

GW - 001

**GENERAL
CORRESPONDENCE**

2007 - 1982

10 of 11

6. If a time of explosion was indicated by the caller, the search will continue to within ten minutes of the set time. At that time and until clearance is given, all personnel will be withdrawn, except those required in the control room. The units will not be shut down or left unattended.
7. If a bomb is discovered:
 - a. Notify the emergency headquarters.
 - b. Do not touch, attempt to remove, or disarm.
 - c. "Bomb removal" personnel (from the State Police Office) will be rushed to the site.
8. Outside agencies - Only after approval of Operations Superintendent or Safety Supervisor:
 - a. New Mexico State Police
 - b. San Juan County Sheriff

VII RADIO SYSTEM

Two-way radios provide a valuable means of communication in an emergency situation. With the aid of a two channel system we are able to use number two channel only for direction of fire fighting efforts. When an alarm is sounded, channel two will be cleared except for emergency purposes. Channel one will be used for the activities involved in isolating the involved equipment by the operating department. All other use of the radios will be discontinued until such a time as the situation is in hand and the recall is given.

VIII CONTRACTORS AND VISITORS

When an emergency alarm is sounded, all contractors and visitors are to be directed to leave the process area and assemble at the main shop area. Contract foreman is to account for each of his employees and report any missing to the Emergency Command Post with information to their assigned work area. Contractors and visitors are not to return into the plant without authorization from the Emergency Command Post.

IX PIPELINE EMERGENCIES

Pipeline emergencies are to be handled in the same manner as any other fire or hydrocarbon release encountered at the refinery. Of prime concern to Plateau is protection of exposures from a

fire until such time as the feed can be isolated from the involved line(s) and final extinguishment is made. The responsibility for isolating the feed will be with the pipeline company whose facilities are involved.

If fire occurs involving the LACT unit or piping between our receiving point and storage tank we will take the responsibility for isolating the equipment as well as extinguishment.

More detailed information is given in the following summaries stating responsibilities, block valve location, emergency phone numbers, product identification and any special procedures.

San Juan Pipe Line

Product Involved: Crude Oil.

Origin: Bisti Station near El Paso Chaco Plant.

Arrives Refinery: Through the southwest gates by Tank #23 (CBI-2) Plateau receiving surfaces at LACT unit.

On Site Destination: Tank #31 (GATX-1). North 8" valve on west side on tank, or, Tank #28 (CBI-3) 8" valve on north side of tank.

Securing Responsibility: On site - Pumper/gauger
Off site - San Juan Pipeline

Block Valve Location: 3" plug valve immediately preceeding the west meter (or) block valve located where line surfaces in right-of-way.

*Note: Pump station must be shut down in control room before closing valves.

Telephone Numbers: San Juan Pipeline - Bob McCoy 632-3425 or 325-1873 car 385; Torchie Smouse 632-8139 or 325-1875 car 835

El Paso - Angel Peak Field Lines

Product Involved: 20" on west in right-of-way; High pressure natural gas.

8" center of right-of-way; Liquid gas product (drip).

34" east in right-of-way; High pressure natural gas.

EMERGENCY PLAN

Page 17 of 20 Pages
SAFETY ORDER S-1

Origin: Right-of-way travels northeast to southwest between tank farm and process units.

On Site Destination: None.

Securing Responsibilities: El Paso Natural Gas Company.

Emergency Phone Numbers: El Paso Natural Gas Dispatching - 325-1162

Southern Union

Product Involved: Natural gas.

Origin: Gas Company of New Mexico mainline.

Arrives: Southwest property corner by warehouse.

On Site Destination: Fuel gas drum.

Securing Responsibility: On site - Pumper/gauger
Off site - Gas Company of New Mexico

Block Valve Location: 2" quarter turn plug valve at southwest property corner (or) 2" gate valves at control valve run behind shop.

Emergency Phone Numbers: Gas Company of New Mexico - 325-2889

X EVACUATION OF BUILDINGS

If the decision is made or an emergency requires evacuation of a building structure, each individual should follow the closest path of travel to an exit. Time should not be spent in trying to take any articles with you. Of prime importance is the safety of personnel, and article rescue should be left to trained personnel. Every individual should familiarize themselves with the exits (both primary and secondary) in the buildings that require their presence.

XI COMMUNICATION CONTINGENCY

Should an emergency arise that would damage or render inoperative the public telephone system at a location, alternative methods of communication should be used. This communication can be accomplished by the use of the terminals phones if the refinery was affected and use of the refinery phones if terminals phones are affected. The operating crews in each area are responsible for aiding in this manner should the need arise.

ATTACHMENT I

Page 18 of 20 Pages
SAFETY ORDER S-1

EMERGENCY PLAN

EMERGENCY PHONE NUMBERS

Bloomfield Fire Department 632-8011
Bloomfield Police Department 632-8011
San Juan County Sheriff 334-6107
State Police 325-7547
Ambulance (dispatched through Farmington Fire). 325-3501
County Fire Departments (dispatched through
Farmington Fire) 325-3501
Poison Control 1-800-432-6866
Bomb Personnel (State Police Office). 325-7547
ETHYL CORP (T.E.L. Emergencies) 504-344-7147
CHEMTREC (Chemical Emergencies) 1-800-424-9300
City of Farmington (Electric Utility) 327-7701
Kay-Ray (312) 259-5600
E.I.D. Radiation Protection Bureau (505) 984-0020
Mobile Inspection (Radiography Assistance). 327-9473
Contact of New Mexico (Call out Assistance) 327-4666

EQUIPMENT RESOURCES

Water Tankers & Vacuum Trucks

Chief Transport 325-2396
C & J Trucking 325-7770
Delgarno 327-0461
or
327-6871
Sunco Trucking 327-4921
or
325-3862
LAD Tankers 325-1808

Earth Moving Equipment

Adobe Construction (Ernie Motto) 334-6696
Nowlin Construction 327-2686
Coffey Construction 632-3663
Atchison Construction 327-6276
Gas Co. of New Mexico 325-2889

Welding & Cutting

Henry Vigil 632-3045
CKS Construction 632-3228

Wrecker or Rig Up Trucks

Sandia Detroit 325-5071
B.F. Walker 325-4539
Drake Well Service 327-7301
ODECO INC. 632-3392
Plateau Transportation 632-3377

ATTACHMENT I (Cont.)

Page 19 of 20 Pages
SAFETY ORDER S - 1

EMERGENCY PLAN

Aerial Ladder or Basket

City of Farmington Utility 327-7701

Farmington Fire 325-3501

Foam Supplies

Plateau Roosevelt Refinery (801) 722-5128

Thunderbird Sales (505) 881-6222

F & M Chemical (714) 983-9551

THREATENING PHONE CALL FORM

Time call received _____ Time caller hung up _____

Exact words of person placing call: _____

Questions to ask:

1. When is bomb going to explode? _____

2. Where is the bomb right now? _____
_____3. What kind of a bomb is it? _____
_____4. What does it look like? _____
_____5. Why did you place the bomb? _____

Person (receiving) (monitoring) call _____

Department _____ Telephone No. _____

Home Address _____

Home Telephone No. _____ Date _____

DESCRIPTION OF CALLER'S VOICE

Male _____ Female _____ Tone of voice _____

Young _____ Middle Age _____ Old _____

Accent _____ Background Noise _____

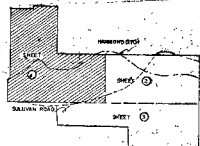
Voice familiar? _____ If so, who did it sound like? _____
_____Remarks _____

_____Immediately Notify following persons when call is complete: Operations Supt.
Safety Department



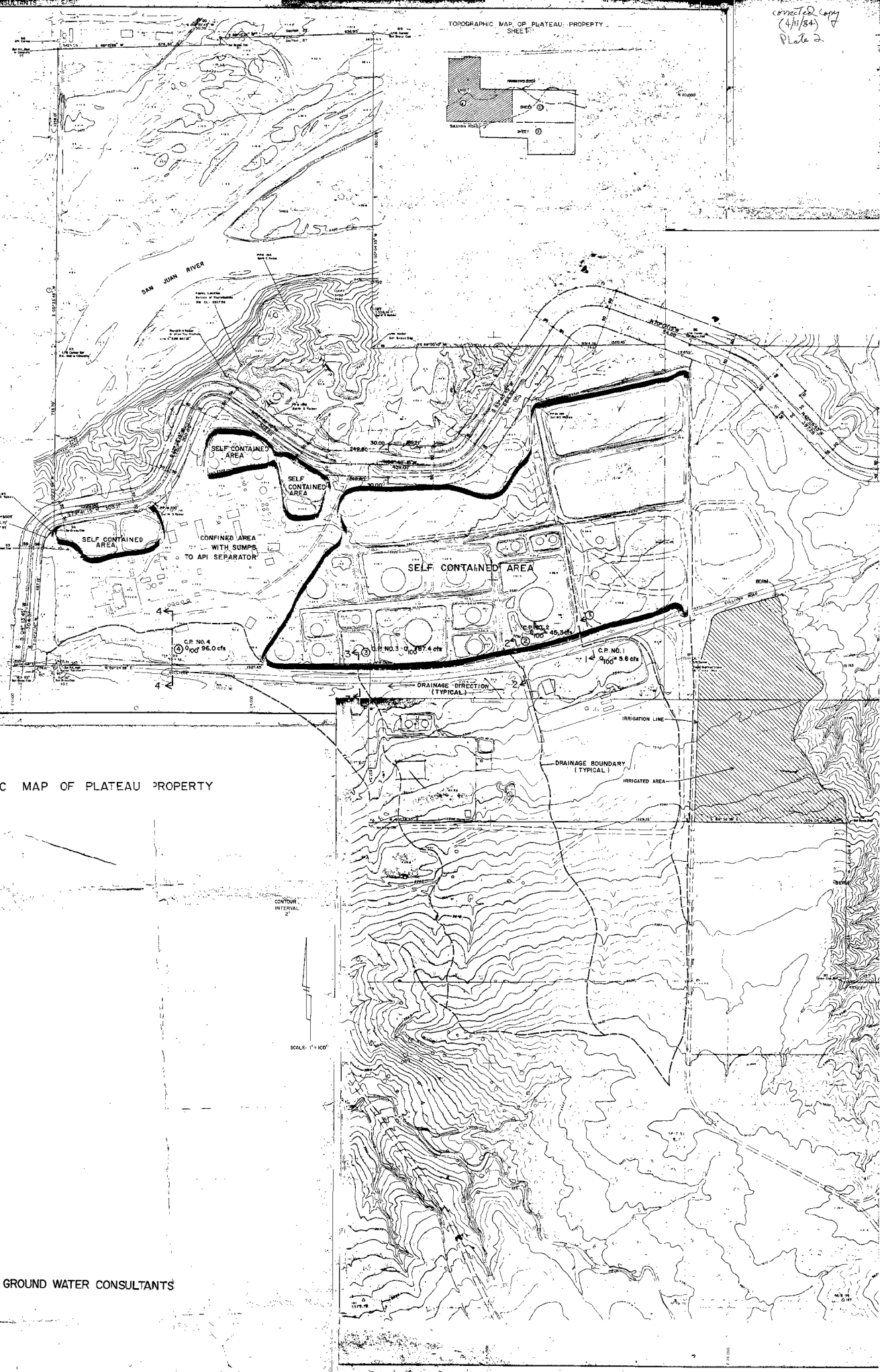
corrected copy
(4/11/84)
Plate 2

TOPOGRAPHIC MAP OF PLATEAU PROPERTY
SHEET 1



TOPOGRAPHIC MAP OF PLATEAU PROPERTY

AMERICAN GROUND WATER CONSULTANTS





United States Department of the Interior

BUREAU OF RECLAMATION
UPPER COLORADO REGIONAL OFFICE
P.O. BOX 11568
SALT LAKE CITY, UTAH 84147

IN REPLY
REFER TO: UC-150
840.-

FEB 23 1984

TO SCOT sec 17

Mr. Dick Whittington
Regional Administrator
Environmental Protection Agency
1201 Elm Street
Dallas, Texas 75270

Dear Mr. Whittington:

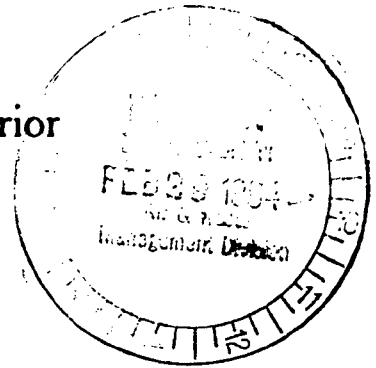
As requested by Ms. Sheryl Fought of your staff, enclosed are correspondence and a newspaper article pertaining to water quality issues within the Hammond main canal at the Plateau, Inc., refinery near Bloomfield, New Mexico. If we can be of additional assistance, please call Tom Scoville of this office (phone FTS 588-6097).

Sincerely yours,

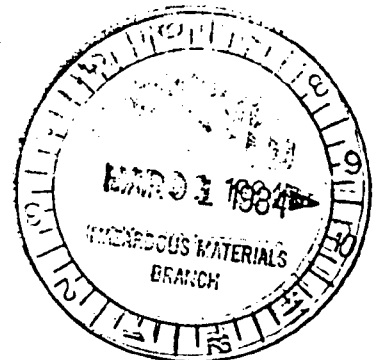
For Clifford I. Barrett
Regional Director

10 Enclosures

cc: Projects Manager, Durango, Colorado



RECEIVED
FEB 23 3 55 PM '84
EPA
REGION VI
OFFICE OF REGIONAL
ADMINISTRATION



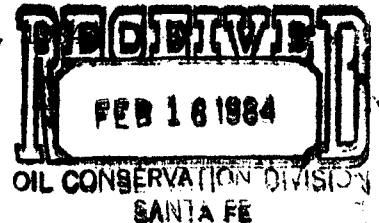
BRUCE S. GARBER

ATTORNEY AT LAW

200 WEST MARCY, SUITE 129
SANTA FE, NEW MEXICO 87504

P.O. BOX 8933
(505) 983-3233

February 14,



Mr. Joe D. Ramey, Director
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Re: Plateau, Inc. Discharge Plan

Dear Mr. Ramey:

This letter is Plateau's status report in compliance with condition No. 4 of your October 14, 1983, letter.

Since the January 16, 1984, status report, Plateau has located and marked approximately 25 locations in the vicinity of the refinery where the Nacimiento Formation outcrops and is visably from the surface. The elevations of some of the outcrops have been determined and progress is being made on determining the elevations of the remainder of the outcrops. Shooting the elevations has been difficult and time consuming due to their remote locations, difficult surrounding terrain, and winter weather.

Plateau has also completed drilling six wells. These wells will serve the dual purpose of providing additional information on the elevation of the Nacimiento Formation and providing groundwater samples to determine background groundwater quality.

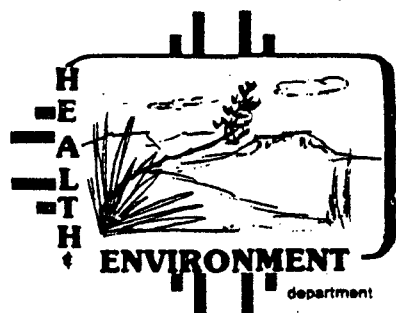
The preliminary topographic map of the contact of the Nacimiento Formation will be completed as soon as conditions permit. As soon as it is completed, I will contact you to arrange a meeting to discuss Plateau's progress and proposed groundwater monitoring program.

Sincerely,

Bruce S. Garber
Attorney at Law

BSG/dm

cc: L.S. Woodside
D.J. Stockham
G.S. Smith



STATE OF NEW MEXICO

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

Steven Asher, Director

TONEY ANAYA
GOVERNOR

ROBERT McNEILL
SECRETARY

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

JOSEPH F. JOHNSON
DEPUTY SECRETARY

January 19, 1984

Mr. Bill Taylor, Chief
Enforcement Section
U.S. EPA - Region VI
1201 Elm Street
Dallas, Texas 75270

Dear Mr. Taylor:

The U.S. EPA Region VI is currently reviewing possible violations and/or non-compliance with the federal Resource Conservation and Recovery Act (RCRA) by Plateau Refinery, located in Bloomfield, New Mexico. Since any alleged violation may also be subject to state statutes and regulations, the EID requests that these related matters be addressed as expeditiously as possible by your Enforcement Section.

EPA action related to Plateau potential non-compliance status with RCRA is of immediate concern to this Division due to the water service contract between the U.S. Department of Interior (DOI) and Plateau's Bloomfield refinery dated December 14, 1983, which provides additional surface water rights to their facility. Of specific interest is how you as chief of the Enforcement Section will coordinate with DOI in addressing specific terms of the contract which states:

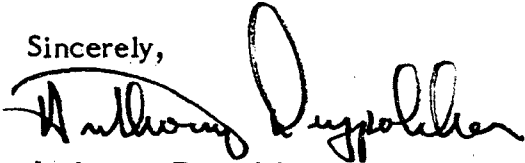
"This contract shall be effective for one year from date of execution contingent upon a quarterly review of the Contractor's operation as it relates to and is in compliance with Federal and State water quality and hazardous waste regulations by the contracting officer."

I would appreciate any update, by March 1, 1984 as to the status of your ongoing investigation and your response to DOI so that this Bureau may formulate an appropriate course of action to ameliorate potential and/or documented threat to the environment whether to surface, and/or ground water, or to the public health in general.

Mr. Bill Taylor
Page -2
January 19, 1984

If you have any questions regarding my request, please feel free to contact me at
(505) 984-0020 ext. 281.

Sincerely,



Anthony Drypolcher
Acting Bureau Chief
Ground Water/Hazardous Waste Bureau

AD/ps

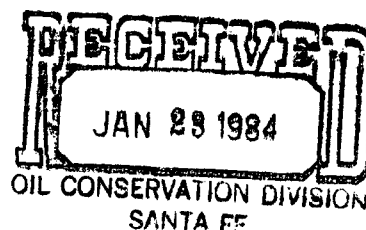
cc: William Rhea, - EPA, Dallas
Joe Ramey, OCD, Santa Fe, NM
S.E. Reynolds, State Engineer's Office
Charles Nylander, - EID, Santa Fe, NM
Richard Mitzelfelt, EID-District I, Albuquerque
Dwight Stockham - Plateau, Inc., Albuquerque, NM
Clifford I. Barrett, Bureau of Reclamation

BRUCE S. GARBER

ATTORNEY AT LAW

200 WEST MARCY, SUITE 129
SANTA FE, NEW MEXICO 87504P.O. BOX 8933
(505) 983-3233

January 19, 1984

Mr. Joe D. Ramey, Director
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501Re: Plateau, Inc. - Discharge Plan

Dear Mr. Ramey:

Thank you for meeting with Lee Woodside, Dwight Stockham and me on January 16, 1984. We were pleased to have the opportunity to discuss Lee Woodside's January 16, 1984 letter with you. We understood from your comments that the schedule and work plan in the January 16th letter are satisfactory. In response to our specific questions, you requested that you be notified one day before any planned ground water sampling to allow someone from O.C.D.'s Aztec, New Mexico office to observe the sampling. Plateau will provide you with such notice. You also stated that analysis of ground water samples for the following constituents should be adequate.

| | | | |
|----------|---------------|-----------|------------|
| Arsenic | Total Mercury | Manganese | Cobalt |
| Barium | Nitrate | Sulfate | Molybdenum |
| Cadmium | Selenium | TDS | Nickel |
| Chromium | Silver | Zinc | Benzene |
| Cyanide | Chloride | PH | Toulene |
| Fluoride | Copper | Aluminum | Phenols |
| Lead | Iron | Boron | |

Plateau will therefore analyze its ground water samples for those constituents. Also, as we discussed, Plateau will perform its ground water samples according to accepted sampling methods and use the services of a certified laboratory for sample analysis. Split samples will not be required, and the wells need not be drilled by any particular method. Finally we appreciate the confidence you expressed in Dr. Turner.

Page 2

Mr. Joe D. Ramey

1/19/84

Please let me know if any of the understandings set forth above are in error. Thank you again for your continuing cooperation.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bruce S. Garber".

Bruce S. Garber

BSG/ljc

cc: L.S. Woodside
D.J. Stockham
G.S. Smith

400
840./120

OFFICIAL FILE COPY

| Date | Surname | Code |
|------|----------|------|
| 1/19 | REdwards | 450 |
| 1/20 | REdwards | 400 |
| 1/20 | REdwards | 420 |
| 1/20 | REdwards | 150 |
| 1/23 | REdwards | 101 |
| 1/23 | REdwards | 100 |

Memorandum

January 17, 1984

To: Files

From: Rex Edwards, Chief of Lands and Contracts Branch

Subject: Environmental Issues Contract Compliance Plateau Inc., Hammond Main Canal, Hammond Project, New Mexico

Tom Scoville of the environmental staff, Salt Lake City, Utah, Regional Office telephoned January 16, 1984 concerning what authority and procedures are required to modify the Hammond Main Canal. Plateau Inc. has told Sheryl Fought of the Environmental Protection Agency located in Dallas, Texas that the Bureau of Reclamation would not let Plateau pipe the canal section through their refinery.

A brief summary of events leading to the present conditions is outlined below:

1. Acquired reserved right-of-way parcel No. H-142 Plateau, Inc. \$2,450.00, Contract No. 14-06-400-1894; September 20, 1961.
2. Hammond Main Canal construction completed through this area and accepted by government April 13, 1962.
3. Begin serving water through Hammond Main Canal April 16, 1962.
4. Identified seepage and sludge deposits entering Hammond Main Canal from newly constructed fire protection water pond located higher and adjacent to canal on Plateau property January 18, 1978.
5. Notified Plateau to correct seepage which they attempted to do with bentonite and polymer in bottom of pond, February 3, 1978.
6. Hammond Conservancy District identified seepage in canal at monthly board meeting January 3, 1980 through Plateau Refinery area; no action taken.
7. Bureau of Reclamation met with Plateau Inc. and Hammond Conservancy District January 23, 1981 to resolve canal seepage problem and cleaning of canal. Plateau agreed to pump seepage and pay for canal cleaning as temporary solution.
8. Plateau requested renewal of water contract No. 7-07-40-W0387, on April 13, 1982.

9. The Bureau issued a 90 day short interim water service contract No. 2-07-40-L3319 on July 12, 1982 to Plateau until the magnitude of the environmental issues could be identified.
10. Meeting with Plateau Inc., New Mexico State oil Conservation Division and Bureau of Reclamation concerning Plateau implementing a discharge plan to comply with New Mexico State Water Quality Control Commission Regulations on September 2, 1982.
11. Issued a 1 year interim water service contract October 12, 1982 to Plateau Inc., providing they submit a plan for a permanent solution to the sloughing within the canal on Plateau property.
12. Received remedial plan for Plateau Inc., January 6, 1983.
13. Renewed water service contract for 1 year with provisions for quarterly inspections to comply with environmental protection provisions and standards, December 14, 1983.

The Environmental Protection Agency became involved and fined Plateau Inc. for an air quality standards violation. This fine (\$50,000) was placed in escrow until the violation was corrected. Plateau Inc. now stands to lose the money in 20 days if it is not used on improving some environmental concern. Plateau wants to use the money to place a portion of the Hammond Main Canal in pipe through areas within the boundaries of the Refinery to prevent the water from leaching into soils that are contaminated with hydro-carbons and carrying them to areas that may contaminate other lands and ground water.

The issue of the Bureau not letting Plateau Inc. pipe this section of the canal is probably a misunderstanding. During past meetings Plateau expressed as an idea of piping this section of the canal and wanted to know if the government would contribute an equal share of the costs. It was explained that the Bureau of Reclamation could not contribute funds but Plateau Inc. could pipe the canal if plans and construction were approved by the Bureau of Reclamation. An estimate of pipe size and cost was prepared by the Bureau at that time. The Bureau determined the size to be 60 inch diameter concrete at \$93 a linear foot for materials delivered to the site. These costs have increased to \$160 for the same materials in 1984.

Ray Edwards

RJEdwards:jb:1/18/84

PLATEAU, INC.

P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221

January 16, 1984

Mr. Joe D. Ramey, Director
Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

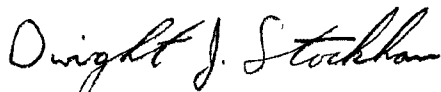
Dear Mr. Ramey:

Re: Plateau, Inc. Discharge Plan

This letter is Plateau's status report in compliance with condition No. 4 of your October 14, 1983 letter.

Since the December status report, Plateau has developed the work plan and schedule set forth in Lee S. Woodside's January 16, 1984 letter to you.


Sincerely,



Dwight J. Stockham
Associate Environmental Engineer

DJS:lh

cc: B. G. Dixon
G. A. Masson
R. G. Perry
L. S. Woodside
B. S. Garber
G. S. Smith
File- DJS



PETROLEUM REFINERS • MARKETERS

PLATEAU, INC.

P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221

January 16, 1984

Mr. Joe D. Ramey, Director
Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, NM 87501

Re: Plateau, Inc., Discharge Plan

Dear Mr. Ramey:

Set forth below is Plateau's schedule for the resolution of outstanding discharge plan issues as required by condition number 3 of your October 14, 1983 letter to me.

The outstanding discharge plan issues are listed as numbers 1-7 in my November 14, 1983 letter to you. Plateau believes that it has sufficient data and information to satisfactorily address issues 1-5 in the discharge plan. Issues number 6 and 7 will be the subject of field research as described in the schedule below.

A. On or before February 14, 1984, Plateau will determine the morphology of the Nacimiento subcrop and the direction of ground water flow (issue 6). This will be accomplished through the identification, marking and levelling of the contact between the Quaternary deposits and the underlying Nacimiento Formation in the vicinity of the refinery. Following collection of this information and the preparation of a preliminary topographic map of the subcrop, multipurpose boreholes will be sited to provide additional information on the elevation of the contact.

The boreholes will also provide detailed lithologic information on the Quaternary deposits and Nacimiento Formation penetrated and the thickness of the Quaternary deposits. The location of the contact between the Quaternary deposits and the Nacimiento Formation will lead to a geologic map of the Quaternary deposits of the area. Water levels measured in monitoring wells and the subcrop topography map will be used to define directions of ground water movement.

B. On or about February 14, 1984, representatives of Plateau will meet with representatives of O. C. D. to report the results of the morphology and flow direction determination described in A above. Based on those results, the locations of reasonably foreseeable ground water use will be determined by Plateau



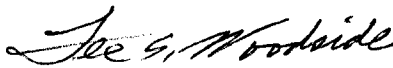
PETROLEUM REFINERS • MARKETERS

Mr. Joe D. Ramey, Director
January 16, 1984
Page 2

and presented to O. C. D. for concurrence. Also, at the meeting, Plateau will discuss with O. C. D. its program to determine ground water background concentrations for the purpose of determining the applicable standards under Section 3-103 of the Water Quality Control Commission regulations. (issue 7) Following the meeting, the ground water monitoring program will be accomplished as quickly as conditions (well drilling conditions and laboratory sample analysis turn around time) allow. Plateau will then revise its discharge plan to address all 7 issues and submit the revised plan to the O. C. D.

We look forward to meeting with you on January 16, 1984 and thank you for your continuing cooperation.

Sincerely,


Lee S. Woodside
Vice President/Refining

LSW:lh

cc: B. G. Dixon
G. A. Masson
R. G. Perry
D. J. Stockham
B. S. Garber
G. S. Smith
File

DISCHARGE PLAN SCHEDULE

**** PROPOSED
 ++++ ACTUAL
 ----- PREPARATORY WORK

| ***** PROPOSED | JANUARY | | | | | | | FEBRUARY | | | | | | | MARCH | | | | | | | APRIL | | | | | | |
|------------------------|------------------------------------|----|----|----|----|----|----|----------|----|----|---|---|---|----|-------|----|----|----|---|---|--|-------|--|--|--|--|--|--|
| ++++ ACTUAL | 25 | 31 | 1 | 7 | 8 | 15 | 16 | 23 | 24 | 30 | 1 | 7 | 8 | 15 | 16 | 23 | 24 | 30 | 1 | 7 | | | | | | | | |
| ----- PREPARATORY WORK | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DESCRIPTION | NUMBER OF DAYS AFTER START OF WORK | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | | | | | | | | | | | | | | | | | | |

NUMBER OF DAYS AFTER START OF WORK

TASK #1
 - ID, MARKING OF NACI
 MIENTO FORMATION
 - DRILLING INITIAL
 BOREHOLES

<*> (2 DAYS)
 <*****> (7 DAYS)

TASK #2
 - DETERMINATION OF FLOW
 DIRECTION
 - DRILL ADDITION BORE
 HOLES IF NEEDED

<*> (1 DAY)
 <*****> (7 DAYS)

TASK #3
 - DETERMINE THICKNESS
 OF DEPOSITS

<*> (1 DAY)

TASK #4
 - DETERMINE GROUND
 WATER QUALITY
 - COLLECT SAMPLES
 - ANALYSIS

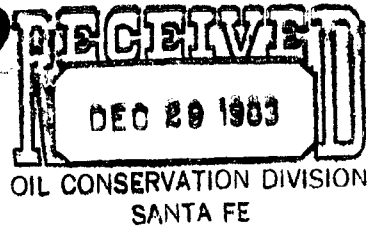
<*> (2 DAY)
 <*****> (21 DAYS)

TASK #5
 - SEEPAGE RATES

<*> (1 DAY)

TASK #6
 - DISCHARGE PLAN

<*****> (7 DAYS)



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

December 22, 1983

BATAAN MEMORIAL BUILDING
STATE CAPITOL
SANTA FE, NEW MEXICO 87503

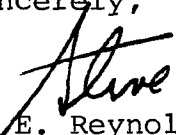
Mr. Joe Ramey
Oil Conservation Commission
State Land Office Bldg.
Santa Fe, New Mexico 87503

Dear Joe:

Herewith for your information and files is a copy of Cliff Barrett's December 15 letter to Mr. Dwight Stockham concerning a contract between the United States and Plateau, Inc. for water from Navajo Reservoir. Your attention is invited particularly to paragraph 1 at page 2 of the contract attached to Mr. Barrett's letter.

