

NM1 - 9

**CLOSURE PLAN
REVIEW**

2013 - Present



RECEIVED OCD

2013 AUG 13 A 11: 34

August 12, 2013

Mr. Brad A. Jones
Environmental Engineer
Environmental Bureau
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Re: Request to Rescind
Stanolind Operating
Surface Waste Management Unit – Closure Plan
Permit No.: NM-02-00018
Etech Project Number: 351-3832-000

Dear Mr. Jones:

Please find this request by Etech Environmental & Safety Solutions, Inc. (Etech) on behalf of Stanolind Operating to rescind the closure plan for the aforementioned facility dated July 12, 2013.

Thank you for all of your assistance. Should you have any questions or need additional information, please contact me via phone at (432) 563-2200 or via email at fed@etechenv.com.

Respectfully,

Fred Holmes
Project Manager
Etech Environmental & Safety Solutions, Inc.

Cc: Stanolind Operating (via email)



RECEIVED OCD
2013 JUL 15 P 12:45

July 12, 2013

Mr. Brad Jones
New Mexico Oil conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Pit
Permit No.: NM-02-00018
Notification of Cessation of Activities & Closure Plan Submittal

Dear Mr. Jones,

In February of 2012, Stanolind Operating LLC dba Stanolind NM LLC (Stanolind) applied for and was approved by the New Mexico Energy, Minerals and Natural Resources Department (NMEMNRD) the transfer of a permit for the Surface Waste Management Facility previously permitted to Premier Natural Resources, LLC.

Stanolind has determined the impoundment no longer needs to be utilized. Subsequently, Stanolind is submitting the attached plan in accordance with 19.15.36 of the New Mexico Administrative Code (NMAC) for the closure of the impoundment and as initial notification of cessation of operations.

Should you have any questions regarding the attached closure plan, please contact me at (432) 563-2200 or via email, fred@etechenv.com. Thank you for your assistance. I look forward to your response

Respectfully,

Fred Holmes, B.SC.
Environmental Professional
Etech Environmental & Safety Solutions, Inc.

eTECH



Environmental & Safety Solutions, Inc.

RECEIVED OCD

2013 JUL 15 P 12: 46

Closure Plan Surface Waste Management Pit Eddy County, NM



Prepared For: Stanolind Operating LLC dba Stanolind NM LLC
310 West Wall Street, Suite 1000
Midland, TX 79701

Prepared By: Etech Environmental & Safety Solutions, Inc.
Date Prepared: July 12, 2013
Project Number: 351-3832-000

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Introduction

In February of 2012, Stanolind Operating LLC dba Stanolind NM LLC (Stanolind) applied for and was approved by the New Mexico Energy, Minerals and Natural Resources Department (NMEMNRD) the transfer of a permit for the Surface Waste Management Facility previously permitted to Premier Natural Resources, LLC.

Stanolind has determined the impoundment no longer needs to be utilized. Subsequently, Stanolind is submitting this plan in accordance with 19.15.36 of the New Mexico Administrative Code (NMAC) for the closure of the impoundment and as initial notification of cessation of operations. The particulars of, and closure plan of, the facility are as follows:

Site Information

Date First Permitted:March 3, 1983
Permit No.: NM-02-00018
Location: Unit J, Sec 34, T 18S, R 26E, Eddy Co., NM
Latitude: 32.70356
Longitude: -104.368072
Overall Dimensions: 316'L x 154'W x 5'D
Inspection Sumps 2
Contents:Produced Water Residue & Hydrocarbon Solids

Site Maps and Aerial Imagery are provided in Attachment A. Diagrams showing the overall profile of the pit are provided in Attachment B. (Note: The profile was developed based upon the information provided in the original permit.) A copy of the permit in its entirety is provided in Attachment C.

Closure Procedures

1. All readily available free liquids will be removed from the impoundment. Probing of the impoundment estimates there is approximately .75 feet of sludge/solids in the bottom of the pit.
2. All surface appurtenances (fencing, netting, posts, etc.) will be removed and staged to a designated area southeast of the pit to be evaluated for reuse. Materials that cannot be reused will be sent for recycling or disposal at an approved disposal facility. The disposal facilities that will be used are as follows:
 - Sludge Disposal Facility:R360 Disposal Facility, Permit No.: NM1-006
 - Produced Water Disposal:Stanolind Fikes #1 SWD Well, API No. 30-015-00269
 - Hydrocarbon Recycling 1:Permian Disposal, Seminole, TX, Permit No.: 8A-0320
 - Hydrocarbon Recycling 2: Gandy Corporation, Crossroads Facility, Permit No.: 5Z12
 - Liner Disposal:R360 Disposal Facility, Permit No.: NM1-006
 - Impacted Soil Disposal:R360 Disposal Facility, Permit No.: NM1-006
 -

**Stanolind Operating
Surface Waste Management Pit – Closure Plan
(Continued)**

3. Because it is anticipated that the sludge in the bottom of the impoundment will have some placidity, it will be stabilized with soil from the sidewalls of the pit. If additional soil is needed, it will be sourced from a nearby caliche pit to ensure the soil is stabilized to a point where it will not leak fluids during transport.
4. Stabilized soils will be loaded and transported to the disposal facility listed in Item 2 (R360)
5. When the pit contents have been removed, the liner will be removed in sections, bundled and transported to the disposal facility listed in Item 2 (R360).
6. The inspection sumps will be excavated and the materials associated with the sumps removed and disposed of.
7. When all of the contents of the impoundment and liner have been removed, the pit area will be gridded of into 6 sections. Within each section a minimum of 3 samples of the 0-6" interval will be collected from variant points and sent to Cardinal Laboratories to be analyzed for Petroleum Hydrocarbons (TPH), Benzene, Toluene, Ethylbenzene, and Xylene and all RCRA Metals, and Total Chlorides. The bottom of the inspection sump sites will be sampled and analyzed. Also, a background sample will be collected and analyzed for the same parameters. A site diagram showing the sampling grids and sampling points is shown in Attachment D.

Need to compare to background

In the event wet areas or staining is observed underneath the impoundment liner, samples will be collected via hand auger from the 0-6" and 6-12" interval. Each sample will be field screened using a photoionization detector (PID) and chlorides using a YSI chloride meter with a tolerance of +/- 6% which is the same tolerance as laboratory titration methods. The samples will then be sent to the laboratory analyzed for the same parameters as the clearance samples.

Note: This procedure assumes that the sample screening will indicate clearance in a wet or stained area within the first 12". However, should visual or screening data indicate the bottom sample has not cleared, the soil boring will be advanced and samples collected in 6" intervals and screened as described until a minimum of 2' of clearance has been shown from the field screening. Should this instance occur, all samples from the boring will be sent to the laboratory to be analyzed for the constituents listed in the first paragraph of this section.. Analysis will be conducted from the "bottom up" to show the clearance has been achieved and stop at the first impacted sample assuming that all samples above would be impacted.

All samples collected will be placed into certified clean glass jars with Teflon seals, labeled with the respect to area, depth, date and time collected, then immediate chilled and maintained so until delivered to the laboratory. Routine chain-of-custody will be observed at all times. Nitrile gloves will be worn during the collection of samples and changed for each sample processed. All sampling equipment will be decontaminated between each sampling event by washing the equipment with freshwater and Alconox and then triple rinsed with clean fresh water.

8. If the analyses determines the results are within the clearance parameters, the pit will be considered closed. The primary clearance parameters for this site, based upon groundwater levels for the area are; TPH: 100 mg/kg, Chlorides: 250 mg/kg. If the analytical results exceed the stated parameters, within this plan or other parameters set by the NMOCD, additional excavation, transportation and disposal will be performed until the clearance objectives are met.
9. Once the clearance objectives are met, a C-141 will be completed and submitted with all analytical results.

Reclamation

The landowner has requested that upon completion of the above activities that the impoundment be left open to act as a collection area for watering livestock. However, should this be viewed as not acceptable by the NMOCD, the former impoundment site and any excavated areas will be backfilled to within 12" of surface with clean fill material from a nearby caliche pit. The remainder of the backfill will be with clean top soil from the surrounding area. Once complete, erosion control berms will be installed and the site as well as disturbed areas seeded by broadcasting an application of BLM #1 seed mix which is presented below:

COMMON NAME	BOTANICAL NAME	PLS/LBS/ACRE*
Blue Grama	<i>Bouteloua gracilis</i>	3.00
Sand Dropseed	<i>Sporobolus cryptandrous</i>	2.00
Sideoats Grama	<i>Bouteloua curtipendula</i>	10.00

* PLS = Pure Live Seed

Once the seed is broadcasted, the site will be lightly harrowed to ensure the seed is anchored site. A copy of the proposed reclamation profile for both approaches of the site and the is provided in Attachment E.

Post Closure Monitoring

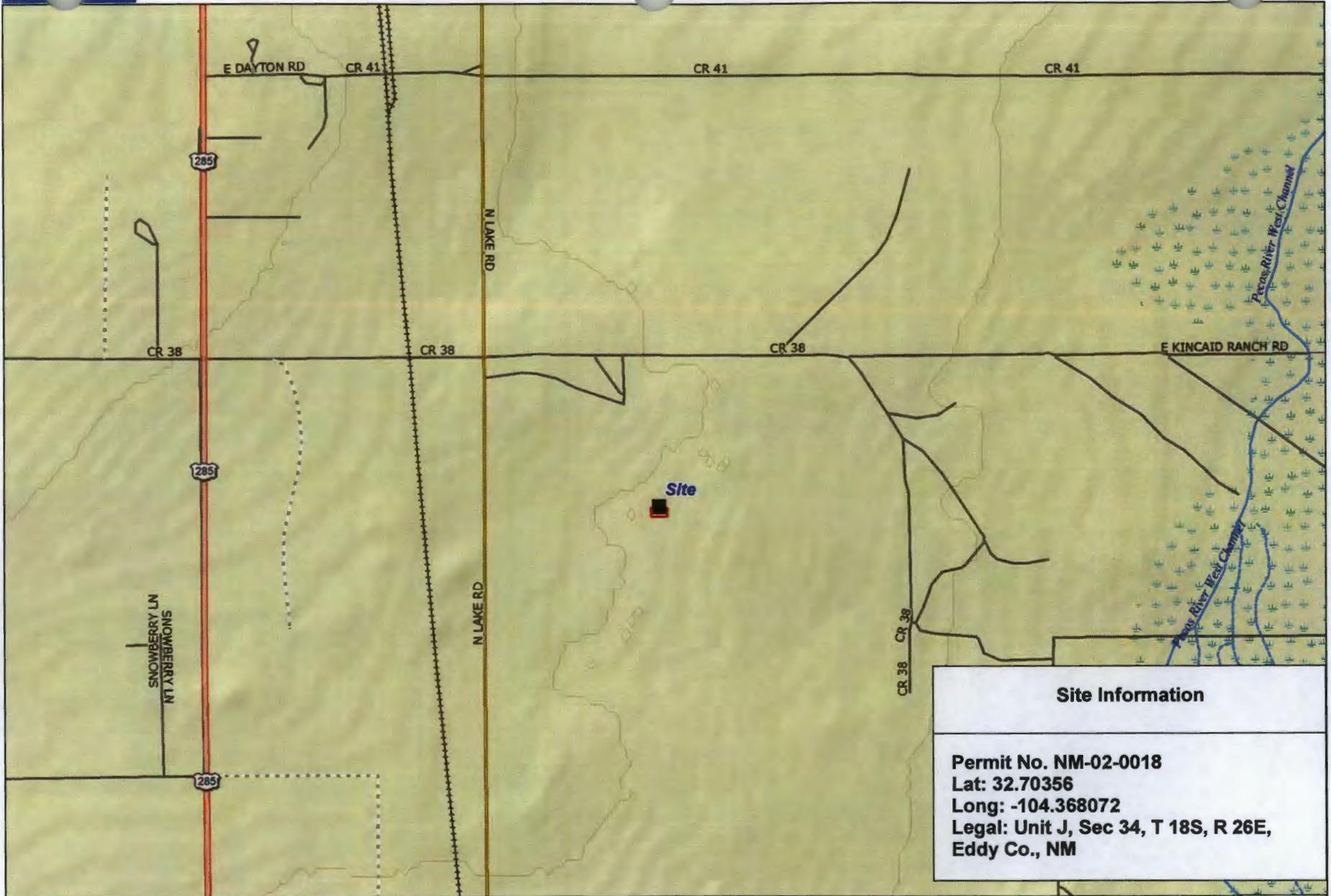
As stipulated in NMAC 19.15.36.18, F, the site will be inspected quarterly and documented for progress of revegetation of the site for a period of 3 years. However, if the alternative reclamation to leave the impoundment site as a collection area for watering livestock versus the typical closure is accepted, Stanolind respectfully requests that the revegetation be waived.

Prepared By:

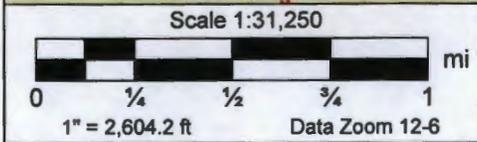


Fred Holmes, B.SC.
Environmental Professional
Etech Environmental & Safety Solutions, Inc.

