

GW - 223

**GENERAL
CORRESPONDENCE**

YEAR(S):
2001 - 1995



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

July 5, 2001

**CERTIFIED MAIL
RETURN RECEIPT NO. 5357-7775**

Mr. Damon E. Seawright
AmeriCulture, Inc.
HD 65, Box 260 C
Animas, NM 88020

RE: Discharge Plan Renewal GW-223
AmeriCulture, Inc.
Geothermal Aquaculture Facility
Hidalgo County, New Mexico

Dear Mr. Seawright

The ground water discharge plan renewal application GW-223 for the AmeriCulture, Inc. Geothermal Aquaculture Facility located in the NE/4 NE/4 of Section 7, Township 25S, Range 19W, NMPM, Hidalgo County, New Mexico, is hereby approved under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe office within thirty (30) days of receipt of this letter. Please note new mailing address below.**

The discharge plan renewal application letter, dated August 30, 2000, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations includes all earlier applications and approvals and all conditions later placed on those approvals. The discharge plan is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve AmeriCulture, Inc. of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve AmeriCulture, Inc. of its responsibility to comply with any other governmental authority's rules and regulations.

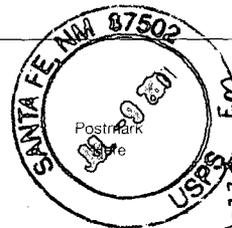
Please be advised that all exposed pits, including lined pits and open tanks (exceeding 16 feet in diameter) shall be screened, netted or otherwise rendered nonhazardous to wildlife including migratory birds.

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7000 1670 0012 5357 7775

--

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



GW-225 EOM

Sent To	DAEMON E. SEAWRIGHT
Street, Apt. No., or PO Box No.	HD65, Box 260 C
City, State, ZIP+4	Animas, NM 88020

Mr. Damon E. Seawall at

GW-223

July 5, 2001

Page 2

Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C, AmeriCulture, Inc. is required to notify the Director of any facility expansion, production increase or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4, this renewal plan is for a period of five years. This renewal **will expire on October 23, 2005**, and AmeriCulture, Inc. should submit an application in ample time before this date. Note that under Section 3106.F of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved

The discharge plan renewal application for the AmeriCulture, Inc. Geothermal Aquaculture Facility is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of \$50.00. There is a renewal flat fee assessed for geothermal facilities of \$690.00. The OCD has received the filing fee.

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

Sincerely,



Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/eem
Attachment

Xc: OCD Santa Fe Office

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-223
AMERICULTURE, INC.
GEOHERMAL AQUACULTURE FACILITY
DISCHARGE PLAN APPROVAL CONDITIONS
July 5, 2001

1. Payment of Discharge Plan Fees: The \$50.00 filing fee has been received by the OCD. There is a required flat fee for geothermal facilities of \$690.00 which 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, with the first payment due upon receipt of this approval. The OCD has received your first installment payment of \$138.00. **All checks are to be made payable to Water Quality Management Fund** and forwarded to the OCD Santa Fe Office. Please note new mailing address on letterhead.
2. Commitments: AmeriCulture, Inc. will abide by all commitments submitted in the discharge plan renewal application letter dated August 30, 2000 and these conditions for approval.
3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.
4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.
5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.
9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design.
10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity every five (5) years. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.
11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
12. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.
13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Santa Fe District Office.
14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Storm Water Plan: The facility will have an approved storm water run-off plan.
16. Closure: The OCD will be notified when operations of the **Geothermal Aquaculture Facility** are discontinued for a period in excess of six months. Prior to closure of the **Geothermal Aquaculture Facility**, the Director will submit a closure plan for approval. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
17. Conditions accepted by: AmeriCulture, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. AmeriCulture, Inc. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

AmeriCulture, Inc.

Print Name: _____

Signature: _____

Title: _____

Date: _____

THE SANTA FE
NEW MEXICAN

Founded 1849

LEGAL
FEB 9
CONSERVATION DIVISION

NM OIL CONSERVATION DIVISION
ATTN: DONNA DOMINGUEZ
1220 S. ST. FRANCIS DR.
SANTA FE, NM 87505

AD NUMBER: 192173 ACCOUNT: 56689
LEGAL NO: 68789 P.O.#: 01199000033
189 LINES 1 time(s) at \$ 83.31
AFFIDAVITS: 5.25
TAX: 5.54
TOTAL: 94.10

er accidental discharges
to the surface will be
managed.

AFFIDAVIT OF PUBLICATION

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-223) - Americulture, Inc., Damon E. Seawright, Vice President, HD 65 Box 260 C, Animas, New Mexico 88020 has submitted a renewal application for their previously approved discharge plan for geothermal heating of a fish farm complex located in Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico. After heat is extracted from approximately 60,000 gallons per day of geothermal water, using a heat exchanger system, the cooled effluent stream will be discharged into a shallow trench and used to supply water for range cattle on adjacent ranch property. The geothermal water has an average total dissolved solids content of 1,050 mg/l. The groundwater most likely to be affected by any accidental discharge is geothermal and is at a depth of approximately 52 feet with a total dissolved solids concentration of about 1,050 mg/l. The discharge plan addresses how spills, leaks and oth-

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. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. 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 during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, this 23rd day of January, 2001.

STATE OF NEW MEXICO
OIL CONSERVATION
DIVISION
LORI WROTENBERY,
Director

Legal #68789
Pub. February 8, 2001

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, B. Burner being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #68789 a copy of which is hereto attached was published in said newspaper 1 day(s) between 02/08/2001 and 02/08/2001 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 8 day of February, 2001 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/s/ Betsy Burner
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this
8 day of February A.D., 2001

Notary Janet L. Montoya
Commission Expires 12/30/03



OFFICIAL SEAL
Janet L. Montoya
NOTARY PUBLIC - STATE OF NEW MEXICO
MY COMMISSION EXPIRES 12/30/03



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

NOTICE OF PUBLICATION

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

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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. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. 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 during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of January, 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY, Director

S E A L

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Revised March 17, 1999

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS, REFINERIES, COMPRESSOR, AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

GW-223

New Renewal Modification

1. Type: Geothermal Aquaculture Facility

2. Operator: AmeriCulture, Inc.

Address: HD 65 Box 260 C Animas, NM 88020

Contact Person: Damon Seawright, Vice-President Phone: 505-548-2328

3. Location: NE /4 NE /4 Section 7 Township 25S Range 19 W

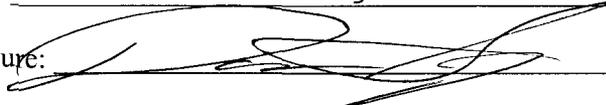
Submit large scale topographic map showing exact location.

*3-13: See previously approved discharge plan

4. Attach the name, telephone number and address of the landowner of the facility site.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.
6. Attach a description of all materials stored or used at the facility.
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
10. Attach a routine inspection and maintenance plan to ensure permit compliance.
11. Attach a contingency plan for reporting and clean-up of spills or releases.
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

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

Name: Damon E. Seawright Title: Vice-President

Signature:  Date: August 30, 2000

**NEW MEXICO ENVIRONMENT DEPARTMENT
REVENUE TRANSMITTAL FORM**

Description	FUND	CEB	DFA ORG	DFA ACCT	ED ORG	ED ACCT	AMOUNT	
1 CY Reimbursement Project Tax	064	01		2329	900000	2329134		1
6 Gross Receipt Tax	084	01						2
3 Air Quality Title V	092	13	1300	1696	900000	4169134		3
4 PRP Prepayments	248	14	1400	9696	900000	4989014		4
2 Climax Chemical Co.	248	14	1400	9696	900000	4989015		5
8 Circle K Reimbursements	248	14	1400	9696	900000	4989248		6
7 Hazardous Waste Permits	339	27	2700	1696	900000	4169027		7
8 Hazardous Waste Annual Generator Fees	339	27	2700	1696	900000	4169339		8
10 Water Quality - Oil Conservation Division	341	29		2329	900000	2329029		10
11 Water Quality - GW Discharge Permit	341	29	2900	1696	900000	4169029	138.00	11
12 Air Quality Permits	631	31	2500	1696	900000	4169031		12
13 Payments under Protest	651	33		2919	900000	2919033		13
*14 Xerox Copies	652	34		2349	900000	2349001		*14
15 Ground Water Penalties	652	34		2349	900000	2349002		15
16 Witness Fees	652	34		2349	900000	2439003		16
17 Air Quality Penalties	652	34		2349	900000	2349004		17
18 OSHA Penalties	652	34		2349	900000	2349005		18
19 Prior Year Reimbursement	652	34		2349	900000	2349006		19
20 Surface Water Quality Certification	652	34		2349	900000	2349009		20
21 Jury Duty	652	34		2349	900000	2349012		21
22 CY Reimbursements (i.e. telephone)	652	34		2349	900000	2349014		22
*23 UST Owner's List	783	24	2500	9696	900000	4989201		*23
*24 Hazardous Waste Notifiers List	783	24	2500	9696	900000	4989202		*24
*25 UST Maps	783	24	2500	9696	900000	4989203		*25
*26 UST Owner's Update	783	24	2500	9696	900000	4989205		*26
*28 Hazardous Waste Regulations	783	24	2500	9696	900000	4989207		*28
*29 Radiologic Tech. Regulations	783	24	2500	9696	900000	4989208		*29
*30 Superfund CERLIS List	783	24	2500	9696	900000	4989211		*30
31 Solid Waste Permit Fees	783	24	2500	9696	900000	4989213		31
32 Smoking School	783	24	2500	9696	900000	4989214		32
*33 SWQB - NPS Publications	783	24	2500	9696	900000	4989222		*33
*34 Radiation Licensing Regulation	783	24	2500	9696	900000	4989228		*34
*35 Sale of Equipment	783	24	2500	9696	900000	4989301		*35
*36 Sale of Automobile	783	24	2500	9696	900000	4989302		*36
*37 Lost Recoveries	783	24	2500	9696	900000	4989814		*37
*38 Lost Repayments	783	24	2500	9696	900000	4989815		*38
39 Surface Water Publication	783	24	2500	9696	900000	4989801		39
40 Exxon Reass Drive Ruidoso - CAF	783	24	2500	9696	900000	4989242		40
41 Emerg. Hazardous Waste Penalties NOV	957	32	9600	1696	900000	4164032		41
42 Radiologic Tech. Certification	987	05	0500	1696	900000	4169005		42
44 Ust Permit Fees	989	20	3100	1696	900000	4169020		44
45 UST Tank Installers Fees	989	20	3100	1696	900000	4169021		45
46 Food Permit Fees	991	28	2600	1696	900000	4169026		46
43 Other								43

* Gross Receipt Tax Required ** Site Name & Project Code Required TOTAL 138.00

Contact Person: ED MARTIN Phone: 827-7151 Date: 12/13/00
 Received in ASD By: _____ Date: _____ RT #: _____ ST #: _____

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 2872 dated 11/30/00
or cash received on 12/13/00 in the amount of \$ 138.00
from AMERICULTURE, INC.

for ANIMAS VALLEY FISH FARM GW-223
(Family Name) (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: ED MARTIN Date: 12/13/00

Received in ASD by: _____ Date: _____

Filing Fee _____ New Facility _____ Renewal

Modification _____ Other _____
(Specify)

Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment PARTIAL

Oil Conservation Division

Check Number: 2872
Check Date: Nov 30, 2000

Check Amount: \$138.00

Item to be Paid - Description	Discount Taken	Amount Paid
Licenses and Fees		138.00

GW-223

AMERICULTURE, INC.
(505) 662-6928
190 CENTRAL PARK SQUARE
LOS ALAMOS, NM 87544

LOS ALAMOS NATIONAL BANK
LOS ALAMOS, NM 87544
95-101/1070

2872

DATE

AMOUNT

Memo: Nov 30, 2000 *****\$138.00*

PAY
One Hundred Thirty-Eight and 0/100 Dollars

TO THE
ORDER
OF:

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

[Handwritten Signature]
AUTHORIZED SIGNATURE

⑈002872⑈ ⑆107001012⑆ ⑈00866040⑈01



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenberg
Director
Oil Conservation Division

July 10, 2000

Mr. Damon E. Seawright
Americulture, Inc.
HC P.O. Box 265B
Animas, NM 88020

Dear Mr. Seawright:

We hereby acknowledge receipt of your check for \$50.00 to cover the filing fee for the renewal of your discharge plan GW-223.

Enclosed is a discharge plan renewal form that must be completed by you. Please fill out all applicable blanks. If information requested in the application is already included in your original discharge plan application, please so indicate and reference the original application. If any information has changed from the original, please attach the updated information.

I understand that you are contemplating some minor modifications to your system in the near future. Please keep us informed of your progress and submit any additional paperwork necessary as these modifications affect the original discharge plan.

In addition to the application for renewal, a renewal fee of one-half the original fee for geothermal facilities, in the amount of \$690.00 is due. This renewal fee may be paid in one lump sum or in five equal installments, one each year, for the duration of the plan.

If you have any questions, please contact me.

Sincerely,

Ed Martin
Environmental Bureau



AmeriCulture

1000
JUN 12 2000
SANTA FE, NM

June 9, 2000

Ed Martin
Environmental Bureau
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505

Dear Ed:

This letter is written in response to your letter, dated April 3, 2000, in which you indicated that AmeriCulture's groundwater discharge plan GW-223 was up for renewal. The letter specified that if we requested an extension to our existing plan in writing before June 23, 2000, along with a renewal application fee of \$50.00, that the plan would be extended an additional 5 years. It is AmeriCulture's intention to renew the plan, so accordingly, I have enclosed herewith a check in the amount of \$50.

Please contact me if you need anything else to complete the renewal process.

Sincerely,

Damon E. Seawright
Vice-President, Operations

AmeriCulture Inc.

HC 65 Box 260 C, Animas, NM 88020 • Ph: 888.TILAPIA Fax: 505.548.2631
e-mail: americulture@vtc.net • www.americulture.com

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 10186 dated 6/9/00,
or cash received on 7/5/00 in the amount of \$ 50.00
from AMERICULTURE, INC.

for _____ GW-223
(Family Name) (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: Ed Martin Date: 7/10/00
ED MARTIN

Received in ASD by: _____ Date: _____

Filing Fee _____ New Facility _____ Renewal

Modification _____ Other _____
(legend)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

Full Payment or Annual Increment _____

AMERICULTURE, INC.
(505) 548-2328
HC 65/PO BOX 260C
ANIMAS, NM 88020

WESTERN BANK
LORDSBURG, NM 88045-0490
95-82/1122

10186

Jun 9, 2000 *****AMOUNT* \$50.00*

Memo:

Fifty and 0/100 Dollars

PAY

TO THE ORDER OF: NM Energy & Nat. Res. Dept.