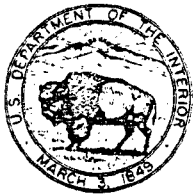
With best wishes for a happy holiday season,

Sincerely,


S. E. Reynolds
State Engineer

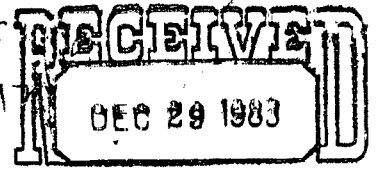
SER:pt

cc: Steve Asher w/enclosure



United States Department of the Interior

BUREAU OF RECLAMATION
UPPER COLORADO REGIONAL OFFICE
P.O. BOX 11568
SALT LAKE CITY, UTAH 84147



IN REPLY
REFER TO:
832. UC-440

DEC 15 1983

DEC 13 AM 9 27

Mr. Dwight J. Stockham
Associate Environmental Engineer
Plateau, Inc.
P.O. Box 26251
Albuquerque, New Mexico 87125

Dear Mr. Stockham:

One signed copy of a water service contract between your company and the United States is enclosed. The contract provides for depletion of 200 acre-feet of water from Navajo Reservoir over the period of 1 year. This contract term is conditioned upon your company complying with Article 1.

We will make quarterly reviews of your facilities and operations as needed and will contact you in advance if site inspection is necessary.

If you have any questions, please contact Ms. Theresa Moore at (801) 524-5452.

Sincerely yours,

Harl Noble

For

Clifford I. Barrett
Regional Director

Enclosure

cc: Ms. Pat Hall
Environmental Protection Agency
Region 6
1201 Elm Street 6ASASC
Dallas, Texas 75270

✓ Mr. Steve Reynolds
New Mexico State Engineer
Water Resource Division
Room 101 - Bataan Memorial Building
Santa Fe, New Mexico 87503

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLORADO RIVER STORAGE PROJECT

NAVAJO UNIT

INTERIM CONTRACT BETWEEN THE UNITED STATES AND
PLATEAU, INCORPORATED
FOR FURNISHING WATER.

THIS CONTRACT, made this 14th day of December 1983,
pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388),
and acts amendatory thereof or supplementary thereto, and particularly
pursuant to the Colorado River Storage Project Act approved April 11, 1956
(70 Stat. 105), between THE UNITED STATES OF AMERICA, hereinafter referred to
as the United States, represented by the officer executing this contract, his
duly appointed successor or his duly authorized representative, hereinafter
referred to as the Contracting Officer, and PLATEAU INCORPORATED a company
organized under the laws of NEW MEXICO with an office at Albuquerque, New Mexico
hereinafter referred to as the Contractor,

WITNESSETH:

WHEREAS, the following statements are made in explanation:

(a) The United States has constructed Navajo Dam and Reservoir
as a unit of the Colorado River Storage Project, for the furnishing of water
for irrigation, municipal, industrial and other beneficial uses.

(b) The Contractor is in need of a water supply for Industrial
use in the area for their petroleum refinery, and water is available on a tem-
porary basis to supply the Contractor from Navajo Reservoir.

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, the parties hereto agree as follows:

TERM OF CONTRACT

1. This contract shall be effective for 1 year from the date of execution contingent upon a quarterly review of the Contractor's operation as it relates to and is in compliance with Federal and State water quality and hazardous waste regulations by the Contracting Officer.

It is the Bureau of Reclamation's understanding that the Environmental Protection Agency is investigating the Contractor's facilities for non-compliance with the Federal Hazardous Waste Regulations and Clean Water Act. Quarterly reviews will be made of the Contractor's facilities and operations. The reviews will concentrate on the Contractor's compliance with these regulations and cooperation with any investigations by the Environmental Protection Agency. This contract can be terminated by a 2 week advance written notice by the Contracting Officer for noncompliance with these environmental laws as required in Articles 8(F) and 8(G) of this contract.

WATER DELIVERY

2. The United States grants the Contractor the right, during the term of this contract, to have delivered from Navajo Reservoir, as herein-after provided, 200 acre-feet of water at such times as best suits its needs and the Contractor shall pay for the water as provided in Article 4.

FOR INDUSTRIAL USE ONLY

3. The water sold hereunder shall be used by the Contractor only for Industrial use. The Contractor shall prepare and furnish such reports on water use and related data as required by the Contracting Officer.

RATE AND METHOD OF PAYMENT FOR WATER

4. (a) The Contractor shall pay in advance for the quantity of water which it has contracted to take and pay for, whether or not it actually takes and uses such water, at a rate of \$42 per acre-foot, plus \$1 per acre-foot for operation and maintenance charges as follows:

| Water Contracted (acre-feet) | Annual Payment (Based on \$43) per acre-foot |
|---------------------------------|--|
| 200 | \$8,600 |

(b) If the Contracting Officer terminates this contract for noncompliance with environmental laws as provided for in Article 1, the Contractor may be reimbursed for water paid for but not yet taken. Reimbursement is conditioned upon the Contractor providing the Contracting Officer copies of the monthly water use reports required by the New Mexico State Engineer. Copies of the reports should be mailed to:

Projects Manager
Durango Projects Office
835 Second Avenue
P.O. Box 640
Durango, Colorado 81301

MEASUREMENT AND RESPONSIBILITY FOR DISTRIBUTION

5. (a) The water to be furnished to the Contractor will be measured by facilities of the United States at the outlet works of Navajo Reservoir. The Contractor shall suffer all distribution and administration losses from the point of such delivery to the place of use. The Contractor agrees to provide a measuring device, which is acceptable to the Contracting Officer, at or near the Contractor's point of diversion, to measure the quantity of water delivered and diverted under this contract. The Contractor is responsible for making arrangements with the State of New Mexico and others needed for the transportation and diversion of such water. The

Contractor shall pay any charges from the New Mexico State Engineer's Office for the distribution, handling, or administration of this water.

(b) The United States shall not be responsible for the control, carriage, handling, use, disposal, or distribution of water taken by the Contractor hereunder, and the Contractor shall hold the United States harmless on account of damage or claim of damage of any nature whatsoever, including property damage, personal injury or death arising out of or connected with the control, carriage, handling, use, disposal, or distribution of such water by the Contractor.

(c) This contract and all water taken pursuant thereto shall be subject to and controlled by the Colorado River Compact dated November 24, 1922, and proclaimed by the President of the United States, June 25, 1929, the Boulder Canyon Project Act approved December 21, 1928, the Boulder Canyon Project Adjustment Act of July 19, 1940, the Upper Colorado River Basin Compact dated October 11, 1948, the Mexican Water Treaty of February 3, 1944, and the Colorado River Basin Project Act of September 30, 1968, Public Law 90-537. In the event water available to the Contractor is required to be curtailed under and by reason of the provisions of the foregoing acts, including the reaching of maximum use of water allotted to the State of New Mexico, no liability shall attach to the United States for such curtailment, and the Contractor agrees to reduction of the amount of water taken hereunder as the Secretary determines necessary to comply with the provisions of said acts.

UNITED STATES NOT LIABLE FOR WATER SHORTAGE - ADJUSTMENTS

6. On account of drought, errors in operation, or other causes, there may occur at times, a shortage during any year in the quantity of water available to the Contractor by the United States pursuant to this contract through and by means of the project, and in no event shall any

liability accrue against the United States or any of its officers, agents, or employees for any damage direct or indirect, arising therefrom. In any year in which there may occur such a shortage, the United States reserves the right to apportion the available water supply among the Contractor and others entitled, under existing and future contracts, to receive water from the same project water supply all in a manner to be prescribed by the Contracting Officer.

NOTICES

7. Any notice, demand, or request authorized or required by this contract shall be deemed to have been given, on behalf of the Contractor when mailed, postage prepaid, or delivered to the Regional Director, Upper Colorado Region, Bureau of Reclamation, P.O. Box 11568, 125 South State State, Salt Lake City, Utah 84147, and on behalf of the United States, when mailed, postage prepaid, or delivered, to Plateau Incorporated, P.O. Box 108, Farmington, New Mexico 87401. The designation of the addressee or the address may be changed by notice given in the same manner as provided in this article for other notices.

STANDARD CONTRACT ARTICLES

8. The standard contract articles applicable to this contract are listed below. The full text of these standard articles is attached as Exhibit A and is hereby made a part of this contract.

- A. Contingent Upon Appropriation or Allotment of Funds
- B. Officials Not To Benefit
- C. Assignment Limited - Successor's and Assigns Obligated
- D. Books, Records, and Reports
- E. Rules, Regulations, and Determinations
- F. Quality of Water
- G. Water and Air Pollution Control
- H. Equal Opportunity
- I. Title XI, Civil Rights Act of 1964

IN WITNESS WHEREOF, the parties hereto have signed their names
the day and year first above written.

THE UNITED STATES OF AMERICA

(seal)

For Nelson

By:

Harold M. Noble
Regional Director
Bureau of Reclamation

ATTEST:

PLATEAU INCORPORATED

BY:

R.A.P.
PRESIDENT

ATTEST:

Lillian V. Henderson

DATE: November 28, 1983

My Commission Expires 12-8-86.

EXHIBIT A

A. CONTINGENT ON APPROPRIATION OR ALLOTMENT OF FUNDS

The expenditure or advance of any money or the performance of any work by the United States hereunder which may require appropriation of money by the Congress or the allotment of funds shall be contingent upon such appropriation or allotment being made. The failure of the Congress to appropriate funds or the absence of any allotment of funds shall not relieve the Contractor from any obligations under this contract. No liability shall accrue to the United States in case such funds are not appropriated or allotted.

B. OFFICIALS NOT TO BENEFIT

1. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom. This restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

2. No official of the Contractor shall receive any benefit that may arise by reason of this contract other than as a water user within the project and in the same manner as other water users within the project.

C. ASSIGNMENT LIMITED - SUCCESSORS AND ASSIGNS OBLIGATED

The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract or any part or interest therein shall be valid until approved by the Contracting Officer.

D. BOOKS, RECORDS, AND REPORTS

The Contractor shall establish and maintain accounts and other books and records pertaining to its financial transactions, water use, and to other matters as the Contracting Officer may require. Reports thereon shall be furnished to the Contracting Officer in such form and on such date or dates as he may require. Subject to applicable Federal laws and regulations, each party shall have the right during office hours to examine and make copies of each other's books and records relating to matters covered by this contract.

E. RULES, REGULATIONS, AND DETERMINATIONS

1. The Contracting Officer shall have the right to make, after an opportunity has been offered to the Contractor for consultation, rules, and regulations consistent with the provisions of this contract, the laws of the United States and the State of New Mexico, to add or to modify them as may be deemed proper and necessary to carry out this contract, and to supply necessary details of its administration which are not covered by express provisions of this contract. The Contractor shall observe such rules and regulations.

2. Where the terms of this contract provide for action to be based upon the opinion or determination of either party to this contract, whether or not stated to be conclusive, said terms shall not be construed as permitting such action to be predicated upon arbitrary, capricious, or unreasonable opinions or determinations. In the event that the Contractor questions any factual determination made by the Contracting Officer, the findings as to the facts shall be made by the Secretary only after consultation with the Contractor and shall be conclusive upon the parties.

F. QUALITY OF WATER

The operation and maintenance of project facilities shall be performed in such manner as is practicable to maintain the quality of raw water made available through such facilities at the highest level reasonably attainable as determined by the Contracting Officer. The United States does not warrant the quality of water and is under no obligation to construct or furnish water treatment facilities to maintain or better the quality of water.

G. WATER AND AIR POLLUTION CONTROL

The Contractor, in carrying out this contract, shall comply with all applicable water and air pollution laws and regulations of the United States and the State of New Mexico and shall obtain all required permits or licenses from the appropriate Federal, State, or local authorities.

H. EQUAL OPPORTUNITY

During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without discrimination because of race, color, religion, sex, or national origin.

3. The Contractor will send to each labor union or representative of workers, with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the said labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order 11246 of

September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Contractor will furnish all information and reports required by said amended Executive Order and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Contracting Officer and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part and the Contractor may be declared ineligible for future Government contracts in accordance with procedures authorized in said amended Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by the rules regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of said amended Executive Order, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

I. TITLE VI, CIVIL RIGHTS ACT OF 1964

1. The Contractor agrees that it will comply with Title VI of the Civil Rights Act of July 2, 1964 (78 Stat. 241) and all requirements imposed by or pursuant to the Department of the Interior Regulation (43 CFR 17) issued pursuant to that title, to the end that, in accordance with Title VI of that Act and the Regulation, no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Contractor receives financial assistance from the United States and hereby gives assurance that it will immediately take any measures to effectuate this agreement.

2. If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Contractor by the United States, this assurance obligates the Contractor, or in the case of any transfer of such property, any transferee for the period during which the real property or structure is used for a purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance obligates the Contractor for the period during which it retains ownership or possession of the property. In all other cases, this assurance obligates the Contractor for the period during which the Federal financial assistance is extended to it by the United States.

3. This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts, or other Federal financial assistance extended after the date hereof to the Contractor by the United States, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractor recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall reserve the right to seek judicial enforcement of this assurance. This assurance is binding on the Contractor, its successors, transferees, and assignees.

BRUCE S. GARBER

ATTORNEY AT LAW

200 WEST MARCY, SUITE 129
SANTA FE, NEW MEXICO 87504

P.O. BOX 8933
(505) 983-3233

December 14, 1983

HAND DELIVERED

Mr. Joe Ramey, Director
Oil Conservation Director
P.O. Box 2088
State Land Office Bldg.
Santa Fe, New Mexico 87501

Re: Plateau, Inc. - Discharge

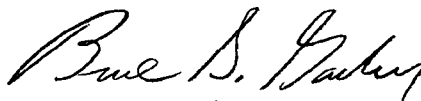
Dear Mr. Ramey:

This letter constitutes Plateau's second report in compliance with condition No.4 of your October 14, 1983 letter. Since November 14, 1983 Plateau and its consultants have developed a task specific work plan designed to resolve the technical issues outlined in L.S. Woodside's November 14, 1983 letter to you and to produce an approvable discharge plan document in a timely manner. Our final work plan has been submitted for management approval, the last step prior to commencing work.

Although holiday season schedulling difficulties have slowed the management approval process somewhat, a decision on the proposed work plan is expected in the near future. As soon as the work plan is approved, Plateau will submit to you its schedule for performing the tasks in the work plan and resolving the outstanding discharge plan issues.

Thank you for your continuing cooperation.

Sincerely,



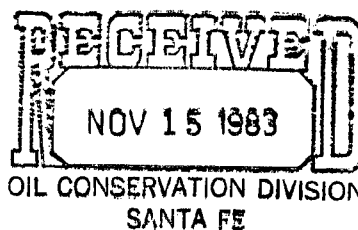
Bruce S. Garber

BSG:ljc

cc: L.S. Woodside
D.S. Stockham
G.S. Smith

PLATEAU, INC.

November 14, 1983



P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221

Mr. Joe D. Ramey, Director
Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

RE: Plateau, Inc. - Discharge Plan

Dear Mr. Ramey:

Thank you and your staff for meeting with Plateau's representatives in Santa Fe on October 20, 1983. We feel that the meeting was productive and enabled Plateau to comply with Condition 2 of your October 14, 1983 letter in a more than timely manner. Our understanding from that meeting is that the following issues are to be addressed by Plateau in the Discharge Plan approval process.

1. Plateau will address the seepage from the river water holding ponds on the west side of the refinery property under W.Q.C.C. Reg 3-105A, or 3-109D as appropriate. These holding ponds contain water which is diverted from the San Juan River and used for cooling purposes. There are no industrial wastes or by-products in those ponds.
2. Plateau will address the lined holding ponds located near the A.P.I. separator facility under regulation 3-109C.3.b. and c. Approval of those ponds will be applied for on the basis that the ponds seep less than .5 acre feet per acre per year.
3. The Contingency Plan portion of the Discharge Plan will address the protocol for handling spills of any material including hydrocarbons and other chemicals used in the refining process. Plateau will also provide additional information on the sumps located near the large storage tanks on Plateau's property. Plateau will also inform the O. C. D. if any of those storage tanks contain material which merits special handling or spill prevention measures.
4. Plateau will provide information on the natural drainage in the vicinity of the refinery and the existence, or lack thereof, of contaminants from Plateau's operations which may be carried by storm run-off.



PETROLEUM REFINERS • MARKETERS

Mr. Joe D. Ramey, Director
November 14, 1983
Page Two

5. Plateau will provide O. C. D. with analytical data which confirms that Plateau's discharge does not demonstratively impact the water quality in the San Juan River or result in any violation of W. Q. C. C. stream standards for the San Juan River.

6. In order to determine the direction of flow of any seepage from the large bentonite lined holding ponds on the east side of Plateau's property and from the land application irrigation area to the south of those holding ponds, Plateau will determine the elevations of the top of the Nacimiento formation. It is understood that O. C. D. and Plateau agree that the Nacimiento is, for all practical purposes, impermeable, and that seepage will travel in the cobble bed that lies on top of the Nacimiento.

7. Once the direction of flow in the cobble bed is determined, Plateau will undertake an investigation to determine the place or places of reasonably foreseeable future use of ground water in the direction of the seepage flow. Plateau will also determine the background concentration of that ground water for the purpose of determining the applicable standards under Section 3-103 of the Water Quality Control Commission regulations.

We believe that the above issues constitute the remaining technical issues in the Discharge Plan approval process and that resolution of those issues should result in approval of Plateau's Discharge Plan. Please contact me if you feel that our characterization of the issues is incorrect or incomplete.

Plateau has already begun the preparation of a schedule for addressing the above issues. We look forward to your continued cooperation and assistance in the Discharge Plan approval process.

Sincerely,



L. S. Woodside
Vice President/Refining

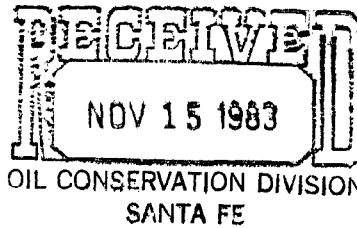
LSW:lh

cc: P. W. Liscom
D. J. Stockham
G. A. Masson
R. G. Perry
G. S. Smith
B. S. Garber

PLATEAU, INC.

November 14, 1983

P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221



Mr. Joe Ramey, Director
Oil Conservation Director
P. O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

Dear Mr. Ramey:

Our status report under Condition No. 4 of your October 14, 1983 letter is contained in the letter from Lee S. Woodside to Joe Ramey. (Letter dated November 14, 1983)

Sincerely,

Dwight J. Stockham
Assoc. Environmental Engineer

DJS:lh

cc: B. S. Garber
P. W. Liscom
G. A. Masson
G. S. Smith
L. S. Woodside
File- DJS *ham*



PETROLEUM REFINERS • MARKETERS



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

October 14, 1983

TONY ANAYA
GOVERNOR

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

RECEIVED

JAN 10 1984

Mr. Lee S. Woodside,
Vice President
Plateau Inc.
P. O. Box 26251
Albuquerque, New Mexico 87125

GROUND WATER/HAZARDOUS WASTE
BUREAU

Dear Mr. Woodside:

We have received a request from Mr. Bruce Garber, as attorney for Plateau, Inc., requesting an extension of time within which to receive approval of a discharge plan for the refinery operated by your company in Bloomfield, New Mexico. Subsequent to this request, we have met with Mr. Garber and discussed the discharge plan situation.

Since our last discharge plan was approved, some operational changes have occurred but the only major "new" discharge is the surface application of waste water which has been accomplished through spray irrigation. The Water Quality Control Commission Regulations, under which we are reviewing your discharge plan, limits our authority to grant extension of time for discharge plan approval for such new discharges. Therefore it will not be possible to allow the extension you request for this discharge.

In order to allow your staff and the staff of the Division time to review and modify your discharge plan and good cause appearing to exist, an extension of time will be necessary.

Therefore, you are hereby granted an extension of time until April 1, 1984, in which to receive approval of your discharge plan and to continue to discharge pursuant to your existing discharge plan. This extension is granted contingent upon the following conditions:

- 1) Plateau, Inc. will cease all surface application disposal operations in connection with its refinery operations at Bloomfield, New Mexico.

- 2) Before November 14, 1983, representatives of Plateau, Inc. shall meet with representatives of the Division to discuss the discharge plan submitted by Plateau and define the parts of that plan which need expansion or modification.
- 3) On or before December 12, 1983, representatives of Plateau Inc. shall, in cooperation with Division personnel, establish a schedule for resolution of outstanding discharge plan issues.
- 4) At least every thirty (30) days between the date of this extension and April 1, 1984, Plateau, Inc. shall give a written report to the Division of its activities during the preceding thirty (30) days related to the discharge plan.

I would appreciate receiving your acceptance of these conditions at your earliest convenience.

Thank you for your help with this matter. The Division staff looks forward to working with you to resolve all outstanding issues in an appropriate manner.

Sincerely,

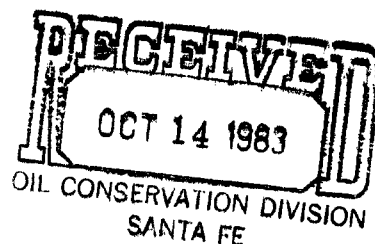
JOE D. RAMEY,
Director

JDR/WPP/dr

PLATEAU, INC.

P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221

October 11, 1983



Mr. Joe Ramey, Director
Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

Dear Mr. Ramey:

Plateau has determined that there is water in the North API pond leak detection system. It is possible that water could be coming from the pond. That possibility of a possible leak dictates us to notify the Division. We are in the process of determining, through various methods, the source of the water in the leak detection system. When Plateau has conclusive information concerning this matter, we will notify you.

Sincerely,

A handwritten signature in cursive script that reads "Dwight J. Stockham".

Dwight J. Stockham
Assoc. Environmental Engineer

DJS:lh

cc: B. S. Garber
P. W. Liscom
G. A. Masson
R. G. Perry
G. S. Smith
L. S. Woodside
File -DJS



PETROLEUM REFINERS • MARKETERS



STATE OF NEW MEXICO

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

Steven Asher, Director

TONY ANAYA
GOVERNOR

ROBERT McNEILL
SECRETARY

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

JOSEPH F. JOHNSON
DEPUTY SECRETARY

MEMORANDUM

TO: ANTHONY DRYPOLCHER, ACTING CHIEF, GROUND WATER AND HAZARDOUS
WASTE BUREAU

THROUGH: MAXINE GOAD, PROGRAM MANAGER, GROUND WATER SECTION *MSR*

FROM: BRUCE GALLAHER, GEOHYDROLOGIST, SURVEILLANCE SECTION *BG by MSR*

SUBJECT: DISCHARGE PLAN FOR PLATEAU INC.'s BLOOMFIELD REFINERY

DATE: OCTOBER 7, 1983

On September 19, 1983 I was requested by Charles Nylander to assist the Oil Conservation Division in their review of the Plateau plan by performing the following tasks:

- A. Reconiter the hydrogeochemical conditions in and about the refinery area; and
- B. Overview Plateau's ground water discharge plan and OCD's initial review of the plan, and comment on the conceptual attributes and deficiencies of both documents.

This memorandum summarizes my impressions. Given the time limitations, it is recognized that this evaluation must be preliminary in nature and general in scope.

CONCLUSIONS AND RECOMMENDATIONS:

1. Based on a field review of on-site conditions and available data, there remains little doubt that the refinery operations have significantly degraded ground water quality within the plant confines. However, the extent of contamination can not be determined with available information.
2. While it is likely that most of the contamination occurred before the effective date of the NMWQCC regulations for discharge onto or below the surface of the ground (mid-1977) any attempt to quantify that proportion would be speculative. Present-day discharges of contaminants to ground water exist throughout the plant site in many forms including drainage of tank bottom water within un-lined berms, seepage from the solar evaporation ponds, and leakage from the newly-lined oily water separation ponds. Owing to the apparent inability to distinguish

ANTHONY DRYPOLCHER

Page -2-

October 7, 1983

between such "old" and "new" discharges, Plateau should be obligated to consider them all the same within the discharge plan.

3. A major deficiency in the discharge plan is the lack of any substantive site-specific information regarding the occurrence and quality of ground water near the refinery.
4. Overall, I concur with the hydrogeochemical aspects of OCD's review of the discharge plan (March 8, 1983 letter from Joe D. Ramey, OCD to Bob Perry, Plateau; July 6, 1983 letter from Joe D. Ramey, OCD to Dwight J. Stockham, Plateau). The March 8 transmittal, in particular, succinctly identifies the major problem areas. To the negative, OCD's stated remedies to those problems seem somewhat inappropriate. Although it is true that most of the suggested data should be collected (e.g. hydraulic properties of the earth materials), it should not be mandated that they be collected, as the tone of the OCD review comments imply. Plateau's consultants should have the leeway to determine which specific information is needed to address general deficiencies identified through review.
5. Given the toxic nature and quantities of waste generated at the refinery, Plateau must take a much broader look at its operations. Rather than focusing on the two solar evaporation ponds, equal importance has to be placed on the other sources within the refinery. Additionally, Plateau should abandon its contention that ground water in the area is not protected under the New Mexico Water Quality Control Commission Regulations because it is attributed to leakage from the Hammond Ditch, a man-made structure. Irregardless of the source of ground water at the site, ground water must be protected at any place of present or foreseeable future use. Plateau must also consider the effects of its discharge off-site where "natural" ground water unquestionably is present.

In summary, Plateau has provided insufficient information which could be used for assessing the water quality impacts of its overall operations. Much needed basic information is missing which describes the occurrence and quality of ground water in the area. I could not recommend approval of the plan until the concerns presented in the March 8, 1983 OCD letter are addressed in some detail.

Fundamental questions have yet to be addressed: "Which direction(s) is the ground water moving?" "How fast is the ground water moving?" "Which contaminants have entered the ground water system and at what concentrations?" A significant amount of basic hydrogeologic data collection remains. In my opinion, without on-site drilling and standard quantitative characterization of the saturated earth materials, Plateau cannot demonstrate that its discharge will not cause ground-water quality standards to be exceeded at a place of present or foreseeable future use.

BG/ps

of
mples Ion

FIELD TRIP REPORT
GROUND WATER SECTION

County SAN JUAN

SLD USER CODES

Ground Water: 59300

NO₃, HC, & Toxics: 59600

UIC: 59500

FACILITY VISITED

Name of Facility: PLATEAU REFINERY

Location: 1 mi S.E. OF BLOOM FIELD N.M.

SEC. 27, T29N, R11W

Discharge Plan Number: DP- #1 UP FOR RENEWAL

Type of Operation: REFINERY-PLATEAU INC.

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT

EID Inspector(s): OSCAR SIMPSON, BRUCE GALANER, KENT BOSTIC

Date of Inspection or Visit: 9-27-83

Discharger's Representative Present During EID Visit: YES

Name: CHAD KING

Title or Position: ENGINEER

Purpose of Visit:

- Evaluation of Proposed Discharge Plan ✓
- Compliance Inspection of Discharge with Approved Plan
- Other (specify)

Inspection Activities During Field Visit:

- Inspection of Facilities or Construction (specify)

INSPECT REFINERY FACILITIES IN RELATION TO
DISCHARGE PLAN RENEWAL

- Sampling of Effluents (give sampling locations)

NO

- Sampling of Ground Water (give names or locations of wells)

NO

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

EVALUATE GEOLOGIC + HYDROLOGIC SETTING OF
THE AREA AROUND PLATEAU REFINERY

- Other (specify)

Observations and Information Obtained during the Visit:

A) SEVERAL DISCHARGES FROM PRODUCT STORAGE TANKS
TANKS (LEAKS)

B) 2- UNLINKED PONDS NOT COVERED IN DISCHARGE PLAN

C) WATER IN LEAK DETECTION SUMP OF API PONDS

ACTION REQUIRED

BRUCE S. GARBER

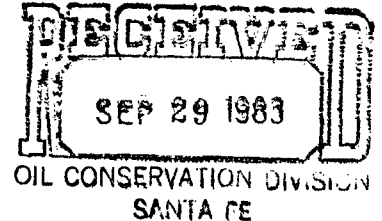
ATTORNEY AT LAW

200 WEST MARCY, SUITE 129
SANTA FE, NEW MEXICO 87504

P.O. BOX 8933
(505) 983-3233

28 September 1983

Joe Ramey, Director
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501



Re: Plateau, Inc. Discharge Plan

Dear Mr. Ramey:

As I indicated in my September 12, 1983 letter to you and in conversations with both you and Mr. Nylander of the EID, a revision of the OCD's June 30, 1983 comments on Plateau's discharge plan by the technical staff in charge of reviewing and making recommendations on that application is of utmost importance and a prerequisite to negotiation of a schedule for Plateau's submission of additional information necessary for an approved discharge plan. While both Mr. Nylander and you have recognized the serious difficulties with the June 30, 1983 comments, the State has yet to provide a document which clarifies the confusion generated by those comments and specifies the additional information considered necessary by the State for discharge approval.