Attachment A
Site Maps and Aerial Imagery



Site Information
Permit No. NM-02-0018
Lat: 32.70356
Long: -104.368072
Legal: Unit J, Sec 34, T 18S, R 26E, Eddy Co., NM



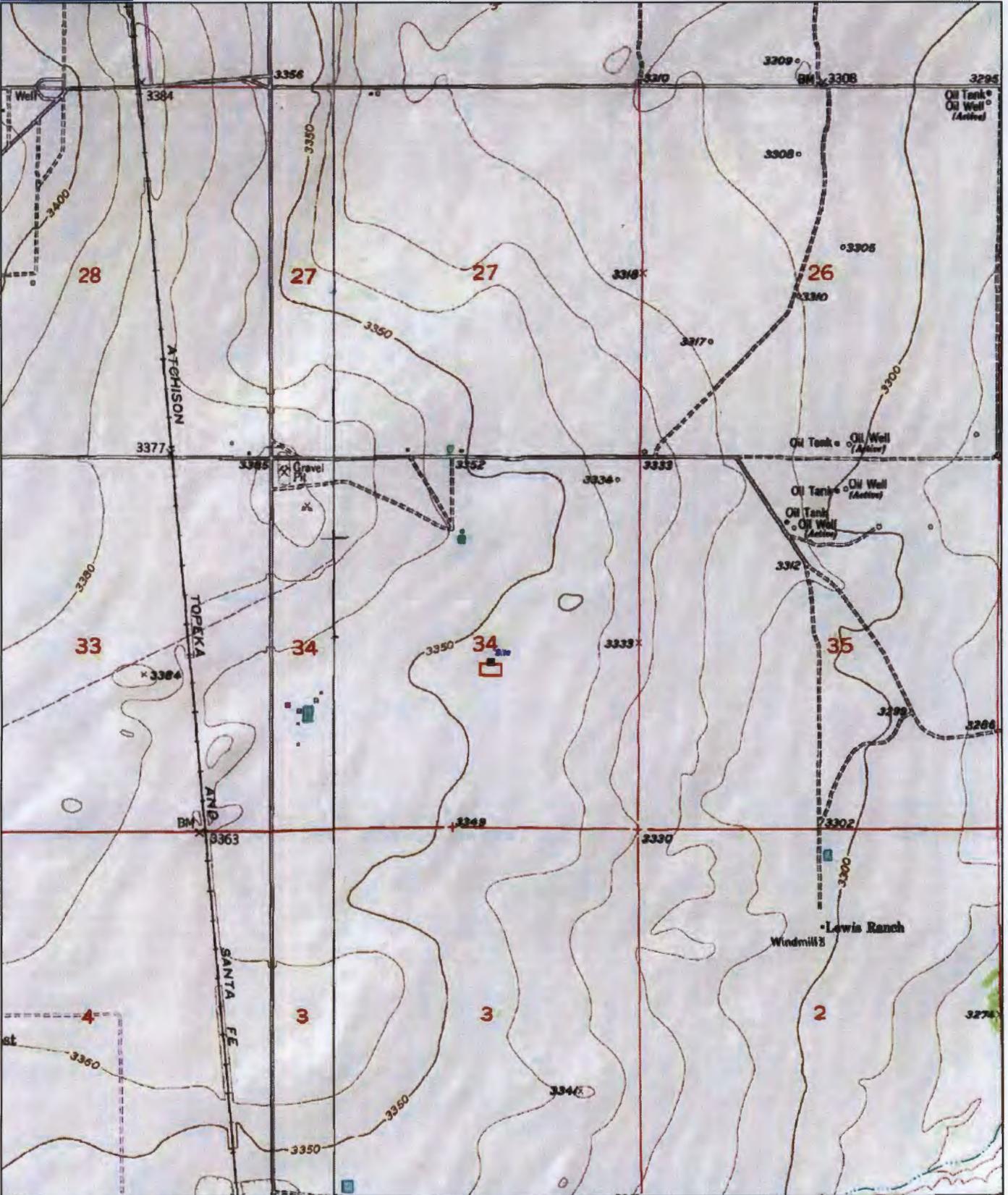
**Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Facility
Site Location Map**



Data use subject to license.

© DeLorme. XMap® 7.

www.delorme.com



Scale 1:24,000



1" = 2,000.0 ft Data Zoom 14-0

Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Facility
Topographic Map



MN (7.7° E)

Data use subject to license.

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Site Information

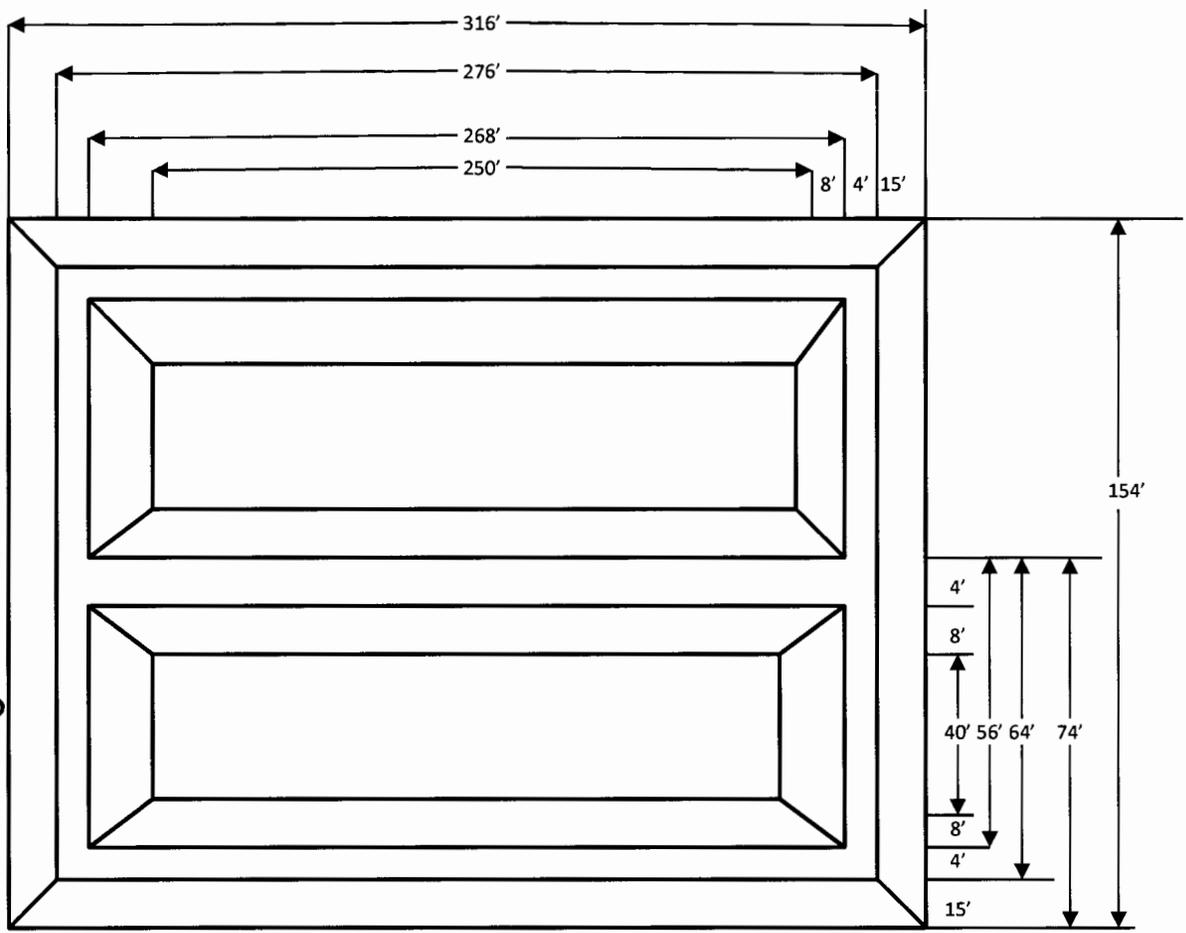
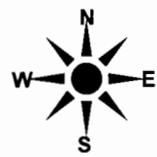
Overall Dimensions:
316'L x 154'W x 5'D
Note: .5' Is Below Grade
Contents: Produced Water &
Hydrocarbon Solids



Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Facility
Site Information Aerial



Attachment B
Existing Pit Profile



Top View

Stanolind Operating LLC dba Stanolind NM LLC
 Surface Waste Management Pit Profile
 (Not to Scale)

Attachment C
Permit NM-02-00018



1-1 Denotes Grid No - Sample No
S1 Denotes Sump Samples
BG = Background



**Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Facility
Sample Location Map**



Attachment D
Sampling Locations

NM2 - 18

**PERMITS,
RENEWALS,
& MODS**



New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph. D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division



February 14, 2012

Randy Stevens
Stanolind Operating LLC dba Stanolind NM LLC
310 West Wall Street, Suite 1000
Midland, TX 79701

Re: Transfer of Permit and Financial Assurance
New Operator: Stanolind Operating LLC dba Stanolind NM LLC
Permit: NM-02-0018
Lexon Insurance Company Bond No. 1062207
Facility Location: NW/4 SE/4 Section 34, Township 18 South, Range 26 East, NMPM

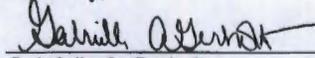
Dear Mr. Stevens,

The Oil Conservation Division (OCD) has reviewed Stanolind Operating LLC dba Stanolind NM LLC's (Stanolind) transfer of permit and the financial assurance, both dated February 2, 2012, to demonstrate compliance with Subsection E of 19.15.36.12 NMAC. OCD hereby approves the above-referenced transfer of permit NM-02-0018 from Premier Natural Resources, LLC to Stanolind and the associated financial assurance.

Please be advised that should operation result in pollution of surface water, ground water or the environment, approval of this request does not relieve Stanolind of liability. In addition, approval of this request requires Stanolind to comply with all applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact Mr. Brad A. Jones of the OCD staff at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,



Gabrielle A. Gerholt
Assistant General Counsel

GG/baj

Enclosure: Copy of Surety Bond No. 1062207

Cc: OCD District II Office, Artesia
Premier Natural Resources, LLC, 5727 S. Lewis Ave Suite 200, Tulsa, OK 74105



TRANSFER OF PERMIT

Pursuant to 19.15.36.12E NMAC, "Transfer of a permit. The operator shall not transfer a permit without the division's prior written approval. A request for transfer of a permit shall identify officers, directors and owners of 25 percent or greater in the transferee. Unless the director otherwise orders, public notice or hearing are not required for the transfer request's approval. If the division denies the transfer request, it shall notify the operator and the proposed transferee of the denial by certified mail, return receipt requested, and either the operator or the proposed transferee may request a hearing with 10 days after receipt of the notice. Until the division approves the transfer and the required financial assurance is in place, the division shall not release the transferor's financial assurance."

FACILITY INFORMATION:

Surface Waste Management Facility Permit(s): NM-02-0018

Legal Description: NW/4 SE/4 Section 34, Township 18S, Range 26E, NMPM

Location: Eddy County, New Mexico

From: Premier Natural Resources, LLC
5727 S. Lewis Ave. Suite 200
Tulsa, OK 74105

To: Stanolind Operating LLC dba Stanolind NM LLC
310 West Wall Street, Suite 1000
Midland, TX 79701

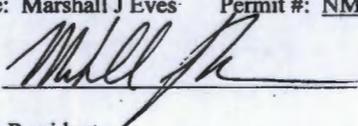
CERTIFICATION:

Stanolind Operating LLC dba Stanolind NM LLC by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Stanolind Operating LLC dba Stanolind NM LLC further acknowledges that the Division for good cause shown as necessary to protect fresh water, human health, and the environment may change such terms and conditions administratively. The undersigned also attests to the fact that he or she understands 19.15.5.11 NMAC which states "Any person who conducts any activity pursuant to a permit, administrative order or other written authorization or approval from the division shall comply with every term, condition and provision of such permit, administrative order, authorization or approval."

Accepted:

Stanolind Operating LLC dba Stanolind NM LLC

Print Name: Marshall J Eves Permit #: NM-02-0018

Signature: 

Date: 02/02/2012

Title: Vice President

Mailing Address: 310 West Wall Street, Suite 1000
Midland, TX 79701

Contact Telephone Number: 432-640-0020

Stanolind Operating LLC dba Stanolind NM LLC

Current Officers/Owners

Randy Steven: Owner, President & CEO

Don Davis: Chief Operating Officer

Marshall J Eves: Owner, Vice President

Billy Priebe: Owner, Vice President -Operations

Shelly Chapple: Vice President-Controller

TRANSFER OF PERMIT

FACILITY INFORMATION:

Surface Waste Management Facility Permit(s): NM-02-0018
Legal Description: Section 34, Township 18 South, Range 26 East, NMPM,
Location: Eddy County, New Mexico

From: Company Name: Hillside Oil & Gas, LLC
Company Address: P.O. Box 8911
Midland, TX 79708

To: Company Name: Premier Natural Resources, LLC
Company Address: 5727 South Lewis Avenue
Tulsa, OK 74105

CERTIFICATION:

Premier Natural Resources, LLC, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Premier Natural Resources, LLC further acknowledges that the Division for good cause shown as necessary to protect fresh water, human health, and the environment may change such terms and conditions administratively. The undersigned also attests to the fact that he or she understands 19.15.5.11 NMAC which states "Any person who conducts any activity pursuant to a permit, administrative order or other written authorization or approval from the division shall comply with every term, condition and provision of such permit, administrative order, authorization or approval."

Accepted:

Premier Natural Resources, LLC

Print Name: J. Chris Jacobsen

Signature: J. Chris Jacobsen

Title: Manager

Mailing Address: 5727 South Lewis Avenue, Suite 200

Contact Telephone Number: (918) 392-3232

Date: 4/16/2009

Permit #: NM-02-0018

PREMIER NATURAL RESOURCES, LLC

RECEIVED
2009 APR 21 PM 1 19

April 16, 2009

Mr. Carl Chavez
New Mexico Energy, Minerals & Natural Resources
Oil Conservation District
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Subject: Transfer of Permit
Waste Management Pit - Atoka Field, Eddy County
Premier Natural Resources, LLC OGRID: 243261

Dear Carl:

Attached is our "Permit to Transfer" covering the transfer of permit NM2-18 from Hillside Oil and Gas of Midland, Texas to Premier Natural Resources, LLC.

When Premier Natural Resources purchased the Atoka Field leases from Hillside, the waste management pit was not transferred. This omission was called to our attention and we are now remedying the situation.

Our letter of credit for \$25,000.00 will be sent to your office from the Bank of Oklahoma under separate cover.

Thank you for your help in getting this matter resolved.

Cordially,


Megan T. Wondaal
Regulatory Specialist



NEW MEXICO ENERGY, MINERALS and
NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

April 18, 2002

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 7001-1940-0004-7923-3958

Mr. M.R. "Billy" Tripp, Jr.
Hillside Oil and Gas, LLC.
510 North Big Spring
Midland, TX 79701

RE: OCD Rule 711 Permit Approval NM-02-0018
Hillside Oil and Gas, LLC
Centralized Surface Waste Management Facility
NW/4 SE/4 Section 34, Township 18 South, Range 26 East, NMPM
Eddie County, New Mexico.

Dear Mr. Tripp:

The permit application for the Hillside Oil and Gas, LLC (Hillside) centralized surface waste management facility located in NW/4 SE/4 Section 34, Township 18 South, Range 26 East, NMPM, Eddie County, New Mexico is hereby approved in accordance with New Mexico Oil Conservation Division (OCD) Rule 711 under the conditions contained in the enclosed attachment. A \$25,000 blanket surety bond #UIB0008191 has been submitted by Hillside and approved by the Director. The application consists of the permit application Form C-137 dated June 30, 1994 and supplemental information dated May 25, 2000.

