagmire.

As you know, the Commission is responsible in part for the protection of our underlying fresh water. Disposition of brine water of this nature into the surface of the ground, whether in a depression or in a bar ditch, is a hazard to the fresh water in the area, in that water will migrate, or percolate, down through the soil and into the fresh water aquifer.

This office cannot permit a situation like this to exist. You are therefore directed to clean up this area and do necessary repair work, both to your pump station and water station, to insure that an operation of this type will not continue. I am also, by copy of this letter, requesting Mr. William F. Carr, attorney for the Oil Commission, to take further punitive action against you for operating a hazard to fresh water.

As you know, the Commission has taken action against several oil companies for disposal of produced water into open surface pits. This, in my opinion, presents the same type of hazard to fresh water as do your operations at the brine supply well and brine water station. I also feel certain that if an oil operator was conducting an operation in the manner that you are conducting your operations, you certainly would not hesitate to call this office and demand that the situation be rectified.

Yours very truly,

OIL CONSERVATION COMMISSION

Joe D. Ramey
Supervisor, District 1

JDR/mc
cc-Mr. William F. Carr, attorney
Oil Conservation Commission
Santa Fe, New Mexico
Attach.

NEW MEXICO OIL CONSERVATION COMMISSION
Hobbs, New Mexico

WATER ANALYSIS

Well Ownership: G. P. Sims Well No. 1

Land Status: ☐ State ☐ Federal ☒ Fee

Well Location: Unit A, Section 32, T 21 S - R 37 E

Type Well: Brine Well Depth: 2125 feet.

Well Use:

Sample Number: #2 Date Taken: February 5, 1974

Specific Conductance: m/

Total dissolved Solids: PPM.

Chlorides: 73,130 PPM.

Sulfates: Neg. PPM.

Ortho-phosphates: ☐ V. low ☐ Low ☐ Med. ☐ High

Sulfides: ☐ None ☐ Low ☐ Med. ☐ High

:

Date Analized: February 7, 1974 By: John W. Runyan
N.M.O.C.C.

Remarks: Sample #2 was taken from water that is running out of the top of 7" casing. This water runs south of well out into a pasture.

(Titration of 20.6 silver nitrate X factor 3550.0 = 73,130)

NEW MEXICO OIL CONSERVATION COMMISSION
Hobbs, New Mexico

WATER ANALYSIS

Well Ownership: G. P. Sims Well No. 1

Land Status: ☐ State ☐ Federal ☒ Fee

Well Location: Unit A, Section 32, T 21 S - R 37 E

Type Well: Brine Well Depth: 2125 feet.

Well Use:

Sample Number: #2 Date Taken: February 5, 1974

Specific Conductance: _____ m/ℳ

Total dissolved Solids: _____ PPM.

Chlorides: 73,130 PPM.

Sulfates: Neg. PPM.

Ortho-phosphates: ☐ V. low ☐ Low ☐ Med. ☐ High

Sulfides: ☐ None ☐ Low ☐ Med. ☐ High

_____ : _____

Date Analized: February 7, 1974 By: John W. Runyan
N.M.O.C.C.

Remarks: Sample #2 was taken from water that is running out of the top of 7" casing. This water runs south of well out into a pasture.

(Titration of 20.6 silver nitrate X factor 3550.0 = 73,130)

NEW MEXICO OIL CONSERVATION COMMISSION
Hobbs, New Mexico

WATER ANALYSIS

Well Ownership: G. P. Sims Well No. 1

Land Status: ☐ State ☐ Federal ☒ Fee

Well Location: Unit A, Section 32, T 21 S - R 37 E

Type Well: Brine Well Depth: 2125 feet.

Well Use:

Sample Number: #1 Date Taken: February 5, 1974

Specific Conductance: m/

Total dissolved Solids: PPM.

Chlorides: 168,890 PPM.

Sulfates: Neg. PPM.

Ortho-phosphates: ☐ V. low ☐ Low ☐ Med. ☐ High

Sulfides: ☐ None ☐ Low ☐ Med. ☐ High

:

Date Analized: February 7, 1974 By: John W. Runyan
N.M.O.C.C.

Remarks: Sample #1 was taken on the east side of water station where trucks load up with brine water.

(Titration of 47.6 silver nitrate X factor 3550.0 = 168,890)

Muddy sample

NEW MEXICO OIL CONSERVATION COMMISSION
Hobbs, New Mexico

WATER ANALYSIS

Well Ownership: G. P. Sims Well No. 1

Land Status: ☐ State ☐ Federal ☒ Fee

Well Location: Unit A, Section 32, T 21 S - R 37 E

Type Well: Brine Well Depth: 2125 feet.

Well Use:

Sample Number: #1 Date Taken: February 5, 1974

Specific Conductance: _____ m/ɔ

Total dissolved Solids: _____ PPM.

Chlorides: 168,890 PPM.

Sulfates: Neg. PPM.

Ortho-phosphates: ☐ V. low ☐ Low ☐ Med. ☐ High

Sulfides: ☐ None ☐ Low ☐ Med. ☐ High

_____ : _____

Date Analized: February 7, 1974 By: John W. Runyan
N.M.O.C.C.

Remarks: Sample #1 was taken on the east side of water station where trucks load up with brine water.

(Titration of 47.6 silver nitrate X factor 3550.0 = 168,890)

Muddy sample