Mr. Nylander scheduled a meeting with me for the morning of September 21, 1983. The stated purpose of that meeting was to provide the Company with sufficient detailed technical comments to enable the Company to prepare a proposed schedule for completing the discharge plan approval process. At that meeting I was presented with a memorandum from David Boyer to Mr. Nylander dated August 29, 1983. This memorandum reflects only a preliminary review of the June 30, 1983 comments. It does not contain any detailed technical analysis of the discharge plan nor does it give any clear guidance to the Company on what further submittals are necessary.

Mr. Nylander did not attend the meeting he scheduled with me. Rather, Maxine Goad, David Boyer and Oscar Simpson, attended the meeting. Ms. Goad was familiar with neither Plateau's discharge plan nor the June 30, 1983 comments and was unable to respond to questions on any technical issues. Mr. Boyer was at the meeting but indicated prior to the meeting that he would not be involved with this project in the

Joe Ramey, Director

Page 2

28 September 1983

future due to the press of other responsibilities. Mr. Simpson, a primary author of the June 30, 1983 comments, insisted that his prior comments were still fully valid, despite clear indications otherwise from both Mr. Nylander and you. Bruce Gallaher and Pat Longmeyer were not present at the meeting, however, Ms. Goad stated that they were the individuals responsible for the EID technical review of the discharge plan at this time. Neither Mr. Gallaher nor Mr. Longmeyer had prepared any written comments on the discharge plan for the Company.

Both Ms. Goad and Mr. Boyer said that they did not have sufficient time to properly handle this discharge plan review prior to the October 17, deadline under which Plateau is now faced. My recollection of the discussion at the September 13, 1983 Water Quality Control Commission meeting is that neither OCD nor the EID has sufficient staff at this time to conduct the discharge plan review for Plateau or other refineries.

Plateau submitted its application for a renewed discharge plan on June 2, 1982, over one year before the discharge plan expired. The Company has responded to all technical comments in a timely manner until the June 30, 1983 comments. Those comments were not responded to because State officials agreed that there were numerous misstatements and incorrect assumptions contained in those comments. Under the circumstances Plateau cannot be faulted for the delays in the processing of the discharge plan it has submitted. Plateau should not be penalized for the State Agencies' staffing difficulties.


Therefore, I hereby request that Plateau be granted an extension to discharge under its previously approved discharge plan until April 1, 1984. This extension will allow sufficient time for the OCD or the EID, to approach the State Legislature for additional funding for staffing and for the Water Quality Control Commission to determine at its March 13, 1984 meeting which agency it feels should administer the Commission's ground water regulations for oil refineries. As you know the Commission has postponed that discussion until its March, 1984 meeting.

I can assure you that Plateau will not stand idly by during the time of this extension. Rather, the Company will continue to pursue a vigorous program of environmental monitoring and pollution control at its

Joe Ramey, Director
Page 3
28 September 1983

Bloomfield, New Mexico facility. Thank you for your cooperation in this matter.

Sincerely,



Bruce S. Garber

BSG/ea

cc: Lee S. Woodside
Dwight J. Stockham
Gregory S. Smith
Charles Nylander
Louis W. Rose

BRUCE S. GARBER

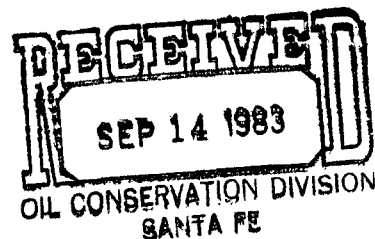
ATTORNEY AT LAW

200 WEST MARCY, SUITE 129
SANTA FE, NEW MEXICO 87504

P.O. BOX 8933
(505) 983-3233

12 September 1983

Joe D. Ramey, Director
Energy and Minerals Department
Oil Conversation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501



Re: Plateau, Inc. Discharge Plan

Dear Mr. Ramey:

I am in receipt of your letter of September 2, 1983 granting Plateau an extension of time until October 17, 1983 to continue to discharge under its existing discharge plan.

In response to the second paragraph of that letter and as I have discussed with both you and Charles Nylander of the EID, representatives of Plateau, Inc. are available to meet with appropriate OCD and EID personnel to negotiate further procedures and timetables for obtaining an approved discharge plan. Therefore, I request that such a meeting be arranged shortly after the September 13, 1983 Water Quality Control Commission meeting and in no event later than October 1, 1983. Please contact me to schedule the meeting.

Additionally, by copy of this letter I request that the EID staff provide Plateau, Inc. in writing, prior to the meeting, a revision of OCD's June 30, 1983 comments on Plateau's Discharge Plan which were transmitted to Plateau by your July 15, 1983 letter to Mr. Lee S. Woodside. Such a revision would be most valuable in limiting the upcoming negotiations to those issues of importance to the EID. The revision should also serve to eliminate some of the confusion generated by OCD's prior comments. I appreciate your cooperation in this matter and look forward to hearing from you.

Sincerely,

Bruce S. Garber

BSG/ea

Joe D. Ramey, Director
12 September 1983
Page 2

cc: Lee S. Woodside
Bob D. Dixon
Gary A. Masson
Dwight J. Stockham
Gregory S. Smith
Charles Nylander
Louis W. Rose

BRUCE S. GARBER

ATTORNEY AT LAW

200 WEST MARCY, SUITE 129
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12 September 1983

Joe D. Ramey, Director
Energy and Minerals Department
Oil Conversation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

RECEIVED

SEP 15 1983

**EID: WATER
POLLUTION CONTROL**

Re: Plateau, Inc. Discharge Plan

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Sincerely,



Bruce S. Garber

BSG/ea

Joe D. Ramey, Director
12 September 1983
Page 2

cc: Lee S. Woodside
Bob D. Dixon
Gary A. Masson
Dwight J. Stockham
Gregory S. Smith
Charles Nylander
Louis W. Rose



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

September 2, 1983

TONEY ANAYA
GOVERNOR

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

Bruce S. Garber, Esq.
P. O. Box 8933
Santa Fe, New Mexico 87501

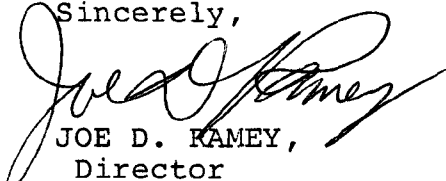
Re: Plateau Discharge Plan

Dear Mr. Garber:

I have received your letter of August 26, 1983, requesting an extension of time for approval of the Updated Discharge Plan of Plateau, Inc. for its Bloomfield Refinery and requesting approval of the continued discharge at this facility under a previously approved discharge plan.

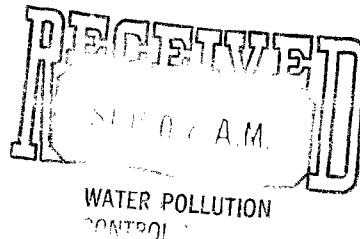
You are hereby granted such an extension until October 17, 1983. This extension is granted with the understanding that Plateau, Inc. will attempt to negotiate further procedures and timetables for processing and modifying this plan and for taking corrective actions as necessary.

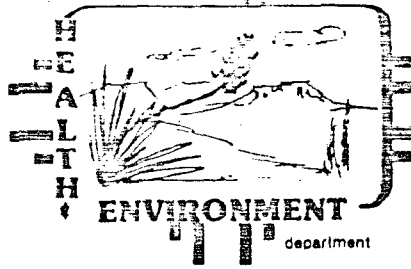
Sincerely,


JOE D. RAMEY,
Director

WPP/JDR/dr

cc: Charles Nylander, EID ✓





STATE OF NEW MEXICO

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

Steven Asher, Director

TONEY ANAYA
GOVERNOR

ROBERT McNEILL
SECRETARY

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

JOSEPH F. JOHNSON
DEPUTY SECRETARY

MEMORANDUM

TO: Charles Nylander, Chief, Water Pollution Control Bureau

THROUGH: Maxine S. Goad, Program Manager, Ground Water Section, WPCB *MSG*

FROM: David G. Boyer, Water Resource Specialist, Ground Water Section *DGB*

SUBJ: Plateau Refinery - Current Issues

DATE: August 29, 1983

As requested by you, I have reviewed the readily available information on Plateau Refinery and offer the following regulatory and technical comments.

Regulatory and Procedural Issues

1. On April 29, 1977 Plateau notified OCD (letter from Dr. William Turner, American Ground Water Consultants (AGWC) representing Plateau to Joe D. Ramey OCD) that Plateau planned "to make a new contaminant discharge and to alter the character or location of an existing discharge from their refinery." See attached letter.
2. In a letter dated May 13, 1977, from Ramey to Mr. William Hagler, vice President Plateau, Plateau was notified a discharge plan was "required of the Plateau Refinery".
3. Plateau Refinery discharge plan submitted by Turner of AGWC on September 30, 1977.
4. Public notice of Plateau discharge plan issued by OCD on April 20, 1978.
5. Plateau discharge plan approval June 5, 1978 expired June 5, 1983.
6. Versions of the "Updated Discharge Plan" for Plateau were received beginning in February, 1982. Public notice of Plateau renewal issued May 10, 1983.

August 29, 1983

7. Letter to Plateau from Ramey dated July 6, 1983, transmitting 32 pages of Oscar Simpson's technical comments of June 30, 1983 on Plateau's "Updated Discharge Plan." Ramey's letter also refers to additional correspondence to Plateau dated March 8, 1983 from Ramey, and from Mr. Lee S. Woodside, Vice-President, Plateau, dated April 18, 1983.
8. July 29, 1983 letter to Ramey of OCD from Lee S. Woodside of Plateau requesting "maximum extension on our present Discharge Plan so that Plateau can properly complete its review" of Simpson's comments.
9. Letter from Ramey dated August 5, 1983 to Plateau granting an extension until September 9, 1983, and referring further comments on discharge plan or requests for further extension of time to EID for action.
10. August 26, 1983, letter from Bruce S. Garber, Attorney at Law now representing Plateau, to Ramey requesting an extension of time for good cause" to continue to discharge under its current discharge plan. Plateau requests an extension until March 9, 1984, citing "complex technical and legal issues which we expect will require significant further attention of both State and Company experts."

Technical Issues

1. Initial review of Oscar Simpson's comments of June 30, 1983 to Plateau indicates that immediate legal attention should be directed to the assertion by Plateau and their AGWC consultants that there is no "natural" or ground water to protect. This is listed by Simpson as a major point of disagreement by AGWC. This assertion is made by AGWC even though the refinery sits on a bluff above the San Juan River and at least 25 oil seeps (p. 29) from past or present Plateau practices have been identified by OCD and leak into Hammond (Irrigation) Ditch, valley fill and/or the San Juan River. Simpson's review (pages 6-21) includes convincing documentary evidence that ground water exists in the area of the plant and that discharges from Plateau have moved, and continue to have the potential to move, directly or indirectly into ground water.
2. In addition to the dispute over ground water occurrence, Simpson in his review identified the following subjects for comment, or as needing further information: Flooding potential, seepage, water chemistry, monitoring, water supply and discharge (including to land application of hydrocarbon effluents), arroyo catchment plan, hydrocarbon discharge to Hammond Ditch, contingency plans, and OCD's request for additional information (other than in those categories listed above). It appears to me that much, if not all, of the technical material listed here in item #2 is necessary to complete technical review as required under WQCC Regulations.

3. Mr. Simpson, on page 4 of his comments (attached) requests detailed information on the refinery process, additives and concentrations, and all other applicable substances used in the refinery. I expect some of these would be considered "Trade Secrets" by Plateau. Although we certainly may request the information if necessary, I would question the need for all this very specific data, since we know the type of effluents generated by oil refineries and their general characteristics. We must, however, have specific information on the location, quantity and water quality characteristics of each effluent discharge at the plant (eg. ponds, land application, sludge pits, etc.)

Summary & Recommendations

1. Although Mr. Simpson's 6/30/83 comments and request for additional information may be sometimes overly long and occasionally repetitious, and in one instance (#3 above) possibly unnecessary, he has on the whole identified many serious and complex technical deficiencies with the current discharge plan. He is to be commended for his detailed review.
2. Mr. Garber is correct in his statement of August 26, 1983, that the discharge plan involves complex technical and legal issues. I concur with Mr. Garber's conclusion that time is needed to address these issues. There are several options that can be taken by the OCD (as the currently delegated constituent agency) and/or the WQCC.
 - A. Since Plateau was an existing discharger, at least in part, prior to 1977, the Director (OCD's in this case) can grant an extension of time pursuant to WQCC Section 3-106.A. for "good cause" for those discharges existing before June, 1977. Given the complex issues listed above I think Plateau can make a case for "good cause" to have an extension until March, 1984. Such an extension should have conditions such as recognition by Plateau of the need for a discharge plan, timely submittal of requested information, etc. I personally do not like the approach of time extension under 3-106 since it has proved difficult in the past to enforce conditions. Also, any discharges starting after June 1977 would come under Section 3-106.B. and would only be eligible for 120 days time extension (through October 3, 1983). Most of this extension has already been used up.
 - B. An "Assurance of Discontinuance" would to me be preferable to a long extension of time since, as part of the assurance, certain conditions are negotiated, and deadlines stipulated as was done with

Page 4

MEMORANDUM - Charles Nylander
August 29, 1983

Climax. Having the WQCC review and approve an assurance brings the whole process into the public spotlight, and produces a more enforceable document which is better than just a long extension given by OCD or EID. If the assurance can be negotiated by September 13, 1983, only a short 8 day extension is needed. If, as likely, the issue will not be completed in a week, an extension until the October 11, 1983, WQCC meeting will be needed. However, this would be slightly past the October 3, 1983, deadline in 2.A. above.

3. If EID is to be involved with this discharge plan, an attorney for our EID staff should work with OCD's lawyer and EID technical staff to quickly resolve Plateau's and AGWC's contention that no discharge plan is necessary.

MSG:DGB:jba

GROUND WATER CONSULTANTS, INC.

ALBUQUERQUE, NEW MEXICO 87107
TELE (505) 845-9305 CABLE HYDROCONSULT
TELE (505) 845-0422 TELECOPIER (505) 247-0155

April 29, 1977

Mr. Joe D. Ramey
Secretary-Director
New Mexico Oil Conservation Commission
State-Land Office Building
Santa Fe, New Mexico 87503

Dear Mr. Ramey:

American Ground-Water Consultants has been retained by Plateau, Inc. to assist them in complying with the New Mexico Water Quality Control Commission Regulations (NMWQCCR) as amended.

At the present time, we should like to bring to your attention plans by Plateau to make a new contaminant discharge and to alter the character or location of an existing discharge from their refinery as required by Part 1, Section 201 (A) of the Regulations. The information required under 1-201 (B) is as follows:

1. Plateau, Inc.
2. Post Office Box 108
Farmington, New Mexico 87401
3. NE 1/4, Sec. 27, T. 29 N., R. 11 W. The refinery location is shown in figure 1. The discharge will be made into two three-acre evaporation ponds.
4. The quality of the wastewater from the boilers and from the existing and new cooling towers as well as the quality of the composite wastewater stream is given in table 1. As additional data becomes available, it will be forwarded to the OCC.
5. Total discharge will be 29,540 gallons per day.
6. Discharge is intended to begin in August, 1977.

In compliance with Part 1, Sections 202 (A) and (B) of the Regulations, we are enclosing herewith, a copy of the Water and Drainage Diagram for the Plateau refinery. This diagram shows the path of water flow from its source, the San Juan River, through all existing and newly constructed facilities to its ultimate disposal in the evaporation ponds. In addition, this diagram shows the normal (N) and design (D) rates of water flow throughout the refinery.

OCD comments on Page 4, first paragraph, last sentence
(Comments on Refinery Process Description enclosed in
Attachment No. 2)

The process description is missing in Attachment No. 2. Submit a detailed description of the refinery process. Correlate figure No. 5 - Water and Wastewater Process Flow Diagram in the description. Describe the refinery process in total from raw products used to finished products produced. Show an aerial photo coverage where raw and refined products are stored and storage volumes thereof. Submit detailed engineering drawings of the entire plant. Color code the piping system to facilitate ease of review and description of usage. Describe and illustrate where waste water, whatever the source, raw water, boiler water, cooling tower, etc., come in contact with any sources of hydrocarbons. Describe where water ends up or is found whether in the form of effluent or as part of the product. Describe what measures are used to remove water from product storage.

List and describe all additives used in the refinery process. Give the concentrations used for each additive and the mechanisms for adding or mixing the additives. Where are the additives stored and what methods are implemented for preventions of spills and leaks of these additives.

List and describe all treatment chemicals and where used in the refinery. Give the concentrations used for each chemical. What methods or measures are used to store and prevent spills and leaks of these chemicals.

List and describe all other applicable substances used in the refinery such as solvents and pesticides.

Submit suppliers names and addresses for all the above substances and submit material safety data sheets on each item. Also submit the generic composition of each substance.

Describe what each particular refinery process is producing in the way of effluent. What is the particular chemical composition or characterization of each refinery process and describe the flow characteristics of each process.
(Section 3-106 C-7)

Item No. 3) OCD comments on the section entitled "Refinery Setting", page 4.

The Geologic information contained in this section is too vague and generalized. The OCD requests that detailed and site specific geologic information be submitted on the alluvium

3) Identify all sources in the refinery that generate and contain sludge. Determine the present volumes generated at each source and total volumes since June 5, 1978. Describe and show disposal methods thereof. Supply the chemical composition of each source of sludge generated presently and in the past.

4) Submit a disposal procedure for sludge generation at the facility.

5) Submit a disposal procedure for solid waste that is contaminated or contains contaminants.

SUMMARY

Plateau's submittal of their "Updated Discharge Plan" for a Refinery operated by Plateau, Inc. near Bloomfield, New Mexico", is not acceptable as a modification for their present discharge plan GWR-1 or as a future plan. The Oil Conservation

Division (OCD) bases its rejection of the Updated Discharge Plan on the following:

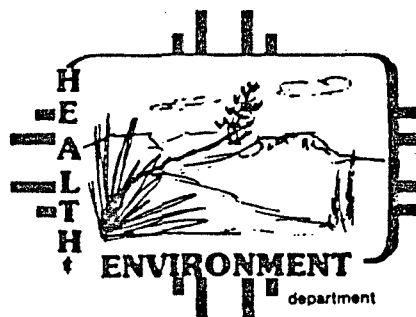
1) OCD field investigations and literature search of the refinery and surrounding area found ground water as defined in Sections 1-101 (Y) and 3-101 (A) of the WQCC Regulations and surface waters to protect.

2) OCD analysis of waste water effluent indicates high concentrations of toxic pollutants and other elements that exceed the WQCC regulations as defined in Section 1-101, Definition "UU" and Section 3-103 (A B C). The refinery waste water is or has the potential for contaminating ground and surface waters in the area of the refinery.

3) The Updated Discharge Plan does not provide for suitable methods to capture, contain, store, and dispose of storm runoff, leaks and spills of raw and refined products, by-products, waste water effluent, and the associated waste of each.

4) Plateau did not adequately or completely address Sections 3-106 and 3-107 in their Updated Discharge Plan.

To obtain an approved discharge plan, Plateau must satisfactorily address and resolve the problems associated with the above and the items requested in this report.



STATE OF NEW MEXICO

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

Steven Asher, Director

87
TONEY ANAYA
GOVERNOR

ROBERT McNEILL
SECRETARY

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

JOSEPH F. JOHNSON
DEPUTY SECRETARY

MEMORANDUM

TO: Charles Nylander, Chief, Water Pollution Control Bureau

THROUGH: Maxine S. Goad, Program Manager, Ground Water Section, WPCB *MSL*

FROM: David G. Boyer, Water Resource Specialist, Ground Water Section *DGB by MSL*

SUBJ: Plateau Refinery - Current Issues

DATE: August 29, 1983

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August 29, 1983

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2. In addition to the dispute over ground water occurrence, Simpson in his review identified the following subjects for comment, or as needing further information: Flooding potential, seepage, water chemistry, monitoring, water supply and discharge (including to land application of hydrocarbon effluents), arroyo catchment plan, hydrocarbon discharge to Hammond Ditch, contingency plans, and OCD's request for additional information (other than in those categories listed above). It appears to me that much, if not all, of the technical material listed here in item #2 is necessary to complete technical review as required under WQCC Regulations. At least another staff person should be assigned to assist Simpson in the review of this discharge plan.

August 29, 1983

3. Mr. Simpson, on page 4 of his comments (attached) requests detailed information on the refinery process, additives and concentrations, and all other applicable substances used in the refinery. I expect some of these would be considered "Trade Secrets" by Plateau. Although we certainly may request the information if necessary, I would question the need for all this very specific data, since we know the type of effluents generated by oil refineries and their general characteristics. We must, however, have specific information on the location, quantity and water quality characteristics of each effluent discharge at the plant (eg. ponds, land application, sludge pits, etc.) done?
4. On page 32 of Simpson's comments (attached), OCD summarizes the reasons for rejecting Plateau's "Updated Discharge Plan." I do not know whether this rejection is in actuality, or intended to be, a denial of a discharge plan under WQCC Section 3-109.A., and if it is a denial, what further action(s) should be taken.

Summary & Recommendations

1. Although Mr. Simpson's 6/30/83 comments and request for additional information may be sometimes overly long and occasionally repetitious, and in one instance (#3 above) possibly unnecessary, he has on the whole identified many serious and complex technical deficiencies with the current discharge plan. He is to be commended for his detailed review.
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 - A. Since Plateau was an existing discharger, at least in part, prior to 1977, the Director (OCD's in this case) can grant an extension of time pursuant to WQCC Section 3-106.A. for "good cause" for those discharges existing before June, 1977. Given the complex issues listed above I think Plateau can make a case for "good cause" to have an extension until March, 1984. Such an extension should have conditions such as recognition by Plateau of the need for a discharge plan, timely submittal of requested information, etc. I personally do not like the approach of time extension under 3-106 since it has proved difficult in the past to enforce conditions. Also, any discharges starting after June 1977 would come under Section 3-106.B. and would only be eligible for 120 days time extension (through October 3, 1983). Most of this extension has already been used up.
 - B. An "Assurance of Discontinuance" would to me be preferable to a long extension of time since, as part of the assurance, certain conditions are negotiated, and deadlines stipulated as was done with

August 29, 1983

Climax. Having the WQCC review and approve an assurance brings the whole process into the public spotlight, and produces a more enforceable document which is better than just a long extension given by OCD or EID. If the assurance can be negotiated by September 13, 1983, only a short 8 day extension is needed. If, as likely, the issue will not be completed in a week, an extension until the October 11, 1983, WQCC meeting will be needed. However, this would be slightly past the October 3, 1983, deadline in 2.A. above.

3. If EID is to be involved with this discharge plan, an attorney for our EID staff should work with OCD's lawyer and EID technical staff to quickly resolve Plateau's and AGWC's contention that no discharge plan is necessary.
4. At least one and possibly two EID technical staff member(s) should be assigned to assist Oscar. My recommendations are Bruce Gallaher (hydrology and prior work) and Pat Longmire (geochemistry and hydrocarbons). As Oscar's supervisor, I will retain general direction. Assignment of additional staff is also important, since one of EID's consultants, Dan Stevens of NM Tech at Socorro, has been retained by Plateau. The inter-relationship of Stevens and Garber to AGWC and Plateau is unknown at this time.

MSG:DGB:jba

GROUND WATER CONSULTANTS, INC.

2300 CANDELARIA ROAD, N.E.
ALBUQUERQUE, NEW MEXICO 87107
TELE: (505) 345-9505 CABLE HYDROCONSULT
TELEX: 66-0422 TELECOPIER (505) 247-0155

April 29, 1977

Mr. Joe-D. Ramey
Secretary-Director
New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87503

Dear Mr. Ramey:

American Ground-Water Consultants has been retained by Plateau, Inc. to assist them in complying with the New Mexico Water Quality Control Commission Regulations (NMWQCCR) as amended.

At the present time, we should like to bring to your attention plans by Plateau to make a new contaminant discharge and to alter the character or location of an existing discharge from their refinery as required by Part 1, Section 201 (A) of the Regulations. The information required under 1-201 (B) is as follows:

1. Plateau, Inc.
2. Post Office Box 108
Farmington, New Mexico 87401
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4. The quality of the wastewater from the boilers and from the existing and new cooling towers as well as the quality of the composite wastewater stream is given in table 1. As additional data becomes available, it will be forwarded to the OCC.
5. Total discharge will be 29,540 gallons per day.
6. Discharge is intended to begin in August, 1977.

In compliance with Part 1, Sections 202 (A) and (B) of the Regulations, we are enclosing herewith, a copy of the Water and Drainage Diagram for the Plateau refinery. This diagram shows the path of water flow from its source, the San Juan River, through all existing and newly constructed facilities to its ultimate disposal in the evaporation ponds. In addition, this diagram shows the normal (N) and design (D) rates of water flow throughout the refinery.

OCD comments on Page 4, first paragraph, last sentence
(Comments on Refinery Process Description enclosed in
Attachment No. 2)

The process description is missing in Attachment No. 2. Submit a detailed description of the refinery process. Correlate figure No. 5 - Water and Wastewater Process Flow Diagram in the description. Describe the refinery process in total from raw products used to finished products produced. Show an aerial photo coverage where raw and refined products are stored and storage volumes thereof. Submit detailed engineering drawings of the entire plant. Color code the piping system to facilitate ease of review and description of usage. Describe and illustrate where waste water, whatever the source, raw water, boiler water, cooling tower, etc., come in contact with any sources of hydrocarbons. Describe where water ends up or is found whether in the form of effluent or as part of the product. Describe what measures are used to remove water from product storage.

List and describe all additives used in the refinery process. Give the concentrations used for each additive and the mechanisms for adding or mixing the additives. Where are the additives stored and what methods are implemented for preventions of spills and leaks of these additives.

List and describe all treatment chemicals and where used in the refinery. Give the concentrations used for each chemical. What methods or measures are used to store and prevent spills and leaks of these chemicals.

List and describe all other applicable substances used in the refinery such as solvents and pesticides.

Submit suppliers names and addresses for all the above substances and submit material safety data sheets on each item. Also submit the generic composition of each substance.

Describe what each particular refinery process is producing in the way of effluent. What is the particular chemical composition or characterization of each refinery process and describe the flow characteristics of each process.
(Section 3-106 C-7)

Item No. 3) OCD comments on the section entitled "Refinery Setting", page 4.

The Geologic information contained in this section is too vague and generalized. The OCD requests that detailed and site specific geologic information be submitted on the alluvium

3) Identify all sources in the refinery that generate and contain sludge. Determine the present volumes generated at each source and total volumes since June 5, 1978. Describe and show disposal methods thereof. Supply the chemical composition of each source of sludge generated presently and in the past.

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SUMMARY

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Division (OCD) bases its rejection of the Updated Discharge Plan on the following:

1) OCD field investigations and literature search of the refinery and surrounding area found ground water as defined in Sections 1-101 (Y) and 3-101 (A) of the WQCC Regulations and surface waters to protect.

2) OCD analysis of waste water effluent indicates high concentrations of toxic pollutants and other elements that exceed the WQCC regulations as defined in Section 1-101, Definition "UU" and Section 3-103 (A B C). The refinery waste water is or has the potential for contaminating ground and surface waters in the area of the refinery.

3) The Updated Discharge Plan does not provide for suitable methods to capture, contain, store, and dispose of storm runoff, leaks and spills of raw and refined products, by-products, waste water effluent, and the associated waste of each.

4) Plateau did not adequately or completely address Sections 3-106 and 3-107 in their Updated Discharge Plan.

To obtain an approved discharge plan, Plateau must satisfactorily address and resolve the problems associated with the above and the items requested in this report.

200 WEST MARCY, SUITE 129
SANTA FE, NEW MEXICO 87504

BRUCE S. GARBER
ATTORNEY AT LAW

86

P.O. BOX 8933
(505) 983-3233

26 August 1983

Mr. Joe Ramey
Director
Oil Conservation Division
Energy and Minerals Department
State Land Office Building
P. O. Box 2088
Santa Fe, New Mexico 87503

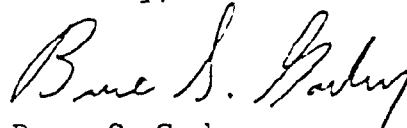
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Plateau received technical comments from your office on July 22, 1983. As you know, the review process for those comments and for the renewed discharge plan involves complex technical and legal issues which we expect will require significant further attention of both the State and Company experts. This situation is complicated by the uncertainty over whether OCD or EID will be responsible for the remainder of the Discharge Plan Review Process for Plateau's Plan.

Therefore, we believe that good cause exists for granting Plateau an extension of time within which to discharge under its current Discharge Plan. Plateau accordingly hereby requests that it be granted such an extension until March 9, 1984.

Sincerely,



Bruce S. Garber

ESG:ea

cc: Steven Asher
Charles Nylander
Lee S. Woodside
Bob D. Dixon
Gary A. Masson
Gregory S. Smith
Dwight J. Stockham



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

85

TONY ANAYA
GOVERNOR

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

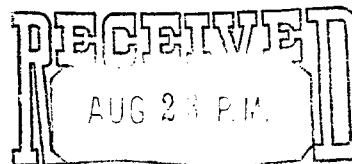
MEMORANDUM

TO: CHARLES NYLANDER, EID
FROM: PERRY PEARCE, OCD
RE: PLATEAU DISCHARGE PLAN
DATE: AUGUST 22, 1983

Attached is a copy of the letter sent to Plateau after our last meeting. As you will see, we got ahead of ourselves. I suppose we need to grant another extension until the responsibility shift is either completed or withdrawn.