Duplicate


AUTHORIZED SIGNATURE

Description	Fund	CES	DFA Org.	DFA ED Acct. Org.	ED Acct.	Amount
1 CY Reimbursement Project Tax	064		01			1
2 Gross Receipt Tax	064		01	2329 900000	2329134	2
3 Air Quality Title V	092		13	1690 900000	4169134	3
4 PRP Prepayments	248		14	9690 900000	4969014	4
5 Climax Chemical Co.	248		14	9690 900000	4969015	5
6 Circle K Reimbursements	248		14	9690 900000	4969248	6
7 Hazardous Waste Permits	339		27	1690 900000	4169027	7
8 Hazardous Waste Annual Generator Fees	339		27	1690 900000	4169339	8
9 Water Quality - Drinking Water	340		28	1690 900000	4169028	9
10 Water Quality - Oil Conservation Division	341		29	2329 900000	2329029	10 ^{7/10/01}
11 Water Quality - GW Discharge Permit	341		29	1690 900000	4169029	11 ^{9:0}
12 Air Quality Permits	631		31	1690 900000	4169031	12
13 Payments under Protest	651		33	2919 900000	2919033	13
* 14 Xerox Copies	652		34	2349 900000	2349001	14
15 Ground Water Penalties	652		34	2349 900000	2349002	15
16 Witness Fees	652		34	2349 900000	2349003	16
17 Air Quality Penalties	652		34	2349 900000	2349004	17
18 OSHA Penalties	652		34	2349 900000	2349005	18
19 Prior Year Reimbursement	652		34	2349 900000	2349006	19
20 Surface Water Quality Certification	652		34	2349 900000	2349009	20
21 Jury Duty	652		34	2349 900000	2349012	21
22 CY Reimbursements (i.e.: telephone)	652		34	2349 900000	2349014	22
* 23 UST Owners List	783		24	9690 900000	4969201	23
* 24 Hazardous Waste Notifiers List	783		24	9690 900000	4969202	24
* 25 UST Maps	783		24	9690 900000	4969203	25
* 26 UST Owners Update	783		24	9690 900000	4969205	26
* 28 Hazardous Waste Regulations	783		24	9690 900000	4969207	28
* 29 Radiologic Tech. Regulations	783		24	9690 900000	4969208	29
* 30 Superfund CERCLIS List	783		24	9690 900000	4969211	30
* 31 Solid Waste Permits Fees	783		24	9690 900000	4969213	31
32 Smoking School	783		24	9690 900000	4969214	32
* 33 SWQB - NPS Publications	783		24	9690 900000	4969222	33
* 34 Radiation Licensing Regulations	783		24	9690 900000	4969228	34
* 35 Sale of Equipment	783		24	9690 900000	4969301	35
* 36 Sale of Automobile	783		24	9690 900000	4969302	36
** 37 Lust Recoveries	783		24	9690 900000	4969614	37
** 38 Lust Prepayments	783		24	9690 900000	4969615	38
39 Surface Water Publication	783		24	9690 900000	4969801	39
40 Exxon Reese Drive Ruidoso - CAF	783		24	9690 900000	4969242	40
41 Emerg. Hazardous Waste Penalties NOV	957		32	1640 900000	4164032	41
42 Radiologic Tech. Certification	987		05	1690 900000	4169005	42
44 UST Permit Fees	989		20	1690 900000	4169020	44
45 UST Tank Installers Fees	989		20	1690 900000	4169021	45
46 Food Permit Fees	991		26	1690 900000	4169026	46
43 Other						43

* Gross Receipt Tax Required ** Site Name & Project Code Required TOTAL: _____

Contact Person: ED MARTIN Phone #: 827-7151 Date: 7/10/00

Received in ASD By: _____ Date: _____ RT #: _____ ST# _____

AMERICULTURE, INC.

10186

NM Energy & Nat. Res. Dept.

Check Number: 10186

Check Date: Jun 9, 2000

Duplicate

Check Amount: \$50.00

Item to be Paid - Description

Discount Taken Amount Paid

Renewal Fee for GW-223

50.00



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

April 3, 2000

Mr. Damon E. Seawright
Americulture, Inc.
HC P.O. Box 265B
Animas, NM 88020

Dear Mr. Seawright:

Thank you very much for the tour of your facility. It was very interesting. As promised, enclosed is a copy of our inspection report and copies of the photographs Wayne Price took while we were there.

Please be advised that your groundwater discharge plan **GW-223** will expire on October 23, 2000. **Water Quality Control Commission rule 3106.F states:** "If the holder of an approved discharge plan submits an application for discharge plan renewal at least 120 days before the discharge plan expires, and the discharger is not in violation of the approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge plan continued under this provision remains fully effective and enforceable. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]"

We look forward to receiving your renewal application on or before June 23, 2000 along with the renewal application fee of \$50.00. Additionally, the flat fee for renewal for a geothermal facility is \$690.00, which may be paid in a single payment or in five equal installments. The first installment is due on the date of the discharge plan approval and the remaining four are due on the same date annually during the duration of the discharge plan.

Again, thanks for the hospitality.

Sincerely,

Ed Martin
Environmental Bureau

OCD ENVIRONMENTAL BUREAU

SITE INSPECTION SHEET

DATE: 3/15/00 Time: 1:30 AM

Type of Facility: Refinery Gas Plant Compressor St. Brine St. OilField Service Co.
Surface Waste Mgt. Facility E&P Site Crude Oil Pump Station
Other GEO-THERMAL FISH FARM

Discharge Plan: No Yes DP# GW-223

FACILITY NAME: AMERICULTURE FISH HATCHERY
PHYSICAL LOCATION: ≈ 15 MILES SW of LOROSBURG NM
Legal: QRT QRT Sec 7 TS 255 R 19W County HILDALGO

OWNER/OPERATOR (NAME) DAMON SEARWRIGHT -
Contact Person: SAME Tele:#

MAILING
ADDRESS: HC 65 BOX 260 C ANIMAS State NM ZIP 88020
Owner/Operator Rep's: DAMON SEARWRIGHT

OCD INSPECTORS: W PRICE + ED MARTIN

1. **Drum Storage:** All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

OK

2. **Process Areas:** All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

OK

3. **Above Ground Tanks:** All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

DIESEL + GASOLINE TANKS DO NOT HAVE
PROPER CONTAINMENT

4. **Above Ground Saddle Tanks:** Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

SAME AS #3

5. **Labeling:** All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

OK

6. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

N.A.

7. **Underground Process/Wastewater Lines:** All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter, or prior to discharge plan renewal. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

N.A.

8. **Onsite/Offsite Waste Disposal and Storage Practices:** Are all wastes properly characterized and disposed of correctly? Does the facility have an EPA hazardous waste number? Yes No

ARE ALL WASTE CHARACTERIZED AND DISPOSED OF PROPERLY? YES NO IF NO DETAIL BELOW.

9. **Class V Wells:** Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. All Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Closure of Class V wells must be in accordance with a plan approved by the Division's Santa Fe Office. The OCD allows industry to submit closure plans which are protective of human health, the environment and groundwater as defined by the WQCC, and are cost effective. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

ANY CLASS V WELLS NO YES IF YES DESCRIBE BELOW! Undetermined

10. **Housekeeping:** All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

GOOD

11. **Spill Reporting:** All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the proper OCD District Office.

OK

12. **Does the facility have any other potential environmental concerns/issues?**

NONE OBSERVED

13. **Does the facility have any other environmental permits - i.e. SPCC, Stormwater Plan, etc.?**

14. ANY WATER WELLS ON SITE? NO YES IF YES, HOW IS IT BEING USED ?

GEO THERMAL WELLS ONLY

Miscellaneous Comments:

Number of Photos taken at this site: 7
attachments-

Americulture Talopia Fish Hatchery
GW-223
March 15, 2000 pictures by Wayne Price



Geothermal well located east of fish hatchery. Hatchery in background. Looking west. System is a closed loop heating system



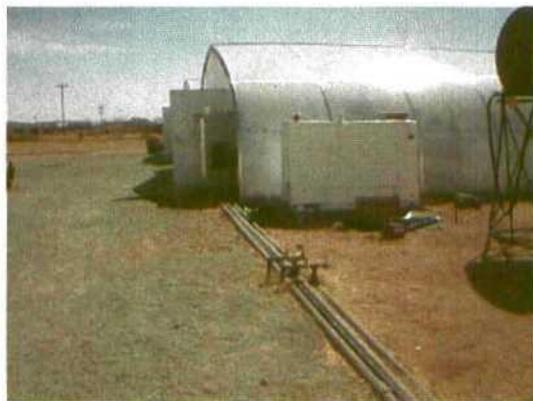
Fish tanks discharge pond. Mostly fresh water. SW of fish houses. Looking SW.



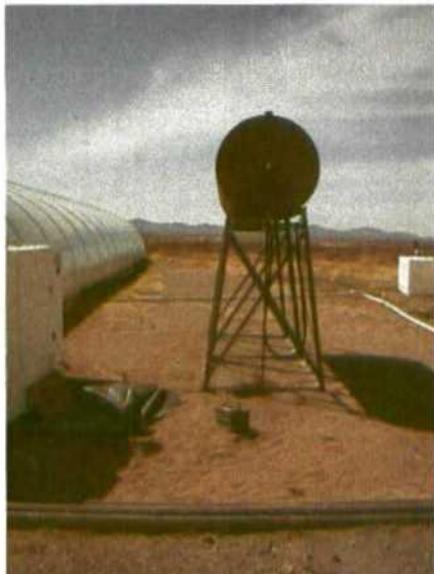
Geothermal discharge temperature gage.



Geothermal heat exchanger and fish breeding house discharge water area. West of fish houses.



Fishhouse- heating pipes.



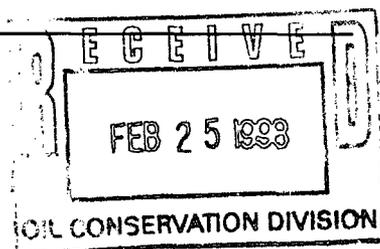
Diesel tank for standby generators. Looking west.



Gasoline tank. Looking NE

AmeriCulture, Inc.

AmeriCulture, Inc. - 901 18th Street - Los Alamos, NM - 87544



NMED-Water Quality Management
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

Dear Sirs/Madams:

In response to Mr. Roger Anderson's letter of February 17, 1998, I am sending enclosed a check in the amount of \$1,104 in payment of the outstanding amount on the flat fee that AmeriCulture, Inc., owes on the discharge plan GW-223.

Thank you for reminding us that the outstanding amount was due.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary L. Seawright".

Gary L. Seawright
President

AMERICULTURE, INC.

1285

NMED-Water Quality Management

Check Number: 1285

Check Date: Feb 24, 1998

Check Amount: \$1,104.00

Item to be Paid - Description

Discount Taken

Amount Paid

Licenses and Fees

1,104.00

GW-223

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 1285 dated 2/24/98
or cash received on _____ in the amount of \$ 1104.00
from Americulture

for _____ GW-223

Submitted by: _____ Date: _____
(Facility Name) (OP No.)

Submitted to ASD by: R. Chardon Date: 3/12/98

Received in ASD by: _____ Date: _____

Filing Fee _____ New Facility Renewal _____
Modification _____ Other _____
(specify)

Organization Code 521.07 Applicable FY 98

To be deposited in the Water Quality Management Fund.
Full Payment _____ or Annual Increment X
2705 of 5

AMERICULTURE, INC.
(505) 662-6928
901 18TH ST.
LOS ALAMOS, NM 87544

LOS ALAMOS NATIONAL BANK
LOS ALAMOS, NM 87544
95-101/1070

1285

DATE AMOUNT
Feb 24, 1998 *****\$1,104.00*

Memo: Discharge Plan GW-223
PAY One Thousand One Hundred Four and 0/100 Dollars

TO THE ORDER OF: NMED-Water Quality Management
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

Jay P. [Signature]
AUTHORIZED SIGNATURE

⑈001285⑈ ⑆107001012⑆ ⑆00866040⑈01
SECURITY FEATURES INCLUDED. DETAILS ON BACK.



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

February 17, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-259-025

Mr. Gary L. Seawright
AmeriCulture, Inc.
536 Paul Place
Los Alamos, NM 87544

**Re: Discharge Plan Fees GW-223
Fish Farm Complex
Hidalgo County, New Mexico**

Dear Mr. Seawright:

On October 23, 1995, AmeriCulture, Inc. received, via certified mail, a letter from the New Mexico Oil Conservation Division (OCD) stating that the discharge plan GW-223 for the Fish Farm Complex was approved. In that letter it also stated that, in accordance with Water Quality Control Commission Regulation (WQCC) 3114, a \$50 filing fee and a \$1,380 flat fee were required upon receipt of the approval letter. The \$50 filing fee and one installment payment (\$276) of the flat fee have been received by the OCD. As of this date, there is a remaining amount of \$1,104. The last installment received by the OCD was May 31, 1996. Please submit the remaining \$1,104 flat fee in full by March 17, 1998.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

If you have any questions, please contact me at (505)-827-7152 or Mark Ashley at (505) 827-7155.

Sincerely,

Roger Anderson
Environmental Bureau Chief

RCA/mwa

P 288 259 025

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

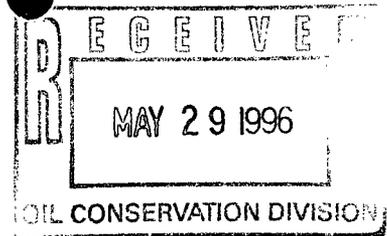
Sent to	
Street & Number	
Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800 April 1995

AmeriCulture, Inc.

536 Paul Place
Los Alamos, NM 87544

May 23, 1996



NMED-Water Quality Management
Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505-6429

Re: Discharge Plan GW-223 Extension
Fish Farm Complex
Hildago County, New Mexico

Dear Sirs/Madams:

Enclosed is a check in the Amount of \$276.00, in payment of the first of five annual installments of the Discharge Plan Flat Fee totaling \$1,380.00. In hope that this meets with your approval, I am,

Sincerely,

A handwritten signature in cursive script, appearing to read "G. Seawright".

Gary L. Seawright
President

cc Damon E. Seawright
Mark Ashley

*Mark —
Thanks for the reminder —
Gary*

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 175 dated 5/23/96
or cash received on _____ in the amount of \$ 276.00

from AmeriCulture

for Fish Farm GW-223

Submitted by: _____ Date: _____
(Facility Name) (OP No.)

Submitted to ASD by: R. Anderson Date: 5/31/96

Received in ASD by: Dianne Salazar Date: 5/31/96

Filing Fee _____ New Facility Renewal _____

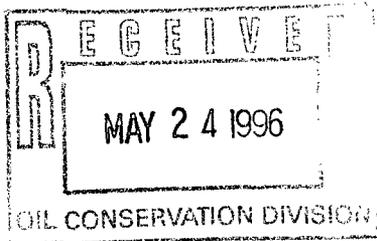
Modification _____ Other _____
(Agency)

Organization Code 521.07 Applicable FY 96

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment
1 of 5

AmeriCulture, Inc. 536 PAUL PL. PH. 505-672-0013 LOS ALAMOS, NM 87544		175
DATE <u>5/23/96</u>		95-101/1070 00866040
PAY TO THE ORDER OF <u>NMSED + Water Quality Management</u>	\$ <u>276.00</u>	
<u>Two Hundred Seventy Six & 00/100</u> DOLLARS		<input checked="" type="checkbox"/> Security Features Included. Details on back.
Los Alamos National Bank P.O. Box 50 (506) 642-5171 Los Alamos, NM 87544	<u>Gary D. [Signature]</u>	MP
MEMO _____		
⑆ 107001012⑆ 0175⑆ 00866040⑆ 01		



AmeriCulture, Inc.