The operation, monitoring and reporting shall be as specified in the enclosed attachment. All modifications and alternatives to the approved evaporation methods must receive prior OCD approval. Hillside is required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

Please be advised approval of this facility permit does not relieve Hillside of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Hillside of responsibility for compliance with other federal, state or local laws and/or regulations.

Mr. Tripp
April 18, 2002
Page 2

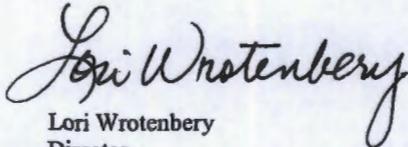
Please be advised that all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered non-hazardous to migratory birds. In addition, OCD Rule 310 prohibits oil from being stored or retained in earthen reservoirs or open receptacles.

The facility is subject to periodic inspections by the OCD. The conditions of this permit will be reviewed by the OCD no later than five (5) years from the date of this approval and the facility will be inspected at least once a year.

Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the OCD Santa Fe Office within five working days of receipt of this letter.**

If you have any questions please do not hesitate to contact Martyne J. Kieling at (505) 476-3488.

Sincerely,



Lori Wrotenberg
Director

LW/mjk

xc with attachments:
Artesia OCD Office

**ATTACHMENT TO OCD 711 PERMIT APPROVAL
PERMIT NM-02-0018
HILLSIDE OIL AND GAS, LLC
CENTRALIZED WASTE MANAGEMENT FACILITY
NW/4 SE/4 Section 34, Township 18 South, Range 26 East, NMPM
Eddie County, New Mexico.
(April 18, 2002)**

EVAPORATION POND OPERATION

1. The facility must be fenced and have a sign at the entrance. The sign must be legible from at least 50 feet and contain the following information: a) name of the facility; b) location by section, township and range; and c) emergency phone number.
2. The ponds must have a minimum freeboard of two (2) feet. A liner marking or other device must be installed in each pond to accurately measure freeboard.
3. All produced water must enter holding Pond A through the trunk line entering on the north side of the pond as indicated on the application facility diagram. Per division Rule 310, oil must not be stored or retained in earthen reservoirs or in open receptacles. Any oil that is accidentally discharged into the ponds must be removed within 24 hours. Oil recovered must be stored in closed above-ground storage tanks and then transferred to an OCD-approved reclamation facility.
4. Pond inspection and maintenance must be conducted on a weekly basis or immediately following a consequential rainstorm or windstorm. If any defect is noted repairs must be made as soon as possible. If the defect will jeopardize the integrity of the pond additional wastes may not be placed into the pond until repairs have been completed. Records of such inspections must be made available to the OCD upon request.
5. The outside walls of all levees must be maintained in such a manner to prevent erosion. Inspection of the outside walls of the levees must be made weekly.
6. The pond leak detection system sumps must be inspected weekly. Results must be recorded and maintained for OCD review. If fluids are found in the sump, the following steps must be undertaken:
 - a. the operator must notify the Artesia office within 24 hours;
 - b. the fluids must be sampled and analyzed and a comparison made to the fluids in the pond to determine the source; and
 - c. the fluids must be immediately and continuously removed from the sump. Such fluids may be returned to the pond.

7. If a leak is determined to exist in the primary liner, the operator will immediately undertake the following measures under the direction of the OCD:
 - a. introduction of fluids into the pond must cease;
 - b. fluids must be removed from the pond using injection or transportation to another authorized facility until the fluid level is below the location of the leak in the liner; and
 - c. the liner must be repaired and tested and the leak detection system must be completely drained before introduction of fluids into the pond resumes.
8. Sludge thickness in the base of the pond must be measured annually. Any sludge build-up in the bottom of the pond in excess of 12 inches must be removed and disposed of at an OCD-approved waste management facility.
9. Below grade sumps must be cleaned and visually inspected annually. Results must be recorded and maintained for OCD review. If sump integrity has failed the OCD must be notified within 48 hours of discovery and the sump and contaminated soils must be removed and disposed of at an OCD-approved waste management facility. Soil remediation must follow OCD surface impoundment closure guidelines. Hillside must submit a report to the OCD Santa Fe and Artesia District offices that describes the investigation and remedial actions taken.
10. To protect migratory birds, all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted, covered or otherwise rendered non-hazardous to migratory birds.
11. Liquid reduction technologies that may be used to eliminate pond waters include evaporation and injection at the Class II disposal well, Ann #1, located in SW/4 NE/4 Section 18, Township 19 S, Range 26 E, NMPM, Eddy County, New Mexico.
12. Tests to determine dissolved oxygen levels in the ponds must be conducted on a weekly basis. Test results must be recorded and retained. The sample for each test must be taken one foot from the bottom of each pond and the location of the tests must vary around each pond from week to week. The OCD Artesia Office will be notified immediately if any test shows a dissolved residual oxygen level of less than 0.5 ppm.
13. Tests of ambient H₂S levels must be conducted on a weekly basis. Test results must be recorded and retained. The tests must be conducted at four (4) locations around the ponds at the top of the berm. The wind speed and direction must be recorded in conjunction with each test.
 - a. If an H₂S reading of 1.0 ppm or greater is obtained:

- i. a second reading must be taken on the downwind berm within one hour;
 - ii. the dissolved oxygen and dissolved sulfide levels of the pond must be tested immediately and the need for immediate treatment determined; and
 - iii. tests for H₂S levels must be made at the fence line down wind from the problem pond.
- b. If two (2) consecutive H₂S readings of 1.0 ppm or greater are obtained:
- i. the operator must notify the Artesia office of the OCD immediately;
 - ii. the operator must commence hourly monitoring on a 24-hour basis; and
 - iii. the operator must obtain a daily analysis of dissolved sulfides in the pond.
- c. If an H₂S reading of 10.0 ppm or greater at the facility fence line is obtained:
- i. the operator must immediately notify the Artesia office of the OCD and the following public safety agencies:

New Mexico State Police
Eddy County Sheriff
Eddy County Fire Marshall; and
 - ii. the operator must initiate notification of all persons residing within one-half (½) mile of the fence line and assist public safety officials with evacuation as requested.

WASTE ACCEPTANCE CRITERIA

1. The facility is authorized to accept only produced waters that are generated in the State of New Mexico by Hillside Oil and Gas, LLC from the following wells:

Merri #1, #2, #3
Merrill #1, #2, #3, #4
Kelly #1, #2
Dorothy #1
Fox #1, #2
Sherri #1
Fikes #1
Goodrich #1

Fedell #1, #2, #3, #4
Melaine #1, #2
Chad #1, #2
Lynn #1

Water from any other Hillside Oil and Gas, LLC wells may only be accepted after prior OCD approval.

2. The facility is authorized to accept only produced waters that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material (NORM) regulated pursuant to 20 NMAC 3.1 Subpart 1403.
3. At no time may any OCD-permitted surface waste management facility accept wastes that are determined to be RCRA Subtitle C hazardous wastes by either listing or characteristic testing.
4. Comprehensive records of all material disposed of at the surface waste management facility must be maintained by the permit holder.

REPORTING AND RECORD KEEPING

1. Results of weekly inspections of the leak detection system must be recorded and must be submitted to the OCD Santa Fe and Artesia office for annual review **by April 18 of each year.**
2. Results of testing of the evaporation pond for H₂S, and dissolved oxygen must be recorded and must be submitted to the OCD Santa Fe and Artesia office for annual review **by April 18 of each year.**
3. Results of annual maintenance on below grade sumps and annual measurements of sludge thickness in the pond must be recorded and must be submitted to the OCD Santa Fe and Artesia office for annual review **by April 18 of each year.**
4. The applicant must notify the **OCD Artesia office within 24 hours** of any fire, break, leak, spill, blow out, or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.
5. The applicant must file forms C-117 and C-120 with the appropriate OCD office.
6. All records of testing and monitoring must be retained for a period of five (5) years.
7. The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.

FINANCIAL ASSURANCE

1. Pursuant to OCD Rule 711.B.3.a., financial assurance in a form approved by the Director is required from Hillside Oil and Gas, LLC in the amount of **\$25,000** for this facility.
2. Financial assurance must be submitted within 30 days of this permit approval or on **May 18, 2002**.
3. The facility is subject to periodic inspections by the OCD. The conditions of this permit and the facility may be reviewed by the OCD no later than five (5) years from the date of this approval.

CLOSURE

1. The OCD Santa Fe and Artesia offices must be notified when operation of the facility is to be discontinued for a period in excess of six (6) months or when the facility is to be dismantled. Within six (6) months after discontinuing use or within 30 days of deciding to dismantle the facility a closure plan must be submitted to the OCD Santa Fe office for approval. The operator must complete cleanup of constructed facilities and restoration of the facility site within six (6) months of receiving the closure plan approval, unless an extension of time is granted by the Director.
2. The closure plan to be submitted must include the following procedures:
 - a. When the facility is to be closed no new material will be accepted.
 - b. The evaporation pond must be emptied and any waste and recyclable material must be hauled to an OCD-approved facility. The pond liners, pipe and equipment must be removed.
 - c. Contaminated soils exceeding OCD closure guidelines for the site must be removed or remediated unless it can be demonstrated that levels exceeding the guidelines are protective of public health and the environment.
 - d. The soils beneath the evaporation pond will be characterized as to total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) content to determine potential migration of contamination.
 - e. The area will be contoured, seeded with native grasses and allowed to return to its natural state. At the request of the landowner and with approval of the OCD,

Hillside Oil and Gas, LLC.
711 Permit NM-02-0018
April 18, 2002
Page 6

existing structures, berms, or fences may be left in place for future alternative uses.

- f. Closure will be pursuant to all OCD requirements in effect at the time of closure, and any other applicable local, state and/or federal regulations.

CERTIFICATION

Hillside Oil and Gas, LLC by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Hillside Oil and Gas, LLC further acknowledges that the conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect ground water, surface water, human health and the environment.

Accepted:

HILLSIDE OIL AND GAS, LLC

Signature _____ Title _____ Date _____

**ATTACHMENT TO OCD 711 PERMIT APPROVAL
PERMIT NM-02-0018
HILLSIDE OIL AND GAS, LLC
CENTRALIZED WASTE MANAGEMENT FACILITY
NW/4 SE/4 Section 34, Township 18 South, Range 26 East, NMPM
Eddie County, New Mexico.
(April 18, 2002)**

EVAPORATION POND OPERATION

1. The facility must be fenced and have a sign at the entrance. The sign must be legible from at least 50 feet and contain the following information: a) name of the facility; b) location by section, township and range; and c) emergency phone number.
2. The ponds must have a minimum freeboard of two (2) feet. A liner marking or other device must be installed in each pond to accurately measure freeboard.
3. All produced water must enter holding Pond A through the trunk line entering on the north side of the pond as indicated on the application facility diagram. Per division Rule 310, oil must not be stored or retained in earthen reservoirs or in open receptacles. Any oil that is accidentally discharged into the ponds must be removed within 24 hours. Oil recovered must be stored in closed above-ground storage tanks and then transferred to an OCD-approved reclamation facility.
4. Pond inspection and maintenance must be conducted on a weekly basis or immediately following a consequential rainstorm or windstorm. If any defect is noted repairs must be made as soon as possible. If the defect will jeopardize the integrity of the pond additional wastes may not be placed into the pond until repairs have been completed. Records of such inspections must be made available to the OCD upon request.
5. The outside walls of all levees must be maintained in such a manner to prevent erosion. Inspection of the outside walls of the levees must be made weekly.
6. The pond leak detection system sumps must be inspected weekly. Results must be recorded and maintained for OCD review. If fluids are found in the sump, the following steps must be undertaken:
 - a. the operator must notify the Artesia office within 24 hours;
 - b. the fluids must be sampled and analyzed and a comparison made to the fluids in the pond to determine the source; and
 - c. the fluids must be immediately and continuously removed from the sump. Such fluids may be returned to the pond.

7. If a leak is determined to exist in the primary liner, the operator will immediately undertake the following measures under the direction of the OCD:
 - a. introduction of fluids into the pond must cease;
 - b. fluids must be removed from the pond using injection or transportation to another authorized facility until the fluid level is below the location of the leak in the liner; and
 - c. the liner must be repaired and tested and the leak detection system must be completely drained before introduction of fluids into the pond resumes.
8. Sludge thickness in the base of the pond must be measured annually. Any sludge build-up in the bottom of the pond in excess of 12 inches must be removed and disposed of at an OCD-approved waste management facility.
9. Below grade sumps must be cleaned and visually inspected annually. Results must be recorded and maintained for OCD review. If sump integrity has failed the OCD must be notified within 48 hours of discovery and the sump and contaminated soils must be removed and disposed of at an OCD-approved waste management facility. Soil remediation must follow OCD surface impoundment closure guidelines. Hillside must submit a report to the OCD Santa Fe and Artesia District offices that describes the investigation and remedial actions taken.
10. To protect migratory birds, all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted, covered or otherwise rendered non-hazardous to migratory birds.
11. Liquid reduction technologies that may be used to eliminate pond waters include evaporation and injection at the Class II disposal well, Ann #1, located in SW/4 NE/4 Section 18, Township 19 S, Range 26 E, NMPM, Eddy County, New Mexico.
12. Tests to determine dissolved oxygen levels in the ponds must be conducted on a weekly basis. Test results must be recorded and retained. The sample for each test must be taken one foot from the bottom of each pond and the location of the tests must vary around each pond from week to week. The OCD Artesia Office will be notified immediately if any test shows a dissolved residual oxygen level of less than 0.5 ppm.
13. Tests of ambient H₂S levels must be conducted on a weekly basis. Test results must be recorded and retained. The tests must be conducted at four (4) locations around the ponds at the top of the berm. The wind speed and direction must be recorded in conjunction with each test.
 - a. If an H₂S reading of 1.0 ppm or greater is obtained:

- i. a second reading must be taken on the downwind berm within one hour;
 - ii. the dissolved oxygen and dissolved sulfide levels of the pond must be tested immediately and the need for immediate treatment determined; and
 - iii. tests for H₂S levels must be made at the fence line down wind from the problem pond.
- b. If two (2) consecutive H₂S readings of 1.0 ppm or greater are obtained:
- i. the operator must notify the Artesia office of the OCD immediately;
 - ii. the operator must commence hourly monitoring on a 24-hour basis; and
 - iii. the operator must obtain a daily analysis of dissolved sulfides in the pond.
- c. If an H₂S reading of 10.0 ppm or greater at the facility fence line is obtained:
- i. the operator must immediately notify the Artesia office of the OCD and the following public safety agencies:

New Mexico State Police
Eddy County Sheriff
Eddy County Fire Marshall; and
 - ii. the operator must initiate notification of all persons residing within one-half (½) mile of the fence line and assist public safety officials with evacuation as requested.