Please let me know if you have any suggestions.

dr/



WATER POLLUTION
CONTROL



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
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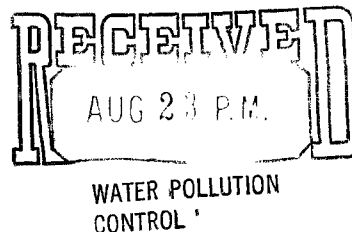
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TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

August 5, 1983

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

CERTIFIED - RETURN
RECEIPT REQUESTED

Plateau, Inc.
P. O. Box 26251
Albuquerque, New Mexico 87125-6251

Attention: Mr. Lee S. Woodside
Vice President

Dear Mr. Woodside:

We have received your letter of July 29, 1983, requesting extension of time to get approval of a discharge plan for your Plateau Refinery.

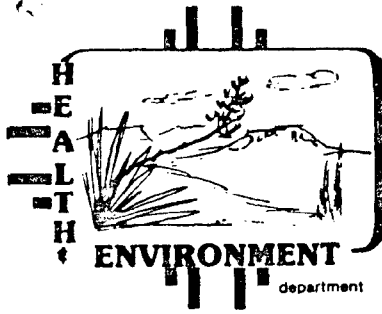
Responsibility for the processing and approval of these discharge plans has been assumed by the Environmental Improvement Division of the New Mexico Health and Environment Department. In order to facilitate the continued processing of the proposed discharge plan, you are hereby granted an extension until September 9, 1983.

Any additional communication relating to this discharge plan, or any requests for further extension, should be addressed to the Water Pollution Control Bureau of the EID.

Sincerely,

JOE D. RAMEY,
Director

JDR/dr



STATE OF NEW MEXICO

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

Steven Asher, Director

TONEY ANAYA
GOVERNOR

ROBERT McNEILL
SECRETARY

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

JOSEPH F. JOHNSON
DEPUTY SECRETARY

M E M O R A N D U M

TO: Charles Nylander, Chief, Water Pollution Control Bureau

THROUGH: Maxine S. Goad, Program Manager, Ground Water Section, WPCB *MSL*

FROM: David G. Boyer, Water Resource Specialist, Ground Water Section *DGB*

SUBJ: Plateau Refinery - Current Issues

DATE: August 29, 1983

As requested by you, I have reviewed the readily available information on Plateau Refinery and offer the following regulatory and technical comments.

Regulatory and Procedural Issues

1. On April 29, 1977 Plateau notified OCD (letter from Dr. William Turner, American Ground Water Consultants (AGWC) representing Plateau to Joe D. Ramey OCD) that Plateau planned "to make a new contaminant discharge and to alter the character or location of an existing discharge from their refinery." See attached letter.
2. In a letter dated May 13, 1977, from Ramey to Mr. William Hagler, vice President Plateau, Plateau was notified a discharge plan was "required of the Plateau Refinery".
3. Plateau Refinery discharge plan submitted by Turner of AGWC on September 30, 1977.
4. Public notice of Plateau discharge plan issued by OCD on April 20, 1978.
5. Plateau discharge plan approval June 5, 1978 expired June 5, 1983.
6. Versions of the "Updated Discharge Plan" for Plateau were received beginning in February, 1982. Public notice of Plateau renewal issued May 10, 1983.

August 29, 1983

7. Letter to Plateau from Ramey dated July 6, 1983, transmitting 32 pages of Oscar Simpson's technical comments of June 30, 1983 on Plateau's "Updated Discharge Plan." Ramey's letter also refers to additional correspondence to Plateau dated March 8, 1983 from Ramey, and from Mr. Lee S. Woodside, Vice-President, Plateau, dated April 18, 1983.
8. July 29, 1983 letter to Ramey of OCD from Lee S. Woodside of Plateau requesting "maximum extension on our present Discharge Plan so that Plateau can properly complete its review" of Simpson's comments.
9. Letter from Ramey dated August 5, 1983 to Plateau granting an extension until September 9, 1983, and referring further comments on discharge plan or requests for further extension of time to EID for action.
10. August 26, 1983, letter from Bruce S. Garber, Attorney at Law now representing Plateau, to Ramey requesting an extension of time for good cause" to continue to discharge under its current discharge plan. Plateau requests an extension until March 9, 1984, citing "complex technical and legal issues which we expect will require significant further attention of both State and Company experts."

Technical Issues

1. Initial review of Oscar Simpson's comments of June 30, 1983 to Plateau indicates that immediate legal attention should be directed to the assertion by Plateau and their AGWC consultants that there is no "natural" or ground water to protect. This is listed by Simpson as a major point of disagreement by AGWC. This assertion is made by AGWC even though the refinery sits on a bluff above the San Juan River and at least 25 oil seeps (p. 29) from past or present Plateau practices have been identified by OCD and leak into Hammond (Irrigation) Ditch, valley fill and/or the San Juan River. Simpson's review (pages 6-21) includes convincing documentary evidence that ground water exists in the area of the plant and that discharges from Plateau have moved, and continue to have the potential to move, directly or indirectly into ground water.
2. In addition to the dispute over ground water occurrence, Simpson in his review identified the following subjects for comment, or as needing further information: Flooding potential, seepage, water chemistry, monitoring, water supply and discharge (including to land application of hydrocarbon effluents), arroyo catchment plan, hydrocarbon discharge to Hammond Ditch, contingency plans, and OCD's request for additional information (other than in those categories listed above). It appears to me that much, if not all, of the technical material listed here in item #2 is necessary to complete technical review as required under WQCC Regulations.

August 29, 1983

3. Mr. Simpson, on page 4 of his comments (attached) requests detailed information on the refinery process, additives and concentrations, and all other applicable substances used in the refinery. I expect some of these would be considered "Trade Secrets" by Plateau. Although we certainly may request the information if necessary, I would question the need for all this very specific data, since we know the type of effluents generated by oil refineries and their general characteristics. We must, however, have specific information on the location, quantity and water quality characteristics of each effluent discharge at the plant (eg. ponds, land application, sludge pits, etc.)

Summary & Recommendations

1. Although Mr. Simpson's 6/30/83 comments and request for additional information may be sometimes overly long and occasionally repetitious, and in one instance (#3 above) possibly unnecessary, he has on the whole identified many serious and complex technical deficiencies with the current discharge plan. He is to be commended for his detailed review.
2. Mr. Garber is correct in his statement of August 26, 1983, that the discharge plan involves complex technical and legal issues. I concur with Mr. Garber's conclusion that time is needed to address these issues. There are several options that can be taken by the OCD (as the currently delegated constituent agency) and/or the WQCC.
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MEMORANDUM - Charles Nylander

August 29, 1983

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MSG:DGB:jba

AMERICAN
GROUND WATER
CONSULTANTS, INC.

2300 CANDELARIA ROAD, N.E.
ALBUQUERQUE, NEW MEXICO 87107
TELE: (505) 343 9505 CABLE HYDROCONSULT
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April 29, 1977

Mr. Joe D. Ramey
Secretary-Director
New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87503

Dear Mr. Ramey:

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BRUCE S. GARBER

ATTORNEY AT LAW

200 WEST MARCY, SUITE 129
SANTA FE, NEW MEXICO 87504

P.O. BOX 8933
(505) 983-3233

26 August 1983

Mr. Joe Ramey
Director
Oil Conservation Division
Energy and Minerals Department
State Land Office Building
P. O. Box 2088
Santa Fe, New Mexico 87503

RECEIVED

AUG 29 1983

**EID: WATER
POLLUTION CONTROL**

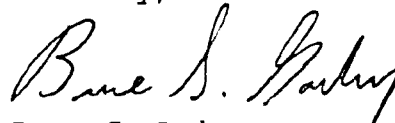
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Therefore, we believe that good cause exists for granting Plateau an extension of time within which to discharge under its current Discharge Plan. Plateau accordingly hereby requests that it be granted such an extension until March 9, 1984.

Sincerely,



Bruce S. Garber

BSG:ea

cc: Steven Asher
Charles Nylander
Lee S. Woodside
Bob D. Dixon
Gary A. Masson
Gregory S. Smith
Dwight J. Stockham

RECEIVED
AUG 20 P.M.

**WATER POLLUTION
CONTROL**

26 August 1983

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Director
Oil Conservation Division
Energy and Minerals Department
State Land Office Building
P. O. Box 2088
Santa Fe, New Mexico 87503

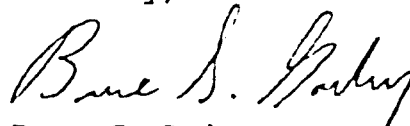
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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

August 5, 1983

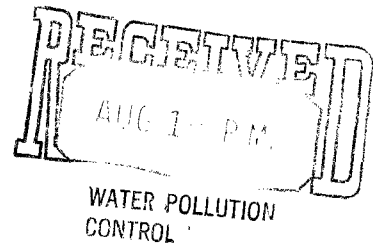
COPY

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

CERTIFIED - RETURN
RECEIPT REQUESTED

Plateau, Inc.
P. O. Box 26251
Albuquerque, New Mexico 87125-6251

Attention: Mr. Lee S. Woodside
Vice President



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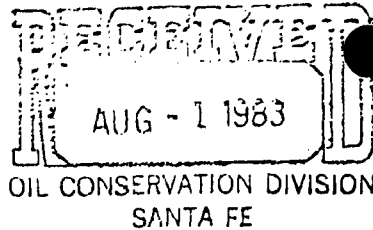
Sincerely,

JOE D. RAMEY,
Director

JDR/dr

PLATEAU, INC.

July 29, 1983



P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221

CERTIFIED MAIL #366-664-232

Mr. Joe D. Ramey
Director
Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501


Dear Mr. Ramey:

Plateau has received the Oil Conservation Division's review of our updated Discharge Plan for our Bloomfield Refinery and Plateau's own review is underway. We will proceed with this review continuously and will inform you as to the date when we will be prepared to meet.

The review period required by Plateau will be beyond the extension date of our present Discharge Plan. This is due to the time frame in which we received a copy of the OCD's review of the updated Discharge Plan and pertinent data that is needed for a complete review is not available at this time.

We will proceed with our review and Plateau is requesting that we be granted the maximum extension on our present Discharge Plan so that Plateau can properly complete its review.

Sincerely,


Lee S. Woodside
Vice President/Refining

DJS:lh

cc: P. W. Liscom
G. A. Masson
R. G. Perry
G. S. Smith
D. J. Stockham
File



REFINERS • MARKETERS



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

82

TONY ANAYA
GOVERNOR

July 15, 1983

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

Plateau, Inc.
7575 Indian School Road, NE
Albuquerque, New Mexico 87110

Attention: Mr. Lee S. Woodside

Gentlemen:

Attached is a review of your updated discharge plan for your Bloomfield Refinery.

This was prepared by Mr. Oscar Simpson and is submitted without change. I do not necessarily agree nor do I disagree with his comments. However, he is adamant that the contents are necessary for an adequate discharge plan.

I would suggest that you review the attached and then arrange a meeting with the Division to discuss any problems you may have.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd
enc.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

July 6, 1983

TONY ANAYA
GOVERNOR

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

Plateau, Inc.
7575 Indian School Road NE
Albuquerque, NM 87110

Attention: Dwight J. Stockham
Environmental Engineer

Re: Discharge Plan Review
Plateau Inc.
Bloomfield Refinery
SW/4 NE/4, Sec - 27,
T-29N, R-11W, NMPM
San Juan County, NM.

Dear Sir:

Following receipt of Mr. Lee S. Woodside's letter dated April 18, 1983, and at the request of Mr. Gregory Smith, Legal Counsel for Plateau, at our April 4, 1983 meeting, the Oil Conservation Division is submitting a detailed review of the subject discharge plan.

The OCD considers Mr. Joe D. Ramey's letter which should have been dated March 8, 1983, to Lee S. Woodside as sufficient comment and grounds for rejection of the Updated Discharge Plan.

After you and other concerned parties have had an opportunity to review this letter and the attached comments on the Updated Discharge Plan, we believe that a meeting to discuss any issues or concerns you have will be beneficial.

Please contact me so that a meeting can be set up.

Sincerely,

JOE D. RAMEY
Director

JDR/dp

OIL CONSERVATION DIVISION

(OCD)

TECHNICAL REVIEW OF
UPDATED DISCHARGE PLAN FOR

A

REFINERY OPERATED BY PLATEAU, INC.

June 30, 1983

Prepared by

Oscar A. Simpson

Water Resource Specialist

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- EXHIBIT NO. 10 Photocopy of Plate 23 of Open File Report 89 of the New Mexico Bureau of Mines and Mineral Resources
- EXHIBIT NO. 11 Photocopies of Tables 1 and 6 of Technical Report No. 6 by the New Mexico Bureau of Mines and Mineral Resources
- EXHIBIT NO. 12 Photocopy of Attachment No. 3 of Exhibit No. 3A
- EXHIBIT NO. 13 Photocopy of Figure 7, Page 11, of Exhibit No. 3B
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OIL CONSERVATION DIVISION REVIEW OF
PLATEAU'S "UPDATED DISCHARGE PLAN
FOR A REFINERY OPERATED BY PLATEAU
INC. NEAR BLOOMFIELD, NEW MEXICO"

Item No. 1) OCD comments on correspondence related to the
Discharge Plan

In response to the previous correspondence relating to the Updated Discharge Plan (refer to Exhibit No. 1) which particularly includes the Plateau letters of April 18, 1983 from Mr. Lee S. Woodside, September 8, 1982, from Mr. Gregory S. Smith, June 2, 1982, from Mr. R. G. Perry, American Groundwater Consultants, Inc., March 9, 1982, from Mr. William M. Turner and the Updated Discharge Plan itself; the Oil Conservation Division contends that:

Under the authority granted to the OCD by the Water Quality Control Commission to administer the WQCC Regulations, Plateau is subject to Parts 3-101A and 3-104 of the WQCC Regulations 82-1 (Exhibit #2) which ~~each~~ *respectively* states:

3-101 (A) - The purpose of these regulations controlling discharges onto or below the surface of the ground is to protect all ground water of the State of New Mexico which has an existing concentration of 10,000 mg/L or less TDS, for present and potential future use as domestic and agricultural water supply, and to protect those segments of surface waters which are gaining because of ground water inflow, for uses designated in the the New Mexico Water Quality Standards. (Exhibit #2 - Page 20).

3-104. DISCHARGE PLAN REQUIRED - Unless otherwise provided by these regulations, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless he is discharging pursuant to a discharge plan approved by the Director. When a plan has been approved, discharges must be consistent with the terms and conditions of the plan. (Exhibit #2 Page 22).

The OCD will show through the use of Exhibit #3, Updated Discharge Plan for a refinery operated by Plateau, Inc., near Bloomfield, New Mexico, June 2, 1982, the two monitoring reports by AGWC, Exhibits 3 A and B, respectively, the Original Discharge Plan, Exhibit No. 3 C, and OCD's investigation of the area that:

- 1) Plateau is and has not operated in accordance to 3-104 or 3-107(C) of WQCC regulations 82-1 as prescribed by Plateau's Discharge Plan - GWR-1 of June 5, 1978.
- 2) There is ground water as defined in 1-101 (Y) WQCC Regulations 82-1 (page 4) and 3-101 (A) of Exhibit No. 2 and surface waters to protect.
- 3) The proposed Updated Discharge Plan of June 2, 1982 has not provided sufficient evidence to substantiate the methods of effluent disposal. The Discharge Plan is not functional and will not prevent or eliminate pollution of ground or surface waters of the area.

Item No. 2) OCD comments on the section entitled "Introduction", page 1.

OCD comments on Page 1, 2nd paragraph, beginning sentence of Page 4. (Updating the Plateau Discharge Plan and for What Reasons)

In the Water Quality Control Commission Regulations (WQCC) 82-1 under Section 3-107 (C) - Monitoring Reports and Other Requirements - Page 26 as quoted here:

"The discharger shall notify the director of any facility expansion, production increase or process modifications that would result in any significant modification in the discharge of water contaminants."

Plateau has flagrantly and continuously violated the requirements of Section 3-107 (C). Refer to Exhibit No. 4 for a summary of those violations.

The Oil Conservation Division (OCD) verbally requested Plateau to update its discharge plan in a joint Plateau-OCD meeting in September, 1981. Plateau has not notified the OCD of any expansion as described in Section 3-107(C).

OCD Comments on Page 4, first paragraph, 2nd sentence. (Comments Concerning Plate 1)

Plate 1 does not provide adequate aerial coverage that includes all of the refinery and its appurtenances. Plateau has not provided an adequate map of suitable scale to illustrate the information as required under Section 3-106 (C) (1-7). The OCD requests that current aerial photo coverage be provided that covers an area of at least 1/2 mile from the outside

perimeter of the Plateau property. The scale of the photo coverage shall be not less than 1"= 250'.

Information on the aerial photo coverage shall include:

- 1) Label of all major parts of the refinery and appurtenances. (3-106 C-7)
- 2) Show location of all Plateau property boundaries (3-106 C-7)
- 3) Show the locations of property boundaries for all immediate (adjacent) land owners and the respective property owner's names. (C-106 C-7)
- 4) Under Section 3-106 (C-2) show and label all applicable information that lies within 1/2 mile of the outside perimeter of the discharge site. This includes all seeps and springs in the area. 2
- 5) On a duplicate set of aerial photos, show the topographic relief of the area that delineates topographic relief using two feet or less contour intervals. Delineate all drainage areas that occur on or effect any Plateau property. Label and differentiate these drainage areas. (3-106 C-4 and 7)
- 6) Show all locations of right-of-ways and easements particularly for the Hammond Ditch and pipelines that occur on Plateau Property. (3-106 C-7)

OCD comments on Page 4, first paragraph, 2nd sentence
(Comments on Plate 2)

Plate 2 is vague and cannot be correlated to any visible property corners, fence lines, or property boundaries on the ground surface. Therefore, as requested in Item No. 2, place the information from Plate 2 on current aerial photo coverage. (3-106 C-7).

OCD Comments on Page 4, first paragraph, 3rd sentence.
(Comments on Plates 3 to 5 - Topographic Maps)

Plates 3 to 5 cannot be correlated to Plate No. 1 or the refinery setting. Transfer data from Plates 3 through 5 to aerial photo coverage as previously requested in Item No. 2 (3-106 C-7)

OCD comments on Page 4, first paragraph, last sentence
(Comments on Refinery Process Description enclosed in
Attachment No. 2)

The process description is missing in Attachment No. 2. Submit a detailed description of the refinery process. Correlate figure No. 5 - Water and Wastewater Process Flow Diagram in the description. Describe the refinery process in total from raw products used to finished products produced. Show an aerial photo coverage where raw and refined products are stored and storage volumes thereof. Submit detailed engineering drawings of the entire plant. Color code the piping system to facilitate ease of review and description of usage. Describe and illustrate where waste water, whatever the source, raw water, boiler water, cooling tower, etc., come in contact with any sources of hydrocarbons. Describe where water ends up or is found whether in the form of effluent or as part of the product. Describe what measures are used to remove water from product storage.

List and describe all additives used in the refinery process. Give the concentrations used for each additive and the mechanisms for adding or mixing the additives. Where are the additives stored and what methods are implemented for preventions of spills and leaks of these additives.?

reword

List and describe all treatment chemicals and where used in the refinery. Give the concentrations used for each chemical. What methods or measures are used to store and prevent spills and leaks of these chemicals.

List and describe all other applicable substances used in the refinery such as solvents and pesticides.

Submit suppliers names and addresses for all the above substances and submit material safety data sheets on each item. Also submit the generic composition of each substance.

Describe what each particular refinery process is producing in the way of effluent. What is the particular chemical composition or characterization of each refinery process and describe the flow characteristics of each process.
(Section 3-106 C-7)

Item No. 3) OCD comments on the section entitled "Refinery Setting", page 4.

The Geologic information contained in this section is too vague and generalized. The OCD requests that detailed and site specific geologic information be submitted on the alluvium

and terrace deposits of the area and the Nacimientto formation. The following is required under Section 3-106 (C-7). ?

The OCD requests the following:

- A) Determine the extent and thickness of the terrace and alluvium deposits on the Plateau property and adjacent land within 1/2 mile of the Plateau property boundaries. Illustrate the information on aerial photo coverage.
- B) Submit isopach thickness maps of the terrace and alluvium deposits of the Plateau property and the area within 1/2 mile of the Plateau boundaries.
- C) Describe the physical properties and distribution of the soils and types thereof that compose the alluvium and terrace deposits that lie within 1/2 mile of the Plateau property.

Show sample or test hole locations.

Submit representative sieve analysis of the soil types.

- D) Determine infiltration rates for the ground surface at the refinery and area that lies within 1/2 mile of Plateau property boundaries. Submit original test data and show test locations.
- E) Provide North-South and East-West cross sections of the terrace and alluvium deposits that pass through the refinery and that extend 1/2 mile beyond the refinery boundaries in all directions.
- F) Measure or predict the alluvium and terrace deposits ability for adsorption and cation exchange capacity, specifically for refinery effluent, sludges, and products (raw or refined).
- G) The geologic description of the Nacimientto Formation is vague, incomplete and inaccurate. There is not sufficient evidence to support American Groundwater Consultants' statements. Therefore, the OCD requests the following:
 - 1) Submit detailed North-South and East-West geologic cross sections of the Nacimientto formation which pass through the refinery property and extend 1/2 mile beyond the plant boundaries.

OCD field investigations indicate the presence of sandstone beds in the Nacimientos. The outcrop north of the refinery and adjacent to the San Juan River has exposed sandstone beds in the Nacimientos. Base cross-sections on test hole data and on outcrops of the Nacimientos in the area of the refinery.

- 2) Perform site - specific drilling on the Nacimientos formation to obtain information on the characteristics of the Nacimientos. Information such as:
 - a) Drill cutting samples for every 5 feet of depth
 - b) Core samples to determine porosity, hydraulic conductivity, cementation, grain size, clay and organic content, tortuosity, potential for dilution, and dispersion, chemical and physical attenuation, locations of recharge and discharge beds or zones, vertical and horizontal hydraulic conductivity, faults, bedding plans, fractures, lithologic descriptions
 - c) Perform pump and slug tests on the Nacimientos and sandstone layers thereof
 - e) Submit detailed lithologic descriptions of the Nacimientos
 - f) Determine hydraulic connection to the terrace and alluvium deposits
 - g) Determine groundwater flow vectors, average and maximum ground water flow velocity.

Item No. 4) OCD Comments on the Section entitled: Ground Water Occurrence, pages 7 through 10 of the Discharge Plan.

The major point of disagreement between the OCD and Plateau and its consultants, AGWC, is if there is ground and surface water to protect as stipulated in the WQCC regulations. Plateau and their consultants AGWC state that there is no "natural" or ground water to protect and through full implementation of the plan, pollution will not escape the refinery property. Refer to the last paragraph of the Summary in Exhibit No. 3, page 8, first paragraph Exhibit No. 3, and Item No. 3 of Exhibit No. 5.

The OCD will show evidence that will contradict these statements as follows:

A) The report, "Ground Water in the San Juan Basin-New Mexico and Colorado", (U.S.) Geological Survey, Albuquerque, New Mexico, Water Resources Division, PB80-108020 (Exhibit No. 6) on page 19, Figure 11, illustrates where valley fill deposits contain ground water of between 1 and 4 thousand mg/L TDS. On pages 16 through 18 of the report under the subtitle, "Valley Fill" is a generalized description of the thickness of fill, ground water quality, and transmissivity of the Valley Fill. On page 12, under the subtitle "Tertiary Rocks" is a description of ground water found in tertiary rocks of the Nacimiento formation and Ojo Alamo Sandstone. Refer to Figure 10, page 17 of the report (Exhibit No. 6) for an illustration of the recharge area, direction of ground water flow, and dissolved solids concentration in the tertiary rocks.

B) On a smaller scale to show the exact and explicit locations and sources of ground and surface water, refer to Plate A, which is aerial photo coverage of the Plateau Refinery and a portion of the San Juan River and valley. Surface water is present in the San Juan River and Hammond Ditch. Ground water can be found in the valley fill as described in the previously mentioned U. S. Geological report in all the land area shown on Plate A north of the San Juan River. Proof of ground water existence is from a list of commercial, domestic, and stock wells located in this area as recorded by the State Engineers Office - Exhibit No. 7.

Plate B shows the approximate locations of the wells from Exhibit No. 7. On the south side of the San Juan River in the area covered by Plate A there are no known wells in the valley fill. OCD field investigations of the south side of the San Juan River found ground water in the valley fill as located in the areas circled by the dashed blue lines (Areas 1, 2, and 3). OCD field investigations of the south side of the San Juan River were only spot checks to validate the occurrence and do not define the aerial extent, the quality, and is not necessarily limited to the circled areas. For example, the three valley fill areas just described are the largest in aerial extent and most obvious portions of fill on the south side of the river in Plate A. On a much smaller scale, on the south side, for almost the entire length of the river, there is a thin ribbon of valley fill that contains ground water. This portion of valley fill lies between the river and the Nacimiento formation. AGWC describes this area as an alluvium-filled channel on page 5, last paragraph, Exhibit No. 3 and from the original discharge plan, Exhibit 3 C, page 8, 2nd paragraph, "the present-day channel of the San Juan River is

incised into the Nacimiento formation and younger alluvial material occupies the present river channel."

In Area No. 1 upper right hand corner of Plate A, a test hole was dug and a water sample (Sample K) was taken.

Sample K, approximately 8 feet wide, 12 feet long and 8 feet deep. Ground water was encountered at a depth of 4 feet from the ground surface. The majority of material removed from the test hole was coarse sand, gravel, and a few boulders. Further investigation of the area revealed the existence of 3 abandoned borrow pits labeled as Pits Nos. 1, 2 and 3 on Plate A that are now flooded by water. An elevation check of the ground water table in the test hole (Sample K) to that of the water level in Pit No. 1 was the same. Therefore, the 3 pits probably represent the ground water table conditions in Area No. 1.

In Area No. 2 two test holes dug by hand (to determine the occurrence of ground water in valley fill material) Sample E (7-14-82) brown label, is the location of the first test hole with a depth to ground water at 0.75' from the ground surface. The second test labeled as Test Hole No. 2 (7-14-82) green label, located ground water at a depth of 3 feet from the ground surface.

Area No. 3 was tested for ground water at points A and B, Plate A with depths of 3.1 feet and 5.6 feet respectively from the ground surface.

On page 5 of the Updated Discharge Plan (Exhibit No. 3) under the heading Hydrologic Features (San Juan River) AGWC describes the material in the San Juan River Valley as an "alluvium-filled channel"; the OCD equates the description to be synonymous with that of VALLEY FILL as used in the U. S. Geological Report (Exhibit No. 6). Also on pages 4 and 5 under the heading "Refinery Setting" of Exhibit No. 3, AGWC describes the thickness of "terrace deposits" beneath the refinery, (also refer to Plate No. 1 of Exhibit No. 3); the same analogy is made here, terrace deposits is synonymous in meaning to that of valley fill.

Pages 16 and 18 of Exhibit No. 6, states in part that:

"Recharge to valley fill along irrigated portions of of the San Juan, Animas, and La Plata Valley results largely from the percolation of irrigation water and from leaking ditches..."

"Recharge to valley fill along ephemeral streams results largely from infiltration of storm flows and snow melt runoff."

AGWC on pages 6 and 7 (Exhibit No. 3) under the heading "Hammond Ditch", last paragraph of page 6, first paragraph of page 7, states that:

"The valleys of nearly all intermittent stream channels which descend from the Jackson Lake Terrace" (Valley Fill) "South of the San Juan River are choked with trees , bullrushes, marsh grass, and other vegetation. The source of water which supports the vegetation is leakage through the bed of the Hammond Ditch."

"The Hammond Ditch is a man-made constant-head, line-source or recharge to the cobble bed (Valley Fill) during the irrigation season." Observation wells which have been constructed in the vicinity of the solar evaporation ponds indicate that the cobble bed is saturated."

AGWC states from the original discharge plan (Exhibit No. 3-C) submitted in 1978, pages 10 and 14, last and first paragraph respectively:

"As may be expected, the Hammond Ditch acts as a constant-head line source and infiltrating water flows to the south in the cobble bed also. Observation wells which have been constructed in the vicinity of the solar evaporation ponds indicate that the cobble bed contains some water."

The OCD has observed all the intermittent stream channels as previously described by AGWC that lie between the refinery and the San Juan River. A better description of these channels are dendritic erosional draws emanating from a 100 foot high bluff just south of the San Juan River. There are approximately 12 major draws that lie northwest to northeast of the refinery and run down to the south edge of the San Juan River or are truncated by a large north-south trending arroyo drainage system just east of the refinery. Refer to Plate A for their locations. It is estimated that there are approximately 25 to 40 visible seeps of varying sizes and magnitude that constantly supply water to most of these draws.

On 10 separate field inspections of the draws, starting in June 1981 to the present, water has constantly flowed down the bluff through the draws and into the San Juan River from the major draws numbered as 1, 3, 6, 7, 8, and 9 on Plate A. The highest visible estimated flow from all the draws is between 30 and 50 gallons per minute between June and October of 1981. The visible flow rate when the Hammond Ditch was not running, mid-October to May, in January 1982 was estimated to be 10 to 15 gallons per minute. An example of the amount of water

coming from this area with an estimated minimal flow of 10 GPM and a maximum flow of 50 GPM for a year are 5.2 and 25.9 million gallons or 123.4 and 617.1 thousand barrels of water respectively. It appears that the majority of the seepage is coming from the contact between the terrace deposits and the Nacimiento formation, but because of the vegetation growth, poor exposure, and uncertain location of the contact this cannot be confirmed.