536 Paul Place
Los Alamos, NM 87544

May 23, 1996

NMED-Water Quality Management
Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505-6429

Re: Discharge Plan GW-223 Extension
Fish Farm Complex
Hildago County, New Mexico

Dear Sirs/Madams:

Enclosed is a check in the Amount of \$276.00, in payment of the first of five annual installments of the Discharge Plan Flat Fee totaling \$1,380.00. In hope that this meets with your approval, I am,

Sincerely,

Gary L. Seawright
President

cc Damon E. Seawright
Mark Ashley



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

 CONSERVATION DIVISION

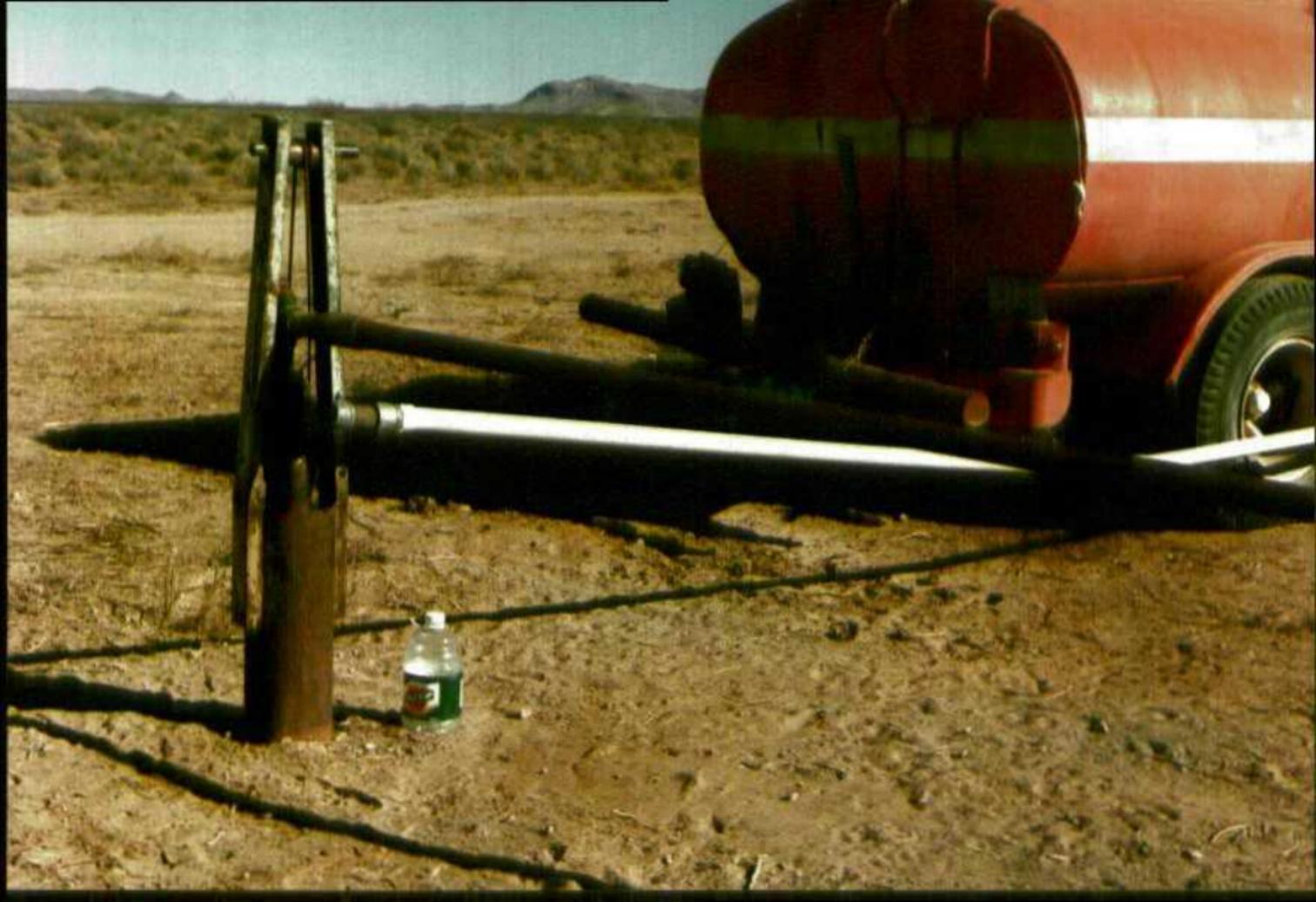
2040 S. PACHECO

SANTA FE, NM 87505





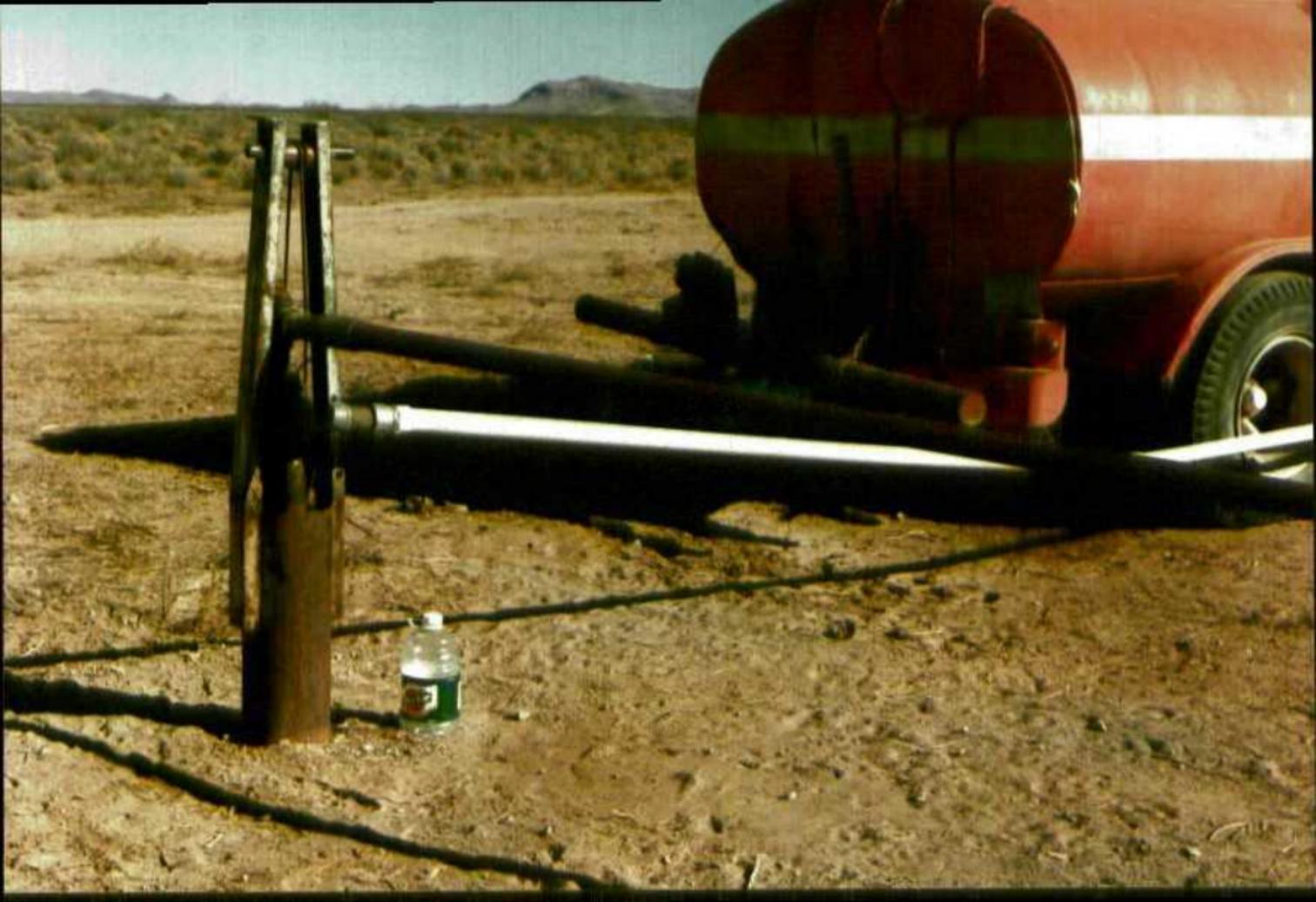














OIL CONSERVATION DIVISION

October 23, 1995

CERTIFIED MAIL**RETURN RECEIPT NO. Z-765-962-784**

Mr. Gary L. Seawright
AmeriCulture, Inc.
536 Paul Place
Los Alamos, NM 87544

**Re: Discharge Plan GW-223 Approval
Fish Farm Complex
Hidalgo County, New Mexico**

Dear Mr. Seawright:

The groundwater discharge plan, GW-223, for the AmeriCulture, Inc. Fish Farm Complex located in Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. The application consists of the original discharge plan application dated August 14, 1995.

The discharge plan application was submitted pursuant to section 3-106 of the Water Quality Control Commission Regulations. It is approved pursuant to section 3-109.A. Please note Sections 3-109.E and 3-109.F., which provide for possible future amendments or modifications of the plan. Please be advised that approval of this plan does not relieve you of your liability should your operation result in pollution of surface or ground waters, or the environment.

Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3-104 of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C. you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Mr. Gary L. Seawright
October 23, 1995
Page 2

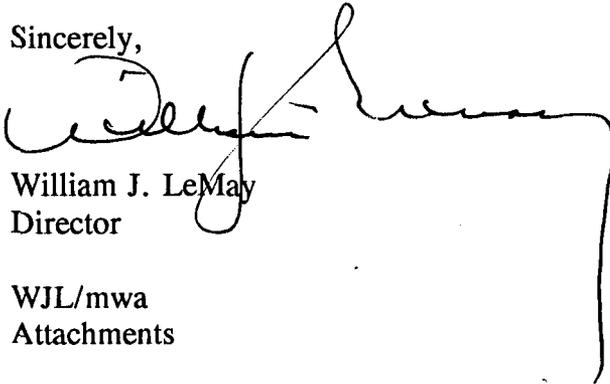
Pursuant to Section 3-109.G.4., this approval is for a period of five years. This approval will expire October 23, 2000, and an application for renewal should be submitted six months before that date.

The discharge plan renewal application for the AmeriCulture, Inc. Fish Farm Complex is subject to WQCC Regulation 3-114. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of \$50 plus \$1,380.00 flat fee for geothermal facilities. The \$50 filing fee was received by the New Mexico Oil Conservation Division (OCD) on September 12, 1995. The OCD has not received your flat fee, which may be paid in a single payment or in five equal installments over the expected duration of the discharge plan. Installment payments shall be remitted yearly, with the first installment due on the date of the discharge plan approval.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review. If you have any questions, please contact Mark Ashley of my staff at (505) 827-7155.

Sincerely,

A handwritten signature in black ink, appearing to read 'William J. LeMay', with a long, sweeping horizontal line extending to the right and a vertical line dropping down from the end of that line.

William J. LeMay
Director

WJL/mwa
Attachments

ATTACHMENT TO THE DISCHARGE PLAN GW-223 APPROVAL
AMERICULTURE, INC.
FISH FARM COMPLEX
DISCHARGE PLAN REQUIREMENTS
(October 23, 1995)

1. Payment of Discharge Plan Fees: The required flat fee of \$1,380.00 may be paid in a single payment or in equal installments over the expected duration of the discharge plan. Installment payments shall be remitted yearly, with the first installment due on the date of the discharge plan approval and subsequent installments due on this date of each calendar year.
2. Sump Construction: All new or rebuilt sumps and below-grade tanks will be approved by the OCD prior to installation and will incorporate secondary synthetic containment and leak detection in their designs. All leak detection systems will be inspected weekly and the OCD Santa Fe office will be notified immediately upon discovery of fluids in any leak detection system.
3. Drum Storage: All chemical and lubrication drums shall be stored on pad and curb type containment.
4. Tank Berming: All tanks that contain materials other than fresh water will be bermed to contain one and one-third times the capacity of the tank.
5. Spill Reporting: All spills and/or leaks shall be reported to the OCD Santa Fe and Artesia offices pursuant to WQCC Rule 1-203 and OCD Rule 116.
6. Annual Reporting: The volume and quality of the water discharged onto the ground surface will be reported to the OCD annually. Analyze for major cations and anions.
7. Water Additives: The discharged water will not be treated with any additives or chemicals without prior OCD approval.
8. Discharge Control: The water will be discharged and controlled in such a manner that there is no erosion of soils or flooding of the discharge ditch and livestock pond.
9. Well Workover Operations: OCD approval will be obtained from the director prior to performing remedial work or any other workover. Approval will be requested on OCD Form C-103 "Sundry Notices and Reports on Wells" (OCD Rule 1103-A) with appropriate copies sent to the OCD Artesia office.
10. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

11. Transfer of Discharge Plan: Prior to any transfer of ownership, control, or possession of your facility, the OCD will be notified. A written request must be submitted and approved by the OCD prior to the transaction.

Z 765 962 784



Receipt for Certified Mail

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

PS Form 3800, March 1993

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS AND
NATURAL RESOURCES
DEPARTMENT

OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application and renewal application have been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(GW-223) - Americulture, Inc., Gary L. Seawright, 636 Paul Place, Los Alamos, New Mexico 87544, has submitted a discharge plan application for their geothermal heating of a fish farm

complex located in Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico. After heat is extracted from approximately 60,000 gallons per day of geothermal water using a heat exchanger system, the cooled effluent stream will be disposed into a shallow trench and used to supply a water source for range cattle on adjacent ranch property. The geothermal water has an average total dissolved solids content of 1,050 mg/l. The uppermost groundwater most likely to be affected by any accidental discharge is geothermal and is at a depth of approximately 523 feet with a total dissolved solids concentration of about 1,050 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

(GW-032) - GIANT REFINING Company, Mr. Lynn Shelton, (505)-722-3833, Route 3, Box 7, Gallup, New Mexico, 87031 has submitted a Renewal application for the previously approved discharge plan for their Cimiza Refinery located in Section 28, Township 15 North, Range 15 West, NMPM, McKinley County, near Gallup, New Mexico. The Renewal application consists of the Renewal permit dated August 14, 1991 and the subsequent Modifications dated August 21, 1992, September 21, 1993, March 15, 1994, and June 14, 1995. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface varies in depth from 70 feet to 140 feet with an approximate total dissolved solids concentration of 950 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

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. The discharge plan applications may be reviewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. Prior to any 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 during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information presented at the hearing. GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 30th day of August, 1995.