WASTE ACCEPTANCE CRITERIA

1. The facility is authorized to accept only produced waters that are generated in the State of New Mexico by Hillside Oil and Gas, LLC from the following wells:

Merri #1, #2, #3
Merrill #1, #2, #3, #4
Kelly #1, #2
Dorothy #1
Fox #1, #2
Sherri #1
Fikes #1
Goodrich #1

Fedell #1, #2, #3, #4
Melaine #1, #2
Chad #1, #2
Lynn #1

Water from any other Hillside Oil and Gas, LLC wells may only be accepted after prior OCD approval.

2. The facility is authorized to accept only produced waters that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material (NORM) regulated pursuant to 20 NMAC 3.1 Subpart 1403.
3. At no time may any OCD-permitted surface waste management facility accept wastes that are determined to be RCRA Subtitle C hazardous wastes by either listing or characteristic testing.
4. Comprehensive records of all material disposed of at the surface waste management facility must be maintained by the permit holder.

REPORTING AND RECORD KEEPING

1. Results of weekly inspections of the leak detection system must be recorded and must be submitted to the OCD Santa Fe and Artesia office for annual review **by April 18 of each year.**
2. Results of testing of the evaporation pond for H₂S, and dissolved oxygen must be recorded and must be submitted to the OCD Santa Fe and Artesia office for annual review **by April 18 of each year.**
3. Results of annual maintenance on below grade sumps and annual measurements of sludge thickness in the pond must be recorded and must be submitted to the OCD Santa Fe and Artesia office for annual review **by April 18 of each year.**
4. The applicant must notify the **OCD Artesia office within 24 hours** of any fire, break, leak, spill, blow out, or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.
5. The applicant must file forms C-117 and C-120 with the appropriate OCD office.
6. All records of testing and monitoring must be retained for a period of five (5) years.
7. The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.

FINANCIAL ASSURANCE

1. Pursuant to OCD Rule 711.B.3.a., financial assurance in a form approved by the Director is required from Hillside Oil and Gas, LLC in the amount of **\$25,000** for this facility.
2. Financial assurance must be submitted within 30 days of this permit approval or on **May 18, 2002**.
3. The facility is subject to periodic inspections by the OCD. The conditions of this permit and the facility may be reviewed by the OCD no later than five (5) years from the date of this approval.

CLOSURE

1. The OCD Santa Fe and Artesia offices must be notified when operation of the facility is to be discontinued for a period in excess of six (6) months or when the facility is to be dismantled. Within six (6) months after discontinuing use or within 30 days of deciding to dismantle the facility a closure plan must be submitted to the OCD Santa Fe office for approval. The operator must complete cleanup of constructed facilities and restoration of the facility site within six (6) months of receiving the closure plan approval, unless an extension of time is granted by the Director.
2. The closure plan to be submitted must include the following procedures:
 - a. When the facility is to be closed no new material will be accepted.
 - b. The evaporation pond must be emptied and any waste and recyclable material must be hauled to an OCD-approved facility. The pond liners, pipe and equipment must be removed.
 - c. Contaminated soils exceeding OCD closure guidelines for the site must be removed or remediated unless it can be demonstrated that levels exceeding the guidelines are protective of public health and the environment.
 - d. The soils beneath the evaporation pond will be characterized as to total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) content to determine potential migration of contamination.
 - e. The area will be contoured, seeded with native grasses and allowed to return to its natural state. At the request of the landowner and with approval of the OCD,

existing structures, berms, or fences may be left in place for future alternative uses.

- f. Closure will be pursuant to all OCD requirements in effect at the time of closure, and any other applicable local, state and/or federal regulations.

CERTIFICATION

Hillside Oil and Gas, LLC by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Hillside Oil and Gas, LLC further acknowledges that the conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect ground water, surface water, human health and the environment.

Accepted:

HILLSIDE OIL AND GAS, LLC

Signature

[Handwritten Signature]

Title

[Handwritten Title: Sec. Treas.]

Date

[Handwritten Date: 4-22-02]

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505



January 12, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-176-012-283

Mr. Doug Keathley
Southwest Royalties, Inc.
P.O. Box 11390
Midland, Texas 79702

**Re: OCD 711 PERMIT APPROVAL
CENTRALIZED HOLDING POND
EDDY COUNTY, NEW MEXICO**

Dear Mr. Keathley:

The permit application for the Southwest Royalties, Inc., Centralized Holding Pond located in the NW/4 SE/4 of Section 34, Township-18 South, Range 26 East, NMPM, Eddy County, New Mexico, is hereby approved in accordance with the Oil Conservation Division (OCD) Rule 711 under the conditions contained in the enclosed attachment. The application consists of the original application dated June 30, 1994.

The operation, monitoring and reporting shall be as specified in the enclosed attachment. All modifications and alternatives to the approved disposal methods must receive prior OCD approval. You are required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

Please be advised approval of this facility does not relieve you of liability should your operation result in actual pollution of surface water, ground waters or the environment actionable under other laws and/or regulations. In addition, the OCD approval does not relieve you of liability for compliance with any other laws and/or regulations.

Please be advised all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered nonhazardous to migratory birds.

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
827-7485

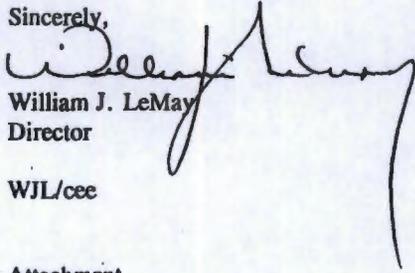
2949 South Facheo
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation
827-7131

Mr. Doug Keathley
January 12, 1995
Page 2

This permit approval is for a period of five (5) years. This approval will expire on January 12, 2000 and you should submit an application for renewal in ample time before that date. The Division shall have authority to administratively change this permit to protect fresh water, human health and the environment.

If you have any questions, please do not hesitate to call Chris Eustice at (505) 827-7153.

Sincerely,


William J. LeMay
Director

WJL/cee

Attachment

xc: OCD Artesia Office

ATTACHMENT TO OCD 711 PERMIT APPROVAL
SOUTHWEST ROYALTIES, INC.
CENTRALIZED HOLDING POND
(December 5, 1994)

FACILITY OPERATIONS

1. The facility will be inspected a minimum of one time per week. and secured when no attendant is present.
2. Only produced water from the following wells will be disposed of at the facility:

Merri #1, #2, #3
Merrill #1, #2, #3, #4
Kelly #1, #2
Dorothy #1
Fox #1, #2
Sherri #1
Fikes #1
Goodrich #1
Fedell #1, #2, #3, #4
Melaine #1, #2
Chad #1, #2
Lynn #1

Water from any other Southwest Royalties, Inc. wells may only be accepted after prior OCD approval.

3. All produced water will enter the holding pond through the trunk line entering on the north side of the pond as indicated on the application facility diagram. Per Division Rule 310, oil shall not be stored or retained in earthen reservoirs or in open receptacles. Any oil which is accidentally discharged into the pond will be removed within twenty-four (24) hours. Oil recovered will be stored in closed storage tanks or drums and then transferred to an OCD approved oil reclamation facility.
4. The pond will have a minimum freeboard of two (2) feet. If overtopping occurs at any time, the freeboard will be increased to prevent reoccurrence.
5. Any sludge build-up in the bottom of the pond in excess of twelve (12") inches will be removed and disposed of at an OCD approved disposal facility.
6. The leak detection system for the pond will be inspected a minimum of once a week or when an attendant inspects the facility. Records of such inspections will be made and kept on file for two (2) years from the date of record. If fluids are found in the sump the following steps will be taken:

- a. The operator will notify the OCD Artesia Office within twenty-four (24) hours of discovery.
 - b. The fluids will be sampled and analyzed to determine the source.
 - c. Fluids will be removed from the immediately and continuously from the monitor sump.
7. If a leak is determined to exist in the liner, the operator will immediately undertake the following contingency measures under the direction of the OCD:
- a. Introduction of fluids into the pond will cease.
 - b. Fluids will be removed from the pond by continuous injection into the Ann #1 SWD and transporting the contents of the pond to another authorized facility, until the level of the pond is below the location of the leak in the liner.
 - c. The liner will be repaired and tested and the leak detection system will be completely drained before resuming introduction of fluids into the pond.
8. The outside walls of the levees will be maintained in such a manner to prevent erosion. Inspection of the outside walls of the levees will be made weekly and after any rainfall of consequence.

H2S PREVENTION AND CONTINGENCY PLAN

1. Tests will be conducted and reports made to determine the dissolved oxygen levels in the pond. The sample for each test will be taken one foot from the bottom of the pond and the location of the tests will vary around the pond. Tests will be conducted monthly. The OCD Artesia Office will be notified immediately if any test shows a dissolved residual oxygen level of less than 0.5 parts per million (ppm).
 2. Tests of the ambient H2S levels will be conducted and records made. Such tests will be made at varying locations around the pond levee. Tests will be conducted a minimum of one time per week or when an attendant inspects the facility. Wind speed and direction will be recorded in conjunction with each test.
 3. If an H2S reading of 0.1 ppm or greater is obtained:
 - a. A second reading will be taken on the down wind berm within one hour.
 - b. The dissolved oxygen and dissolved sulfide levels of the pond will be tested immediately and the need for immediate treatment will be determined.
 - c. Tests for H2S levels will be made at the fence line, downwind from the pond.
-

4. If two (2) consecutive H2S readings of 0.1 ppm or greater are obtained:
 - a. The operator will immediately notify the OCD Artesia Office.
 - b. The operator will determine the source of the H2S.
5. If an H2S reading of 1.0 ppm is obtained:
 - a. The operator will commence hourly monitoring on a twenty-four (24) hour basis.
 - a. The operator will obtain daily analysis of the dissolved sulfide levels of the pond.
 - b. The operator will implement the approved contingency plan so as to reduce the dissolved sulfides in the pond and eliminate H2S emissions.
6. If an H2S reading of 10.0 ppm or greater at the facility fence line is obtained:
 - a. The operator will immediately notify the following public safety agencies:

State Police
County Sheriff
County Fire Marshall
 - b. The operator will initiate notification of all persons residing within one-half (1/2) mile of the fence line and assist public safety officials with evacuation as requested.

NOTE* Requirements for H2S monitoring and treatment may be administratively modified by the OCD based upon actual operating experiences.

RECORDS & REPORTING

1. The operator will keep and make available for inspection all H2S monitoring and treatment records. Such records will be maintained for a period of two years from the date of reading. Zero H2S readings do not need to be reported to the OCD. If H2S is observed at any time, the OCD may require submittal of all subsequent H2S readings.
2. The operator will keep and make available for inspection all leak detection monitoring records. Such records will be maintained for a period of two years from the date of reading.
3. The operator will file forms C-117-A, C-118, and ~~C-120-A~~^{for} C-120-A with the Santa Fe Office as required by OCD Rules 1118 and 1120. ✓

4. The OCD will be notified of any break, spill, blow out, fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

CLOSURE

1. The OCD will be notified when operation of the facility is discontinued for a period in excess of six (6) months or when the facility is to be dismantled.
 2. When the facility is to be closed, no new material will be accepted. The operator will provide for removal of all fluids and/or wastes, closure of all pits and ponds, and cleanup of any contaminated soils and/or waters pursuant to OCD approval. The area will be reseeded with natural grasses and allowed to return to its natural state.
 3. Closure and waste disposal will be in accordance with the statues, rules and regulations in effect at the time of closure.
-



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
ARTESIA DISTRICT OFFICE

April 3, 1984

P.O. DRAWER 00
ARTESIA, NEW MEXICO 88210
(505) 748-1283

Arthur R. Brown
101 E. Marland, Suite 105
Hobbs, New Mex. 88240

Re: District Approval of Lined
Overflow Pit
Approval Number A-LP-1

Dear Mr. Brown:

Under provisions of Division Order No. R-3221-C, approval is hereby granted for use of a lined Salt-Water pit to be located in the NE/4 NW/4 of Section 33, Township 26 South, Range 30 East, NMPM, Eddy County, New Mexico.

Approval of this application is conditioned upon the following:

- (1) pit construction and operation in accordance with the application;
- (2) notice to the Artesia District Office of the Division in time to permit inspection of the leak detection system prior to liner installation, fabrication of the liner, and inspection of the completed system prior to use; and
- (3) compliance with the terms and provisions of Division Order No. R-3221-C not inconsistent with this order.

Authorization for this lined pit may be recinded if there is evidence that the pit is leaking or if the pit is permitted to overflow.

Sincerely,

Leslie A. Clements
Supervisor, District II

LC/br
cc: Santa Fe

RECEIVED BY

FEB 13 1984

O. C. D.

APPLICATION FOR PERMIT

TO UTILIZE A LINED EVAPORATION PIT

New Mexico Oil Conservation Commission

PERMIT NO. A-LP-1

RECEIVED BY

JAN 25 1984

O. C. D.

ARTESIA. OFFICE

Name of Operator BBC, INC.

Address 101 E. MARLAND, SUITE 112, HOBBS, NEW MEXICO 88400

Name of lease upon which evaporation pit will be located ROSS DRAW FEDERAL

Location of evaporation pit: Unit Letter C Section 33 Township 26-S Range 30-E

Lease(s) which will be producing into pit SEE ATTACHED DATA SHEET

Pool(s) which will be producing into pit SEE ATTACHED DATA SHEET

Analysis of disposal water: Chlorides - ppm. Total dissolved solids - ppm.
(If more than one pool will be producing into pit, give water analysis for each pool.)

Quantity of water to be disposed of into this pit NA barrels per day.

Water production from these same wells six months ago NA bpd. Three months ago NA bpd
(If more than one pool will be producing into pit, give water production data for each)

Method of hydrocarbon entrapment to be employed: Settling tank YES Header pit NO

If settling tank is to be used, give size and number of barrels TWO 750-BBL. & TWO 500-BBL.