In review of AGWC's geologic and hydrologic setting of the area, (pages 1 thru 10 of Exhibit No. 3), the terrace deposits or valley fill are: approximately 35 feet thick, 100 feet above and south of the river, directly underneath the whole area of the refinery, resting on an undulating erosional surface of the Nacimiento formation, the lower portion of the terrace deposits (cobble bed) underneath the refinery contains ground water, and the Hammond irrigation ditch recharges the cobble bed with ground water.

AGWC reports entitled, "Milestone Report on Monitoring Activities at the Bloomfield Refinery Operated by Plateau, Inc., San Juan County, New Mexico", February 7, 1979, and the report, "Second Milestone Report on Monitoring Activities at the Bloomfield Refinery operated by Plateau, Inc., San Juan County, New Mexico" January 28, 1981, were submitted to the OCD to provide further information on the monitoring activities and the results thereof. (Refer to Exhibits 3A and 3B, respectively.)

Exhibit Nos. 8 and 9 are photocopies of the summaries of the first and second milestone monitoring reports respectively.

Summarizing the summary of the first milestone report (Exhibit No. 8):

"water from the Hammond Ditch is the principal source of recharge to the area below the solar evaporation ponds, ground water flows to the south while the ditch is running, the saturated zone, (the cobble bed) may extend as far south as 600 feet south of the ditch. The saturated cobble bed may be as much as 10 feet thick, the solar evaporation ponds are leaking, and leakage from the solar ponds is estimated to be 20 GPM to the Hammond Ditch and San Juan River."

AGWC has not submitted any evidence to support the claim that the principal source of recharge to the area is from the Hammond Ditch. There is a large recharge area to the south that could supply ground water to this area.

Pit No. 4 as shown on Plate A (just east of the two large square solar evaporation ponds) and described by AGWC on page 15 of the Original Discharge Plan (Exhibit No. 3 C) "as a gravel pit excavated in the cobble to a depth where the Nacimiento formation has been exposed to the bottom." OCD observation of this pit from June of 1981 to June of 1982 was: The pit has always maintained a constant pool of water, the water level fluctuated slightly, seepage from the pond drained to the southeast toward Sullivan Road and then drained eastward to the large N-S trending arroyo (identified as the East Arroyo on Plate A), seepage recharges the valley fill of Area No. 1, Plate A, depth of water in the pit was approximately 2 feet to 3 feet deep.

On July 6, 1982, Pit No. 4 was being constantly drained by a pump operated by Plateau. Numerous seeps were noted at the bottom of the pit at the contact of the cobble bed and the shale of the Nacimiento; the greatest seepage was coming from the west and north.

Ground water or seeps were also found to occur at the following locations:

- 1) Sample No. 17 - (7-6-82) Orange Label on Plate A - location: Just southeast of the junction of Highway 44 and Sullivan Road in a east to west trending drainage area. Depth to ground water was 1.5 feet from the ground level. Surface seepage was observed to be very prominent from June to October in 1981.
- 2) Sample A (7-12-82) Brown Label on Plate A - 100 yards west of the intersection of the Hammond Ditch and Sullivan Road and then 100 feet north of Sullivan Road. Depth to ground water was 1.7 feet. Surface seepage was observed to be very prominent from June to October in 1981.
- 3) Sample B (7-12-82) Brown Label on Plate A - 100 feet south of the intersection of the Hammond Ditch bridge and Sullivan Road and then 100 feet east of the Hammond Ditch. A test hole was dug by backhoe to a size of approximately 15 feet long and 12 feet wide and 10 feet deep. Depth to ground water was 5 feet from the ground surface. The soil profile of the test hole was light gray, coarse sand, with large quantities of cobble stone and gravel.

- 4) Seep "A" Green label on Plate A located 800 feet southeast of Sample No. 17 and 200 feet south of the Hammond Ditch. Estimated flow on 9-15-82 at 3:00 p.m. was estimated to be \pm 1 GPM. The seep supports a small pond about 50 feet in diameter and 2 feet deep.

OCD's research on the Nacimiento formation and the Ojo Alamo formation shows that they are suitable aquifers for commercial, domestic and stock use. The sandstones in the Nacimiento and Ojo Alamo are grouped together under the heading of Tertiary Rocks in the U. S. Geological Report, Exhibit No. 6; the sandstones in these formations are considered principal aquifers in the San Juan Basin.

Quoted here is the abstract of the report (page 1 of Exhibit No. 6):

Ground Water in the San Juan Basin,
New Mexico and Colorado
by Forest P. Lyford

ABSTRACT

Principal aquifers in the San Juan Basin of New Mexico and Colorado are the Entrada Sandstone, Westwater Canyon Member of the Morrison Formation, Gallup Sandstone of the Mesaverde Group, several sandstones in the Mesaverde Group above the Gallup (Dalton Sandstone Member of the Crevasse Canyon Formation, Point lookout Sandstone, Menefee Formation, Cliff House Sandstone), and sandstones of Tertiary age.

Most ground water flows from topographically high outcrop areas toward the San Juan River and the Rio Grande Valley. Much of the water may move through confining layers to other aquifers or to the land surface rather than discharging directly to the streams.

Transmissivities of the sandstones range from 50 to 300 feet squared per day. Lowest dissolved-solids concentrations occur in or near outcrops of the sandstones and increase in the direction of ground water flow. Concentrations range from less than 500 milligrams per liter to more than 30,000 milligrams per liter.

From pages 12 and 16 of the U. S. Geological Report (Exhibit No. 6), as quoted here is a generalized description of the mechanisms of ground water recharge, directional flow, water quality and well capacities.

TERTIARY ROCKS

Tertiary rocks include the Ojo Alamo Sandstone, Nacimiento Formation, and San Jose Formation in the northeast part of the basin (San Juan) and the Chuska Sandstone capping in the Chuska Mountains on the west side of the basin.

Recharge of the Tertiary sandstones near the center of the basin occurs mostly in outcrop areas. The general direction of flow is toward the San Juan River and lower reaches of major tributaries (Figure 10).

Water recharged to the Chuska Sandstone moves toward springs on the east and west sides of the Chuska Mountains (Harshbarger and Repenning, 1954, p.6). Water in the Chuska Sandstone also recharges the underlying Jurassic and Cretaceous sandstones.

The transmissivity of some of the thicker sandstones such as the Ojo Alamo Sandstone may exceed 150 feet 2/d in some places (Brimhall, 1973, p. 20) but generally does not exceed 100 feet 2/d. Raltz and West (1967, p. 65) indicated that yields of 1,000 gal/min or more may be expected in wells penetrating the full thickness of Tertiary sandstones near the thickest part of the section. The available data is too limited for construction of a transmissivity map.

In general, dissolved-solids concentrations in Tertiary sandstones in the northeast part of the study area exceed 1,000 mg/L and increase in the direction of ground-water flow (Figure 10). Near the San Juan River, concentrations exceeding 4,000 mg/L may be partly attributed to saline water leaking upward from underlying Cretaceous rocks. Generally, concentrations are higher in the finer-grained sediments than in the coarser-grained sediments. Dissolved solids concentrations in the Chuska Sandstone are less than 500 mg/L (Harshbarger and Repenning, 1954, p. 15).

For a visual explanation and understanding of the previous description, refer to Figure #10 of the U. S. Geological Report, (Exhibit #5, page 17).

Exhibit #10, a photocopy of Plate #23 from the Open File Report 89, of the New Mexico Bureau of Mines and Mineral Resources shows more precisely the extent of the outcrop and area of burial of the Nacimiento formation.

Refer to Exhibit #11, a photocopy of pages 102-107 of Table 1 and pages 35-37 of Table 6, of Technical Report #6, by the New Mexico Bureau of Mines and Mineral Resources for a list of water wells found in the area. Many of the wells listed in Table #1 produce principally from the Nacimiento Formation. Nacimiento wells are coded with the symbol "Tn" and are listed under the heading, Principal Water Bearing Unit(s) "at the top of each page. The wells which produce from the Ojo Alamo are coded with the symbol "Tkoa". Specific wells from this exhibit are plotted on Plate B in red ink. There are 67 wells of interest that are relatively close to the refinery area. They are coded with a number on the left-hand margin of each page in red ink. Each well was assigned a specific number ranging from number 1 to 67 and each well's location was plotted on Plate B with that corresponding number.

From the State Engineers Office, records were obtained that list commercial water rights designated to the Nacimiento and Ojo Alamo Formations. These are as follows:

| <u>FORMATION</u> | <u>FILE NUMBER</u> | <u>DATE</u> | <u>AMOUNT</u> | <u>LOCATION</u> |
|---------------------------|--------------------|--------------|--------------------|-------------------------|
| Nacimiento | SJ-403 | 11-10-77 | 40 acre ft | 15, 23N, 3W |
| Nacimiento & Ojo Alamo | SJ-1325 | 1- 5-81 | 24,00 acre feet | T-24,25,26N R-6,7,8W |
| Nacimiento & Ojo Alamo | SJ-1351 | 2-10-81 | 60 acre ft | 33, 28N, 9W |
| Nacimiento & Ojo Alamo | SJ-1352 | 2-10-81 | 60 acre ft | 17, 27N, 8W |
| Nacimiento & Ojo Alamo | SJ-1131 | EN lg 6-4-81 | 20 acre ft | 19, 24N, 7W |

AGWC describes the Nacimiento Formation in the following reports as follows:

"Field investigation indicates that the shale of the Nacimiento formation is for all intents and purposes impermeable to the downward percolation of water."
(Page I, 2nd paragraph - Original Discharge Plan)

"Beneath the Pleistocene terrace deposits occurs the massively bedded olive green, unctuous clay of the Nacimiento formation. At least 100 feet of this unit is exposed in the cliff face north of the refinery and adjacent to the San Juan River. The clay at the outcrop is a tight unfractured rock unit. The best exposures of

the Nacimientto formation are in the badlands of nearby Kutz Canyon. Pages 7 and 8, last paragraph and first paragraph, respectively, Original Discharge Plan Exhibit No. 3 C.

"The San Juan River is the only perennial river in the vicinity of the refinery. Along the reach of the San Juan in the vicinity of the refinery, the river is neither a gaining or losing stream. Its alluvium-filled channel is incised into relatively impermeable clay of the Nacimientto Formation". Page 8, fourth paragraph, Original Discharge Plan Exhibit No. 3C.

"The Nacimientto Formation as mentioned above, is an impermeable, unctuous green clay. It is about 495 feet deep and throughout its thickness is not known to contain any ground water. There are no known sandstone beds within the Nacimientto Formation. The upper 100 feet of the formation which is exposed in the cliff north of the refinery shows no seeps of water from within the Nacimientto formation. (Exhibit No. 3A, Page 8, 2nd paragraph.)

"It is concluded that there is no ground water within the Nacimientto Formation which could be recovered for domestic purposes. Seeps at the contact of the cobble bed with the Nacimientto Formation support the conclusion that the Nacimientto Formation does not contribute ground water to the San Juan River." See pages 8 and 9, third paragraph to first respectively, of the first monitoring report. (Exhibit No. 3A)

OCD field investigations of the Nacimientto formation particularly that exposed on the bluff just north of the refinery, revealed the existence of several sandstone beds. As located and noted on Plate A by the Pink labeled markers, there were 6 well-exposed outcrops of sandstone beds that were measured and examined. Hand lense examination of samples taken from the 6 outcrops indicate that the physical characteristics of the beds could quite easily transmit water. In general, the sandstone beds were: light green to gray in color, coarse to medium grained silty sandstone, and with poor to moderate cementation (most samples were very friable). Measurements of the outcrops were: #1 = 5 feet thick (bottom not found), #2 = 6 feet thick, #4 = 6 feet thick, #5A = 10 feet thick, (top of Nacimientto) #5B = 6 feet thick, (base of river) #6 = 30 feet thick, (bottom not found). Refer to Plate "A" for locations of the measured outcrops.

OCD review of AGWC's "Attachment 3 - Lithologic Logs for Several of the Neutron-Probe Access Holes" of the Original

Discharge Plan presented here as Exhibit #12, seems to indicate that a layer of sandstone is exposed at the contact of the terrace deposits and Nacimientos. The possible sandstone layer lies between neutron access holes 6, 7, and 9. Log descriptions of samples from the depth of 30 to 50 feet indicate that a buff to gray colored sand is present. On page 9 of the First Milestone Report, Exhibit No. 3A, on monitoring, is a description of the method of drilling the holes, and is as follows:

"Neutron-probe access tubes were installed in 6-inch diameter holes which were drilled to a depth of 50 feet by mud-rotary methods."

Other information to substantiate whether this layer is consolidated or not is not provided, but according to AGWC's Figure 7 - "Cross-section through neutron-probe holes at solar evaporation pond 1.", Second Milestone Monitoring Report, p. 11, refer to Exhibit No. 13. The sandy areas in question, according to AGWC, belong to the Nacimientos formation.

Summarizing the evidence obtained concerning the Nacimientos formation is as follows:

- 1) The Nacimientos Formation is a principal aquifer in the San Juan Basin
- 2) Ground water principally is obtained from the sandstone beds within the Nacimientos Formation
- 3) Recharge to the sandstones occurs principally in outcrop areas. (Refer to Exhibits Nos. 6, Figs. 10 and 11, and 10)
- 4) The area in question (Plateau Refinery area) is an outcrop area and recharge zone for the Nacimientos formation.
- 5) In the Plateau refinery area, there are sandstone beds in the Nacimientos which could be possible recharge zones to the aquifer.
- 6) Information given in Exhibit #6 and particularly from Table #6 of Exhibit #11 which contains water analysis of wells producing from the Nacimientos shows water quality is less than 10,000 mg/L TDS and thus should be protected.
- 7) Regionally ground water flow is toward the San Juan River.

- 8) There is no direct evidence presented such as percolation tests, well slug tests, core analysis or monitoring wells, to substantiate AGWC's claim that the Nacimiento is impermeable.
- 9) The San Juan River and the saturated alluvium (Valley Fill) channel is in direct contact with the Nacimiento Formation

From the evidence presented above and before, the OCD has reason to believe with probable cause that in the area of the refinery, the Nacimiento may be in direct hydraulic connection with itself, the San Juan River and ground water in the valley fill next to the river. Therefore, the Nacimiento should not be allowed to come in contact with pollutants or polluted ground water.

AGWC makes the argument and tries to dismiss or disqualify the presence of ground water in the refinery area from jurisdiction of the Water Quality Control Commission Regulations by the following points of contention:

- A) That ground water in the refinery area is not "natural" or is "man-made" as a result of the construction of the Hammond Ditch; which through its leakage recharges the area creating a cause and effect circumstance that they are not responsible for or cannot control.

OCD's rebuttal to this point is:

- A) AGWC has classified or attempts to place certain of the waters in the area into a "class of waters" that AGWC considers should be exempt or that regulations should not be applicable to the cause and effect of the above. The Water Quality Act, particularly Article 74-6-4 (D) states that for any "class of waters" within the state, regulations (WQCC 82-1) shall prevent or abate water pollution. Also under Item 4 of "D" "successive use" of water for others is guaranteed through the standards and enforcement of the WQCC regulations. (An exception to certain classes of waters would break any reuse cycle that is intended here.) Refer to Exhibit #14, Article 6, Water Quality (Water Quality Act), 74-6-4 (D), page 49.

- B) AGWC contends that under the definition of ground water as previously defined by Section 1-101 (M) and now under the present WQCC regulations by Section 1-101 (Y), Exhibit #2, there is insufficient amounts of ground water in the area that are capable of entering a well to be utilized as a water supply and therefore there is no ground water.

OCD's rebuttal is as follows:

- A) The OCD has previously presented in this report numerous points of evidence which refute this point of view. Refer to Exhibits Nos. 6, 7, and 11 and Plate A, Areas 1, 2, and 3
- B) If AGWC is referring particularly to the terrace deposits in the refinery area explicitly, then refer to Exhibit No. 13 of this report which illustrates that this area has at least a 10 foot or greater saturated thickness that OCD estimates has a transmissivity approaching 40,000 GPD or more.
- C) AGWC has not provided any test data to justify the statement that no ground water exists based on the definition of ground water in the WQCC regulations. (Definition "Y", page 4, Exhibit No. 4)

As an example of just how small an amount or well capacity is required by using the statistical average of water consumption per person (150 gallons per day per person-GPD) for a metropolitan area and a household of 4 people, equates to 600 gallons per day. The well capacity in gallons per minute would only have to be 0.42 gallons per minute (GPM) to produce this amount. A well of 1 gpm would only have to operate 10 hours per day to supply the needs of a family of four. There are many wells in New Mexico that have one gallon per minute wells.

In summary, evidence presented by the OCD and AGWC reports of the area, State Engineer records, and Governmental publications substantiate that ground water as defined in Section 1-101(Y), WQCC Regulations 82-1, does exist in the valley fill, terrace deposits and tertiary sandstones of the Plateau Refinery setting. Records show ground water in the

area has present and potential future use as a domestic and agricultural water supply as defined in Section 3-101 (A) WQCC Regulations 82-1. (Exhibit No. 3.)

The San Juan alluvial valley floor and San Juan River act as regional sinks in the Bloomfield area. Therefore, the gradient for all surface and ground waters in the area is toward the San Juan River. In the area of the refinery itself, it appears that a perched water zone exists at the gravel terrace - Nacimiento erosional contact. This perched zone is recharged by the northward flow of ground water emanating from the south and the Hammond Ditch.

The sedimentology and hydrologic paramets of the Nacimiento formation are discussed in the open file report 89 and Water Resource Investigation 79-73 (Exhibit 6). The term "Sandstones of Tertiary age" are used in the later report to describe the Nacimiento formation. Therefore, the stratigraphy within the refinery setting may be described as terrace deposits (highly permeable) overlying less permeable, fluvial sandstones and silty clays of the Nacimiento formation.

The exact hydrologic flow gradient of each aquifer within the "refinery setting" while still unclear is generally northward appears to be toward the San Juan River as this is a lower potentiometric surface. The dip of the underlying Nacimiento formation may act as an aquitard and alter the flow direction in which case ground water would tend to flow downdip (eastward), until contact is made with saturated valley fill. In this zone, ground water mixing between the Nacimiento formation and valley fill material would occur. Therefore:

- 1) There is ground water in the terrace deposits adjacent to and under the refinery acting as a perched water zone.
- 2) Ground water occurs in large areas of the valley fill on the north and south sides of the San Juan River.
- 3) Ground water emanating from the terrace deposits is discharging directly to the San Juan River and valley fill next to the river.
- 4) The Nacimiento Formation contains ground water of less than 10,000 mg/L.
- 5) Section 3-101(A) and 104 of the WQCC Regulations applies to Plateau's refinery near Bloomfield, New Mexico.

- 6) The OCD rejects all references to AGWC's contention that there is no "natural" ground water or ground water in the terrace deposits or other areas.

AGWC did not define the depth to or the total dissolved solids concentration of the ground water in the area of the first or the updated discharge plan. Section 3-106 (C) and (C-3) of the WQCC regulations 82-1 Exhibit No. 3 states:

3-106. APPLICATION FOR DISCHARGE PLAN APPROVAL

C. A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use or processes expected to naturally occur which will ensure compliance with these regulations. At least the following information shall be included in the plan:

3-106 C-3. Depth to and TDS concentration of the ground water most likely to be affected by the discharge:

Since Plateau failed to recognize the existence of ground water either under or adjacent to the refinery and correspondingly provide background information on the quality and depth to ground water, the OCD presently considers the standards as set forth in the WQCC Regulations 82-1 as the standards for the area.

In June of 1982, the OCD became aware of the toxic nature of the refinery wastewater effluent and its potential for polluting ground and surface waters of the area. In response, the OCD began a thorough investigation and testing program. Refer to Exhibit No. 15 for test results.

Based on OCD sampling results, literary research, and field inspections, Plateau will need to provide the following information to meet the requirements of 3-106 C-3 and C-7.

- 1) Define the depth and quality (TDS) of ground waters within a radius of at least 1 mile from the Plateau property. Ground water shall be defined for the terrace, valley fill and the Nacimientos formation.
- 2) Within a radius of 1/2 mile of the Plateau property, define depth and quality of ground water in the terrace deposits, the valley fill, and the Nacimientos formation as per the elements listed

in the Water Quality Control Commission Regulations (WQCC) 82-1 listed as Toxic Pollutant, Definition "UU" of Section 1-101, and Section 3-103 (A,B, & C).

- 3) Provide maps and cross-sections (N-S & E-W) depicting the information requested in Items 1 and 2. If water quality stratification occurs within the aquifers, the stratified zones will be delineated and shown on the cross-sections and maps. If wells or information on depth and water quality are not available, then test holes and or monitor wells shall be drilled to provide such information.
- 4) The San Juan River and Hammond Ditch will be characterized as per the elements listed in Definition "UU" Section 1-101 and Section 3-103 (A,B & C) and monitored for certain parameters (to be agreed upon later) up and down gradient of the refinery.
- 5) All springs and/or seeps on the south side of the San Juan River for a radius of 1/2 mile from the Plateau property will be characterized as to quality as the parameters of (Sections 1-101 (UU) and 3-103 (A, B, & C) along with quantity.
A monitoring system will be required for certain selected springs or seeps in this area. The monitoring system will be set-up and governed by the characterization results on the springs and/or seeps. Locations of the springs and/or seeps will be located on the previously described aerial photo coverage.
- 6) Define the extent both laterally and vertically in which spills and leaks of petroleum products, leakage of effluent, discharge of effluent, and any leachate thereof have effected ground waters in the terrace, valley fill and Nacimiento. Illustrate results on aerial photo coverage of the the area and on cross-sections (N-S and E-W).
- 7) Provide a detailed site geologic and hydrologic evaluation of the area to determine what if any environmental impact the degraded ground water described in Item No. 6 will have on the environment and surface waters.

Using the information obtained from the detailed site specific geologic and hydrologic evalutaions, estimate the magnitude and extent of migration of the degraded water through time.

Item No. 5) OCD comments on the Section entitled: "Flood Potential", pages 10 through 12.

The OCD does not consider the area occupied by the refinery or the adjacent terrain to be level. There is significant topographic relief in the area with over 100 feet of vertical relief. There are large drainage areas and arroyos in the area that could cause flooding and/or produce significant amounts of storm runoff.

There are drainage areas within the refinery site that have the potential for carrying or flushing toxic or contaminant substances off site when storm runoff occurs. Storm runoff carrying toxic or contaminant substances has the potential to effect surface and ground water in the area. For example, one drainage area on the north side of the refinery drains a large portion of the refinery towards the El Paso Natural Gas right-of-way and Hammond Ditch bridge. This area in particular, has a high probability to carry or flush contaminants from the refinery area into the Hammond Ditch and the San Juan River. At this time, there are no provisions at the right-of-way and bridge to keep spills or storm runoff from entering the Hammond Ditch. Therefore, Plateau is requested to calculate and describe the effects of storm runoff for 5, 10, 25, 50 and 100 year events for any areas effecting Plateau property. Describe, delineate and illustrate using current aerial photo coverage as per the OCD suggestions on Plate No. 1, the distinct drainage areas that occur on and or effect any Plateau property. Determine the holding capacity of each embankment or ~~beam~~ on the site and where applicable, compare this capacity to each respective hydrocarbon storage tank capacity.

The OCD believes that provisions should be made for capturing all storm runoff that emanates from the refinery property and the movement of such fluids to impermeable storage. In the alternative, if Plateau can demonstrate that such runoff will not contain contaminants or toxic substances above the standards of the WQCC regulations, then alternate disposal may be considered provided such disposal does not aggravate the current situation or cause increased seepage or spread of polluted ground water.

The construction of the two small ponds north of the oily water ponds is an acceptable spill prevention method. Construction of the ponds without notification or prior approval from the OCD is not acceptable and such practice in the future will be strongly reprimanded.

Past inspections of the upper storage pond closest to the ditch revealed accumulations of hydrocarbon residue on the banks of the ponds and sludge in the bottom of the pond. To eliminate possible pollution, Plateau is requested to remove and dispose of the hydrocarbon residues and sludge in both ponds if applicable and in a manner suitable to the OCD.

There are several storm drains on Plateau property that divert storm runoff across the Hammond Ditch. These drains do not have storage ponds down gradient to contain storm runoff or hydrocarbon spills.

Describe the methodology that will be used on a consistent basis to remove fluids and/or spills emanating from the drains and storage ponds and how and where such fluids will be disposed of.

Item No. 6) OCD Comments on the Section Entitled: "Seepage", page 12.

The OCD feels that AGWC estimation of the amount of seepage occurring at the refinery site was inaccurate and probably greatly under estimated. OCD and EID's review of the two monitoring reports and discharge plan indicated that:

The methods of ground water monitoring were not sufficiently documented, background data was not established prior to monitoring, the number and location of monitoring points was not sufficient for the whole site and the design and construction of the monitoring wells was such that valid information could not be attained. Refer to Exhibit No. 16 for the Environmental Improvement Division's (EID) comments on their review.

AGWC's statement that: "Any seepage will therefore appear as seeps along the contact between the Nacimiento formation and the cobble bed where it is exposed in the southward trending arroyos", has been greatly oversimplified and AGWC has not made a thorough investigation to determine the possible subsurface migration paths of waste water seepage and of hydrocarbon fluids.

Based on the literature, information provided by AGWC, field inspections and water sampling test data, and Exhibit No. 15, the OCD contends that once wastewater and hydrocarbon fluids are in the soil that subsurface migration of these fluids will not be primarily to the north but also to the east and west. Also, information strongly suggests that downward percolation of fluids into the sandstone beds of the Nacimiento may be occurring.

The statement that all leakage or spillage from the refinery will appear as seeps along the contact of the cobble bed and Nacimientto formation in the southward trending arroyos is unsubstantiated and highly improbable.

Item No. 7) OCD comments on the Section: "Water Chemistry", pages 13 through 17

The Schoeller diagram can be used to prove common sources of water but it cannot be used to disprove that waters are from the same source. Chemical changes and blending occurs that tend to modify the character of the water that would cause the diagram to be inappropriate.

Item No. 8) OCD comments on the section entitled, "Monitoring" pages 18 through 20

As stated in Item No. 6 of this report, the monitoring systems and the data generated are considered invalid and incomplete. AGWC's request to eliminate monitoring of the evaporation ponds is denied. Based on a detailed geologic and hydrologic evaluation of the area and determination of the plume of pollution, Plateau is requested to submit a comprehensive state of the art monthly monitoring plan for their entire facility that will fulfill all the requirements of Section 3-107(A) Items 1 through 11 of the WQCC regulations. Specifically but not limited to the following:

To meet the requirements of Section 3-107 (A-1) and 3-106 (C-7)

- A) The two solar evaporation ponds are an improper disposal system or method because they are leaking contaminants and or toxic substances. If the two ponds are intended to be used in the future, they must be lined with an impermeable double liner with a leak detection system between the liners. Engineering plans and specifications must be approved by the OCD prior to construction. The use of benonite as a liner will not be accepted.
- B) The lining of the 2 oily API storage ponds without OCD knowledge and approval of the plans and specifications is a serious matter. Plateau is requested to submit as-built plans and specifications of the newly lined pond. If the lined pond does not have a leak detection system, or a proposed system suitable to the OCD, then a leak detection system similar to the one described for the solar ponds will be required.

- C) Submit as built plans and specifications for the API Separator. Submit an effluent monitoring device or system that will detect leakage of effluent from the API Separator.
- D) Plateau is required to install a metering system on the outfall of the API Separator that will continuously record volume and time. An example of such a system would be a Thompson Flume and a Stephens Recorder.

Under Section 3-107 (A-2) Plateau is required to install state of the art ground water monitor wells that can be used for detection of all substances listed in Sections 3-103 (A,B, and C) and 1-101 Definition "UU". Monitoring will be required for ground water in the terrace and valley fill deposits and the Nacimiento formation.

The plume of degraded ground water and the hydrocarbon plume will be required to be monitored whether on or off Plateau property.

Under Sections 3-107 (A-3) Plateau will be required to install vadose monitoring devices to detect leakage of old pits, storage tanks, sludge disposal pits, and land forms for sludge disposal. If spray irrigation is to be continued, vadose monitoring will be required. Future spray irrigation will not be allowed unless the quality of the fluid being sprayed can meet the WQCC regulations and the area to be irrigated will not be hydraulically connected to any contaminated areas.

Under Sections 3-106 (C-7) and 3-107 (A-6) Plateau will be required to set up a detailed monitoring program for detection of effluent in all surface waters of the area which primarily includes the San Juan River, the Hammond Irrigation Ditch water, and all seeps or springs within 1/2 mile of Plateau property. Plateau is also requested to monitor the two large arroyos (SW and E) of the refinery for soil contamination, soil transport, and surface water contamination.

In reference to the statement on page 20, first sentence of the page, the OCD has shown ground water to occur and requires that a ground water quality assessment plan be implemented and meet all the requirements of Section 3-107.

Item No. 9) OCD comments on the Section entitled "Water Supply and Discharge" pages 20 to 23

In reference to the two fresh water retention ponds as described on page 20, second paragraph, second sentence, the

OCD requests Plateau to determine the leakage rate of the two fresh water ponds and in turn determine if the leakage is aggravating or contributing to help move any polluted fluids off site.

In reference to the determination of the amount of wastewater effluent being produced at the refinery, third paragraph, page 20, AGWC has not substantiated how or by what methods the total volume of effluent or any part thereof was determined. In addition, the volumes of wastewater that are being recycled have not been substantiated.