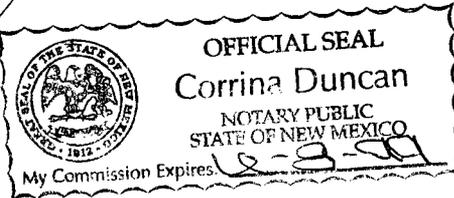
STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY, Director

TO by reprinted
10-10-95
mg

STATE OF NEW MEXICO
County of Bernalillo SS

Bill Tafoya being duly sworn declares and says that he is Classified Advertising manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for One times, the first publication being of the 9 day of Sept, 1995, and the subsequent consecutive publications on _____, 1995

should be
52'



Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 11th day of Sept, 1995

Bill Tafoya

PRICE 51.21
Statement to come at end of month.

Corrina Duncan

should be
Section 28 and
Section 33

CLA-22-A (R-1/93) ACCOUNT NUMBER 280938

OIL CONSERVATION DIVISION

September 22, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-768

Mr. Gary L. Seawright
AmeriCulture, Inc.
536 Paul Place
Los Alamos, NM 87544

**Re: Discharge Plan GW-223 Extension
Fish Farm Complex
Hidalgo County, New Mexico**

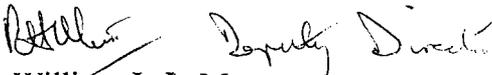
Dear Mr. Seawright:

The New Mexico Oil Conservation Division (OCD) has received your request dated September 7, 1995 for an extension to discharge without an approved discharge plan for the Fish Farm Complex located in Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico.

Pursuant to Section 3-106.B. of the New Mexico Water Quality Control Commission (WQCC) regulations AmeriCulture, Inc. is hereby granted a 120 day extension to discharge at the Fish Farm Complex without an approved discharge plan until January 22, 1996. This extension is granted to allow AmeriCulture, Inc. to operate during the final stages of approval.

Please be advised this extension does not relieve AmeriCulture, Inc. of liability should their operation result in actual pollution of surface waters, ground waters or the environment.

Sincerely,

WJL

William J. LeMay
Director

WJL/mwa

xc: Tim Gum, OCD Artesia Office
Ray Smith, OCD Artesia Office

Z 765 962 768



Receipt for Certified Mail

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

PS Form 3800, March 1993

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
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Restricted Delivery Fee	
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Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

Affidavit of Publication

STATE OF NEW MEXICO) SS
COUNTY OF MCKINLEY

OIL CONSERVATION DIVISION
RECEIVED
1995 SEP 21 AM 8 52

LEGAL NOTICE
Gallup McKinley County
New Mexico

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

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application and renewal application have been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505)827-7131:

(GW-223) - Americulture, Inc., Gary L. Seawright, 536 Paul Place, Los Alamos, New Mexico 87544, has submitted a discharge plan application for their geothermal heating of a fish farm complex located in Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico. After heat is extracted from approximately 60,000 gallons per day of geothermal water using a heat exchanger system, the cooled effluent stream will be disposed into a shallow trench and used to supply a water source for range cattle on adjacent ranch property. The geothermal water has an average total dissolved solids content of 1,050 mg/l. The uppermost groundwater most likely to be affected by an accidental discharge is geothermal and is at a depth of approximately 52 feet with a total dissolved solids concentration of about 1,050 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

(GW-032) - GIANT REFINING Company, Mr. Lynn Shelton, (505)722-3833, Route 3, Box 7, Gallup, New Mexico, 87301 has submitted a Renewal application for the previously approved discharge plan for their Ciniza Refinery located in Section 28 and Section 33, Township 15-North, Range 15 West, NMPM, McKinley County, near Gallup, New Mexico. The Renewal application consists of the Renewal permit dated August 14, 1991 and the subsequent Modifications dated August 21, 1992, September 21, 1993, March 15, 1995, and June 14, 1995. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface varies in depth from 70 feet to 140 feet with an approximately total dissolved solids concentration of 950 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

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. The discharge plan applications may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. 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 during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 30th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
/s/ WILLIAM J. LEMAY, DIRECTOR
Legal #12232 Published in The Independent September 7, 1995.

Freida Hubbard being duly sworn upon oath, deposes and says:

As Legal Clerk of The Independent, a newspaper published in and having a general circulation in McKinley County, New Mexico and in the City of Gallup, New Mexico and having a general circulation in Cibola County, New Mexico and in the City of Grants, New Mexico and having a general circulation in Apache County, Arizona and in the City of St. Johns and in the City of Window Rock, Arizona therein: that this affiant makes this affidavit based upon personal knowledge of the facts herein sworn to. That the publication, a copy of which is hereto attached was published in said newspaper during the period and time of publication and said notice was published in the newspaper proper, and not in a supplement thereof,

for one time, the first publication being on the 7th day of September, 1995 the second publication being on the _____ day of _____, 19____ the third publication on the _____ day of _____, 19_____.

and the last publication being on the _____ day of _____, 19_____.

That such newspaper, in which such notice or advertisement was published, is now and has been at all times material hereto, duly qualified for such purpose, and to publish legal notices and advertisements within the meaning of Chapter 12 of the statutes of the State of New Mexico, 1941 compilation.

Freida Hubbard
Affiant.

Sworn and subscribed to before me this 14th day of September, A.D., 1995.

William J. Lemay
Notary Public

My commission expires
June 22, 1997

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 7548 dated 9/6/95
or cash received on 9/12/95 in the amount of \$ 50.00

from Gary L. Seawright
for Aquaculture Facility GW-223
(Facility Name) (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: Roger Anderson Date: 9/13/95

Received in ASD by: George Alora Date: 9/13/95

Filing Fee New Facility _____ Renewal _____

Modification _____ Other _____
(specify)

Organization Code 521.07 Applicable FY 96

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment _____

GARY L. SEAWRIGHT LU ANN SEAWRIGHT 536 PAUL PL. PH. 505-672-3739 LOS ALAMOS, NM 87544		7548 95-101/1070
PAY TO THE ORDER OF	<u>New Mexico Conservation Div.</u>	<u>9/6</u> 19 <u>95</u>
	<u>Seventy &</u>	<u>\$ 50.00</u>
		<u>50.00</u> DOLLARS
Los Alamos National Bank P.O. Box 60 (505) 662-5171 Los Alamos, NM 87544		<u>Gary Seawright</u> MP
MEMO	_____	
⑆ 10700 10 1 2⑆ 7548 ⑆ 006 22648 ⑆ 0 1		

OIL CONSERVATION DIVISION
RECEIVED

55 SEP 12 AM 8 52

GARY L. SEAWRIGHT

536 Paul Place
Los Alamos, NM 87544

September 7, 1995

Mark Ashley
New Mexico Oil Conservation Division
2440 S. Pacheco
Santa Fe, NM 87505

GW-223

Dear Mark:

Enclosed is a check in the amount of \$50 that should have accompanied the Discharge Plan that I sent to you while I was on the road, two weeks ago. I apologize for the oversight.

Secondly, per our telephone conversation earlier today, I have enclosed a letter to Mr. William LeMay in which we request an extension to operate our startup aquaculture facility in the Animas Valley, NM, without a discharge plan. I understand that an extension can be granted for a sufficient period of time to allow your office to process our Discharge Plan.

Many thanks for your cooperation.

Sincerely,



Gary L. Seawright

GARY L. SEAWRIGHT

536 Paul Place
Los Alamos, NM 87544

September 7, 1995

Mr. William LeMay
New Mexico Oil Conservation Division
2440 S. Pacheco
Santa Fe, NM 87505

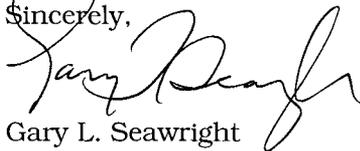
Dear Mr. LeMay:

We recently submitted to your Department a Discharge Plan for geothermal disposal at the facilities of the Americulture, Inc., located in the Animas Valley, Hildago County, NM. Unfortunately we did not submit the plan early enough to allow sufficient processing time by your office before we needed to begin operations.

Accordingly, we would like to request herewith an extension to operate our new facility without a discharge plan until our Plan has been processed by your office. We expect operations to begin on or about September 28, 1995.

Thank you in advance for your kind response to this request.

Sincerely,



Gary L. Seawright

cc Damon E. Seawright
Roy Cunniff



August 31, 1995

ALBUQUERQUE JOURNAL
P. O. Drawer J-T
Albuquerque, New Mexico 87103

RE: NOTICE OF PUBLICATION

ATTN: ADVERTISING MANAGER

Dear Sir/Madam:

Please publish the attached notice one time immediately on receipt of this request. Please proofread carefully, as any error in a land description or in a key word or phrase can invalidate the entire notice.

Immediately upon completion of publication, please send the following to this office:

1. Publisher's affidavit in duplicate.
2. Statement of cost (also in duplicate.)
2. **CERTIFIED** invoices for prompt payment.

We should have these immediately after publication in order that the legal notice will be available for the hearing which it advertises, and also so that there will be no delay in your receiving payment.

Please publish the notice no later than September 7, 1995.

Sincerely,

Sally E. Martinez
Sally E. Martinez
Administrative Secretary

Attachment

VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830
Park and Recreation Division
P.O. Box 1147 87504-1147
827-7465

2640 South Pacheco
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation
827-7131

7 765 963 633



**Receipt for
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Sent to <i>Alby Journal</i>	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, March 1993



August 31, 1995

GALLUP INDEPENDENT
P. O. Box 1210
Gallup, New Mexico 87301

RE: NOTICE OF PUBLICATION

ATTN: ADVERTISING MANAGER

Dear Sir/Madam:

Please publish the attached notice one time immediately on receipt of this request. Please proofread carefully, as any error in a land description or in a key word or phrase can invalidate the entire notice.

Immediately upon completion of publication, please send the following to this office:

1. Publisher's affidavit in duplicate.
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2. CERTIFIED invoices for prompt payment.

We should have these immediately after publication in order that the legal notice will be available for the hearing which it advertises, and also so that there will be no delay in your receiving payment.

Please publish the notice no later than September 7, 1995.

Sincerely,

Sally E. Martinez
Sally E. Martinez
Administrative Secretary

Attachment

VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830
Park and Recreation Division
P.O. Box 1147 87504-1147
827-7465

2040 South Pacheco
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation
827-7131

Z 765 963 511



Receipt for Certified Mail

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

Sent to Gallup Independent	
Street and No. P.O. Box 1210	
P.O., State and ZIP Code Gallup, NM 87301	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, March 1993

August 31, 1995

LORDSBURG LIBERAL
211 Shakespere
Lordsburg, New Mexico 88045

RE: NOTICE OF PUBLICATION

ATTN: ADVERTISING MANAGER

Dear Sir/Madam:

Please publish the attached notice one time immediately on receipt of this request. Please proofread carefully, as any error in a land description or in a key word or phrase can invalidate the entire notice.

Immediately upon completion of publication, please send the following to this office:

1. Publisher's affidavit in duplicate.
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2. CERTIFIED invoices for prompt payment.

We should have these immediately after publication in order that the legal notice will be available for the hearing which it advertises, and also so that there will be no delay in your receiving payment.

Please publish the notice no later than September 7, 95.

Sincerely,


Sally E. Martinez
Administrative Secretary

Attachment

Z 765 963 1,34



Receipt for Certified Mail

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

Sent to	Lordsburg Liberal	
Street and No.	11 Shakespear	
P.O., State and ZIP Code	Lordsburg, NM	
Postage	886.45	\$
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, and Addressee's Address		
TOTAL Postage & Fees		\$
Postmark or Date		

PS Form 3800, March 1993

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application and renewal application have been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(GW-223) - Americulture, Inc., Gary L. Seawright, 536 Paul Place, Los Alamos, New Mexico 87544, has submitted a discharge plan application for their geothermal heating of a fish farm complex located in Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico. After heat is extracted from approximately 60,000 gallons per day of geothermal water using a heat exchanger system, the cooled effluent stream will be disposed into a shallow trench and used to supply a water source for range cattle on adjacent ranch property. The geothermal water has an average total dissolved solids content of 1,050 mg/l. The uppermost groundwater most likely to be affected by any accidental discharge is geothermal and is at a depth of approximately 52 feet with a total dissolved solids concentration of about 1,050 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

(GW-032) - GIANT REFINING Company, Mr. Lynn Shelton, (505)-722-3833, Route 3, Box 7, Gallup, New Mexico, 87301 has submitted a Renewal application for the previously approved discharge plan for their Ciniza Refinery located in Section 28 and Section 33, Township 15 North, Range 15 West, NMPM, Mckinley County, near Gallup, New Mexico. The Renewal application consists of the Renewal permit dated August 14, 1991 and the subsequent Modifications dated August 21, 1992, September 21, 1993, March 15, 1995, and June 14, 1995. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface varies in depth from 70 feet to 140 feet with an approximate total dissolved solids concentration of 950 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

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. The discharge plan applications may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. 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 during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall

set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 30th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Handwritten signature of William J. Lemay in cursive script, followed by the initials "WJL" in a stylized font.

WILLIAM J. LEMAY, Director

SEAL

NOTICE OF PUBLICATION

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 30th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Handwritten signature of William J. Lemay in cursive script, followed by the initials "WES" in a stylized font.

WILLIAM J. LEMAY, Director

SEAL

Facsimile

To: New Mexico Oil Conservation Division
Attn.: Mark Ashley
2440 S. Pacheco
Santa Fe, NM 87505
fax: 505-827-8177

From: Damon Seawright
Vice President, AmeriCulture, Inc.
phone/fax: 206-685-3294

Pages: 3 of 3 (including cover)

Message:

Dear Mark: Enclosed herewith are 1) an executed copy of the signature page of the Application for a Surface Disposal Permit and 2) a cover letter to our recently submitted proposal, written by Gary L. Seawright (President, AmeriCulture, Inc.). The "Discharge Plan for Geothermal Disposal" and application for AmeriCulture, Inc. were sent recently and should arrive in a day or two; the contents of the enclosed cover letter should help identify the application upon its arrival. Because Gary L. Seawright and I are presently in different cities, he sent the completed application without my signature. The enclosed signature page has both our signatures. Please read the note at the bottom of the second page, written to you by Gary L. Seawright today, August 24, 1995. If you have any questions, please contact me at (206)685-3294.