If header pit is to be used, give dimensions and depth ---

Header pit lining material --- Thickness ---

Dimensions of Evaporation Pit ("A" and "B" on diagram) 142' x 142'

Number of square feet contained in above 20,164

Depth (Top of levee to floor of pit--"D" on diagram) 7'

Material to be used as liner REINFORCED HYPALON 30HP6 Thickness 30 MILS

Does manufacturer recommend protection of material from direct sunlight? Yes --- No XX

If yes, what means will be provided to so protect the material? ---

Is material resistant to hydrocarbons? Yes XX No ---

Is material resistant to acids and alkalis? Yes XX No ---

Is material resistant to salts? Yes XX No ---

Is material resistant to fungus? Yes XX No ---

Is material rot-resistant? Yes XX No ---

Will joints in material be fabricated in the field? Yes --- No XX

If yes, describe method to be used in joining material ---

Attach manufacturer's brochure describing the qualities of the lining material.

Describe the leakage detection system to be used DRAINAGE-AND-SUMP

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and further, that the subject evaporation pit and appurtenances, when installed, will be kept in good repair, and that all due diligence will be exercised in keeping the surface of the water free of oil and other debris.

Name Arthur R. Brown Title Agent Date Jan. 13, 1984

Approved by Leslie A. Clement Title SUPERVISOR, DISTRICT II Date APR - 3 1984

APPLICATION FOR PERMIT
TO UTILIZE A LINED PIT

SUPPLEMENTAL DATA

1. LOCATION:

- A. The proposed lined pit will be located, as shown on Exhibit "A", in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 33, T.26 S., R.30 E., Eddy County, New Mexico, adjacent on the west to BBC, Inc.'s existing Salt Water Disposal Facility.
- B. The proposed pit will not be located in a watercourse, lake bed, or other depression.

2. PURPOSE OF PIT:

- A. The proposed lined pit will be used both for an emergency pit, in the event of a malfunction in the salt water disposal facility, and for a salt water holding pit.
- B. BBC's existing salt water disposal facility disposes of produced water, gathered from wells in the Brushy Draw Delaware and Ross Draw Wolfcamp Pools, in the subsurface by injection into well No. 1 Ross Draw Federal located 660 feet from the north line and 1980 feet from the west line of Section 33.

3. QUALITY OF PRODUCED WATER:

- A. Analyses of produced water from the two pools show the following;

<u>ZONE</u>	<u>CHLORIDES - PPM</u>	<u>TOTAL DISSOLVED SOLIDS - PPM</u>
Bell Canyon	76,000	125,407
Cherry Canyon	169,000	270,096
Brushy Canyon	197,000	315,282
Wolfcamp	48,000	78,717

4. PIT DESIGN AND CONSTRUCTION:

- A. The pit will be square, as shown on Exhibit "B", and will be constructed by excavating to an approximate depth of 4 feet and using the excavated material to form levees around the pit.

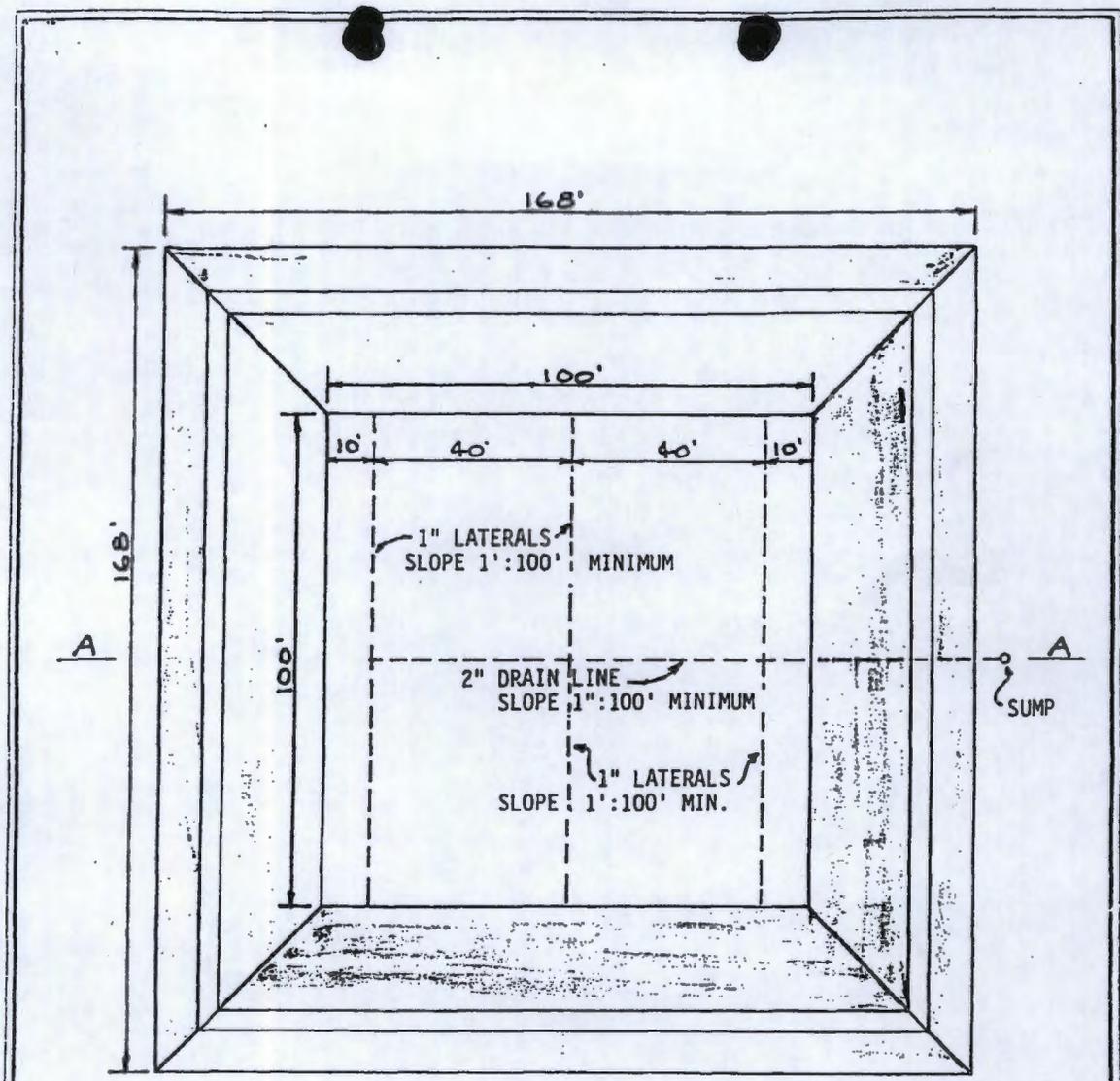
- B. The levees will rise approximately 3 feet above ground level. The top of the levees will be flat and level and will be 4 feet wide. Inside and outside slope of the levees will be 1:3. (See Exhibit "C").
- C. The pit will be lined with a flexible plastic liner. The pit liner will be anchored on top of the levee in an anchor trench extending the entire perimeter of the pit. The anchor trench, as shown in Detail #2, Exhibit "C", will be 6" wide and 12" deep and will be 1'-9" back from the inside edge of the pit. After placing the liner, the anchor trench will be backfilled with excavated material.
- D. No header pit will be needed. The two 750-barrel and two 500-barrel settling tanks serving the salt water disposal facility should be adequate to entrap any oil reaching the facility with the produced water.

5. LEAKAGE DETECTION SYSTEM:

- A. The leakage detection system will be the drainage-and-sump method with the drain line and laterals arranged as shown on Exhibit "B". The drain line will be perforated, 2" PVC pipe in a 6" wide, gravel filled ditch, as shown in Detail #1, Exhibit "C", and will drain into a sump outside the pit.
- B. The laterals will be perforated, 1" PVC pipe in gravel filled ditches. To facilitate drainage, the drain line and all laterals will be constructed with a minimum slope in the direction of drainage of 1':100'.
- C. The sump, as shown on Exhibits "B" and "C", will be constructed of 6" PVC pipe with the bottom sealed and the top closed to prevent the entrance of rain water or ground water.

6. PIT LINER MATERIAL:

- A. The pit lining will be 30 mil thick, reinforced Hypalon. An information bulletin is attached.



PLAN

EXHIBIT "B"
 BBC, INC.
 APPLICATION FOR PERMIT
 TO UTILIZE A LINED PIT
 NE $\frac{1}{4}$ NW $\frac{1}{4}$ OF SECTION 33, T.26 S., R.30 E.
 EDDY COUNTY, N.M. SCALE: None

The BFGoodrich Company
 Fabricated Polymers Division
 Environmental Products
 Dept. 1914
 500 South Main Street
 Akron, Ohio 44318
 (216) 379-3115

**Flexseal™
 reinforced
 lining
 material
 30HP6
 specification**

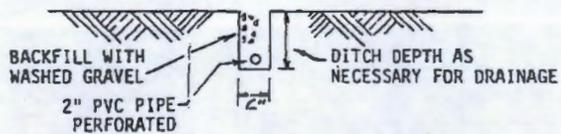
1. **Scope**
 This specification describes BFGoodrich Flexseal™ 30HP6, polyester reinforced lining of a nominal 30 mil Hypalon* thickness.
2. **Liner Requirements:**
 - 2.1 **Material Description:**
 - 2.1.1 The liner shall be a three ply construction. Two of the plies being Flexseal sheeting having Hypalon* as its principle polymer and compounded to meet the requirements of this specification.
 - 2.1.2 The third ply shall be scrim fabric totally encapsulated between the Flexseal sheets with 1/8" to 3/4" of the unsupported sheet extending beyond the fabric.
 - 2.1.3 The liner shall be so produced so as to be free of holes, undispersed raw materials, blisters or any sign of delamination. Any such defect shall be repaired using the elastomer sheeting and the manufacturer's approved adhesive.
 - 2.2 **Factory Fabrication of Blankets:**
 - 2.2.1 The finished roll goods shall be factory fabricated into panels up to 20,000 sq. ft. in size in order to reduce the amount of field seaming required. All seams shall be heat welded and provide a film tearing bond.
 - 2.3 **Field Seaming:**
 - 2.3.1 All field seaming will be performed using only the manufacturer's approved adhesives and application directions. The minimum width of field seams shall be 4" seal.
 - 2.3.2 All field seams upon completion shall be visually inspected and any loose or questionable area repaired.

- 2.4 **Physical Properties:**
 The Flexseal liner shall conform to the requirements outlined below.
3. **Guarantee of Materials:**
 The liner purchaser shall be provided with a guarantee in writing from the manufacturer as to weathering. The degree and limitations of the guarantee shall be described within this guarantee.

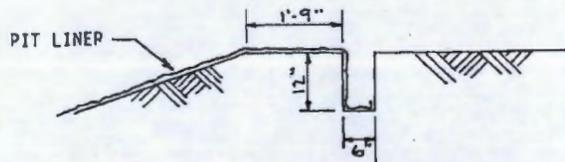
PROPERTY	TEST METHOD	REQUIREMENTS
Tensile Strength	ASTM D 412	1,000 psi, minimum
Elongation at break	ASTM D 412	250 percent, minimum
Water absorption (7 days at 70 F)	ASTM D 471	5 percent max by weight
Cold bend test	ASTM D 2136 (1/8 inch mandrel)	-30 F, no cracks
Brittleness point	ASTM D 746 (Procedure "B")	-45°F, no failures
Ozone Resistance 7 days @ 300 pphm @ 104°F with 20 percent strain	ASTM D 1149	No cracks visible under 7 times magnification
*Breaking strength	ASTM D 751	120 lb., minimum
*Tear strength Tongue Tear	ASTM D751	20 lb., minimum
*Puncture resistance	FTMS 101 B (Method 2031)	100 lb., minimum
*Factory and field seam strength	ASTM D 816 (Method B)	Parent material breaks prior to seam separation

*Tests performed on the reinforced sheets. All others on the material in its non-reinforced state.

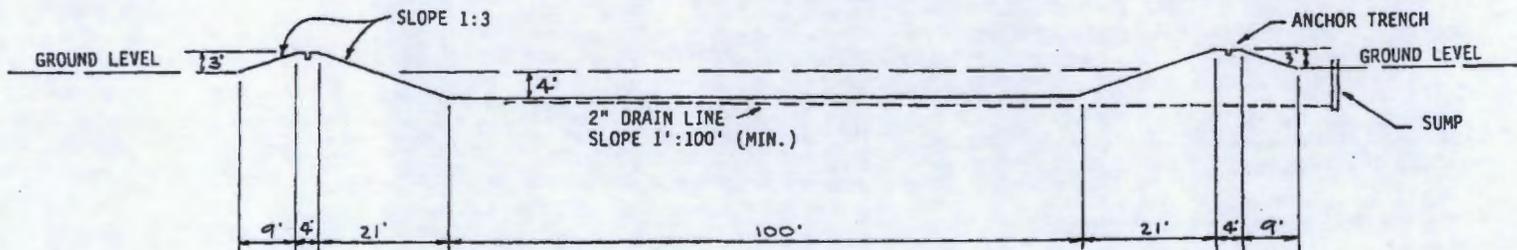
These data are based on tests believed to be reliable. However, these are laboratory tests that may not simulate actual use conditions. They are given only for your information and no warranty, express or implied, is made as we cannot guarantee the results of operations not under our direct control. The information in this publication is not intended as permission or recommendation to practice a patented invention without permission of the patent owner.



DRAIN LINE DETAIL NO. 1



ANCHOR TRENCH DETAIL #2



SECTION A-A

EXHIBIT "C"

BBC, INC.

APPLICATION FOR PERMIT
TO UTILIZE A LINED PIT
NE 1/4 OF SECTION 33, T.26 S., R.30 E.
EDDY COUNTY, N.M. SCALE: None



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

rich

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

March 3, 1983 RECEIVED

MAR 07 1983

O. C. D.
ARTESIA, OFFICE

Ralph Nix
101 South Seventh
Artesia, New Mexico 88210

Attention: Bill McCaw

Re: Administrative Order No. IP-104

Dear Mr. McCaw:

Under provisions of Division Order No. R-3221-C, approval is hereby granted for use of a lined Salt-Water pit to be located in the NW/4 SE/4 of Section 34, Township 18 South, Range 26 East, NMPM, Eddy County, New Mexico.