Under Section 3-106 (C-1) of the WQCC Regulations 82-1, the quantity, quality, and flow characteristics of the discharge are required to be defined. The information in the discharge plans has no supporting data to verify the statements made in the report. Methods and locations of flow measurement were not defined or described. Flow characteristics of the sources of waste water were not addressed. Flow characteristics reflect or represent plant fluctuations, seasonal variations, and maintenance and repair of a plant. These fluctuations reflect quality and quantity in a plant effluent.

Under Sections 3-104 and 3-106 (C-1) WQCC regulations 82-1, Plateau is required to define the quantity, quality, and flow characteristics of any discharge (s) whether in the form of a effluent or leachate. Therefore, each source point of the discharge whether separatic or constant in nature will be characterized as to its quantity, quality, and flow characteristics. The quality of each discharge shall be characterized for those constituents as listed in Section 3-103 (A, B, and C) and 1-101 definition "uu". The quantity shall be measured by standard engineering practices such as those described in the "Handbook for Monitoring Industrial Wastewater", August 1973, PB-259 146 or latest edition thereof. Refer to chapters 3, 6, and 7 for guidance.

The flow characteristics reflect daily to yearly plant fluctuations which in turn reflect changes in quality and quantity. The flow characteristics should be used to statistically define the quantity and quality of the effluent and or leachate. Plateau is requested to statistically characterize their effluent and or leachate by the flow proportional-time weighted composite sampling technique as described in the "Handbook for Monitoring Industrial Wastewater". This the only method that represents the intent and requirements of Section 3-106 (C-1) of the WQCC regulations.

Submit all documents, records, and data necessary to achieve the flow proportional-time weighted sampling.

- 1) Submit graphs and/or illustrations which illustrate your results
- 2) Show calculations
- 3) Show measuring and sampling points on figure 5A and on the flow schematic

On page 22, second paragraph, AGWC states that spray irrigating was first applied in December 1981. Enclosed in Exhibit No. 17 is memorandum from the Environmental Improvement Division (EID) and the OCD which contradicts this statement. The EID observed evidence of spray irrigating in May 1981 by the letter of June 16, 1981, to Maxine Goad. (Exhibit No. 17) On September 3, 1981, at a meeting with Plateau officials, a verbal warning from the OCD to Plateau was given not to spray irrigate waste water. Refer to the OCD Memo of December 28, 1981, (Exhibit No. 17). The OCD's letter of December 4, 1981 testifies that Plateau was spray irrigating on November 20, 1981 and runoff was escaping Plateau property. (Exhibit No. 17)

The Plateau letter of December 23, 1981, from Dwight D. Stockham implies that only recently has Plateau started spray irrigating and no runoff reached the San Juan River. (Exhibit No. 17) The outcome of the meeting held on January 27, 1982 at the OCD Santa Fe Office between Plateau and the OCD granted Plateau a variance to continue spray irrigation until a review of an updated discharge plan was completed. Refer to the OCD's letters of January 20, 1982 and February 11, 1982 and Plateau's letter of January 27, 1982. (Exhibit 17) To insure that spray irrigation water would not escape Plateau's property, a meeting on February 2, 1982 between the OCD and Plateau was held to agree on the methodology to contain or prevent runoff of spray irrigation water. Refer to Plateau's letter of February 2, 1982 for the methodology to be implemented. (Exhibit No. 17)

The OCD reviewed a draft of the Updated Discharge Plan and requested additional data that would define the quality of the refinery effluent to be used for spray irrigation. Refer to the OCD letter of February 24, 1982, Item No. 5, Exhibit No. 17. The information requested of Plateau was submitted in the final draft of the Updated Discharge Plan on June 2, 1982.

Based on the data contained in the final draft, the OCD made its own investigation of the Plateau refinery and surrounding area. The information obtained by the OCD coupled with that submitted by Plateau, indicates that spray irrigation

of refinery waste water as is, should not be allowed to continue because of the potential to pollute ground and surface waters in the area. Review of Exhibits 3 and 15, and Plate A, shows that pollution has and is occurring throughout the area. The high concentrations of lead in the ground water in the refinery area are believed to be the result of spray irrigation and seepage or leakage of refinery effluent. Spray irrigating refinery waste water at its present quality is not an acceptable method of disposal. The volume of water being dumped into the irrigation area will increase ground water pollution by a factor many times greater than the loss of wastewater through seepage in the four ponds.

In reference to Plate 5 as described on page 20, second paragraph, it appears that the area to be irrigated is partially or totally off Plateau property. Please clarify.

In reference to Plate 5 as described on page 22, second paragraph and on page 23, first paragraph, it appears that the dedicated acreage 10 to 30 acres is partially or totally off Plateau property. As stated before, the present water quality of effluent being spray irrigated will pollute ground and surface waters of the area. Therefore, this method of effluent disposal will not be allowed. The area that is presently being irrigated is hydraulically connected to an apparent plume of pollution under the refinery proper. Therefore, a discharge of fluid no matter what quantity will flush or spread contaminants from the irrigated area and from the refinery area.

The only way spray irrigation will be allowed in the future is to improve the water quality to acceptable limits and use an area that is not hydraulically connected to the apparent plume of pollution.

In reference to the sixth sentence, second paragraph, page 22, dealing with removal of solutes, AGWC has not demonstrated what solutes will be removed from the effluent through the production and harvest of alfalfa.

In reference to the first sentence, first paragraph, page 23, pertaining to the mixing of fresh water with plant effluent, the OCD will not accept the method of diluting effluent to achieve water quality standards.

In reference to the last sentence, first paragraph, page 23 dealing with drainage, AGWC needs to address subsurface drainage from a spray irrigation area and set up a monitoring system for such an area. As the OCD has stated before, all subsurface drainage especially from this spray irrigation area cannot be recaptured. The contaminants in the effluent will

pollute ground and surface waters in the area which are located on and off the Plateau property.

OCD field observations of the practices employed by Plateau on the application of effluent indicates there would be significant amounts of subsurface drainage.

OCD's observation of the present spray irrigation system indicates that the system is operating as dumping method to dispose of waste water. This is based on: (1) the lack of effort by Plateau to plant alfalfa, (2) Plateau irrigating only natural vegetation (a few weeds that have managed to survive the effects of the refinery waste water) and (3) constant spraying from 10-10-82 to 10-15-82 in the same spot with resumption of spraying 10-18-82 with refinery waste water, (4) not installing a totalizing waste meter on the spray irrigation line as per the Plateau letter of 2-2-82 (Exhibit No. 16).

Item No. 10) OCD comments on the section entitled: "Arroyo Catchment Plan", pages 30 through 34

AGWC has not addressed all of the seeps that occur north of the refinery. OCD inspections of the area indicate there are approximately 25 or more different seeps north of the refinery that vary in size and magnitude. From test data it appears that the majority are hydrologically connected to contaminated water in the area. Plateau is requested to readdress their arroyo catchment plan and show how and where such seepage will be captured, stored and disposed of. Submit time frames in which such work will be scheduled and accomplished.

The OCD requires collection of the contaminated seepage to prevent further degradation of ground and surface waters.

Item No. 11) OCD comments on the section entitled: "Hydrocarbon Discharge in the Hammond Ditch", pages 35 through 36.

In reference to the statement made in the last sentence of the first paragraph, page 33, the OCD has observed several recent instances of improper tank filling and related practices. The problem is not totally related to past practices that occurred many years ago.

In reference to the second paragraph of page 35 which states in part that the hydrocarbon poses no threat to the Hammond Ditch to public health or agriculture has not been substantiated by AGWC. The OCD collected a composite sample in March, 1983, of seepage (effluent and hydrocarbon), that was

dammed off in the Hammond Ditch in the area adjacent to the refinery. The analytical lab results of that sampling indicates that there may be a threat to agricultural products and livestock and through consumption thereof, a threat to public health.

Lead and Benzene were found at concentrations of 2.48 ppm and 1.21 ppm, respectively. Refer to Exhibit No. 18.

In reference to the correction or cleaning up of the hydrocarbon fluids, the use of sumps in the Hammond Ditch during the winter months when the ditch is not being used to carry irrigation water is acceptable. Sumps must be removed and/or backfilled during the irrigation season. This will prevent any fluids from freely escaping and possibly contaminating the irrigation water.

During the irrigation season, AGWC proposes no methods for continued clean up of hydrocarbon fluids. Plateau is requested to make a concerted effort to contain and remove as much hydrocarbon as possible. Therefore, Plateau must stipulate corrective action that will be implemented during the irrigation season in addition to the sump method in winter.

In reference to the last sentence of the first paragraph of page 36 which makes the assumption that during the summer the hydrocarbon is not likely to pose a problem, Plateau has not substantiated what effects hydrocarbon fluids or effluent will or will not have on the irrigation water in the Hammond Ditch. Sampling results by Plateau on the Hammond Ditch water in July of 1982, indicates the presence of hydrocarbons and other refinery related substances in the irrigation water which exceeds the WQCC standards. Refer to Exhibit No. 19.

OCD's observance of the south bank of the Hammond Ditch during the 1982 irrigation season indicated the upper portion of the bank soil was saturated with hydrocarbon. The hydrocarbon saturated south bank starts at the EPNG's right-of-way and runs approximately some 300 yards west. Close observation revealed that a hydrocarbon sheen was present on the surface of the irrigation water next to the south bank of the ditch.

As previously stated before, Plateau is requested to monitor the Hammond Ditch, determine what effects the refinery effluent or contaminated ground water and hydrocarbon plume is having on the Hammond irrigation water. Based on that evaluation, Plateau is requested to establish corrective measures if needed. All information data and corrective action must be included on the discharge plan. These requirements are requested to satisfy Section 3-106 (C-7).

In relation to hydrocarbons, Plateau is requested to locate on current aerial photo coverage all present and/or abandoned pits or surface impoundments used to dispose of wastes. Describe the use thereof. Wastes include but are not limited to hydrocarbons, sludge, treating and cleaning chemicals, waste water effluent, and washdown water.

Item No. 12) OCD comments on the Section entitled: "Contingency Plans", page 36.

To supplement Plateau's contingency plans, Plateau is requested to provide their Spill Prevention Control and Counter Measures Plan (SPCCP) that is required under the Safe Drinking Water Act.

Item No. 13) Request for additional information to meet the requirements of Section 3-106 C-7 of the WQCC Regulations.

1) Plateau is requested to stipulate in their discharge plan what environmental requirements the Environmental Protection Agency (EPA) is requesting and how EPA's requirements will or will not be incorporated in the discharge plan.

2) Conduct an efficiency test (susceptibility to separation) on the API Separator and lined API Separator storage pond. This test defines how well each separator handles or separates refinery waste water from associated hydrocarbons and sludge.

3) Identify all sources in the refinery that generate and contain sludge. Determine the present volumes generated at each source and total volumes since June 5, 1978. Describe and show disposal methods thereof. Supply the chemical composition of each source of sludge generated presently and in the past.

4) Submit a disposal procedure for sludge generation at the facility.

5) Submit a disposal procedure for solid waste that is contaminated or contains contaminants.

SUMMARY

Plateau's submittal of their "Updated Discharge Plan" for a Refinery operated by Plateau, Inc. near Bloomfield, New Mexico", is not acceptable as a modification for their present discharge plan GWR-1 or as a future plan. The Oil Conservation

Division (OCD) bases its rejection of the Updated Discharge Plan on the following:

1) OCD field investigations and literature search of the refinery and surrounding area found ground water as defined in Sections 1-101 (Y) and 3-101 (A) of the WQCC Regulations and surface waters to protect.

2) OCD analysis of waste water effluent indicates high concentrations of toxic pollutants and other elements that exceed the WQCC regulations as defined in Section 1-101, Definition "UU" and Section 3-103 (A B C). The refinery waste water is or has the potential for contaminating ground and surface waters in the area of the refinery.

3) The Updated Discharge Plan does not provide for suitable methods to capture, contain, store, and dispose of storm runoff, leaks and spills of raw and refined products, by-products, waste water effluent, and the associated waste of each.

4) Plateau did not adequately or completely address Sections 3-106 and 3-107 in their Updated Discharge Plan.

To obtain an approved discharge plan, Plateau must satisfactorily address and resolve the problems associated with the above and the items requested in this report.



United States Department of the Interior

BUREAU OF RECLAMATION
UPPER COLORADO REGIONAL OFFICE
P.O. BOX 11568
SALT LAKE CITY, UTAH 84147

80

IN REPLY
REFER TO: UC-440
832.

JUN 2 1983

Mr. Dwight J. Stockham
Associate Environmental Engineer
Plateau, Inc.
4775 Indian School Road, N.E.
Albuquerque, New Mexico 87110

Dear Mr. Stockham:

Continued delivery of water from Navajo Reservoir, Colorado River Storage Project, is contingent upon compliance with the requirements of articles 1 and 7 under your contract dated October 12, 1982 (Contract No. 3-07-40-L0540). We have completed our review of Plateau's progress towards complying with the conditions of those articles.

Article 1 requires, "review and certification of the contractor's progress toward achieving the environmental quality goals as described on the Discharge Plan filed with the State of New Mexico Oil Conservation Division." We understand by letter dated April 11, 1983, from the State of New Mexico (copy enclosed) that progress is being made toward compliance with the Water Quality Control Commission Regulations. Therefore, the intent of Article 1 is adequately satisfied from the Bureau of Reclamation's standpoint.

Sufficient progress towards meeting the conditions of Article 7 concerning the Hammond Project Canal has also been made. Our Durango Projects Office will continue to work with you and keep us apprised of your continuing progress.

Should Plateau wish future water service contracts, yearly terms will be considered depending upon continued effort to comply with the substance of Articles 1 and 7 of the present contract. However, we will expect Plateau to proceed with an expeditious program to reach full compliance with the State of New Mexico discharge plan regulation in the shortest possible time frame as we do not intend to continue renewing this contract in perpetuity on an annual basis. With each annual request for water, please submit the following:

1. \$150 contract renewal fee.
2. Certification from the State of New Mexico Energy and Minerals Department, Oil Conservation Division stating that the Water Quality Control Commission Regulations are being adequately met by your company.
3. State of New Mexico Diversion permit.

Your water service contract dated January 1, 1975 (Contract No. 14-06-400-6200) will expire on January 1, 1985. If Plateau's interest in water service totaling 340 acre-feet continues through that time, we will consider

consolidation of the two separate contracts into a single document. We will also be better able to consider whether to negotiate a longer term contract at that time. This gives Plateau 1 year and 8 months to achieve full compliance with both the state environmental regulations and correcting the maintenance problems concerning Hammond Project Canal. We will also need to discuss compliance with the National Environmental Policy Act for a longer termed contract.

If you have any questions, please contact Ms. Deborah Linke, Chief, Repayment Staff at (801) 524-5452.

Sincerely yours,

W. J. Hirschi

For Clifford I. Barrett
Regional Director

Enclosure

cc: ✓ State of New Mexico Energy
and Minerals Department
Director
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

NAVAJO UNIT
PSP

April 11, 1983

APR 13 '83

| Date | Initials | To |
|--|----------|-----|
| 4/11 | | 401 |
| | DMJ | 440 |
| POST OFFICE BOX 2086 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800 | | |
| Subs. Corresp. _____ | | |
| Date Rec'd _____ | | |

U. S. Department of the Interior
Bureau of Reclamation
Box 11568
Salt Lake City, Utah 84147

Attention: Mr. Clifford I. Barrett

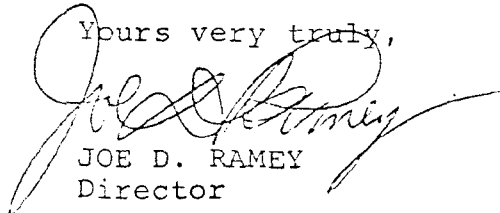
Re: UC-440
832.

Gentlemen:

The Oil Conservation Division and Plateau are working together to resolve the differences they have with the present discharge plan and the submitted update.

You may be assured that the Division will require a satisfactory discharge plan from Plateau. If their plan is not satisfactory, the Division will stop all discharges even if it requires shutting in the refinery.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

cc: Plateau, Inc.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

79

May 31, 1983

TONEY ANAYA
GOVERNOR

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

Plateau, Inc.
P. O. Box 26251
Albuquerque, New Mexico 87125-6251

Attention: Lee Woodside

Re: Plateau, Inc., Discharge
Plan

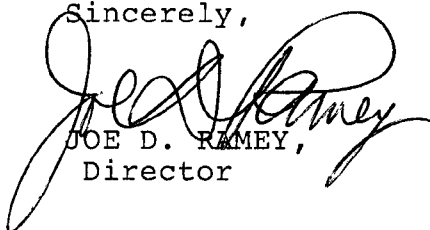
Dear Mr. Woodside:

I have received your letter of May 20, 1983, requesting an extension of time to file a new Discharge Plan. The current plan expires on June 5, 1983, and members of each of our staffs are cooperating to formulate an acceptable plan.

In view of this cooperative effort, Plateau, Inc. is granted an extension of sixty (60) days to obtain approval a new plan. The new deadline is therefore August 5, 1983.

Thank you for your assistance in resolving these important environmental problems.

Sincerely,

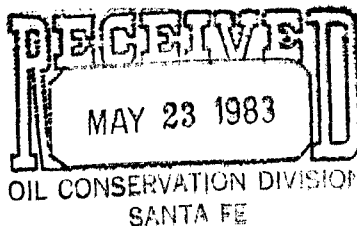

JOE D. RAMEY,
Director

JDR/WPP/dr

77

PLATEAU, INC.

May 20, 1983



P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221

Mr. Joe Ramey
State of New Mexico
Energy & Minerals Dept.
P. O. Box 2088
Santa Fe, NM 87501

Dear Mr. Ramey:


As you know, Plateau, Inc.'s Discharge Plan as permitted under the Water Quality Control Commission Regulations (WQCC) expires on June 5, 1983.

While substantial progress has been made to date, it is anticipated that the cooperative team effort to resolve the points in question, formulated in Plateau's meeting with your department on April 4, 1983 and mutually agreed to by both parties as a plan that would lead to an acceptable new Discharge Plan, cannot be completed by the expiration date of the Discharge Plan now in effect.

Therefore, Plateau is requesting an extension to the expiration date of our present Discharge Plan until our mutual efforts produce an acceptable plan.

Unless Plateau is notified of an objection to the request as made in this letter, Plateau will continue under this time table to make a continuous effort to complete an acceptable plan.

Sincerely,


Lee S. Woodside
Vice President/Refining

LSW:lh

cc: P. W. Liscom
G. A. Masson
R. G. Perry
G. S. Smith
D. J. Stockham
File



PETROLEUM REFINERS • MARKETERS

RECEIVED
MAY 12 1988
EID Dir's Office

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
SANTA FE, NEW MEXICO

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plan has been submitted for approval to the Director of the Oil Conservation Division, P. O. Box 2088, State Land Office Building, Santa Fe, New Mexico 87501, telephone (505) 827-5800.

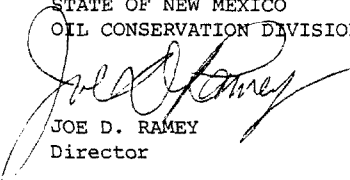
PLATEAU INCORPORATED, Bloomfield Plant, P. O. Box 159, Bloomfield, New Mexico 87413, also P. O. Box 26251, Albuquerque, New Mexico 87125, proposes to discharge approximately 72,000 gallons per day of refinery wastewater effluent at their facility site located in: SW/4, NE/4 of Section 27, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico. Geographically, the Bloomfield plant is approximately one mile South of the City of Bloomfield, New Mexico, adjacent to the San Juan River and 1/2 mile East of Highway 44. Plateau proposes to dispose of its effluent through the use of two unlined solar evaporation ponds approximately 7 acres in size and by spraying effluent over 10 acres of nearby land.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing shall 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 the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 10th day of May, 1983.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



JOE D. RAMEY
Director

S E A L



STATE OF NEW MEXICO

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

Russell F. Rhoades, MPH, Director

TONEY ANAYA
GOVERNOR

ROBERT McNEILL
SECRETARY

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

JOSEPH F. JOHNSON
DEPUTY SECRETARY

April 27, 1983

Mr. Joe Ramey, Division Director
Oil Conservation Division
New Mexico Energy and Minerals Department
Santa Fe, New Mexico 87504

Dear Mr. Ramey:

The purpose of this letter is to request the presence of Mr. Jeff Edminister of your Division at an upcoming meeting concerning Plateau Refinery. A U.S. Environmental Protection Agency criminal investigator from Denver will be in our office on May 3rd. to go through our files; his investigation centers around the recent cleaning and shipping of various sludges from Plateau's surface pits. Information from your files, plus first-hand knowledge of your staff, would likely be very beneficial to his investigation.

We have been dealing with Mr. Oscar Simpson of your staff concerning Plateau; however, as he will be out of town we would appreciate the presence of Mr. Jeff Edminister on May 3rd. We appreciate the past assistance which we have received from your Division and look forward to our continued interagency cooperation.

The meeting will start around nine; thank you for your support.

Sincerely,

Raymond R. Sisneros, Program Manager
PEM Section

Dick:

I don't see any need in bringing Jeff down for this. He did see Plateau dumping & plowing it under, but this could be handled by telephone instead of having him come down.

EQUAL OPPORTUNITY EMPLOYER



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

525 Camino de los Marquez
Santa Fe, New Mexico
87501

TONY ANAYA
GOVERNOR

April 25, 1983

Mr. Lee S. Woodside
Vice President
Refining
Plateau, Inc.
P. O. Box 26251
Albuquerque, NM 87125

Dear Mr. Woodside:

I want to apologize for the misunderstanding that resulted from the meeting of April 4, 1983.

The Oil Conservation Division feels that they should forward technical comments to you on your updated discharge plan before the two environmental groups meet. In the meantime, if you are not satisfied with the samples and analysis of the samples collected by the OCD, you should collect your own and have them analyzed by a laboratory of your choice.

On the subject of ground water analysis for background information, I would suggest that you immediately proceed to compile that information if you feel it necessary. As to sample points, this can be agreed upon by telephone, but if you want to meet to discuss this, the OCD will be happy to do so.

All of the information gathered by OCD as to Plateau's operations and discharges and fresh water in the area of the refinery are available to you at any time.

Yours very truly,

PAUL BIDERMAN
Secretary

PB/jr

OFFICE OF THE SECRETARY
(505) 827-5950

ADMINISTRATIVE SERVICES DIVISION
(505) 827-5925

CONSERVATION & MANAGEMENT DIVISION
(505) 827-5860

MINING & MINERALS DIVISION
(505) 827-5970

RESOURCE & DEVELOPMENT DIVISION
(505) 827-5900

OIL CONSERVATION DIVISION
(505) 827-5800



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONY ANAYA
GOVERNOR

April 25, 1983

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

M E M O R A N D U M

TO: JOE D. RAMEY, DIRECTOR

FROM: OSCAR SIMPSON, WATER RESOURCE SPECIALIST *OAS*

SUBJECT: PERMISSION REQUEST FOR JEFF EDMINSTER, DISTRICT III GEOLOGIST,
TO ATTEND ON MAY 3, 1983, A JOINT MEETING IN SANTA FE BETWEEN
THE EPA, EID AND THE OCD TO DISCUSS ILLEGAL HAZARDOUS WASTE
DISPOSAL BY PLATEAU REFINERY

On May 3, 1983, at the Environmental Improvement Division office in Santa Fe, a joint meeting will be held between the Environmental Protection Agency (EPA), Criminal Investigation Branch, the Environmental Improvement Division (EID), Hazardous Waste Division, and the Oil Conservation Division (OCD).

The reason for the meeting is to discuss Plateau Inc.'s illegal removal, transport and disposal of hazardous waste, (API Separator sludge), from its Bloomfield Refinery in New Mexico.

API Separator sludge is automatically considered a hazardous waste substance. Any removal, transport and disposal of this sludge without EPA's approval is a serious violation. Plateau removed API Separator sludge from its API sludge ponds, buried part of the waste east of the refinery and transported a large portion across the state line to an unauthorized disposal site in Vernal, Utah. Every aspect of the sludge removal was illegally done in direct violation of EPA's Hazardous Waste Regulations.

I will not be able to attend this upcoming meeting. I will be in southeast New Mexico making discharge plan related inspections of El Paso Natural Gas Company's plant facilities (Jal No. 4, Eunice and Monument).

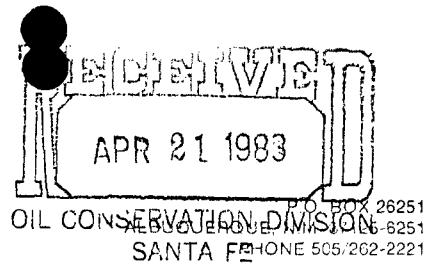
Since I will not be able to attend the meeting and Jeff has first-hand experience on the subject, I would like permission for Jeff to attend this meeting.

This meeting may also have some direct effects on Plateau's discharge plan. This will also give Mr. Edminster some valuable experience in hazardous waste regulation and disposal of such wastes which could aide him in future inspections of plant facilities and generators of such wastes in District III.

cc: Paul Biderman - Secretary
Frank Chavez - District III Supervisor
Jeff Edminster- District III Geologist

PLATEAU, INC.

April 18, 1983



Mr. Joe Ramey
State of New Mexico
Energy & Minerals Department
P. O. Box 2088
Santa Fe, NM 87501


Dear Mr. Ramey:

Plateau, Inc.'s "Updated Discharge Plan for a Refinery Operated by Plateau, Inc., near Bloomfield, New Mexico" was submitted to update the Present Plan - GWR-1.

This Plan will also become our "New Discharge Plan" with additions and/or revisions formulated by your Environmental Work Group and our Environmental Work Group, as agreed upon in our meeting of April 4, 1983. These additions and/or revisions will be incorporated into the "Updated Discharge Plan for a Refinery Operated By Plateau, Inc., near Bloomfield, New Mexico" as quickly as they are mutually agreed upon.

Please direct any questions you may have to Dwight J. Stockham on the above.

Sincerely,


Lee S. Woodside
Vice President/Refining

LSW:lh

cc: P. W. Liscom
G. A. Masson
R. G. Perry
D. J. Stockham
File



PETROLEUM REFINERS • MARKETERS



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

April 13, 1983

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

Plateau, Inc.
P.O. Box 26251
Albuquerque, NM 87125

Attention: Lee S. Woodside
Vice President

Re: Clarification of Discharge
Plan

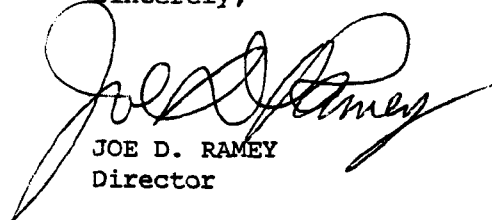
Dear Sir:

On June 5, 1983, your discharge plan as permitted under the Water Quality Control Commission Regulations (WQCC), expires.

The Oil Conservation Division (OCD) would like you to clarify whether the information contained in the report, "Updated Discharge Plan for a Refinery Operated by Plateau Inc., Near Bloomfield, New Mexico" is considered to be a submittal of a new discharge plan or was it intended to update the present plan - GWR-1.

If you have any questions on this matter, please contact me at (505) 827-5802.

Sincerely,



JOE D. RAMEY
Director

JDR/OS/dp



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

73

April 11, 1983

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

U. S. Department of the Interior
Bureau of Reclamation
Box 11568
Salt Lake City, Utah 84147

Attention: Mr. Clifford I. Barrett

Re: UC-440
832.

Gentlemen:

The Oil Conservation Division and Plateau are working together to resolve the differences they have with the present discharge plan and the submitted update.

You may be assured that the Division will require a satisfactory discharge plan from Plateau. If their plan is not satisfactory, the Division will stop all discharges even if it requires shutting in the refinery.

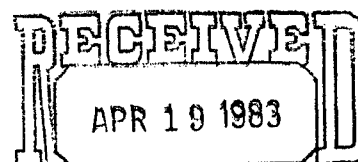
Yours very truly,

JOE D. RAMEY
Director

JDR/fd

cc: Plateau, Inc.

AnaCor Laboratories
7300 Jefferson Street, N.E.
Albuquerque, NM 87109
(505) 345-8964



OIL CONSERVATION DIVISION

Joint Venture of AnaChem, Inc. and Assaigai Analytical Laboratory

SANTA FE

collected April 4, 1983

To: Oil Conservation Division
P.O. Box 2008
Santa Fe, NM 87501

Date: April 13, 1983
JV-324

Att: Oscar Simpson

| Analyte | Sample Identification | | | |
|---------------|-----------------------|-----------|------------|---------------|
| | Plastic A | Plastic B | Glass A | Glass B |
| Pb | <0.05 ppm | <0.05 ppm | | |
| Benzene | | | 4.04 ppb | 0.45 ppb |
| Toluene | | | 31.85 ppb | 0.83 ppb |
| Ethyl benzene | | | 154.32 ppb | None Detected |
| Xylene | | | 32.21 ppb | None Detected |

Normal Detection Limit: Pb 0.05 mg/l
Benzene 0.1 ppb
Toluene 0.1 ppb
Ethyl benzene 0.1 ppb
Xylene 0.1 ppb

Reference: 1. "Standard Methods for the Examination of Water and Waste Water",
15th Edition, APA, N.Y., 1980.
2. E.P.A. Method 602

An invoice for services is enclosed. Thank you for contacting AnaCor Laboratories.