Thank-you

DISCHARGE PLAN FOR GEOTHERMAL DISCHARGE

I. GENERAL INFORMATION

A. Name, Address, and Telephone Number for Discharger or Legally Responsible Party:

Gary L. Seawright, President
AmeriCulture, Inc.
536 Paul Place
Los Alamos, NM 87544
Telephone: (505) 672-3739

Damon E. Seawright, Vice-President
AmeriCulture Inc.
HC P.O. Box 265B
Animas, NM 88020
Telephone: (505) 548-2328

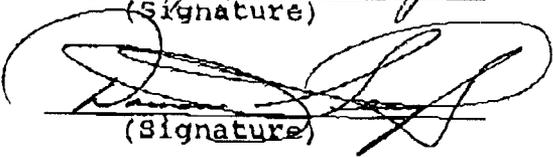
B. Location of Discharge: Section 7, Township 25 South, Range 19 West

C. Type of Operation: Geothermal heating of fish farm complex. The fish farm consists of a series of tanks housing fish of varying maturity, all sheltered inside a greenhouse type structure. The complex will be heated using geothermal water piped through a heat exchanger system.

D. Affirmation:

"I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate, and complete to best of my knowledge and belief."



(Signature)


(Signature)

8/24/95
(Date)

8/24/95
(Date)

AMERICULTURE, INC.
536 Paul Place
Los Alamos, NM 87544

August 14, 1995

New Mexico Oil Conservation Division
ATTN: Mark Ashley
2440 S. Pacheco
Santa Fe, New Mexico 87505

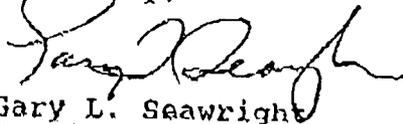
Dear Mr. Ashley:

Enclosed please find a properly completed Discharge Plan for geothermal disposal at the facilities of AmeriCulture, Inc., located in the Animas Valley, Hidalgo County, New Mexico.

This Discharge Plan is submitted as an application for a Discharge Permit. Also enclosed is our check for \$50.00 to process the application.

If you have questions concerning this Discharge Plan, please contact me at the address and telephone number shown in the Plan. For questions concerning geothermal issues, please feel free to contact our consultant, Roy A. Cunniff, telephone (305) 523-7908.

Sincerely,


Gary L. Seawright
President

2 Encl:

1. Discharge Plan
2. Check for \$50.00 for processing the Disposal Permit

8/24/95

ATTN: MARK ASHLEY -

Mark -

I sent this cover letter and an "application for a surface disposal permit" yesterday, but we failed to include signatures. An executed copy of the signature page is transmitted by Teletax herein. I left a message on your answering machine &

AMERICULTURE, INC.
536 Paul Place
Los Alamos, NM 87544

August 14, 1995

New Mexico Oil Conservation Division
ATTN: Mark Ashley
2440 S. Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Ashley:

Enclosed please find a properly completed Discharge Plan for geothermal disposal at the facilities of AmeriCulture, Inc., located in the Animas Valley, Hidalgo County, New Mexico.

This Discharge Plan is submitted as an application for a Discharge Permit. Also enclosed is our check for \$50.00 to process the application.

If you have questions concerning this Discharge Plan, please contact me at the address and telephone number shown in the Plan. For questions concerning geothermal issues, please feel free to contact our consultant, Roy A. Cunniff, telephone (505) 523-7908.

Sincerely,



Gary L. Seawright
President

2 Encl:

1. Discharge Plan
2. Check for \$50.00 for processing the Disposal Permit

RECEIVED

AUG 28 1995

Environmental Bureau
Oil Conservation Division

30-15

DISCHARGE PLAN FOR GEOTHERMAL DISCHARGE

✓ I. GENERAL INFORMATION

A. Name, Address, and Telephone Number for Discharger or Legally Responsible Party:

Gary L. Seawright, President
AmeriCulture, Inc.
536 Paul Place
Los Alamos, NM 87544
Telephone: (505) 672-3739

Damon E. Seawright, Vice-President
AmeriCulture Inc.
HC P.O. Box 265B
Animas, NM 88020
Telephone: (505) 548-2328

B. Location of Discharge: Section 7, Township 25 South, Range 19 West

C. Type of Operation: Geothermal heating of fish farm complex. The fish farm consists of a series of tanks housing fish of varying maturity, all sheltered inside a greenhouse type structure. The complex will be heated using geothermal water piped through a heat exchanger system.

D. Affirmation:

"I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate, and complete to best of my knowledge and belief."

(Signature)

(Date)

(Signature)

(Date)

✓ II. Plant Processes

A. Describe storage and uses of geothermal waters and any surface disposal impoundments.

Space heating operations initially will use an existing geothermal well completed by the Beall Company in 1984 and used for more than 10 years to heat a greenhouse located on the site. During its period of use, the geothermal fluid production of an estimated quantity of up to 108,000 gpd was discharged onto the land surface near the greenhouse.

The geothermal water generally is good quality, with only fluoride concentration higher than allowable drinking water standards. The water contains a total dissolved solids content of approximately 1,050 milligrams per liter, and the fluoride concentration is about 12.5 - 14.5 mg per liter. This geothermal water has the same dissolved minerals content as the geothermal water presently being discharged onto the land surface by Rosette. Inc. under an existing disposal permit. The geothermal water has been analysed several times, and a copy of laboratory analysis of the water is attached at Appendix A.

For the new application to heat the fish farm complex, the geothermal well will be operated as necessary to provide heat for the fish farm complex. After heat is extracted from the geothermal water using a heat exchanger system, the cooled effluent stream will be disposed into a shallow trench and used to supply a water source for range cattle on the adjacent McCants' ranch property. To prevent summer time storm flow run-off from the nearby Pyramid Mountains located about three miles to the east, a diversion berm will be built. This berm would direct surface flow of storm waters away from the fish farm complex.

B. Estimated quantities used in gallons per day (gpd):

At peak heating load, it is anticipated that up to 150,000 gpd will be discharged. Average discharge rate during the heating season would be about 60,000 gpd.

C. Any additives or commingling:

Depending on the results from future research, it is possible that the geothermal water would serve as the growth medium for the fish. If this concept becomes viable, the geothermal fluid would be circulated throughout the fish farm complex, and would be discharged to an evapotranspiration pond as a normal part of the cycling operations.

During operation of the fish farm complex, an effluent stream of about 20,000 gpd of nitrate-enriched fluid would be discharged from the fish farm complex. This stream would be sent to an evapotranspiration bed to be solar dried. If the geothermal water proves to be suitable for direct use, the geothermal water would become nitrate-enriched and the commingled fluid would form the total discharge.

III. Site Characteristics

A. Provide the name, description, and location of any ground water discharge sites within one mile of the outside perimeter of the facility.

The proposed fish farm complex would be built on a 15-acre tract of land surface above the confirmed geothermal aquifer, and would be located less than 350 feet from a geothermal well complex located on New Mexico Trust land operated by Rosette, Inc. as a geothermal source for heating 1.3 million square feet of greenhouse complexes. The geothermal production is used to heat the greenhouses, and the cooled geothermal effluent is discharged to a drainage channel located in Section 7 about one-quarter to one-half mile south of the fish farm complex.

The existing geothermal wells drilled within the past 15 years by Rosette, Inc. cover an area comprising a zone about one-half mile wide, covering most of the eastern portion of Section 7 and extending into Section 6 on the north where Rosette, Inc. has a geothermal well field on New Mexico Trust Land. About 16 different geothermal wells have been completed, and the geothermal aquifer is now relatively well defined.

Fresh water irrigation wells are located about one and one-half miles to the west of the existing geothermal well field and disposal facilities. These fresh water wells, owned and used by Rosette, are used in their greenhouses. Tom McCants also owns irrigation wells to the west. AmeriCulture, Inc. also owns, and will use in its operations a fresh water well, State Engineer No. A-45-S-3, located in Section 12, Township 25 South, Range 20 West, about 1.5 miles west of the fish farm complex.

Water quality analyses for geothermal and irrigation wells are attached at Appendix B.

The following figure depicts the general surface land ownership and well locations. A second figure depicts probable extent of the geothermal aquifer and direction of subsurface flow.

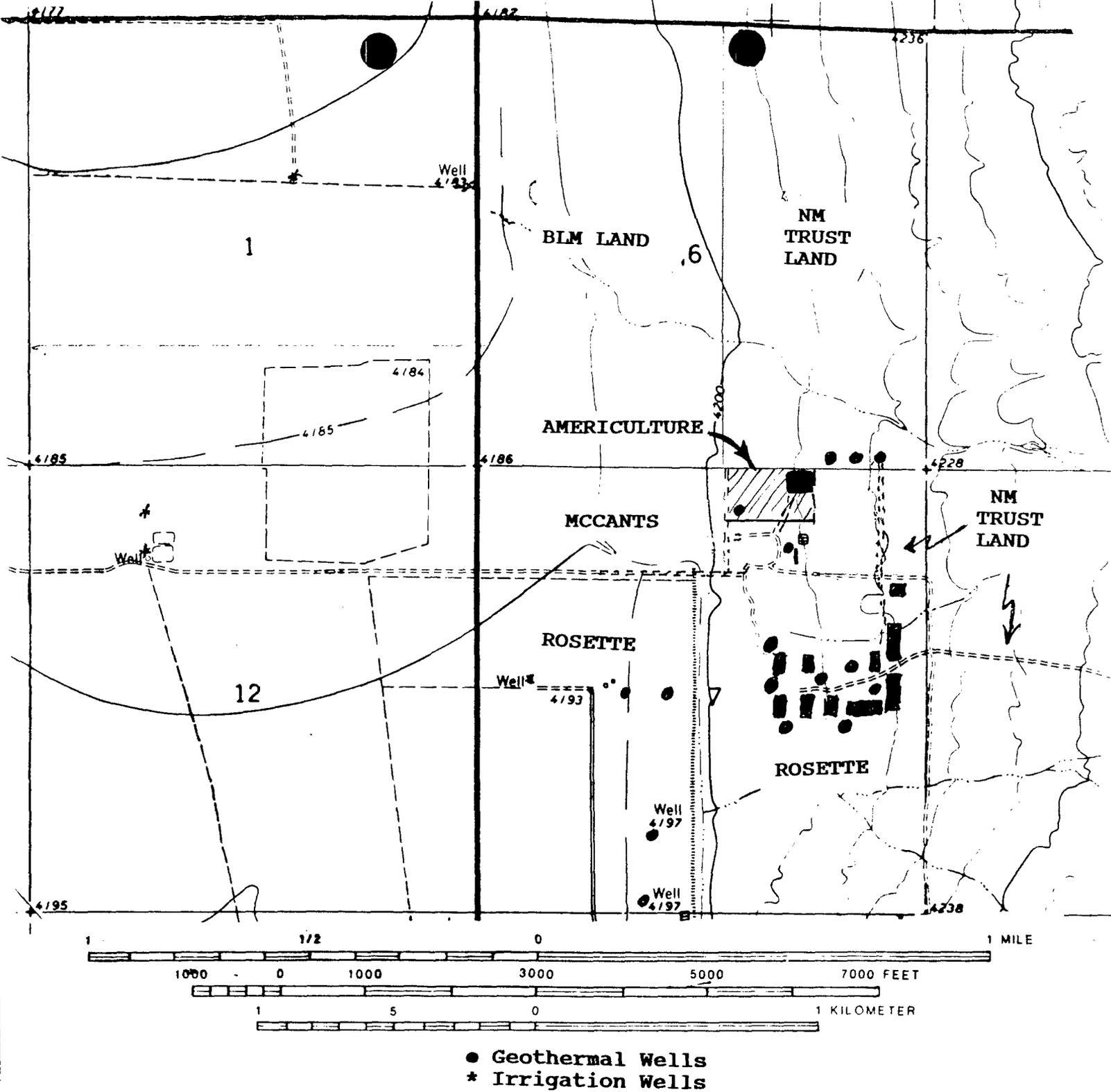


FIGURE 1. LOCATION MAP IN SECTION 7, TS 25S, R 19W FOR AMERICULTURE, INC., MCCANTS, ROSETTE, INC.

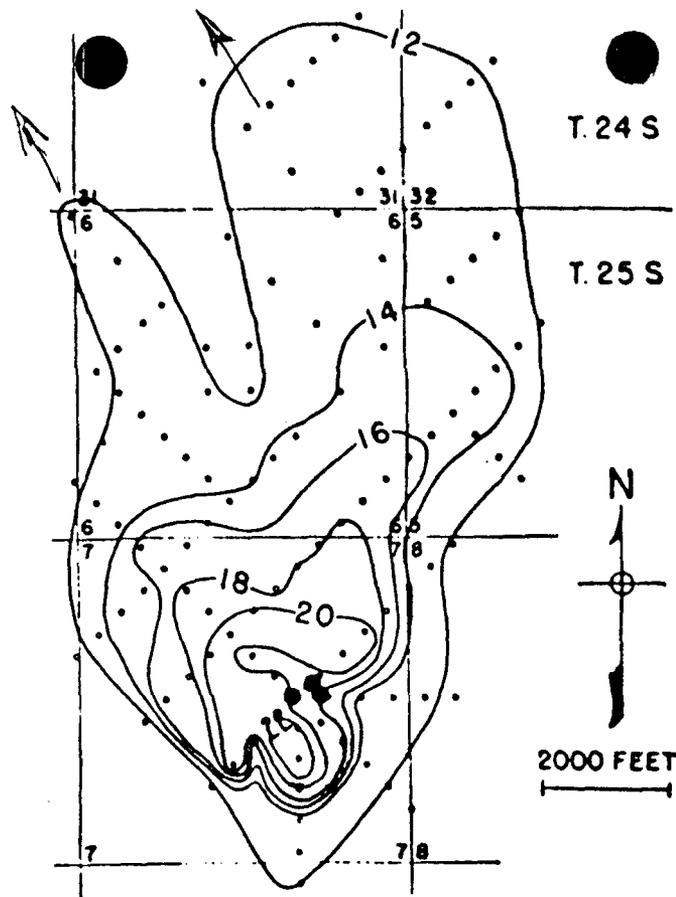


FIGURE 2. TEMPERATURE AT A DEPTH OF ONE METER AROUND HOT WELLS
(in Kintzinger, 1956)

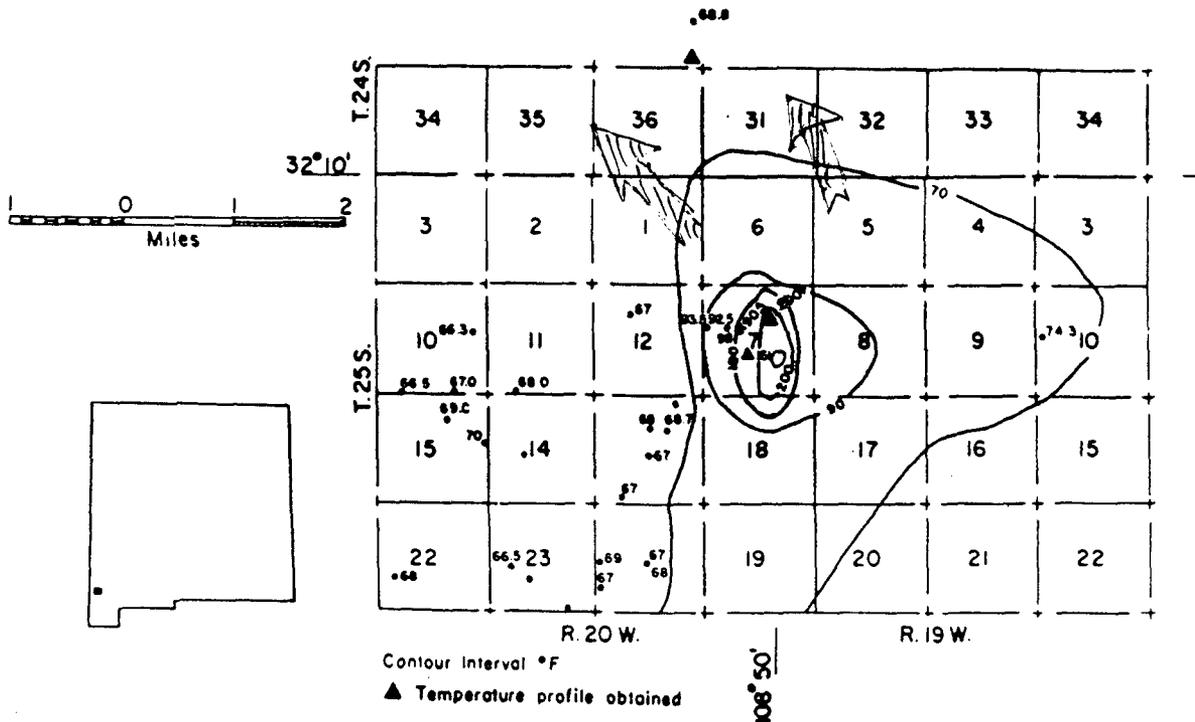


FIGURE 3. MAP OF THE THERMAL ANOMALY IN THE ANIMAS VALLEY,
SHOWING TEMPERATURES OF DISCHARGING WATER AND LOCATIONS
(in Summers, 1976)

B. If known, provide the flow direction of the ground water most likely to be affected by the discharge. Include the source of the information and how it was determined.