Approval of this application is conditioned upon the following:

- (1) pit construction and operation in accordance with the application;
- (2) notice to the Artesia district office of the Division in time to permit inspection of the leak detection system prior to liner installation, fabrication of the liner, and inspection of the completed system prior to use; and
- (3) compliance with the terms and provisions of Division Order No. R-3221-C not inconsistent with this order.

Authorization for this lined pit may be rescinded if there is evidence that the pit is leaking or if the pit is permitted to overflow.

Sincerely,

JOE D. RAMEY
Director

JDR/jc

cc: Artesia District Office

DATA ON LINED STORAGE PIT



OPERATOR: Ralph Nix
ADDRESS: P.O. Box 617, Artesia, New Mexico 88210

LOCATION OF PIT:

The pit will be on the Ralph Nix Merri #1 lease. The surface is owned by Ralph Nix, et al, in unit letter J, Section 34, Township 18 South, Range 26 East, Eddy County, New Mexico. The surface is in a relatively flat area with no water course through the pit area.

SOURCE OF WATER:

Water will be gathered from Ralph Nix wells in the Dayton Area which are being produced from the Atoka Yeso pool, which has approximately 46,300 mg/l of chlorides and 85,128.3 mg/l of dissolved solids. This water will be run through heater treaters to breakout and separate the oil and water. The water is flowed to the fiberglass tank. The water will be pumped from each fiberglass tank to the lined storage pit.

QUANTITY OF WATER AND DISPOSITION:

These wells are presently producing 1500 bbls water per day. This storage tank will hold 14,248 bbls. The proposed water line will be a 6" line with a capacity of 6000 bfpd. It will also be designed for trucks to be able to remove water. The water level shall never be more than one foot from top.

TYPE OF LINER:

Material to be used as liner is Polyethylene with a thickness of 40 mil. The manufacturer does not recommend protection from direct sunlight. The material is resistant to the following: hydrocarbon, acids, alkalis, salts, fungus, and rot-resistant. Joints in material will be fabricated in the field and will use heat fusion for joining material.

LEAKAGE DETECTION SYSTEM:

The drainage and sump method of leakage detection system will be used. A network of perforated drainage PVC pipes shall be installed. They will be placed with sufficient density that no point in the pit-bed shall be more than 20 feet from a drainage pipe. Slope for all drainage lines shall be at least six inches per 50 feet. All drainage shall be to the outer perimeter of the pit and shall gather into an erosion proof dump.

DESIGN AND CONSTRUCTION:

Pit shall be two pit with a common side. This is a built in safety factor in case one pit is leaking the water can be transferred to the other. The pits will be connected with a equalizer pipe with a shut-off valve. Both pits will be built exactly the same size and design. Dimensions of the pit ("A" and "B" Exhibit A) are 250' x 40'. There are 10,000 square feet. Depth (top of level to floor of pit "D" on Exhibit A) is 5 feet. It shall be constructed by excavating and levelling a maximum of six inches below ground level. Excavation material shall be used to form the levels around the pit. Levels shall be so constructed as to have an inside grade no flatter than 1:2. Levels shall have an outside grade no steeper than 1:3.

The top of levels shall be flat and level and shall be at least 18 inches wide.

PREPARATION OF PIT BED FOR INSTALLATION OF LINER:

The bed of the pit and the inside grades of the level shall have smooth and compacted and shall be free of holes, rocks, stumps, clods or any other debris which might rupture the liner. Drainage canals shall be dry and sloped prior to requesting inspection of the pit bed. They shall not receive the slotted drainage pipe until after the slope and direction of drainage has been approved. A trench shall be dug on the top of the levee the entire perimeter of the pit for the purpose of anchoring flexible liners. This trench shall be located nine inches out from the slope break and shall be a minimum of six inches deep.

INSTALLATION OF FLEXIBLE MEMBRANE LINERS:

The liner shall be put in place only after the pit-bed, leakage detection system, and levee walls have been inspected and approved by a Commission representative. The pit liner shall be installed and joints sealed according to manufacturer's specifications and with approval of the Commission representative. The liner shall be laid as evenly and wrinkle-free as possible and shall rest smoothly on the pit-bed and the inner face of the levees, and shall be of sufficient size to extend down to the bottom of the anchor trench, and to come back out and a minimum of two inches beyond. An anchor of used pipe, old sucker-rods, or other similar material shall be placed over the liner in the anchor trench and said trench backfilled. The anchor shall extend the entire perimeter of the pit.

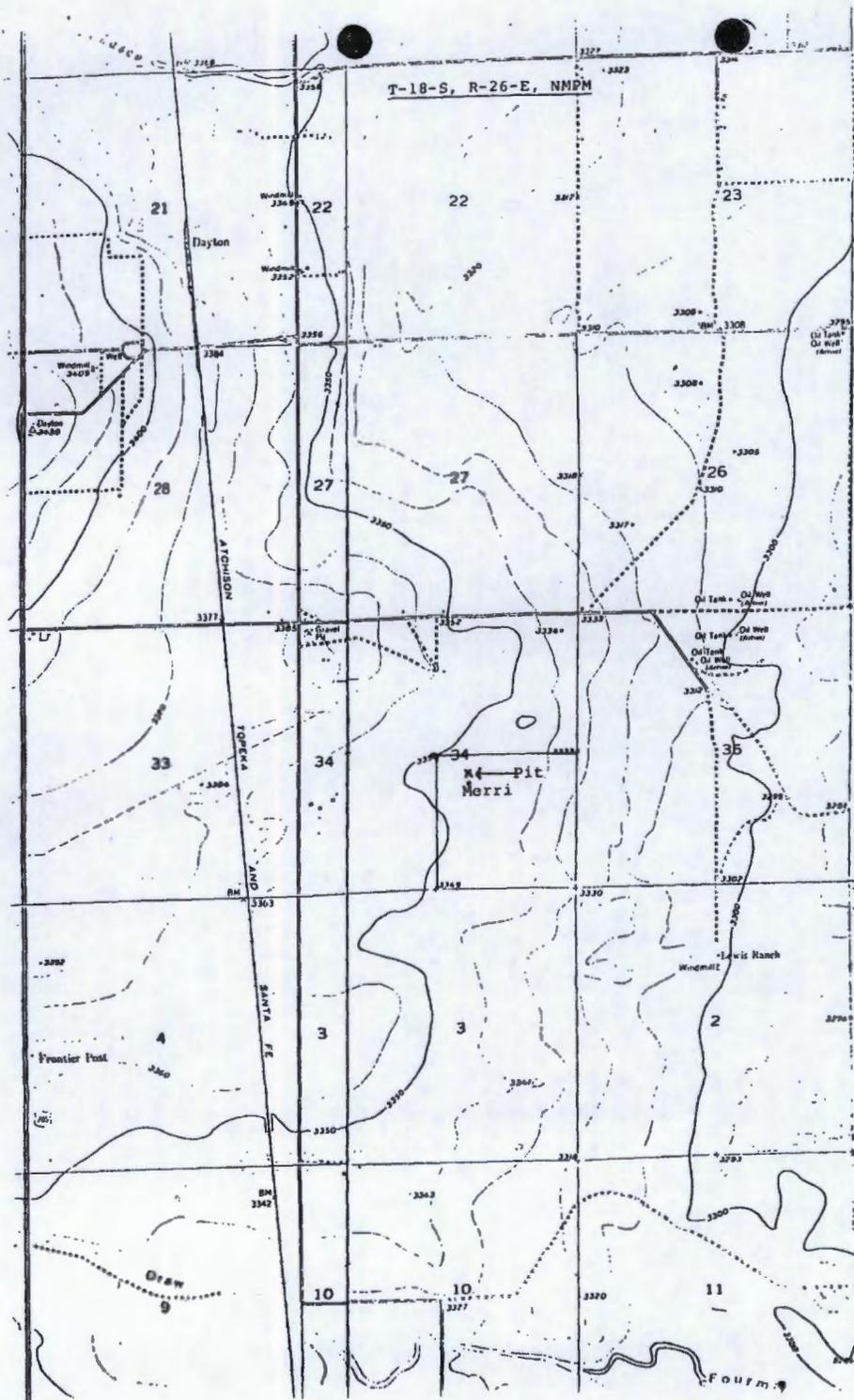
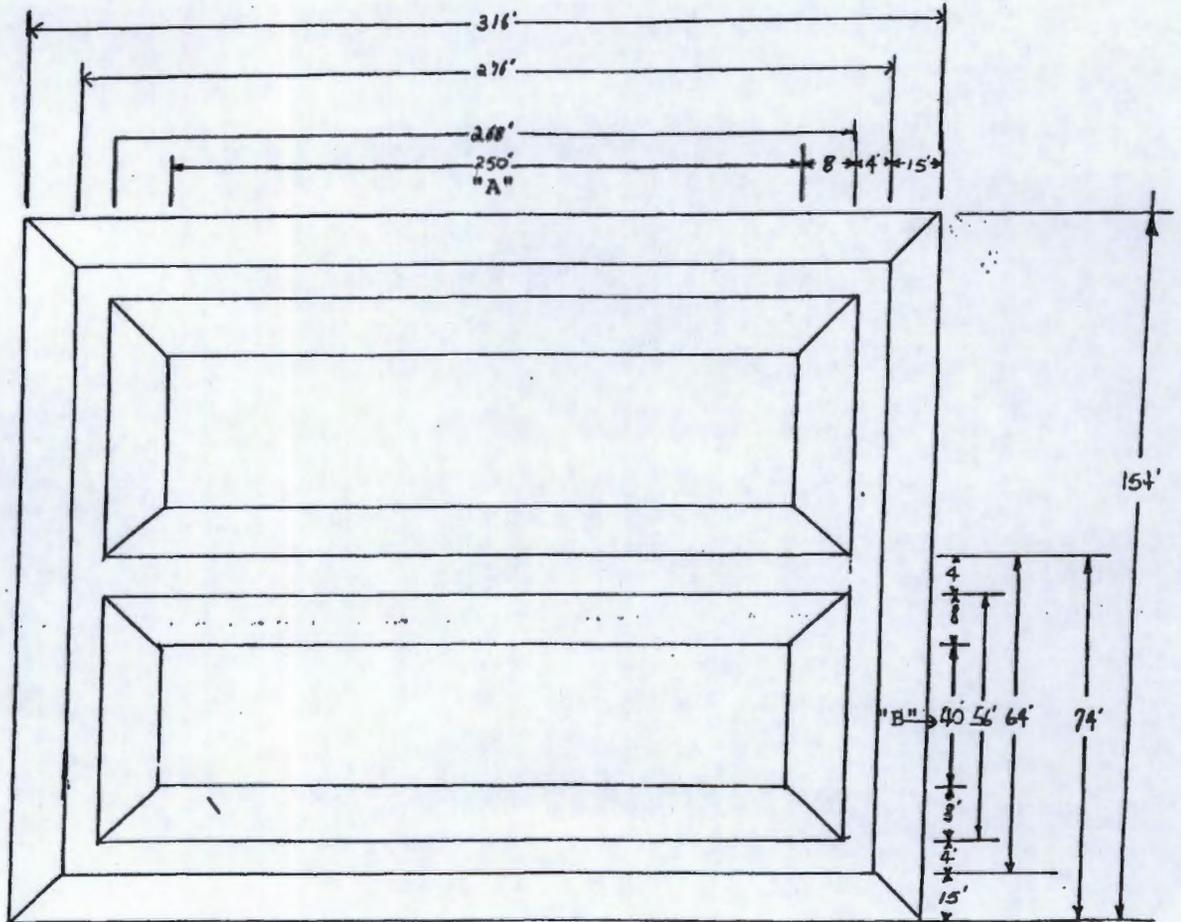
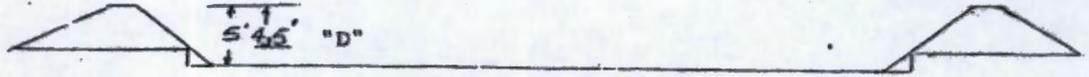
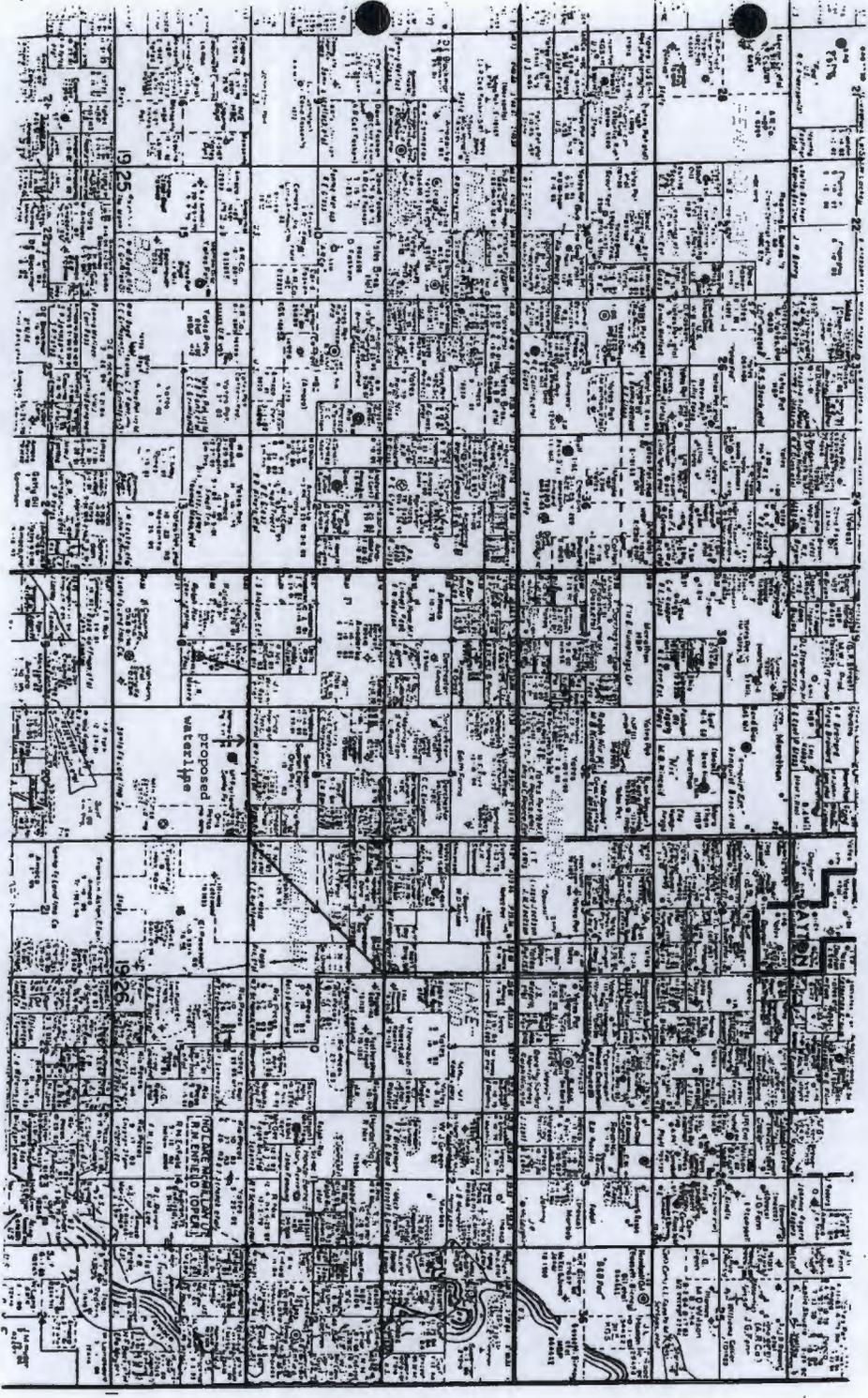
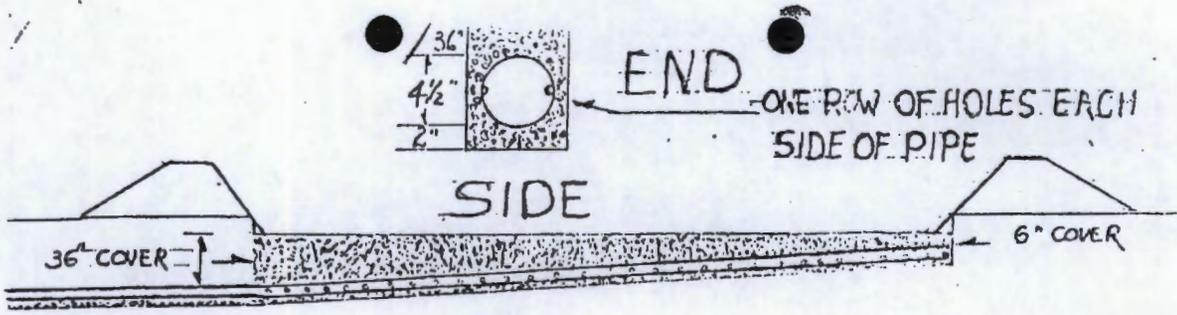