Sincerely,

Jennifer V. Smith, Ph.D.
Laboratory Director

JVS:rp

Enclosure

OK
Submit for
Payment OAS
4-19-83

Invoice No. 313

AnaCor Laboratories
7300 Jefferson Street, N.E.
Albuquerque, NM 87109
(505) 345-8964

Joint Venture of AnaChem, Inc. and Assaigai Analytical Laboratories

Sold To: Oil Conservation Division
P.O. Box 2008
Santa Fe, NM 87501

JV-324

Att: Oscar Simpson

Invoice Date
4-13-83

Your Order No.

Date Shipped
4-13-83

Ship Via

| Quantity | Description | Price | per | Amount |
|----------|---------------|-------|-----|--------|
| 2 | Pb | 8.00 | ea | 16.00 |
| 2 | Benzene | 15.00 | ea | 30.00 |
| 2 | Toluene | 15.00 | ea | 30.00 |
| 2 | Ethyl Benzene | 15.00 | ea | 30.00 |
| 2 | Xylene | 12.50 | ea | 25.00 |
| | | | | 131.00 |
| | | Tax | | 5.57 |
| | | Total | | 136.57 |

Thank You

Net 15 Days

FIELD TRIP REPORT

4-4-83

(71)

Name Jeff A. Edmister Date 4/4/83 Miles 64 District 3
 Time of Departure 1:00 PM Time of Return 4:00 PM Car No. OF330

In the space below indicate the purpose of the trip and the duties performed, listing wells or leases visited and any action taken.

Signature Jeff A. Edmister

| INSPECTION | CLASSIFICATION | FACILITY | HOURS | QUARTER HOURS |
|------------|----------------|----------|-------|---------------|
| O | O | F | 3 | O |

Refinery location SE of Bloomfield, and bus depot in Farmington

I collected six water samples from the water in the Hammond Ditch directly north of Plateau Refinery between the two dams the refinery has built. Three samples were collected near the east dam and three at the area that was the west dam. The west dam had been opened and a new dam built almost to the intersection of the ditch and Sullivan Road. The water had an oily rainbow film. A pump had been installed by the east dam and was presently working. Some photos were taken of the areas where the water samples were taken and of the water and dams. The samples were packed in ice in a cooler immediately after sampling. These were taken to the bus depot and shipped to Assaigai Analytical Labs.

Mileage

UIC

RFA

Other 64

Per Diem

UIC

RFA

Other -0-

Hours

UIC

RFA

Other 3

TYPE INSPECTION PERFORMED

H - Housekeeping
 P - Plugging
 C - Plugging Cleanup
 T - Well Test
 R - Repair/Workover
 F - Waterflow
 M - Mishap or Spill
 W - Water Contamination
 O - Other

INSPECTION CLASSIFICATION

U - Underground Injection Control - Any inspection of or related to injection project, facility, or well or resulting from injection into any well. (SWD, 2ndry injection and production wells, water flows or pressure tests, surface injection equipment, plugging, etc.)
 R - Inspections relating to Reclamation Fund Activity
 O - Other - Inspections not related to injection or The Reclamation Fund
 E - Indicates some form of enforcement action taken in the field (show immediately below the letter U, R or O)

NATURE OF SPECIFIC WELL OR FACILITY INSPECTED

D - Drilling
 P - Production
 I - Injection
 C - Combined prod. inj. operations
 S - SWD
 U - Underground Storage
 G - General Operation
 F - Facility or location
 M - Meeting
 O - Other

AnaCor Laboratories
7300 Jefferson Street, N.E.
Albuquerque, NM 87109
(505) 345-8964

PLATEAU
(70) (9)

Joint Venture of AnaChem, Inc. and Assaigai Analytical Laboratory

To: Oil Conservation District
P.O. Box 2008
Santa Fe, NM 87501

Date: March 29, 1983
JV-280

Att: Oscar Simpson

| Analyte | Sample Identification | Normal Detection Limits | Reference |
|---------------|-----------------------|----------------------------|-----------|
| | Water | | |
| benzene | 1.21 ppm | 0.1 mg/l | * |
| toluene | None Detected | 0.1 mg/l | * |
| ethyl benzene | 0.082 ppm | 0.01 mg/l | * |
| xylene | None Detected | 0.1 mg/l | * |
| Pb | 2.48 ppm | 0.001 mg/l | * |

* "Standard Methods for the Examination of Water and Waste Water",
15th Edition, APA, N.Y., 1980.

* ASTM, Part 31, 1981.

Note: Sample received in plastic container.

An invoice for service is enclosed. Thank you for contacting AnaCor
Laboratories.

Sincerely,

Jennifer V. Smith
Jennifer V. Smith, Ph.D.
Laboratory Director

JVS:rp

Enclosure

Samples collected week of March 24, 83

400
105./840.

OFFICIAL FILE COPY

| Date | Surname | Code |
|------|---------|------|
| 3/29 | Redmond | 450 |
| 3/29 | Gore | 400 |
| | | |
| | | |
| 3/29 | ow | 101 |
| 3/29 | SB | 100 |

Memorandum

March 28, 1983

To: Files

From: Rex Edwards, Lands & Contracts Branch

Subject Inspection of Water Contract Compliance Requirements Inc., Hammond Project, New Mexico

3/29 Plateau 420
3/30 Sun 451
3/30 DGP 421

On March 25, 1983, Pat Schumacher and I met with Chad King of Plateau and Henry Hotter of the Hammond Conservancy District to review specific contract compliance requirements directly affecting the operation and maintenance of the Hammond Main Canal through the Plateau properties. The specific requirements being reviewed were the surface drainage away from the Hammond Main Canal and the steps taken to provide a permanent solution to eliminate the sloughing of the canal banks. The sloughing of the canal banks has been attributed to the seepage of water from holding ponds located on Plateau property approximately 10 to 20 feet higher in elevation than the canal and 60 to 80 feet horizontal distance from the canal.

* Surface drainage in the larger areas has been diverted and directed into containment ponds for recovery. Some minor surface areas which were not previously identified were inspected and will be handled on a case by case basis as each begins to contribute surface runoff into the canal system.

Plateau has drained and reconstructed the oily water ponds sealing the bottoms with 100 mil high density polyethylene to prevent the loss of water through the underlying strata and seeping into the canal. They have also reconstructed the float overflow pump box which now has a greater capacity with a higher head and should eliminate any possible spills that could reach the canal.

I asked Chad King what was planned for remedying the seeping caused by the 2 fresh water ponds located near the west side of the refinery. Chad indicated that I should talk to Dwight Stockham in the Albuquerque, New Mexico office concerning the permanent solution of rectifying the seepage from the fresh water ponds.

We toured the remainder of the plant area which is presently satisfactory for surface runoff and sloughing of the canal banks that could be attributed to underground seepage from Plateaus evaporation ponds.

I told Chad King that I would contact Dwight Stockham in Albuquerque and obtain his plan for preventing the fresh water ponds from seeping into the canal.

Scott M. Matheson
Governor



STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110-2500

69

March 25, 1983
533-4145

Marv H. Maxell, Ph.D., Acting Director
Room 474 801-533-6121

James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS

Community Health Services
Environmental Health
Family Health Services
Health Care Financing

OFFICES

Administrative Services
Community Health Nursing
Management Planning
Medical Examiner
State Health Laboratory

Mr. Peter Pache
Hazardous Waste Management Program
Health and Environmental Department
P.O. Box 968, Crown Building
Santa Fe, New Mexico 87503

Dear Mr. Pache:

This is to confirm a telephone conversation between yourself and Bill Sinclair of my staff of March 25, 1983. The purpose of the call was to inform you of a situation involving the shipment of hazardous waste from the Plateau New Mexico oil refinery to Overthrust Tools of Vernal, Utah.

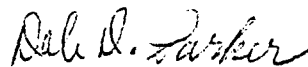
Kent Montague and Bill Sinclair visited Overthrust Tools on March 16, 1983, after being informed by some gentlemen in the crude oil re-refining business that a shipment of "pit sludge" was sitting in a storage tank on the Overthrust Tools property. Contact was made with Mr. Tim Mulville of Overthrust who was involved in the removal of this waste. Mr. Mulville stated he had been asked by Plateau to clean the pit directly upstream from the API separator because they needed a liner installed quickly. Mr. Mulville steam heated the pit and removed all of its contents ending up with a mixture of crude oil, water, sludge, and dirt. The waste was loaded aboard a PIE tanker and shipped to Vernal, Utah. Overthrust paid approximately \$20,000 for transport of the waste to later discover that the resultant waste mixture would be difficult to re-refine. Therefore the 1800 barrels of waste remains in storage in Vernal, Utah. Overthrust claims it was unaware and was never informed that this waste might be hazardous. The State of Utah contends that this "pit sludge" is actually K051, a listed hazardous waste.

Letter to P. Pache
March 25, 1983
Page Two

In a meeting on another matter with Plateau, this incident was brought up. Dwight Stockhom of Plateau vehemently denied that the waste was hazardous and stated it was only the skimmings of crude off of the pit top. If this was the case, why didn't Plateau reclaim the crude themselves? A couple of days after the meeting, Mr. Mulville received a phone call from Mr. Stockhom wondering about the final disposition of the crude (whether or not it had been re-refined).

The State of Utah has requested enforcement assistance through Region VIII, EPA in Denver concerning this incident. If you need additional information or have any questions, please contact Bill Sinclair or Kent Montague at (801) 533-4145.

Sincerely,



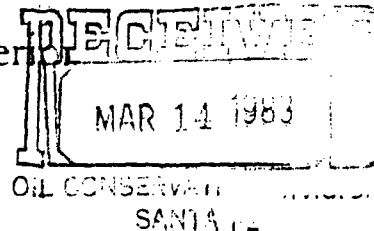
Dale D. Parker, Ph.D.
Executive Secretary
Utah Solid and Hazardous Wastes
Committee

WJS:cw
1315



United States Department of the Interior

BUREAU OF RECLAMATION
UPPER COLORADO REGIONAL OFFICE
P.O. BOX 11568
SALT LAKE CITY, UTAH 84147



IN REPLY
REFER TO: UC-440
832.

MAR 10 1983

Mr. Joe D. Ramey
Director
State of New Mexico Energy
and Minerals Department
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

We appreciated your letter dated September 28, 1982, informing us that Plateau, Inc. indicated a willingness to comply with the Water Quality Control Commission Regulations of the State of New Mexico.

The Bureau of Reclamation currently has a water service contract with Plateau, Inc. for 200 acre-feet of water over a 1 year period. Article 1 of the contract states, "This contract shall be effective for 1 year, contingent upon a 6 month review and certification of the contractor's progress toward achieving the environmental quality goals as described in a Discharge Plan filed and approved with the State of New Mexico Oil Conservation Division." A copy of the contract is enclosed. The 6 month period expires on April 12, 1983. This contract article further stipulates that, "Should such progress not be determined sufficient, this contract may be terminated by a 2 week advance written notice from the Contracting Officer."

We would appreciate your assessment of Plateau, Inc.'s progress to date toward achieving environmental quality standards required by the State of New Mexico. If you feel a meeting is necessary among our staffs, please let us know and we will be happy to arrange one. If you have any questions, please contact Ms. Deborah Linke at (801) 524-5435.

Sincerely yours,

W. J. Hirachi

For

Clifford I. Barrett
Regional Director

Enclosure

cc: Plateau, Inc.
P.O. Box 26251
Albuquerque, New Mexico 87125

✓ Mr. Dick Staments
P.O. Box 2088
Santa Fe, New Mexico 87501



TONY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

March
~~APRIL~~ 8, 1983

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

Plateau, Inc.
7575 Indian School Rd. NE
Albuquerque, NM 87110

Attention: Mr. Bob Perry
Executive Vice President

Re: Discharge Plan Review
Plateau Inc. Refinery,
Bloomfield, New Mexico

Dear Mr. Perry:

Following receipt of Mr. Gregory Smith's letter dated September 8, 1982, Mr. Oscar Simpson of this office proceeded with review of the subject discharge plan.

There are five major problem areas with the plan. These have been briefly summarized and are attached hereto. Additionally, we are very concerned with the operation of the current spray irrigation process and may withdraw our approval thereof.

After you and other concerned parties have had an opportunity to review this letter, we believe that a meeting to discuss these issues will be beneficial. Please contact me so that this meeting can be set up as early as possible, preferably within the next two weeks.

Sincerely,

JOE D. RAMEY
Division Director

JDR/dp

Enc.

SUMMARY OF THE MAJOR PROBLEMS
WITH THE PLATEAU, INC. REFINERY DISCHARGE PLAN

(1) The plan does not address the catchment of all fluids which may be discharged within the refinery area.

The plan should provide impermeable catchment of fluids which may be drained onto or which may leak or spill onto the surface within the refinery area and the drainage of these fluids to impermeable storage. This part of the plan should cover the refinery proper, and all appurtenances such as the loading areas, wash down areas, and crude and product storage areas.

Provision should be made for capturing runoff from the area resulting from rainfall and the movement of such fluids to the impermeable storage. In the alternative, Plateau may demonstrate that such runoff will not contain contaminants above the levels provided in the regulations including toxic pollutants.

If there should be any facilities or areas not covered by the catchment and drain system, the quality, quantity, and flow characteristics of any discharge therefrom must be defined. Any areas where refinery wastes or pit solids may have been buried should be described and their potential for leaching evaluated.

(2) The quantity, quality and flow characteristics of discharges from the refinery have not been adequately defined.

The effluent from the API separator must be characterized utilizing a technique which accounts for differing outputs over a sufficient period of time to yield results representative of a typical month of operation. Sampling must also be done in conformance with Section 3-107 B., 1 through 3 of the WQCC regulations.

The sampling technique to be used should be briefly described and receive prior approval from Mr. Simpson. This will assure that the data will be acceptable.

Any other discharge should be characterized in the same manner.

(3) The plan does not provide for impermeable storage of discharged fluids which contain contaminants in excess of

the standards set out in WQCC regulations or which contain toxic pollutants as described therein.

At this time, we believe that all plant discharges should go to such impermeable storage. However, fluids which do not exceed the standards or which do not contain toxic pollutants may be disposed of in some other manner. We would require that any such other disposal not aggravate the current situation which is causing seeps around the refinery site.

The plan must also discuss the proper disposal of any solids or semi-solids which may accumulate in the impermeable storage facilities or elsewhere in the refinery area.

(4) The plan does not properly address the existence of ground water in the area or set up any system of water quality monitoring.

Our investigations have shown there to be ground water in the area of the refinery site. Plateau must determine the location of water wells and springs on or immediately offsetting the refinery area and supply data as to the source of such water and its quality. Again, the sampling technique should be cleared with Mr. Simpson to avoid future conflict over the process or the data. Further, Mr. Simpson will be happy to share the results of his investigation of water wells and sources in this area.

The discharge plan must propose a monitoring plan that will assure that contaminants and toxic pollutants are not moving off the refinery site undetected. Such a plan must address ground water monitoring and monitoring of the Hammond ditch and the San Juan River.

(5) The plan does not adequately or completely address Section 3-107 A, items 1 through 10 of the regulations. Further, the contingency plan covered under Section 3-107 A-10, must address storm runoff and its effect on the catchment and drain system, the impermeable storage, etc.



TONY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

Feb 25, 1983

65

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

MEMORANDUM

TO: JOE D. RAMEY, DIRECTOR

FROM: OSCAR SIMPSON

SUBJECT: FEBRUARY 24, 1983 MEETING BETWEEN PAUL BIDERMAN, SECRETARY OF
ENERGY & MINERALS & OSCAR SIMPSON

On February 24, 1983 at 9:30 A.M. an informal meeting was held between Paul Biderman and myself to discuss Plateau Refineries' amended discharge plan. A summary of the items discussed were as follows:

1. Plateaus' updated discharge plan
2. My report and recommendations on Plateaus' updated Discharge Plan
3. The memo of February 18, 1983, from Dick Stamets to Joe D. Ramey
4. Based on the above 3 items is the Oil Conservation Division Taking appropriate action or should other courses be taken and to what extent.
5. The need of the Oil Conservation Division to take a stronger position on ground water protection.
 - a) expanding R-3221 state wide
 - b) updating pit standards
 - c) disposal problems with tank bottoms
 - d) discharge plans
 - e) need to investigate the potential problem for ground water contamination unregulated injection well pressure.
 - f) hydrostatic test discharges from oil & gas transmission lines



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
525 Camino de los Marquez
Santa Fe, New Mexico
87501

TONEY ANAYA
GOVERNOR

February 24, 1983

63A

MEMORANDUM

TO: Joe Ramey, Director, Oil Conservation Division
FROM: Paul L. Biderman, Secretary
SUBJECT: Plateau Refinery

I have been informed by Oscar Simpson that effluent from the Plateau Refinery may have been disposed of in violation of state regulations, to the jeopardy of the San Juan River and groundwater in the vicinity of the plant. Mr. Simpson has given me some material to review, but has indicated that your Division intends to issue imminently a formal response to Plateau with regard to both past and future effluent problems.

I would like to meet with you to discuss this matter and the appropriate response of your Division prior to the issuance of that letter, but after I have had an opportunity to review Mr. Simpson's materials. Please do not issue your response to Plateau until after we have talked.

I apologize for the memo -- I had to attend unanticipated legislative hearings. When Dick Stamets recovers, please arrange an appointment with Rosie, but not until Tuesday.

PLB:rm

*Thanks,
Paul*

OFFICE OF THE SECRETARY
(505) 827-5850

ADMINISTRATIVE SERVICES DIVISION
(505) 827-5925

CONSERVATION & MANAGEMENT DIVISION
(505) 827-5880

MINING & MINERALS DIVISION
(505) 827-5970

RESOURCE & DEVELOPMENT DIVISION
(505) 827-5900

OIL CONSERVATION DIVISION
(505) 827-5800

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



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

FEB 18, 1983

62
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

M E M O R A N D U M

TO: JOE D. RAMEY, DIRECTOR

FROM: R. L. STAMETS

SUBJECT: FEBRUARY 17, 1983, STAFF MEETING ON PLATEAU
REFINERY'S AMENDED DISCHARGE PLAN

On February 17, 1983, an OCD staff meeting was held for the purpose of establishing priorities for dealing with problems related to Plateau Refinery's amended discharge plan. Those in attendance were Joe D. Ramey, Perry Pearce, R. L. Stamets, Mike Stogner, Gilbert Quintana, and Oscar Simpson.

The identified problems related to two issues. No. (1) is the need to obtain an acceptable discharge plan from Plateau which will lead to the quickest reasonable elimination of discharges to anything other than impermeable facilities. No. (2) is the evaluation of the nature and extent of any existing pollution at the site and the determination of the proper course of action in response thereto.

Mr. Simpson wished to deal with these as inseparable issues. However, the staff consensus was to deal with these issues one at a time. The development of the discharge plan was given the highest priority. Evidence related to contamination will be collected as a part of the activity under such a plan (sampling fluids in newly drilled monitor wells, discharge characterization, etc.). Following collection of such data, evaluation of appropriate further action will be made.

The primary problems related to the amended discharge plan were defined as follows:

- (1) failure to address catchment of fluids (leaks, spills, rainwater) within the refinery area;

Page 2
Memorandum to Joe Ramey
February 18, 1983

- (2) failure of the plan to provide for monitor wells;
- (3) failure of the plan to provide for impermeable storage of discharged materials;
- (4) failure of the plan to properly characterize the discharged fluids;
- (5) failure of the plan to address monitoring of the Hammond ditch or the San Juan River.

Mr. Simpson was requested to take this outline and prepare a written Division response to Plateau. Completion of this response is expected by Tuesday, February 22, 1983.

February 18, 1983
fd/



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

64

TONY ANAYA
GOVERNOR

FEB. 25 1983

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

TO: JOE D. RAMEY, DIRECTOR

FROM: OSCAR A. SIMPSON, WATER RESOURCE SPECIALIST *OAS*

SUBJECT: FEBRUARY 18, 1983 MEMO FROM R. L. STAMETS TO JOE D. RAMEY

In reference to the February 18, 1983, Memo from R. L. Stamets to you, I would like to point out some potential problems with the procedure that was outlined in the Memo as quoted here.

ISSUE "No. 2 is the evaluation of the nature and extent of any existing pollution of the site and the determination of the proper course of action in response thereto." Evidence related to contamination will be collected as a part of the activity under such a plan (sampling fluids in newly drilled monitor wells, discharge characterization, etc.). Following collection of such data, evaluation of appropriate further action will be made."

1. The total time frame to accomplish the above would probably take from 9 months to 1 1/2 years to accomplish. This length of time is too long.
2. Ongoing pollution at Plateau Refinery should be evaluated as soon as possible. Evaluation of the Plateau Refinery area could be accomplished in approximately 4 months if the procedures as outlined in the Plateau report of February 17, 1983 are followed.
3. The evidence shown in my report of February 17, 1983, indicates that ground and surface waters have in the past and are presently being polluted.
4. Plateau did not notify the OCD of refinery expansions and production and process changes as required by Section 3-107 (c) of the WQCC regulations.
5. Based on the above and Section 3-109 (E-1) of the WQCC regulations, Plateau should be notified and required to modify their present discharge plan, GWR-1 in the shortest reasonable time and any ground water at any place of withdrawal for present or reasonably foreseeable future use due to the discharge will be abated or prevented.

6. There may be legal problems with the method proposed (Memo - 2-18-83- R. L. Stamets to Joe D. Ramey) such as legal action the OCD could take later on against Plateau Inc. for polluting and violating their GWR-1 Discharge Plan without notifying Plateau of such infractions.

FEBRUARY 25, 1983

HYDRO SCIENCE ENGINEERS, INC.

~~225 IDAHO~~

~~LA MISSION PLAZA, SUITE 1~~

LAS CRUCES, NM 88005

(505) 526-3147

2856 Glass Road

October 29, 1982

Mr. Oscar A. Simpson III
Water Resource Specialist
Oil Conservation Division
Energy and Minerals Department
P.O. Box 2088
Santa Fe, NM 87501


Dear Mr. Simpson:

Enclosed is response to your inquiries and review of "Updated Discharge Plan for a Refinery Operated by Plateau, Inc., near Bloomfield, New Mexico" by American Ground Water Consultants, Inc.

We are returning the reports and supplemental material to you as you requested.

If you have need for additional assistance please contact either myself or a member of our staff.

Sincerely yours,



George V. Sabol
President and Chief Engineer

GVS/js

1. Can OCD Request A Discharge Plan?

Yes, Part 3-101A, Water Quality Control Regulations, states "The purpose of these regulations controlling discharges onto or below the surface of the ground is to protect those segments of surface waters which are gaining because of ground water inflow, for uses designated in the New Mexico Water Quality Standards."

The groundwater flow (seeps) into the alluvium of the San Juan River appears to meet this regulation. In addition, a discharge plan is required under 3-104 "unless otherwise provided by these regulations, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into groundwater" The alluvium of the San Juan River does indeed contain groundwater which is receiving an effluent indirectly from the seeps.

This should be confirmed by the New Mexico Oil Conservation Divisions Legal Department.

2. Page 16 of the report uses a Schoeller diagram.

The diagram can be used to prove common sources of water but it can not be used to disprove that they are from the same source. Chemical changes and blending occurs that tend to modify the character of the water that would cause the diagram to be inappropriate.

3. The ditch water will blend with the seep effluent causing a reduction in constituent concentration of the effluent water. However, the volume of the seep would have to be substantial to cause significant degradation of the ditch water. For example, what would the concentration be in the ditch water if the seep water contains 4000 mg/l Total Dissolved Solids (TDS)?

$$C_{\text{Final Ditch TDS Conc.}} = \frac{\left(\begin{array}{c} C_{\text{TDS}} \\ \text{Conc of Seep} \end{array} \right) \left(\begin{array}{c} Q_{\text{Flow or}} \\ \text{Seep} \end{array} \right) + \left(\begin{array}{c} C_{\text{Initial}} \\ \text{TDS conc.} \\ \text{of Ditch} \end{array} \right) \left(\begin{array}{c} Q_{\text{Initial}} \\ \text{Flow of} \\ \text{Ditch} \end{array} \right)}{Q_{\text{Seep}} + Q_{\text{Ditch}}}$$

$$C_{\text{Final Ditch TDS Conc.}} = \frac{(4000 \text{ mg/l}) (5 \text{ gpm}) + (200 \text{ mg/l}) (250 \text{ gpm})}{5 \text{ gpm} + 250 \text{ gpm}}$$

$$= 275 \text{ mg/l or a 38\% increase in solids}$$

However, the regulations may allow degradation of the water to 500 mg/l as TDS. The above values are assumed for explanation purposes. More data on flow rates in the ditch is required.

4. The suggested constituents to be monitored are:

COD, TOC, Total Suspended Solids,
oil and grease, phenolic compounds,
ammonia, sulfide and total chromium.

These constituents are recommended for routine analysis by the U.S. Environmental Protection Agency in their report entitled Petroleum Refining, Point Source Category, EPA - 440/1-74-014-a, April 1974. Each major source of discharge should be characterized using these parameters such as the Fluid Catalytic Cracking (FCC), Desalter, Fractionation, and API separator. The efficiency of the Separator should be determined using the test "Susceptability to separation". If the test indicates little or no separation the unit could be followed using air flotation, clarifiers or filters before discharge to a pond. After such treatment the quality of water may be improved to the point where some wastewater could be discharged to the ground without significant environmental impact.

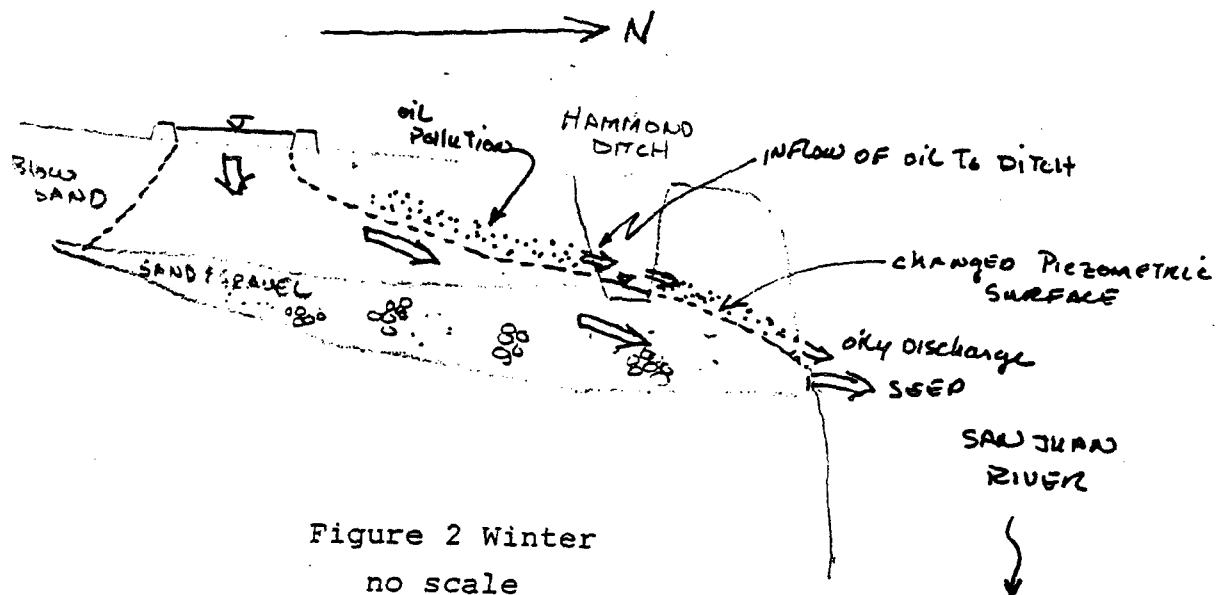
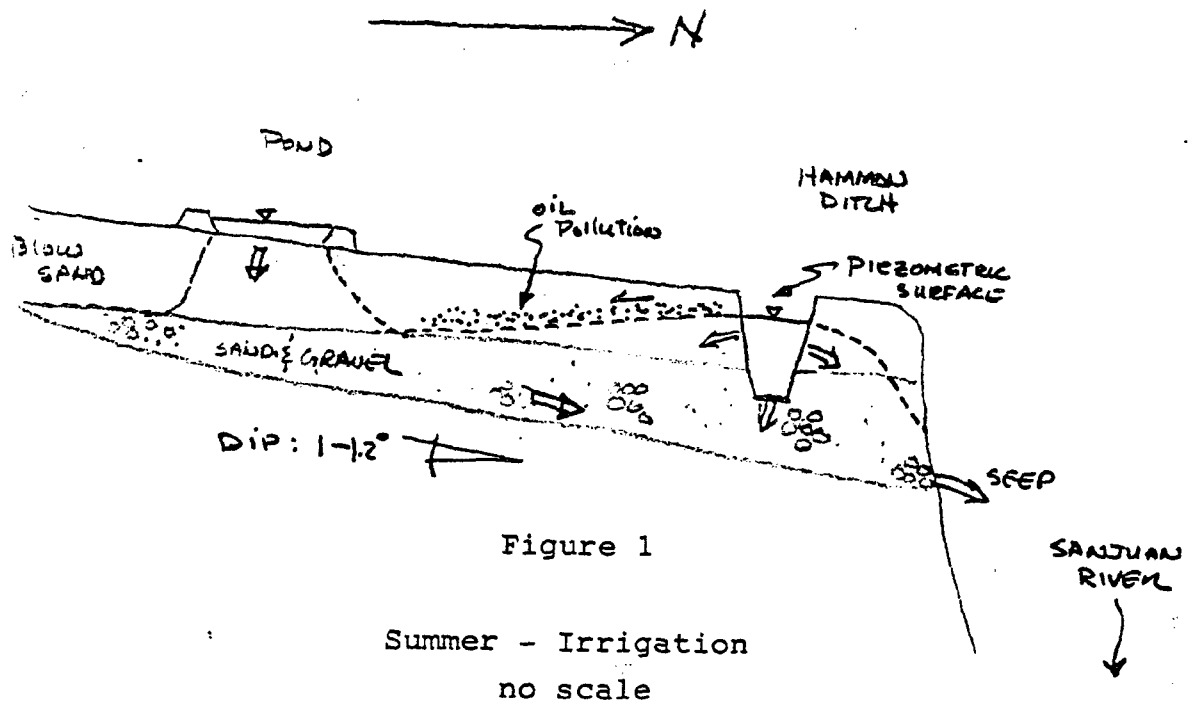
5. Data on area wells should be obtained from the New Mexico State Engineer's Office. The State Engineer maintains records on the location and beneficial use of ground water for each section of land in New Mexico's declared basins.