Ground water flows from the subsurface geothermal aquifer to the north north-west. This geothermal source has been studied extensively by numerous researchers, including:

Schwennesen, A.J., 1918, Ground Water in the Animas, Playas, Hachita, and San Luis Basins, USGS Water-Supply Paper 422.

Kintzinger, P.R., 1956, Geothermal Survey of Hot Ground Near Lordsburg, New Mexico: Science v. 124,

Reeder, H.O., 1956, Ground Water in the Animas Valley, Hidalgo County, NM State Engineer's Office Technical Report 11.

Summers, W.H., 1976, Catalog of Thermal Waters in New Mexico, New Mexico Bureau of Mines and Mineral Resources Open-file Report 75-613.

O'Brien, K.M., and Stone, W.J., 1983, A Two-dimensional Hydrologic Model of the Animas Valley, Hidalgo County, New Mexico, New Mexico Bureau of Mines and Minerals Resources Open-file Report 133.

C. Provide depth to water of geothermal water, and if possible, any fresh water wells that could be affected by any discharge.

From records of well completions on file with the New Mexico Oil Conservation Division, depth to water in the geothermal aquifer ranges from about 52 feet to 72 feet. For example, Burgett 1993 State No.1, drilled within Section 6, encountered depth of geothermal water at 52.4 feet in the completed well. The original geothermal well considered for use in the present application for a Disposal Permit encountered geothermal water at a depth of 65 feet. Researchers cited above, including Reeder (1957) and Brien and Stone (1983) reported depth of about 60 feet to geothermal water in the geothermal wells completed prior to 1983.

Fresh water wells located to the west of the geothermal aquifer generally depict a depth to water of about 85 feet, or greater, depending on the ground surface elevation of the well.

It is unlikely that any fresh water wells could be affected by any geothermal discharge. From water quality data presented in the references previously cited, and from the water quality analyses in Appendices A and B, all of the irrigation and domestic water wells located within a three-mile radius to the west and northwest contain elevated fluoride content.

D. Depth to and lithologic description of rock at base of alluvium. Provide drillers logs and geologic information and maps as available.

Geothermal wells drilled prior to 1983 are reported to have encountered fractured rhyolite at a depth of approximately 60 to 65 feet. This fractured rhyolite rock, red in color, is presumed to be the geothermal aquifer.

The red rhyolite rock serves as a useful geologic marker. From well records available at the New Mexico Oil Conservation Division, the geothermal well proposed for use in the present application was completed to a total depth in alluvium to depth of 205 feet. Drilling of this well did not identify a specific geologic marker.

From well completion records available in the New Mexico Oil Conservation Division, geothermal wells drilled in 1993 by Rosette, Inc. in Section 6 (about 350 feet north and east of the new fish farm complex) encountered a fractured rhyolite, red in color, at a depth of approximately 325 feet in Rosette State No. 1 and Rosette State No. 2, and at about 323 feet in Rosette State No. 4. This new information suggests that the rhyolitic rock (and the geothermal aquifer) is downthrown to the north and west. Further, this new, 1993, drilling information suggests the possibility that the natural geothermal flow to the north and north west is controlled by this rhyolitic rock. The subsurface geothermal flow would move to the north and north west to gradually cool and mix with cooler valley waters.

This is the hydrologic model suggested by O'Brien and Stone (1983).

E. Describe flooding potential of the discharge site.

As mentioned in section II A, above, a potential exists for surface runoff from summer storms in the Pyramid Mountains. To protect the fish farm complex, including the discharge site, an earthen berm will be erected on the east side of the fish complex to divert potential surface runoff to the north of the complex. This earthen berm would be similar in size to the earthen berm, constructed sometime before 1965, which protects the western part of Section 7 from mountain front surface runoff.

F. Any additional information that may be necessary to demonstrate that approval of the discharge plan will not result in concentrations in excess of the standards of WQCC Regulations, Section 3-103, or the presence of any toxic pollutant at any place of withdrawal of water for present or reasonably foreseeable future use.

Information contained in this application clearly shows that the geothermal aquifer is very large, and fish farm operations conducted by Americulture, Inc. will be conducted on land surface above the geothermal aquifer. Existing subsurface water in vicinity is all geothermal in origin, is shallow, and the geothermal fluid is of relatively good quality.

Planned disposal operations are similar to surface disposal of geothermal water conducted by Beall Company for more than ten years, and are similar, but involve substantially smaller quantities, than the geothermal disposal operations presently being conducted by Rosette, Inc. under an approved discharge plan. Disposal operations conducted by Americulture, Inc. do not involve any toxic pollutants, and are unlikely to cause any contamination of any potable ground water sources.

APPENDICES:

- A. Copy of laboratory analyses for water quality from Beall geothermal well (now owned by AmeriCulture, Inc.)
- B. Copies of water quality analyses completed by the NM OCD and other agencies for selected geothermal and irrigation wells in the Animas Valley.



PF

DATE RECEIVED	<i>2 10 26</i>	LAB NO.	<i>HM-278</i>	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: <i>82235</i>
Collection DATE	<i>1 28 86</i>	SITE INFORMATION	Sample location		
Collection TIME	<i>1000</i>		<i>BEALL WELL</i>		
Collected by — Person/Agency		Collection site description			
<i>RAILEY/JOHNSON - OGD</i>		<i>~ 3/4 MILE WEST OF BURGETT FACILITIES</i>			

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088,
 Santa Fe, NM 87501

Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input checked="" type="checkbox"/> Pump	Water level	Discharge	Sample type
<input type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
pH (00400)	<i>6.7</i>	Conductivity (Uncorrected)	Water Temp. (00010)	Conductivity at 25°C (00094)
		<i>490 µmho</i>	<i>17.5 °C</i>	<i>µmho</i>
Field comments				
<i>T.O. 125'</i>				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	<i>1</i>	<input type="checkbox"/> NF: Whole sample (Non-filtered)	<input checked="" type="checkbox"/> F: Filtered in field with 0.45 µm membrane filter	<input checked="" type="checkbox"/> A: 2ml H ₂ SO ₄ /L added <i>HNO₃</i>
<input type="checkbox"/> NA: No acid added <input type="checkbox"/> Other-specify:				

ANALYTICAL RESULTS from SAMPLES

NF, NA, FA, HNO ₃		Units	Date analyzed	F, NA		Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)		µmho		<input type="checkbox"/> Calcium (00915)		mg/l	
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)		mg/l		<input type="checkbox"/> Magnesium (00925)		mg/l	
<input checked="" type="checkbox"/> Other: <i>ICAP SCAN</i>				<input type="checkbox"/> Sodium (00930)		mg/l	
<input checked="" type="checkbox"/> Other: <i>Se</i>	<i>20.000</i>		<i>3/10/86</i>	<input type="checkbox"/> Potassium (00935)		mg/l	
<input type="checkbox"/> Other: <i>As</i>	<i>4.000</i>		<i>3/10/86</i>	<input type="checkbox"/> Bicarbonate (00440)		mg/l	
				<input type="checkbox"/> Chloride (00940)		mg/l	
				<input type="checkbox"/> Sulfate (00945)		mg/l	
				<input type="checkbox"/> Total filterable residue (dissolved) (70300)		mg/l	
				<input type="checkbox"/> Other:			
NF, A-H₂SO₄				F, A-H₂SO₄			
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)		mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
<input type="checkbox"/> Ammonia-N total (00610)		mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)		mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()		mg/l		<input type="checkbox"/> Total Kjeldahl-N ()		mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)		mg/l		<input type="checkbox"/> Other:			
<input type="checkbox"/> Total organic carbon ()		mg/l					
<input type="checkbox"/> Other:				Analyst	Date Reported	Reviewed by	
<input type="checkbox"/> Other:					<i>4/18/86</i>	<i>JJA</i>	

Laboratory remarks

Lab Number: 111 278

Sample Code: Beall Well

Date Submitted: 2/10/86

Date Analyzed: 2/17/86

By: Barley

Reviewed By: Jim Ashley

Date Reported: 4/12/86

<u>Element</u>	<u>ICAP VALUE (MG/L)</u>	<u>AA VALUE (MG/L)</u>
Aluminum	<u>40.1</u>	<u> </u>
Barium	<u>40.1</u>	<u> </u>
Beryllium	<u>40.1</u>	<u> </u>
Boron	<u>40.1</u>	<u> </u>
Cadmium	<u>40.1</u>	<u> </u>
Calcium	<u>59.</u>	<u> </u>
Chromium	<u>40.1</u>	<u> </u>
Cobalt	<u>40.1</u>	<u> </u>
Copper	<u>40.1</u>	<u> </u>
Iron	<u>40.1</u>	<u> </u>
Lead	<u>40.1</u>	<u> </u>
Magnesium	<u>5.5</u>	<u> </u>
Manganese	<u>40.05</u>	<u> </u>
Molybdenum	<u>40.1</u>	<u> </u>
Nickel	<u>40.1</u>	<u> </u>
Silicon	<u>16.</u>	<u> </u>
Silver	<u>40.1</u>	<u> </u>
Strontium	<u>0.5</u>	<u> </u>
Tin	<u>40.1</u>	<u> </u>
Vanadium	<u>40.1</u>	<u> </u>
Zinc	<u>0.8</u>	<u> </u>
Arsenic		<u><0.005</u>
Selenium		<u><0.005</u>
Mercury		<u> </u>

DATE RECEIVED 2/10/86 LAB NO. WC 561 SER CODE 59300 59600 OTHER 82235

Collection DATE 2/28/86 Collection TIME 1000 Collected by — Person/Agency WILEY/JOHNSON - OCO

SITE INFORMATION
 Sample location BEALL WELL
 Collection site description ~ 3/4 MILE WEST OF BURGESS FACILITIES

NDIAL PORT
 ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501
 Attn: David Boyer

Station/well code
 Owner

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input checked="" type="checkbox"/> Pump	Water level	Discharge	Sample type
<input type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
H (00400)	Conductivity (Uncorrected)	Water Temp. (00010)	Conductivity at 25°C (00094)	
<u>6.7</u>	<u>490 µmho</u>	<u>17.5 °C</u>	<u>µmho</u>	

Field comments T.O. 125'

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 µmembrane filter A: 2 ml H₂SO₄/L added

NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	µmho		<input checked="" type="checkbox"/> Calcium (00915)	mg/l	<u>2-10</u>
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	mg/l	<u>"</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	mg/l	<u>"</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	mg/l	<u>"</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Chloride (00940)	mg/l	<u>2/20</u>
			<input checked="" type="checkbox"/> Sulfate (00945)	mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	<u>3/13</u>
			<input checked="" type="checkbox"/> Other: <u>CO₃</u>	mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> F	mg/l	<u>2/27</u>
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		F, A-H₂SO₄		
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Total organic carbon ()	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				<u>3/24/86</u>	<u>[Signature]</u>

Laboratory remarks

DATE RECEIVED **2/10/86** LAB NO. **HM 235** USER CODE 59300 59600 OTHER: 82235

Collection DATE **1/28/86** SITE INFORMATION Sample location **BURGETT IRRIGATION WELL**

Collection TIME **1040** Collection site description **~ 2 mi SW of GREENHOUSES**

Collected by — Person/Agency **BAILEY JOHNSON - OCO**

SEND FINAL REPORT TO
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input checked="" type="checkbox"/> Pump	Water level	Discharge 1400 gpm	Sample type
<input type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
pH (00400) 7.0	Conductivity (Uncorrected) 600 µmho	Water Temp. (00010) 19 °C	Conductivity at 25 °C (00094) µmho	
Field comments T.A. 250'				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted **1** NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 µm membrane filter A: **2 ml H₂SO₄/L added HNO₃**

NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

Units	Date analyzed	F. NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095) _____ µmho		<input type="checkbox"/> Calcium (00915) _____ mg/l		
<input type="checkbox"/> Total non-filterable residue (suspended) (00530) _____ mg/l		<input type="checkbox"/> Magnesium (00925) _____ mg/l		
<input checked="" type="checkbox"/> Other: ICAP SCAN		<input type="checkbox"/> Sodium (00930) _____ mg/l		
<input checked="" type="checkbox"/> Other: Se	1/28/86	<input type="checkbox"/> Potassium (00935) _____ mg/l		
<input type="checkbox"/> Other: Co	2/10/86	<input type="checkbox"/> Bicarbonate (00440) _____ mg/l		
		<input type="checkbox"/> Chloride (00940) _____ mg/l		
		<input type="checkbox"/> Sulfate (00945) _____ mg/l		
		<input type="checkbox"/> Total filterable residue (dissolved) (70300) _____ mg/l		
		<input type="checkbox"/> Other: _____		
NF, A-H₂SO₄		F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630) _____ mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631) _____ mg/l		
<input type="checkbox"/> Ammonia-N total (00610) _____ mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608) _____ mg/l		
<input type="checkbox"/> Total Kjeldahl-N () _____ mg/l		<input type="checkbox"/> Total Kjeldahl-N () _____ mg/l		
<input type="checkbox"/> Chemical oxygen demand (00340) _____ mg/l		<input type="checkbox"/> Other: _____		
<input type="checkbox"/> Total organic carbon () _____ mg/l				
<input type="checkbox"/> Other: _____		Analyst	Date Reported 4/18/86	Reviewed by JFA
<input type="checkbox"/> Other: _____				