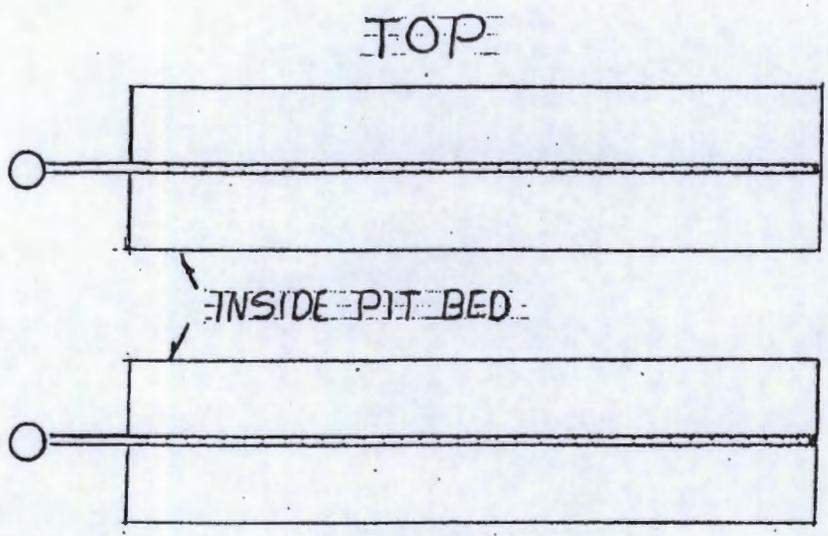
EXHIBIT "A"







5" PVC PIPE & CAP



LEAK DETECTION SYSTEM UNDER PITS

RALPH IX

101 SOUTH SEVENTH — PHONE 746-2341 — 746-9829

P. O. BOX 617

ARTESIA, NEW MEXICO 88210

February 11, 1983

State Land Office Building
P.O. Box 2088
Santa FE, New Mexico 87501

Attention: R. L. Stamets

505-827-5800

Dear Mr. Stamets:

This is a letter asking for approval from the State for a lined water disposal storage surface pit. This lined storage pit will be used in conjunction with our water disposal well five miles away. This pit will be used as a central gathering point from our wells in the Dayton area. The water will then be pumped through our purposed water line to the water disposal well. The attached plat will show the location of the purposed storage surface pit, pipeline and water disposal well that is in operation.

We have acquired the Right-of-Way for the pipeline and are waiting on permits from the State highway and railroad for approval to cross them. Enclosed is a data sheet on the lined storage pit, manufactures lining material brochure, plat showing location of pit and water disposal line to water disposal well and exhibit "A" showing the design and dimensions of the pit.

If you have any questions or suggestions, please let me know.

Yours truly,


William J. McCaw

WJM/lr
enclosures

DATA ON LINED STORAGE PIT

OPERATOR: Ralph Nix

ADDRESS: P.O. Box 617, Artesia, New Mexico 88210

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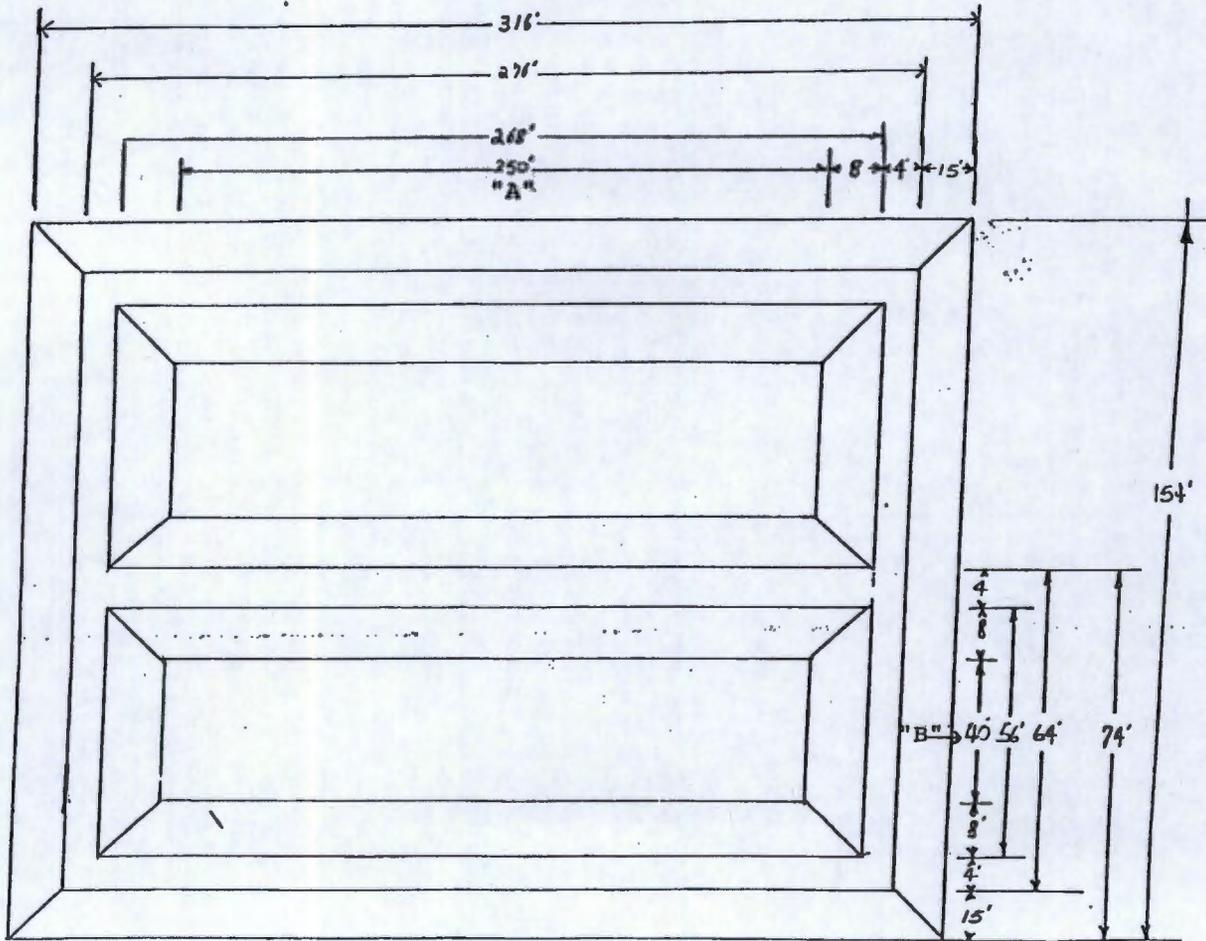
TYPE OF LINER:

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EXHIBIT "A"



DESIGN AND CONSTRUCTION:

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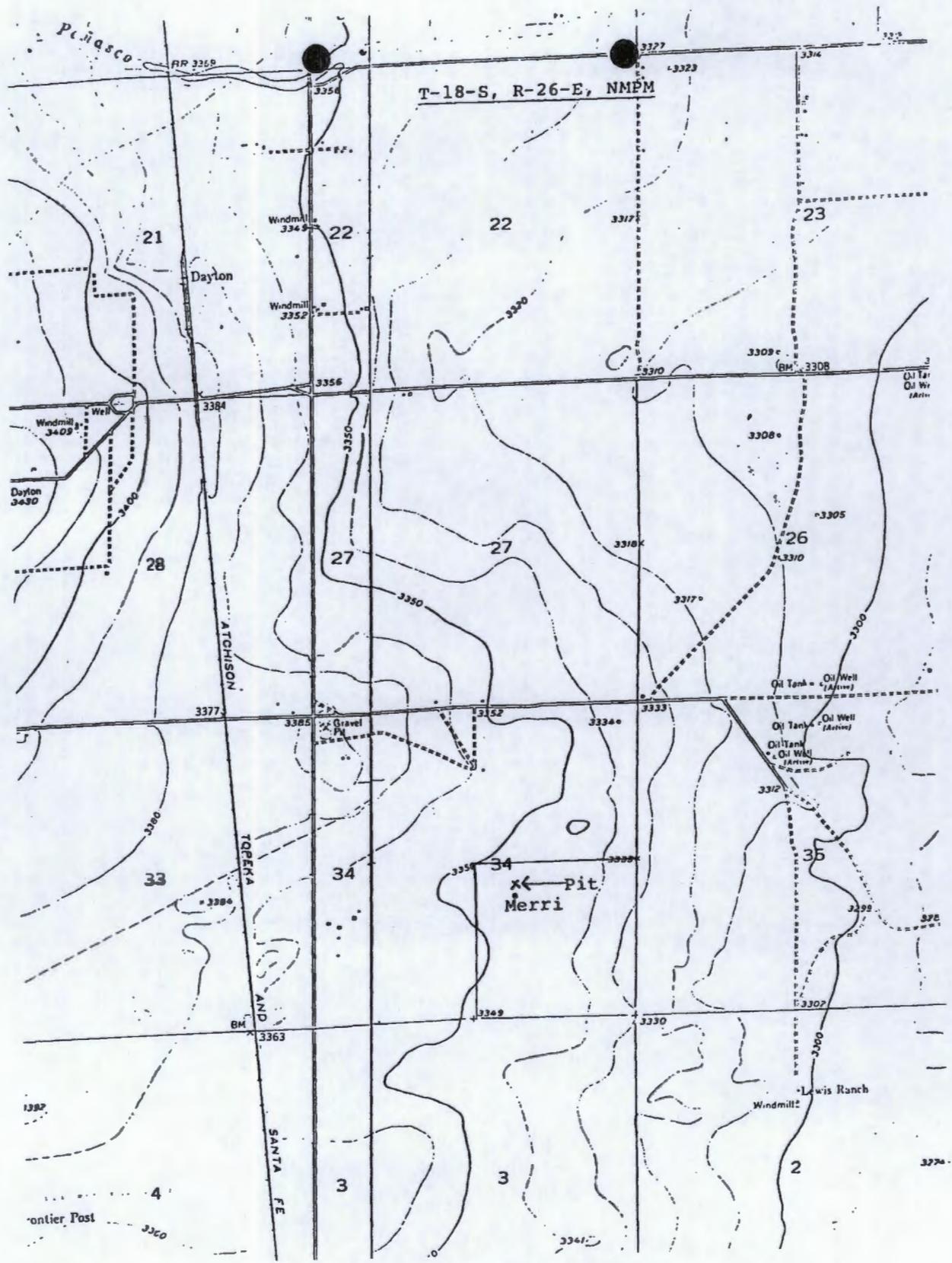
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T-18-S, R-26-E, NMPM

x ← Pit Merri

Frontier Post

Lewis Ranch

ATCHISON
TOPERA
AND
SANTA FE

Dayton

Windmill 3349

Windmill 3352

Windmill 3403

Dayton 3430

3309c

BM 3308

Oil Tank
Oil Well (Active)

Oil Tank

Oil Well (Active)

Oil Tank

Oil Well (Active)