Laboratory remarks

Lab Number: HM 280

Sample Code: Burgett Irrigation We

Date Submitted: 2/10/86

Date Analyzed: 2/17/86

By: Bailey

Reviewed By: J. Ashby

Date Reported: 4/18/86

<u>Element</u>	<u>ICAP VALUE (MG/L)</u>	<u>AA VALUE (MG/L)</u>
Aluminum	<u><0.1</u>	<u>_____</u>
Barium	<u><0.1</u>	<u>_____</u>
Beryllium	<u><0.1</u>	<u>_____</u>
Boron	<u><0.1</u>	<u>_____</u>
Cadmium	<u><0.1</u>	<u>_____</u>
Calcium	<u>72.</u>	<u>_____</u>
Chromium	<u><0.1</u>	<u>_____</u>
Cobalt	<u><0.1</u>	<u>_____</u>
Copper	<u><0.1</u>	<u>_____</u>
Iron	<u><0.1</u>	<u>_____</u>
Lead	<u><0.1</u>	<u>_____</u>
Magnesium	<u>6.5</u>	<u>_____</u>
Manganese	<u><0.05</u>	<u>_____</u>
Molybdenum	<u><0.1</u>	<u>_____</u>
Nickel	<u><0.1</u>	<u>_____</u>
Silicon	<u>15.</u>	<u>_____</u>
Silver	<u><0.1</u>	<u>_____</u>
Strontium	<u>0.4</u>	<u>_____</u>
Tin	<u><0.1</u>	<u>_____</u>
Vanadium	<u><0.1</u>	<u>_____</u>
Zinc	<u><0.1</u>	<u>_____</u>
Arsenic		<u><0.005</u>
Selenium		<u><0.005</u>
Mercury		<u>_____</u>

DATE RECEIVED 2/10/86 LAB NO. WC 56 USER CODE 59300 59600 OT 82235

Collection DATE 1/28/86 SITE INFORMATION BURGETT IRRIGATION WELL

Collection TIME 1040 Collection site description ~ 2 mi SW of GREENHOUSES

Collected by — Person/Agency SAILEY/JOHNSON - JCO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501

Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input checked="" type="checkbox"/> Pump	Water level	Discharge <u>1400 gpm</u>	Sample type
<input type="checkbox"/> Dipped	<input type="checkbox"/> Tap	Conductivity (Uncorrected) <u>600 µmho</u>	Water Temp. (00010) <u>19 °C</u>	Conductivity at 25°C (00094) <u>µmho</u>
pH (00400) <u>7.0</u>		Field comments <u>T.D. 250'</u>		

AMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 µmembrane filter A: 2 ml H₂SO₄/L added

NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	µmho		<input checked="" type="checkbox"/> Calcium (00915)	<u>64.0</u> mg/l	<u>2-10</u>
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	<u>17.5</u> mg/l	
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	<u>82.8</u> mg/l	
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	<u>1.56</u> mg/l	
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	<u>144</u> mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Chloride (00940)	<u>53.6</u> mg/l	<u>2/20</u>
			<input checked="" type="checkbox"/> Sulfate (00945)	<u>153</u> mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	<u>480</u> mg/l	<u>3/13</u>
			<input checked="" type="checkbox"/> Other: <u>CO₂</u>	<u>0.0</u>	<u>2/18</u>
			<input checked="" type="checkbox"/> Other: <u>F</u>	<u>0.99</u>	<u>2/27</u>
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630)	mg/l		F, A-H₂SO₄		
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Nitrate-N + Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Total organic carbon ()	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				<u>3/24/86</u>	<u>C. Dean</u>

laboratory remarks



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 - (505) 841-2555

PK

GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS

OCD 4

DATE RECEIVED	2/10/86	LAB NO.	HM 279	USER CODE	59300	59600	OTHER	82235
Collection DATE	1/28/86	SITE INFORMATION		Sample location				
Collection TIME	0900			BURGETT GEOTHERMAL WELL				
Collected by - Person/Agency		Collection site description						
BAILEY/JOHNSON - OCD		7 T255 R19W BYPASS VALVE AT WELLHEAD						

SEND FINAL REPORT TO
 ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501
 Attn: David Boyer

Station/well code
 Owner DALE BURGETT

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input checked="" type="checkbox"/> Pump	Water level	STATIC W.L. 65'	Discharge	300 gpm	Sample type	
<input type="checkbox"/> Dipped	<input type="checkbox"/> Tap	DEPTH TO WATER	90'				
pH (00400)	8.1	Conductivity (Uncorrected)	2900 umho	Water Temp. (00010)	48 °C	Conductivity at 25°C (00094)	umho
Field comments PUMPED FOR 10 HRS/DAY TO HEAT GREENHOUSES. REPORTED TO BE 240°F AT WELL HEAD. T.D. 250'							

SAMPLE FIELD TREATMENT - Check proper boxes

No. of samples submitted	1	<input type="checkbox"/> NF: Whole sample (Non-filtered)	<input checked="" type="checkbox"/> F: Filtered in field with 0.45 µmembrane filter	<input checked="" type="checkbox"/> A: 2 ml H ₂ SO ₄ /L added HNO ₃
<input type="checkbox"/> NA: No acid added <input type="checkbox"/> Other-specify:				

ANALYTICAL RESULTS from SAMPLES

NF, NA	EA	HNO ₃	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)			µmho		<input type="checkbox"/> Calcium (00915)	mg/l	
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)			mg/l		<input type="checkbox"/> Magnesium (00925)	mg/l	
<input checked="" type="checkbox"/> Other: ICAP SCAN					<input type="checkbox"/> Sodium (00930)	mg/l	
<input checked="" type="checkbox"/> Other: SE				2/4/86	<input type="checkbox"/> Potassium (00935)	mg/l	
<input type="checkbox"/> Other: Qa				2/10/86	<input type="checkbox"/> Bicarbonate (00440)	mg/l	
					<input type="checkbox"/> Chloride (00940)	mg/l	
					<input type="checkbox"/> Sulfate (00945)	mg/l	
					<input type="checkbox"/> Total filterable residue (dissolved) (70300)	ma/l	
					<input type="checkbox"/> Other:		
NF, A-H ₂ SO ₄				F, A-H ₂ SO ₄			
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)			mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)			mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()			mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)			mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()			mg/l				
<input type="checkbox"/> Other:							
<input type="checkbox"/> Other:							
Laboratory remarks		Analyst		Date Reported		Reviewed by	
				4/18/86		Jim Ashby	

Lab Number: UM 279
Date Submitted: 2/10/86
By: Bailey

Sample Code: Burgett Geothermal Well
Date Analyzed: 2/17/86
Reviewed By: Jim Bailey
Date Reported: 4/18/86

<u>Element</u>	<u>ICAP VALUE (MG/L)</u>	<u>AA VALUE (MG/L)</u>
Aluminum	<u><0.1</u>	<u>_____</u>
Barium	<u><0.1</u>	<u>_____</u>
Beryllium	<u><0.1</u>	<u>_____</u>
Boron	<u>0.5</u>	<u>_____</u>
Cadmium	<u><0.1</u>	<u>_____</u>
Calcium	<u>21.</u>	<u>_____</u>
Chromium	<u><0.1</u>	<u>_____</u>
Cobalt	<u><0.1</u>	<u>_____</u>
Copper	<u><0.1</u>	<u>_____</u>
Iron	<u><0.1</u>	<u>_____</u>
Lead	<u><0.1</u>	<u>_____</u>
Magnesium	<u><0.1</u>	<u>_____</u>
Manganese	<u><0.05</u>	<u>_____</u>
Molybdenum	<u><0.1</u>	<u>_____</u>
Nickel	<u><0.1</u>	<u>_____</u>
Silicon	<u>75.</u>	<u>_____</u>
Silver	<u><0.1</u>	<u>_____</u>
Strontium	<u>0.5</u>	<u>_____</u>
Tin	<u><0.1</u>	<u>_____</u>
Vanadium	<u><0.1</u>	<u>_____</u>
Zinc	<u><0.1</u>	<u>_____</u>
Arsenic		<u>0.011</u>
Selenium		<u><0.005</u>
Mercury		<u>_____</u>



EN

DATE RECEIVED	2/10/86	LAB NO.	WC 562	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	1/28/86	SITE INFORMATION	Sample location		
Collection TIME	0900		BURGETT GEOTHERMAL WELL		
Collected by — Person/Agency		Collection site description			
BAILEY/JOHNSON - OCO		7 T255 R19W BYPASS VALVE AT WELLHEAD			

SEND FINAL REPORT TO
 ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501
 Attn: David Boyer

MPE:
 THIS IS BURGETT No. 5
 RR No. 6, East of A
 20 HP PUMP. (Could be
 No. 11, which also has 20 HP)

Station/well code
 Owner DALE BURGETT

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed <input type="checkbox"/> Dipped	<input checked="" type="checkbox"/> Pump <input type="checkbox"/> Tap	Water level	STATIC W.L. 65' DEPTH TO WATER 90'	Discharge	300 gpm	Sample type
pH (00400)	8.1	Conductivity (Uncorrected)	2900 μ mho	Water Temp. (00010)	48 °C	Conductivity at 25°C (00094) μ mho
Field comments PUMPED FOR 10 HRS/DAY TO HEAT GREENHOUSES. REPORTED TO BE 240° F AT WELLHEAD. T.D. 250'						

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μ membrane filter A: 2 ml H₂SO₄/L added

NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	μ mho		<input checked="" type="checkbox"/> Calcium (00915)	mg/l	2/10
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	mg/l	2/18
			<input checked="" type="checkbox"/> Chloride (00940)	mg/l	2/20
			<input checked="" type="checkbox"/> Sulfate (00945)	mg/l	2/18
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	3/13
			<input checked="" type="checkbox"/> Other: CO ₃		2/18
			<input checked="" type="checkbox"/> F		2/27
NF, A-H ₂ SO ₄			F, A-H ₂ SO ₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:			Analyst	Date Reported	Revised by
<input type="checkbox"/> Other:				3/24/86	<i>[Signature]</i>

Laboratory remarks

DATE RECEIVED 2/10/86 LAB NO. HM 23 USER CODE 59300 59600 OTHER 82235

Collection DATE 1/28/86 SITE INFORMATION Sample location BURGETT FRESH WATER WELL
 Collection TIME 1015 Collection site description ~ 1/2 mi WSW OF GREENHOUSES
 Collected by — Person/Agency RAILEY/JOHNSON - OGD

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501

Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input checked="" type="checkbox"/> Pump	Water level	Discharge <u>65-70 gpm</u>	Sample type
<input type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
pH (00400)	Conductivity (Uncorrected) <u> </u> μ mho	Water Temp. (00010) <u> </u> °C	Conductivity at 25°C (00094) <u> </u> μ mho	

Field comments T.D. 175 NOT ENOUGH SAMPLE FOR FIELD TESTS.

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μ m membrane filter A: 2 ml H₂SO₄/L added HNO₃
 NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

NF, NA	FA	HNO ₃	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)			μ mho		<input type="checkbox"/> Calcium (00915)	mg/l	
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)			mg/l		<input type="checkbox"/> Magnesium (00925)	mg/l	
<input checked="" type="checkbox"/> Other: <u>ICAP SCAN</u>					<input type="checkbox"/> Sodium (00930)	mg/l	
<input checked="" type="checkbox"/> Other: <u>Se</u>	<u>20.005</u>	<u>2/14/86</u>			<input type="checkbox"/> Potassium (00935)	mg/l	
<input type="checkbox"/> Other: <u>As</u>	<u>20.005</u>	<u>2/14/86</u>			<input type="checkbox"/> Bicarbonate (00440)	mg/l	
					<input type="checkbox"/> Chloride (00940)	mg/l	
					<input type="checkbox"/> Sulfate (00945)	mg/l	
					<input type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	
					<input type="checkbox"/> Other:		
NF, A-H₂SO₄					F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)			mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)			mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()			mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)			mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()			mg/l				
<input type="checkbox"/> Other:							
<input type="checkbox"/> Other:							

Analyst Date Reported 4/18/86 Reviewed by GJA

Laboratory remarks Sample Dugested

Lab Number: HM 282

Sample Code: Burgett Fresh Water

Date Submitted: 2/10/86

Date Analyzed: 2/17/86

By: Bailey

Reviewed By: Jim Bailey

Date Reported: 4/18/86

<u>Element</u>	<u>ICAP VALUE (MG/L)</u>	<u>AA VALUE (MG/L)</u>
Aluminum	<u>40.1</u>	<u> </u>
Barium	<u>40.1</u>	<u> </u>
Beryllium	<u>40.1</u>	<u> </u>
Boron	<u>40.1</u>	<u> </u>
Cadmium	<u>40.1</u>	<u> </u>
Calcium	<u>33.</u>	<u> </u>
Chromium	<u>40.1</u>	<u> </u>
Cobalt	<u>40.1</u>	<u> </u>
Copper	<u>40.1</u>	<u> </u>
Iron	<u>40.1</u>	<u> </u>
Lead	<u>40.1</u>	<u> </u>
Magnesium	<u>2.9</u>	<u> </u>
Manganese	<u>40.05</u>	<u> </u>
Molybdenum	<u>40.1</u>	<u> </u>
Nickel	<u>40.1</u>	<u> </u>
Silicon	<u>16.</u>	<u> </u>
Silver	<u>40.1</u>	<u> </u>
Strontium	<u>0.2</u>	<u> </u>
Tin	<u>40.1</u>	<u> </u>
Vanadium	<u>40.1</u>	<u> </u>
Zinc	<u>40.1</u>	<u> </u>
Arsenic		<u><0.005</u>
Selenium		<u><0.005</u>
Mercury		<u> </u>

RECEIVED 2 / 10 / 86 LAB NO. WC 563 USER CODE 59300 59600 OTHER 82235
 COLLECTION DATE 1 / 28 / 86 SITE INFORMATION Sample location BURGETT FRESH WATER WELL
 COLLECTION TIME 1015 COLLECTION SITE DESCRIPTION ~ 1 1/2 mi WSW OF GREENHOUSES
 COLLECTED BY — Person/Agency AILEY/JOHNSON - OGD

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501
 Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input checked="" type="checkbox"/> Pump	Water level	Discharge <u>65-70 gpm</u>	Sample type
<input type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
PH (00400)	Conductivity (Uncorrected) <u> </u> μmho	Water Temp. (00010) <u> </u> $^{\circ}\text{C}$	Conductivity at 25 $^{\circ}\text{C}$ (00094) <u> </u> μmho	

Field comments T.D. 175' NOT ENOUGH SAMPLE FOR FIELD TESTS.