Windmill

<p>104183 Brown W. E. 11/11/81</p>	<p>104184 Brown W. E. 11/11/81</p>	<p>104185 Brown W. E. 11/11/81</p>	<p>104186 Brown W. E. 11/11/81</p>	<p>104187 Brown W. E. 11/11/81</p>	<p>104188 Brown W. E. 11/11/81</p>	<p>104189 Brown W. E. 11/11/81</p>	<p>104190 Brown W. E. 11/11/81</p>	<p>104191 Brown W. E. 11/11/81</p>	<p>104192 Brown W. E. 11/11/81</p>	<p>104193 Brown W. E. 11/11/81</p>	<p>104194 Brown W. E. 11/11/81</p>	<p>104195 Brown W. E. 11/11/81</p>	<p>104196 Brown W. E. 11/11/81</p>	<p>104197 Brown W. E. 11/11/81</p>	<p>104198 Brown W. E. 11/11/81</p>	<p>104199 Brown W. E. 11/11/81</p>	<p>104200 Brown W. E. 11/11/81</p>	<p>104201 Brown W. E. 11/11/81</p>	<p>104202 Brown W. E. 11/11/81</p>	<p>104203 Brown W. E. 11/11/81</p>	<p>104204 Brown W. E. 11/11/81</p>	<p>104205 Brown W. E. 11/11/81</p>	<p>104206 Brown W. E. 11/11/81</p>	<p>104207 Brown W. E. 11/11/81</p>	<p>104208 Brown W. E. 11/11/81</p>	<p>104209 Brown W. E. 11/11/81</p>	<p>104210 Brown W. E. 11/11/81</p>	<p>104211 Brown W. E. 11/11/81</p>	<p>104212 Brown W. E. 11/11/81</p>	<p>104213 Brown W. E. 11/11/81</p>	<p>104214 Brown W. E. 11/11/81</p>	<p>104215 Brown W. E. 11/11/81</p>	<p>104216 Brown W. E. 11/11/81</p>	<p>104217 Brown W. E. 11/11/81</p>	<p>104218 Brown W. E. 11/11/81</p>	<p>104219 Brown W. E. 11/11/81</p>	<p>104220 Brown W. E. 11/11/81</p>	<p>104221 Brown W. E. 11/11/81</p>	<p>104222 Brown W. E. 11/11/81</p>	<p>104223 Brown W. E. 11/11/81</p>	<p>104224 Brown W. E. 11/11/81</p>	<p>104225 Brown W. E. 11/11/81</p>	<p>104226 Brown W. E. 11/11/81</p>	<p>104227 Brown W. E. 11/11/81</p>	<p>104228 Brown W. E. 11/11/81</p>	<p>104229 Brown W. E. 11/11/81</p>	<p>104230 Brown W. E. 11/11/81</p>	<p>104231 Brown W. E. 11/11/81</p>	<p>104232 Brown W. E. 11/11/81</p>	<p>104233 Brown W. E. 11/11/81</p>	<p>104234 Brown W. E. 11/11/81</p>	<p>104235 Brown W. E. 11/11/81</p>	<p>104236 Brown W. E. 11/11/81</p>	<p>104237 Brown W. E. 11/11/81</p>	<p>104238 Brown W. E. 11/11/81</p>	<p>104239 Brown W. E. 11/11/81</p>	<p>104240 Brown W. E. 11/11/81</p>	<p>104241 Brown W. E. 11/11/81</p>	<p>104242 Brown W. E. 11/11/81</p>	<p>104243 Brown W. E. 11/11/81</p>	<p>104244 Brown W. E. 11/11/81</p>	<p>104245 Brown W. E. 11/11/81</p>	<p>104246 Brown W. E. 11/11/81</p>	<p>104247 Brown W. E. 11/11/81</p>	<p>104248 Brown W. E. 11/11/81</p>	<p>104249 Brown W. E. 11/11/81</p>	<p>104250 Brown W. E. 11/11/81</p>	<p>104251 Brown W. E. 11/11/81</p>	<p>104252 Brown W. E. 11/11/81</p>	<p>104253 Brown W. E. 11/11/81</p>	<p>104254 Brown W. E. 11/11/81</p>	<p>104255 Brown W. E. 11/11/81</p>	<p>104256 Brown W. E. 11/11/81</p>	<p>104257 Brown W. E. 11/11/81</p>	<p>104258 Brown W. E. 11/11/81</p>	<p>104259 Brown W. E. 11/11/81</p>	<p>104260 Brown W. E. 11/11/81</p>	<p>104261 Brown W. E. 11/11/81</p>	<p>104262 Brown W. E. 11/11/81</p>	<p>104263 Brown W. E. 11/11/81</p>	<p>104264 Brown W. E. 11/11/81</p>	<p>104265 Brown W. E. 11/11/81</p>	<p>104266 Brown W. E. 11/11/81</p>	<p>104267 Brown W. E. 11/11/81</p>	<p>104268 Brown W. E. 11/11/81</p>	<p>104269 Brown W. E. 11/11/81</p>	<p>104270 Brown W. E. 11/11/81</p>	<p>104271 Brown W. E. 11/11/81</p>	<p>104272 Brown W. E. 11/11/81</p>	<p>104273 Brown W. E. 11/11/81</p>	<p>104274 Brown W. E. 11/11/81</p>	<p>104275 Brown W. E. 11/11/81</p>	<p>104276 Brown W. E. 11/11/81</p>	<p>104277 Brown W. E. 11/11/81</p>	<p>104278 Brown W. E. 11/11/81</p>	<p>104279 Brown W. E. 11/11/81</p>	<p>104280 Brown W. E. 11/11/81</p>	<p>104281 Brown W. E. 11/11/81</p>	<p>104282 Brown W. E. 11/11/81</p>	<p>104283 Brown W. E. 11/11/81</p>	<p>104284 Brown W. E. 11/11/81</p>	<p>104285 Brown W. E. 11/11/81</p>	<p>104286 Brown W. E. 11/11/81</p>	<p>104287 Brown W. E. 11/11/81</p>	<p>104288 Brown W. E. 11/11/81</p>	<p>104289 Brown W. E. 11/11/81</p>	<p>104290 Brown W. E. 11/11/81</p>	<p>104291 Brown W. E. 11/11/81</p>	<p>104292 Brown W. E. 11/11/81</p>	<p>104293 Brown W. E. 11/11/81</p>	<p>104294 Brown W. E. 11/11/81</p>	<p>104295 Brown W. E. 11/11/81</p>	<p>104296 Brown W. E. 11/11/81</p>	<p>104297 Brown W. E. 11/11/81</p>	<p>104298 Brown W. E. 11/11/81</p>	<p>104299 Brown W. E. 11/11/81</p>	<p>104300 Brown W. E. 11/11/81</p>
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DAYTON

AMHERST

LAKE WOOD

AMHERST

LAKE WOOD

proposed
waterline

NO LAKE MILLON OR
R.N. ENFIELD (OPER)

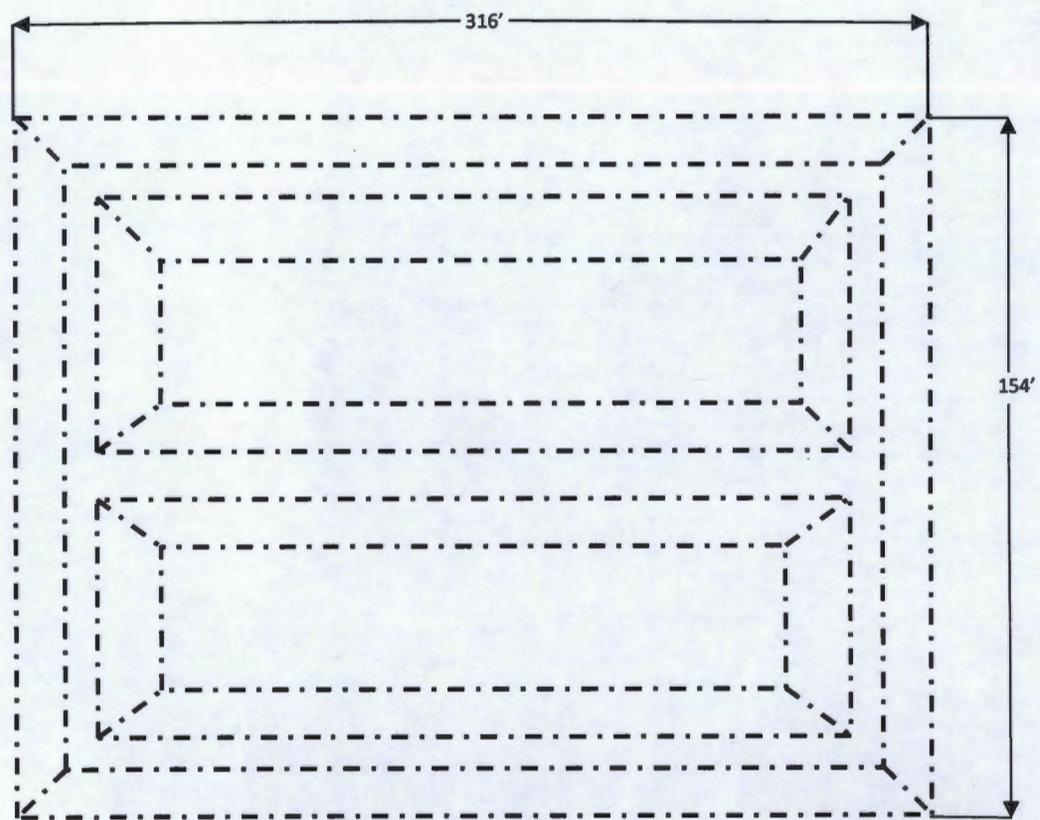
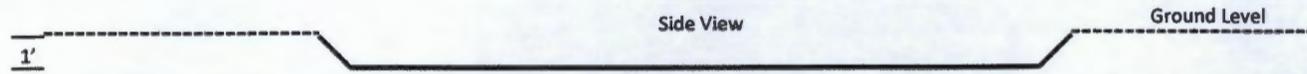
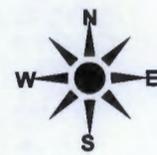
Franklin Astor, E. Fair
10 85

Santa Fe Land Imp. Co.
Amoco 21

19 26



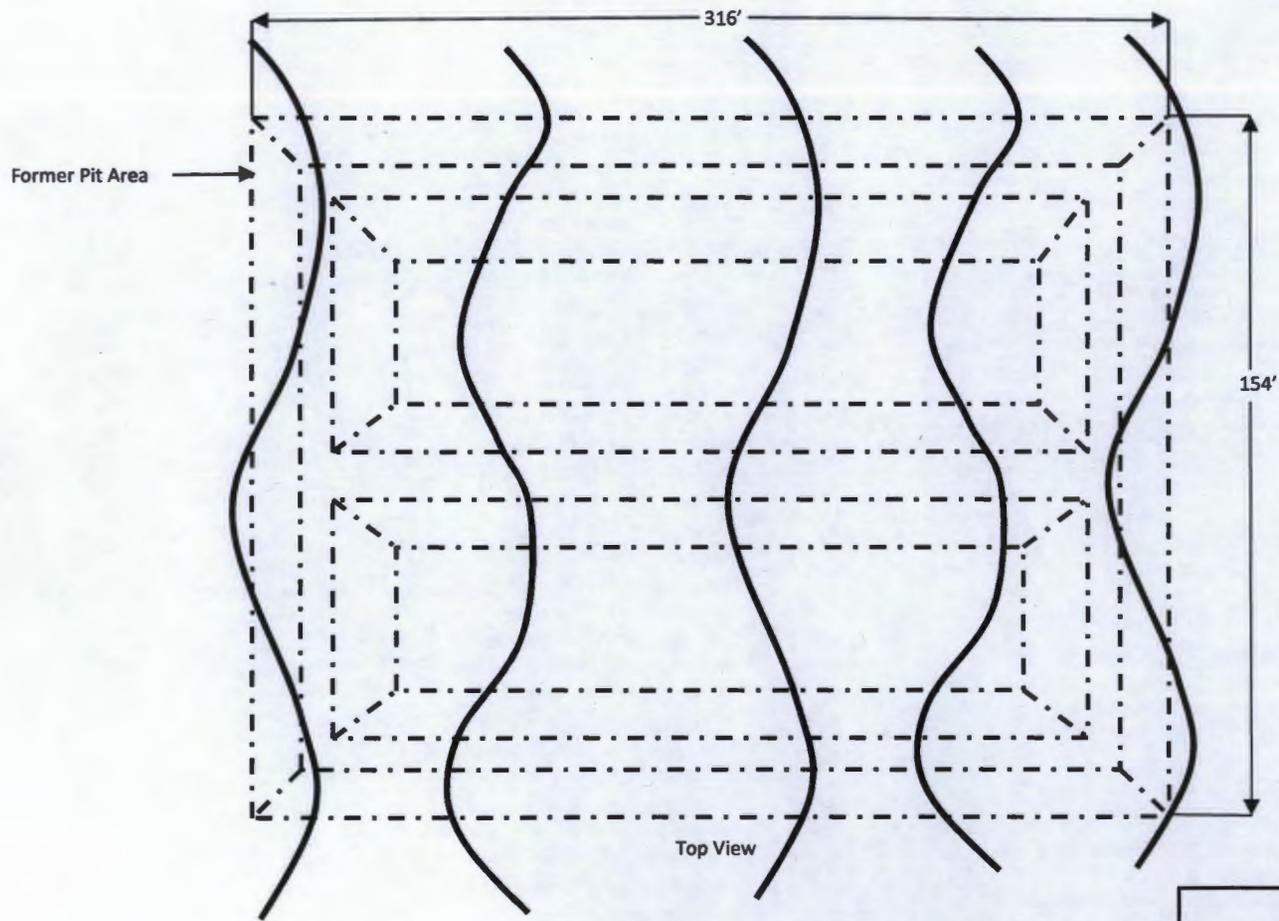
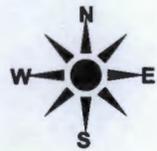
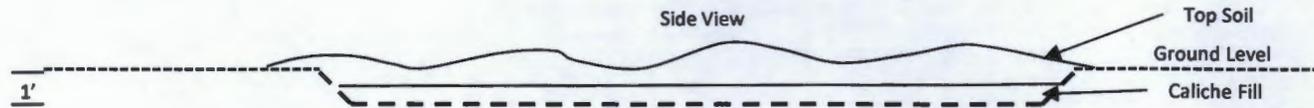
Attachment E
Reclamation Diagrams



Top View

Notation: Pit is left open after removal of contents, liner and impacted soil at the request of the landowner for livestock water collection.

Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Pit
Alternative Reclamation Plan
(Not to Scale)



Notation: Wavy lines represent water bars for erosion control. Each water bar is approximately 18" tall. Alternating contours are used to assist in creating seed traps for wind-blown native seed in addition to broadcast seeding of the site.

Stanolind Operating LLC dba Stanolind NM LLC
 Surface Waste Management Pit
 Standard Reclamation Plan
 (Not to Scale)