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μm membrane filter A: 2 ml H₂SO₄/L added
 NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25 $^{\circ}\text{C}$ (00095)	μmho		<input type="checkbox"/> Calcium (00915)	<u>22.7</u> mg/l	<u>2/10</u>
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	<u>1.71</u> mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	<u>14.4</u> mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	<u>1.25</u> mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	<u>144.7</u> mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Chloride (00940)	<u>18.6</u> mg/l	<u>2/20</u>
			<input checked="" type="checkbox"/> Sulfate (00945)	<u>80.5</u> mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	<u>310</u> mg/l	<u>3/13</u>
			<input checked="" type="checkbox"/> Other: <u>CO₃</u>	<u>3.45</u>	<u>2/18</u>
			<input checked="" type="checkbox"/> Other: <u>F</u>	<u>0.98</u>	<u>2/27</u>
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		F, A-H₂SO₄		
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Total organic carbon ()	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				<u>3</u> / <u>24</u> / <u>86</u>	<u>[Signature]</u>

Laboratory remarks



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

PF

0406

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

DATE RECEIVED <u>10/26/86</u>	LAB NO. <u>H11277</u>	USER CODE <input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE <u>1/28/86</u>	SITE INFORMATION	Sample location <u>DISCHARGE FROM GREENHOUSE</u>
Collection TIME <u>0915</u>		Collection site description
Collected by — Person/Agency <u>RAILEY JOHNSON - OCO</u>		

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501

Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input checked="" type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
pH (00400) <u>8.1</u>	Conductivity (Uncorrected) <u>2220</u> μ mho	Water Temp. (00010) <u>47°</u> °C	Conductivity at 25°C (00094) μ mho	
Field comments <u>WATER IS CIRCULATED THROUGH FIN PIPES TO HEAT GREENHOUSES</u>				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted <u>1</u>	<input type="checkbox"/> NF: Whole sample (Non-filtered)	<input checked="" type="checkbox"/> F: Filtered in field with 0.45 μ membrane filter	<input checked="" type="checkbox"/> A: <u>2 mL H₂SO₄/L added HNO₃</u>
<input type="checkbox"/> NA: No acid added <input type="checkbox"/> Other-specify:			

ANALYTICAL RESULTS from SAMPLES

NF-NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	μ mho		<input type="checkbox"/> Calcium (00915)	mg/l	
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input type="checkbox"/> Magnesium (00925)	mg/l	
<input checked="" type="checkbox"/> Other: <u>ICAP SCAN</u>			<input type="checkbox"/> Sodium (00930)	mg/l	
<input checked="" type="checkbox"/> Other: <u>Se</u>		<u>2/12/90</u>	<input type="checkbox"/> Potassium (00935)	mg/l	
<input type="checkbox"/> Other: <u>Co</u>		<u>2/12/90</u>	<input type="checkbox"/> Bicarbonate (00440)	mg/l	
			<input type="checkbox"/> Chloride (00940)	mg/l	
			<input type="checkbox"/> Sulfate (00945)	mg/l	
			<input type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	
			<input type="checkbox"/> Other:		
NF, A-H₂SO₄			F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				<u>4/18/86</u>	<u>JFA</u>

Laboratory remarks

Lab Number: LM 277

Sample Code: Discharge from Leach

Date Submitted: 2/10/86

Date Analyzed: 2/17/86

By: Bailey

Reviewed By: Jim Ashby

Date Reported: 4/18/86

<u>Element</u>	<u>ICAP VALUE (MG/L)</u>	<u>AA VALUE (MG/L)</u>
Aluminum	<u><0.1</u>	<u>_____</u>
Barium	<u><0.1</u>	<u>_____</u>
Beryllium	<u><0.1</u>	<u>_____</u>
Boron	<u>0.5</u>	<u>_____</u>
Cadmium	<u><0.1</u>	<u>_____</u>
Calcium	<u>21.</u>	<u>_____</u>
Chromium	<u><0.1</u>	<u>_____</u>
Cobalt	<u><0.1</u>	<u>_____</u>
Copper	<u><0.1</u>	<u>_____</u>
Iron	<u>0.2</u>	<u>_____</u>
Lead	<u><0.1</u>	<u>_____</u>
Magnesium	<u>0.1</u>	<u>_____</u>
Manganese	<u>0.05</u>	<u>_____</u>
Molybdenum	<u><0.1</u>	<u>_____</u>
Nickel	<u><0.1</u>	<u>_____</u>
Silicon	<u>76.</u>	<u>_____</u>
Silver	<u><0.1</u>	<u>_____</u>
Strontium	<u>0.4</u>	<u>_____</u>
Tin	<u><0.1</u>	<u>_____</u>
Vanadium	<u><0.1</u>	<u>_____</u>
Zinc	<u><0.1</u>	<u>_____</u>
Arsenic	<u>_____</u>	<u>0.012</u>
Selenium	<u>_____</u>	<u><0.005</u>
Mercury	<u>_____</u>	<u>_____</u>



DATE RECEIVED 2/10/86 LAB NO. WC 560 USER CODE 59300 59600 OTHER: 82235

Collection DATE 1/28/86 SITE INFORMATION Sample location DISCHARGE FROM GREENHOUSE

Collection TIME 0915 Collection site description _____

Collected by — Person/Agency BAILEY JOHNSON - OCO

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501

Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input checked="" type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
pH (00400) <u>8.1</u>	Conductivity (Uncorrected) <u>2220</u> μ mho	Water Temp. (00010) <u>47°</u> °C	Conductivity at 25°C (00094) <u> </u> μ mho	
Field comments <u>WATER IS CIRCULATED THROUGH FIN PIPES TO HEAT GREENHOUSES</u>				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μ m membrane filter A: 2 ml H₂SO₄/L added

NA: No acid added Other-specify: _____

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	μ mho		<input checked="" type="checkbox"/> Calcium (00915)	mg/l	<u>2-10</u>
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	mg/l	<u>"</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	mg/l	<u>1</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	mg/l	<u>1</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Chloride (00940)	mg/l	<u>2/20</u>
			<input checked="" type="checkbox"/> Sulfate (00945)	mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	<u>3/13</u>
			<input checked="" type="checkbox"/> Other: CO ₂		<u>00</u>
			<input checked="" type="checkbox"/> Other: F		<u>11.7</u>
NF, A-H ₂ SO ₄			F, A-H ₂ SO ₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
Other:			Analyst	Date Reported	Reviewed by
Other:				<u>3/24/86</u>	<u>Callan</u>

laboratory remarks



PF

DATE RECEIVED	2/10/86	LAB NO.	HM 281	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	1/28/86	SITE INFORMATION	Sample location		
Collection TIME	1030		VALLEY VIEW COMMUNITY CHURCH		
Collected by — Person/Agency		Collection site description			
RAILEY/JOHNSON - OCA		~ 2 MI WEST OF BURGETT FACILITIES			

SEND FINAL REPORT TO
 ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501
 Attn: David Boyer

Station/well code
 Owner

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input type="checkbox"/> Dipped	<input checked="" type="checkbox"/> Tap			
pH (00400)	7.4	Conductivity (Uncorrected)	241 μ mho	Water Temp. (00010)
				11 °C
				Conductivity at 25 °C (00094)
				μ mho
Field comments				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μ m membrane filter A: 2 mL H₂SO₄/L added HNO₃

NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

Units	Date analyzed	F: NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25 °C (00095)	μ mho		<input type="checkbox"/> Calcium (00915)	mg/l
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input type="checkbox"/> Magnesium (00925)	mg/l
<input checked="" type="checkbox"/> Other: ICAP SCAN			<input type="checkbox"/> Sodium (00930)	mg/l
<input checked="" type="checkbox"/> Other: Se	20.005	2/10/86	<input type="checkbox"/> Potassium (00935)	mg/l
<input type="checkbox"/> Other: Co	20.005	4/7/86	<input type="checkbox"/> Bicarbonate (00440)	mg/l
			<input type="checkbox"/> Chloride (00940)	mg/l
			<input type="checkbox"/> Sulfate (00945)	mg/l
			<input type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l
			<input type="checkbox"/> Other:	
NF, A-H₂SO₄		F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l	<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l	<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l	<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l			
<input type="checkbox"/> Other:		Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:			4/18/86	JFH

Laboratory remarks

Lab Number: U 281

Sample id: Valley View Comm. Chur

Date Submitted: 2/10/86

Date Analyzed: 2/17/86

By: Bailey

Reviewed By: J. Bailey

Date Reported: 4/18/86

<u>Element</u>	<u>ICAP VALUE (MG/L)</u>	<u>AA VALUE (MG/L)</u>
Aluminum	<u><0.1</u>	<u>_____</u>
Barium	<u><0.1</u>	<u>_____</u>
Beryllium	<u><0.1</u>	<u>_____</u>
Boron	<u><0.1</u>	<u>_____</u>
Cadmium	<u><0.1</u>	<u>_____</u>
Calcium	<u>26.</u>	<u>_____</u>
Chromium	<u><0.1</u>	<u>_____</u>
Cobalt	<u><0.1</u>	<u>_____</u>
Copper	<u><0.1</u>	<u>_____</u>
Iron	<u><0.1</u>	<u>_____</u>
Lead	<u><0.1</u>	<u>_____</u>
Magnesium	<u>2.3</u>	<u>_____</u>
Manganese	<u><0.05</u>	<u>_____</u>
Molybdenum	<u><0.1</u>	<u>_____</u>
Nickel	<u><0.1</u>	<u>_____</u>
Silicon	<u>16.</u>	<u>_____</u>
Silver	<u><0.1</u>	<u>_____</u>
Strontium	<u>0.2</u>	<u>_____</u>
Tin	<u><0.1</u>	<u>_____</u>
Vanadium	<u><0.1</u>	<u>_____</u>
Zinc	<u>0.4</u>	<u>_____</u>
Arsenic	<u>_____</u>	<u><0.005</u>
Selenium	<u>_____</u>	<u><0.005</u>
Mercury	<u>_____</u>	<u>_____</u>

DATE RECEIVED 2/10/86 LAB NO. WC 564 USER CODE 59300 59600 OTHER 82235

Collection DATE 1/28/86 SITE INFORMATION Sample location VALLEY VIEW COMMUNITY CHURCH

Collection TIME 1030 Collection site description ~ 2 mi WEST OF BURGESS FACILITIES

Collected by — Person/Agency RAILEY/JOHNSON - OCA

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501

Attn: David Boyer

Station/well code _____
 Owner _____

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input type="checkbox"/> Dipped	<input checked="" type="checkbox"/> Tap			
pH (00400) <u>7.4</u>	Conductivity (Uncorrected) <u>241 µmho</u>	Water Temp. (00010) <u>11 °C</u>	Conductivity at 25 °C (00094) _____	µmho

Field comments _____

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 µm membrane filter A: 2 ml H₂SO₄/L added

NA: No acid added Other-specify: _____

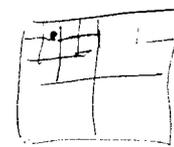
ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25 °C (00095)	µmho		<input checked="" type="checkbox"/> Calcium (00915)	mg/l	<u>2-10</u>
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	mg/l	<u>"</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	mg/l	<u>"</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	mg/l	<u>"</u>
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Chloride (00940)	mg/l	<u>2/20</u>
			<input checked="" type="checkbox"/> Sulfate (00945)	mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	<u>3/13</u>
			<input checked="" type="checkbox"/> Other: CO ₃	mg/l	<u>2/18</u>
			<input checked="" type="checkbox"/> F	mg/l	<u>2/27</u>
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		F, A-H₂SO₄		
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Total organic carbon ()	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				<u>3/24/86</u>	<u>[Signature]</u>

Laboratory remarks _____

Appendix A

Water Chemistry Analysis,
Domestic Water Well (Beall)



C-3



Soil and Plant Laboratory, Inc.

Member of The California Association of Agricultural Laboratories

P.O. Box 11744, Santa Ana, California 92711-1744 (714) 558-8333 Telex Number: IRIN 678
P.O. Box 153, Santa Clara, California 95052-0153 (408) 727-0330
P.O. Box 1548, Bellevue, Washington 98009-1648 (206) 746-6665

Beall Company of New Mexico ER AGRICULTURAL SUSTAINABILITY ANALYSIS
St. Route 260B (A71)
Animas, NM 88020

Santa Ana Office
Lab. No. 69965
April 25, 1984

Sample Designation: Water
Sample number: 1
Sample received: 4-18-84

255 19 Sec 7 .221

CATIONS			ANIONS		
	ppm	me/l		ppm	me/l
Sodium (Na)	68	2.96	Chloride (Cl)	22	0.62
Calcium (Ca)	52	2.60	Sulfate (SO ₄)	115	2.40
Magnesium (Mg)	6	0.50	Bicarbonate (HCO ₃)	177	2.90
Potassium (K)	2	0.05	Carbonate (CO ₃)	0	0
			Nitrate (NO ₃)	5	0.09
Sum of cations		6.11	Sum of anions		6.01

Hydrogen Ion Activity (pH)	7.1	Copper (Cu)	*
Equilibrium Reaction (pHc)	7.58	Zinc (Zn)	0.06
Electrical Conductivity (ECx10 ³)	0.60	Manganese (Mn)	0.05
Adjusted Sodium Adsorption Ratio (SAR _{adj})	4.33	Iron (Fe)	0.14
		Boron (B)	0.08
		Fluoride (F)	0.88
		Lithium (Li)	0.04

STATE ENGINEER OFFICE
WELL RECORD

BEALL
IRRIGATION WELL

Section 1. GENERAL INFORMATION

(A) Owner of well Beall Company of New Mexico Owner's Well No. 2
Street or Post Office Address Bar Ranch 1 Box 240 B
City and State Armas NM 88020

Well was drilled under Permit No. A-45-S-3 1106450 and is located in the: 84 APR 2 AM 10 41

a. $\frac{1}{4}$ $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 13 Township 32S5 Range 20W N.M.
b. Tract No. _____ of Map No. _____ of the SALINA PLATEAU 97501
c. Lot No. _____ of Block No. _____ of the
Subdivision, recorded in _____ County.
d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone
the _____ Grid

(B) Drilling Contractor Oasis Drilling License No. WD 806
Address Po Box 436 Armas NM 88020
Drilling Began 23 Jan 84 Completed 1 Feb 84 Type tools Rotary Size of hole 11
Elevation of land surface or Approximately at well is 4300 ft. Total depth of well 145
Completed well is shallow artesian. Depth to water upon completion of well 64

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
65	80	15	clay & gravel	10
105	145	40	gravel	50

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
10 5/8" 00	188 wall	N/A	0	10	10	Cemented Surface Casing		
8 5/8" 00	188 wall	walled	0	139'-3"	139'-3"	N/A	65	140

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by: _____
State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

STATE ENGINEER
DENING, N.M.
84 MAR 12 AM 10 41

FOR USE OF STATE ENGINEER ONLY

Date Received March 12, 1984

Quad _____ FWL _____ FSL _____

File No. A-45-S-3