6. Although the oil and gas processing industry has an exemption under the Resource Conservation and Recovery Act (RCRA) there is a separate regulation (super fund) on old pits, such as API and tank bottom sludges, that should be addressed for hazardous wastes. In addition, polychlorinated biphenyl (PCB) is regulated separately. Information on these items should also be obtained. Particular emphasis should be placed on heavy metals and toxic organics in sludges.

7. Under the Clean Water Act Section 311, discharges of oil and hazardous substances requires owners and operators to establish a Spill Prevention Control and Countermeasures Plan to prevent accidental discharges of such substances into navigable water, such as the San Juan River. Plateau should have the plan available for review which may answer most of the questions related to surface runoff problem. However, such a plan was not provided to NMOCDD for review. Surface drainage should be delineated on the aerial photo indicating the ultimate discharge point of stormwater runoff.

8. The area of heavily polluted soils containing oil (inspised oil) will continually recharge the Hammond Ditch. This area should be treated to intercept the oils for disposal. The oil is lighter than water hence will be present on the piezometric surface. This does aid in capture of the oil if it is moving toward the ditch. Figure 1 indicates that during the summer irrigation season the oil on the surface should flow to the south because the piezometric surface should dip in that direction due to heavy recharge to the aquifer by the ditch. Then as the irrigation season ends the ditch no longer recharges the aquifer and the piezometric surface reverses allowing the oil to flow northward into the ditch and likely beyond to seeps in the cliff.

The oil can be captured using the method shown in Figure 3. The existing monitor wells may be useful in design of such a clean up operation. The problem with removal wells is the requirement for constant pumping and a place to dispose of the wastestream. Using the ditch method it is possible to hold the oil until the plant manager is ready to remove the oil scum.



The reason for changing water quality is due to the seasonal change in the piezometric surface in the Plateau refinery area. A flow net for seepage could be constructed for each season showing the rate of movement of oils to the ditch.

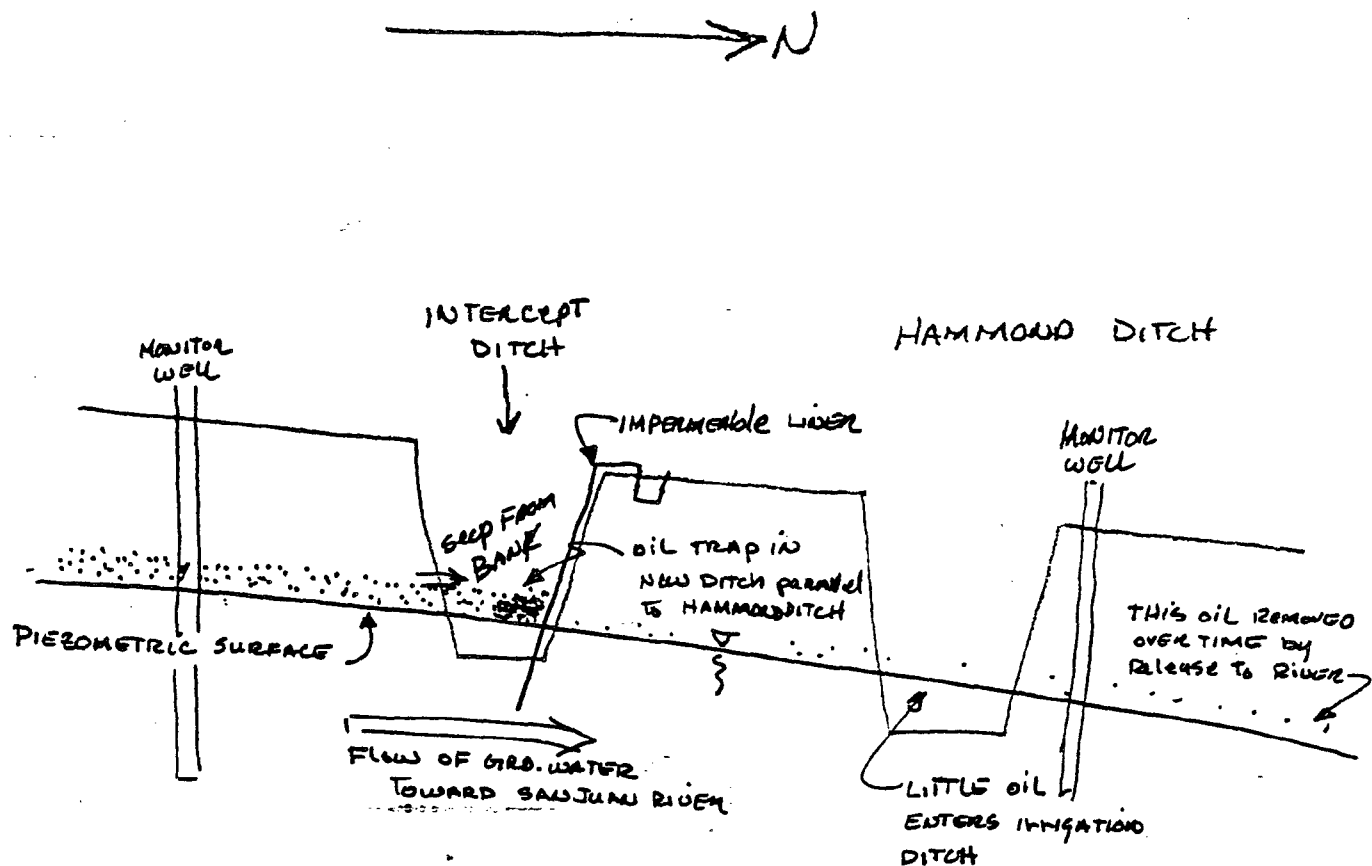


Figure 3

The oil on top of the water would be trapped behind the impermeable liner for later collection and disposal. Depth of oil and water must be determined before design and construction of intercept ditch.

9. In the Farmington area the amount of evapotranspiration that can be expected is about 2.5 gallons per minute per acre, i.e. if the waste stream is 80 gpm, about $\left(\frac{80}{2.5}\right)$ 32 acres of ponds will be required for disposal. Also, water with high total dissolved solids has a reduced rate of evaporation causing the factor to be further reduced by 5 percent. At present there are 8 acres of ponds and about 15 acres (?) of irrigation for a total of 23 acres. The difference in surface area indicates that 22.5 gpm must be infiltrating the subsurface. Looking at the aerial photos some of this surface area is not available to allow evaporation due to the presence of oil on the ponds. The rate of infiltration is very likely higher than 22.5 gpm and could be as high as 40 gpm. Flow measurements and percolation test may indicate a more exact value.

10. Land disposal of wastewater is a reasonable method for disposal if the water quality is satisfactory for the soils and vegetation. In Plateau's report the total dissolved solids were measured at 2400 mg/l (assume conductivity of 2.4 mmhos/cm) and "high" sodium adsorption ratio. Water in the range of .7 to 2.2 mmhos/cm are widely used for irrigation, and satisfactory crop growth is obtained under good management and favorable drainage conditions, but saline conditions will develop if leaching and drainage are inadequate. Waters in excess of 2.2 mmhos/cm can be used only when the water is used copiously and the subsoil drainage is good. Therefore, a leaching requirement is necessary to maintain the disposal field in satisfactory condition. That is, an excess amount of water must be used to cause the salts, and in this case other pollutants, to migrate downward which in effect maintains the existing polluted condition of the aquifer.

11. The flow data appears to be approximated in the plateau report. The methods used to determine flow data should be submitted in accordance with 3-107.A.5. Flow data is essential to evaluate the sampling conducted within the plant. Each process has a unique character that will determine its best treatment methods and in some cases not treatment. The characterization should include a flow proportional-time weighted composite sampling as required under 2-101.A. The method of preparing an adequate waste survey is detailed in the U.S. Environmental Protection Agency's Handbook for Monitoring Industrial Wastewater, August 1973.

The problems associated with grab samples from ponds are numerous. The sample may be the "best" or "worst" case due to rainfall, inflow of unknown contaminants, and oxidation - reduction reactions of wastes with time. The wastewater recharging the subsurface should be determined at the end-of-the-pipe prior to flowing into a pond. The presence of cobalt, lead, chromium and benzene should be a serious concern to the health and welfare of New Mexico's residents. Proper sampling should identify the source of these contaminants and provide the basis for treatment.

12. The contamination in the ground water cannot be economically removed at this time. The only action that seems appropriate is to reduce or eliminate further loading of the aquifer with polluted wastewater. The recharge of the aquifer by the Hammond Ditch will eventually flush the pollutants into the San Juan River, which may take several decades to accomplish. The introduction of waste oils to the ditch can be reduced using the method described in item 8 above which appears to be a major concern with downstream users of the ditch water.

13. The potential pollutants noted in the analyses are likely from the following processes:

Fluid Catalytic Cracking (FCC)

Largest source of sour and phenolic wastes are steam strippers and accumulations on fractionators. The regeneration of spent catalyst may produce CO, an air pollutant. The suggested parameters to monitor include: oil, sulfides, phenols, cyanids, ammonia, alkalinity, COD, TOC.

Desalter

The suggested parameters to monitor include: emulsified and free oil, ammonia, phenol, sulfides, suspended solids, COD, TOD, chlorides, and temperature (200°F).

Crude Oil Fractionation

Wastewater generally comes from three sources:

- (1) water drawn off from overhead accumulators prior to recirculation or transfer of hydrocarbons to other fractionators.
- (2) discharge from oil sampling lines.
- (3) very stable oil emulsions formed in the barometric condensers used to create the reduced pressures in the vacuum distillation units.

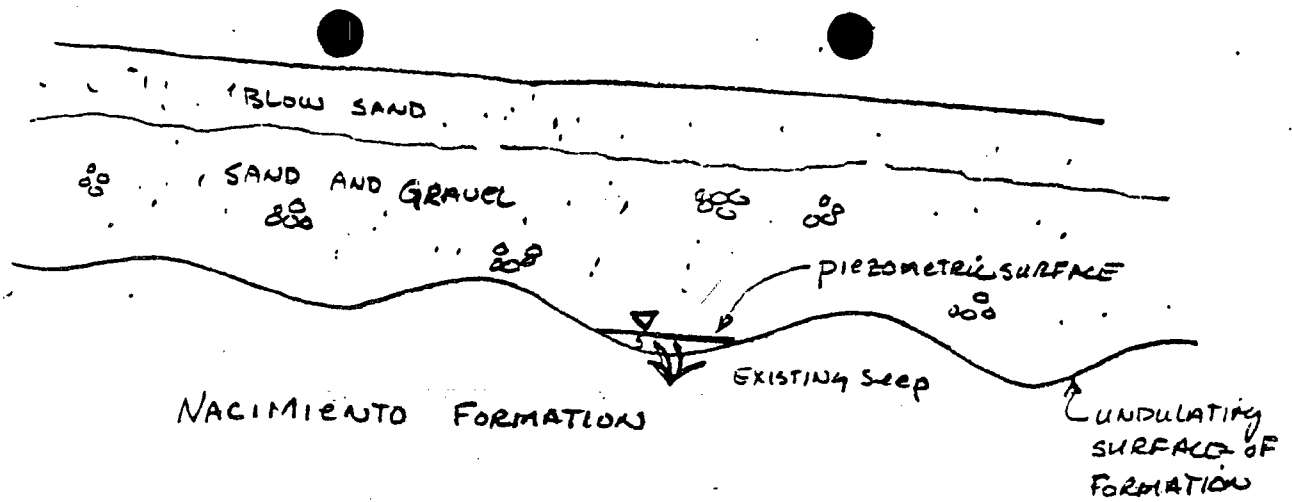
The parameters to monitor are the same as above.

14. Important facts to remember when evaluating API separators:

- (1) the separator will not separate substances in solution,
- (2) removal is temperature dependent (high temperature reduces removal efficiency),
- (3) removal is dependent upon the density and size of oil globules, and
- (4) removal is also dependent upon the character of suspended solids.

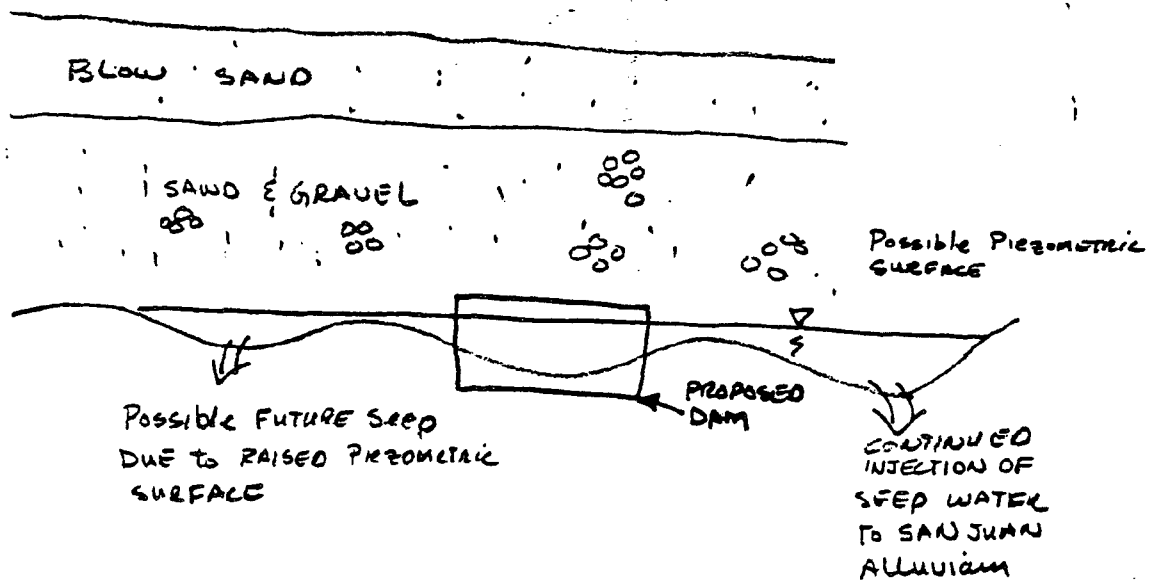
A test is available to determine efficiency of API separators called "susceptibility to separation." This test will also determine the amount of sludge produced for disposal. Normally an API separator is followed with a clarifier, filter, or air flotation process to remove those constituents that passed through the separator.

15. The proposal to recycle the wastewater from the seeps does not eliminate the chance for further pollution of the San Juan River alluvium. According to the Plateau report the Nacimientos formation is undulating as seen in the exposed section of the Cliff. Therefore, once a dam is placed at a seep the water level will rise and may seek an outlet requiring less hydraulic head. Figure 4 shows the potential for continued injection into the river aquifer which essentially will continue the existing situation. According to the Plateau plan these new seeps would also have a dam built. It does not seem to be a reasonable scheme for protection of the groundwater. In addition, according to the literature the Nacimientos formation does have layers of sand that can transmit water at high flow rates. The information provided does not exclude the possibility that wastewater is recharging such layers in the formation.



Existing Condition of Seep at
the Interface of the Nacimientto
Formation and Sand and Gravel

Figure 4a



Possible Condition of Seep at
the Interface of the Nacimientto
Formation and Sand and Gravel
Due to Raising the Piezometric
Surface

Figure 4b

9-82

59

Refinery Accused of Seepage

SANTA FE (AP) — A state official contends that a Bloomfield refinery, Plateau Inc., is allowing oil-contaminated water to escape into the San Juan River, but a refinery officer says that's not so.

Plateau has said the plant does have some seepage, but Vice President Bob Perry insists that none of it is reaching the river.

Perry said Plateau has

tried to work with the state on the matter, but, "We feel like we're being picked on."

The controversy arose when Plateau asked the state to amend its existing water discharge plan for the Bloomfield refinery, located on the south side of the San Juan River.

Perry said Plateau wanted to change its plan to allow the refinery to use some waste water to irrigate open fields nearby. At the same time, the firm outlined a plan for recapturing waste water which escapes the plant and seeps out along the bluff where the refinery is located.

"We do have seeps, but the plan states how they will be recovered," Perry said. "Nothing is reaching the river nor will it ever."

He estimated the seepage at about 50,000 gallons a week.

State Oil Conservation Division chief Joe Ramey said a series of unexplained seeps were discovered by his staff when a review began of the refinery's plans.

Ramey said he has not yet received the results of tests

on samples taken from the area, but that at least one area reeked of oil. He also said that Plateau has not consented to submitting its own samples of the refinery wastes.

Perry said the state has changed its demands and placed very few of them in writing. "They're being very picky. They want everything (in the plan) to be just perfect," he said.

Ramey said, "Maybe we've been more thorough than we need to be, but we can't say that until we find where the seeps are coming from. The indications are they're coming from the refinery."

Perry said Plateau will challenge the agency's jurisdiction over the plant. He said that since surface water is involved, Ramey's division has no jurisdiction. Ramey's office is charged with policing oil operations that might affect underground water supplies.

Ramey has said he will ask the state Water Quality Control Commission to levy a fine against Plateau.



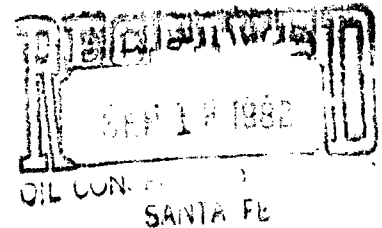
Suburban Propane
Gas Corporation

334 Madison Avenue
CN 1915
Morristown, New Jersey
07960

Telephone
201-540-0300

September 8, 1982

Joseph Ramey, Director
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
PO Box 2088
State Lane Office Building
Santa Fe, NM



Dear Mr. Ramey:

On Thursday, September 2, 1982, representatives of your office and the U. S. Bureau of Reclamation met with Plateau Inc. personnel at Plateau's Bloomfield, New Mexico refinery to discuss the results of certain water and/or soil sampling that had been performed by Oscar Simpson of your office. My understanding of the results of that sampling is that it showed one area off of Plateau's property where the ground held an unacceptable level of lead. In addition, it showed what was known all along, that unacceptable levels of contaminants were contained in the aquifer located at the bottom of the 150 foot bluff which at one point borders Plateau's property. I do not believe any evidence was presented to show any actual or potential contamination of the San Juan River.

While Dick Staments did concede to me on September 3, 1982 that the lead situation might be naturally occurring and unrelated to any discharge by Plateau, he further advised me that the Nacimiento formation might not be sufficiently consistent to foreclose the real possibility of the existence of permeable groundwater areas where there was a present or reasonably foreseeable future use, and into which Plateau discharge might possibly seep. Dick also advised me that evidence showed that migration of contaminants from the referenced aquifer might occur in a downstream direction over a period of perhaps several years, resulting in the contamination of another aquifer perhaps one to two miles away, which aquifer is presently being exploited as a water supply.

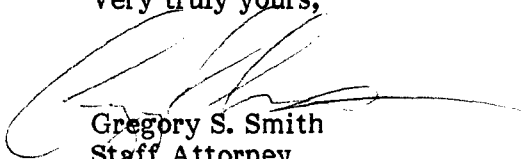
Since I continue to have no written explanation of the Commission's position to go by, I merely gather it is the position of the Commission, that the evidence shows Plateau effluent may move directly or indirectly into groundwater; the term "may" being reasonably and intelligently interpreted of course.

Plateau has been advised by Harold Sersland of the Bureau of Reclamation that the Bureau takes the position that failure by Plateau to file a water discharge plan at the direction of the State would constitute a breach of State water quality regulations and entitle the Bureau to refuse to continue to supply water to Plateau. This position has been characterized by Mr. Sersland as "supporting the State".

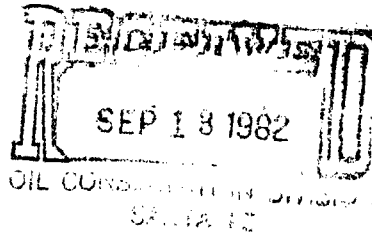
Upon careful consideration of the foregoing matters, Plateau feels compelled to and does in fact deem its Updated Discharge Plan, submitted to your office on June 2, 1982, as an application for approval of a discharge plan pursuant to the regulations of the Commission. Plateau looks forward to cooperating with your office based on the plan, which I hope is approved shortly. This will enable Plateau to maintain its vital water supply and at the same time continue with its progress on water containment at the Bloomfield refinery.

Plateau looks forward to hearing from you in the near future.

Very truly yours,


Gregory S. Smith
Staff Attorney

bv



56



United States Department of the Interior

BUREAU OF RECLAMATION
~~WATER AND POWER RESOURCES SERVICE~~

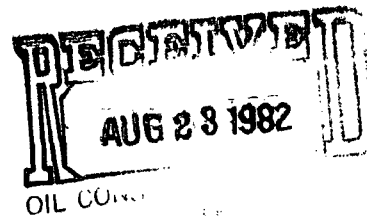
UPPER COLORADO REGIONAL OFFICE

P. O. BOX 11568

SALT LAKE CITY, UTAH 84147

IN REPLY
REFER TO: UC-440
832.

AUG 19 1982



Mr. Dwight J. Stockham
Associate Environmental Engineer
Plateau, Inc.
P.O. Box 26251
Albuquerque, New Mexico 87125

Dear Mr. Stockham:

Your company's contract dated July 12, 1982, Contract No. 2-07-40-L3319, for water service from Navajo Reservoir, Colorado River Storage Project, New Mexico, has a remaining term of approximately 60 days. In the 60 days remaining, we plan to accomplish:

1. Formal identification of Plateau's operating practices which may be creating environmental hazards.
2. Formal identification of the magnitude of the environmental problems.
3. Formal agreement between the Bureau of Reclamation and Plateau, Inc. on methods and deadlines for mitigating the environmental problems.

We have contacted the State of New Mexico, Oil Conservation Division by letter requesting their perception of the apparent problem. To a large extent, the Bureau will require corrective action by Plateau based upon the states recommendations. We expect a response from the state during the week of August 16, 1982. As soon as we have their recommendation, we will contact you. If you have any interim questions, please contact Ms. Deborah Linke, Chief Repayments Staff, at (801) 524-5435.

Sincerely yours,
Clifford I. Barrett

Clifford I. Barrett
Regional Director

cc: Mr. Steve Reynolds
State Engineer
Water Resources Division
Bataan Memorial Building, Room 101
Santa Fe, New Mexico 87503

✓ Mr. Oscar Simpson
State of New Mexico
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501



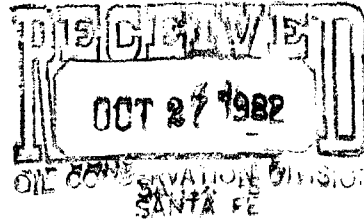
STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

October 26, 1982



Mr. Oscar Simpson
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Oscar:

During a recent plugging program, I was in the vicinity of the Plateau Refinery. I observed that Plateau was again sprinkling water onto an open field. I first observed this at 9:00 AM on October 10, 1982. The temperature was around 35°F. This plugging program allowed me to observe the spraying several times a day from October 10, through October 15, 1982. On October 15, the spayers were turned off by 11:30 AM. The temperature ranged from 30°F to 64°F during the six days of observation. Three pictures, included with this letter, show the spraying during warm and cold weather and how marshy the land was getting. The sprayers were not moved from the one location, which made the field very marshy.

I made some more trips on October 18, and October 19, 1982. The sprayers were back on by 10:00 AM on October 18, and were still spraying at 7:00 PM on October 19, 1982.

The other two pictures included, are of the solar evaporative ponds #1 and #2.

Mike Stogner and I checked the water run-off for contamination into arroyos or streams. We found no evidence of this happening. The water went as far as the paved road and soaked in.

If you have any further questions, contact our office.

Yours truly,

Jeff A. Edmister
Geologist/Field Representative

JAE:dh

Enc.



HEALTH AND ENVIRONMENT DEPARTMENT
SCIENTIFIC LABORATORY DIVISION
Phone: 843-9240

INVOICE

FOR LABORATORY SERVICES

| | | |
|-------------------------|------------------------------|---------------------------|
| Date August 30, 1982 | User Identification 52999 | Billing period 8/27/82 |
|-------------------------|------------------------------|---------------------------|

Please forward your check, payable to: Scientific Laboratory Division, 700 Camino de Salud NE, Albuquerque, NM 87106
Purpose: SLD ANALYTICAL SERVICES

Please return PINK remittance copy with your payment.

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

402-16

710592

I certify that the charges herein are correct and that payment therefor has not been received.

8/30/82

Signature

Date

| TYPE of SERVICE/ANALYSIS | NUMBER of TEST | PRICE per TEST | AMOUNT |
|--------------------------|---|----------------|-----------|
| Heavy Metals, complete | 5 Lab #77,78,79,80 & 81 | 55.95 | 284.75 |
| Heavy Metals, partial | 6 Lab #112,113,114,115,116,117 | 16.75 | 100.50 |
| Uranium | 1 Lab #113 | 33.50 | 33.50 |
| Volatiles, Screen | 17 Lab #135,136,137,138,139,140,141,142,143,144,161,162,163,164,165,166,167 | 20.00 | 340.00 |
| AMOUNT DUE | | | \$ 758.75 |

SLD 011 Form Revised 8/78
(Replaces SLS 011)

Distribution:
White—Original

Canary—Duplicate

Pink—Remittance

Goldend—SLD File



HEALTH AND ENVIRONMENT DEPARTMENT
SCIENTIFIC LABORATORY DIVISION
Phone: 843-9240

INVOICE

FOR LABORATORY SERVICES

| | | |
|-----------------------|------------------------------|---------------------------|
| Date July 20, 1982 | User Identification 52999 | Billing period 7/10/82 |
|-----------------------|------------------------------|---------------------------|

Please forward your check, payable to: Scientific Laboratory Division, 700 Camino de Salud NE, Albuquerque, NM 87106
Purpose: SLD ANALYTICAL SERVICES

Please return PINK remittance copy with your payment.

| | |
|--|--------|
| Oil Conservation Division P.O. Box 2088 Santa Fe, NM 87501 | 710125 |
|--|--------|

I certify that the charges herein are correct and that payment therefor has not been received.

[Signature] Date 7/20/82

| TYPE of SERVICE/ANALYSIS | NUMBER of TEST | PRICE per TEST | AMOUNT |
|--------------------------|----------------------|----------------|-------------------------|
| Cyanide analysis | 3 Lab #127, 128, 129 | 34.85 | 104.55 |
| Phenols | 3 Lab #113, 114, 115 | 15.00 | 45.00 |
| Oil & Grease | 3 Lab #116, 117, 118 | 12.00 | 36.00 |
| | | | AMOUNT DUE \$ 185.55 |

SLD 011 Form Revised 8/78
(Replaces SLS 011)

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Goldenrod — SLD File



HEALTH AND ENVIRONMENT DEPARTMENT
SCIENTIFIC LABORATORY DIVISION
Phone: 843-9240

INVOICE

FOR LABORATORY SERVICES

| | | |
|-----------------------|------------------------------|---------------------------------|
| Date July 28, 1982 | User Identification 52999 | Billing period June 27, 1982 |
|-----------------------|------------------------------|---------------------------------|

Please forward your check, payable to: Scientific Laboratory Division, 700 Camino de Salud NE, Albuquerque, NM 87106

Purpose: SLD ANALYTICAL SERVICES

Please return PINK remittance copy with your payment.

402-14

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

710227

I certify that the charges herein are correct and that payment therefor has not been received.

7/28/82

Date

Signature

| TYPE OF SERVICE/ANALYSIS | NUMBER OF TEST | PRICE per TEST | AMOUNT |
|--------------------------------|-----------------------------------|----------------|------------------------|
| Normal Partial Water Chemistry | 5 Lab #WC-122, 123, 124, 125, 126 | 16.75 | 83.75 |
| | | | AMOUNT DUE \$ 83.75 |

Distribution:

White—Original

Canary—Duplicate

Pink—Remittance

Goldenrod—SLD File

SLD 011 Form Revised 8/78
(Replaces SLS 011)



HEALTH AND ENVIRONMENT DEPARTMENT
SCIENTIFIC LABORATORY DIVISION
Phone: 843-9240

INVOICE

FOR LABORATORY SERVICES

| | | |
|----------------|------------------------------|------------------------------------|
| Date 8/3/82 | User Identification 52999 | Billing period 8/2/82 & 7/29/82 |
|----------------|------------------------------|------------------------------------|

Please forward your check, payable to: Scientific Laboratory Division, 700 Camino de Salud NE, Albuquerque, NM 87106
Purpose: SLD ANALYTICAL SERVICES

Please return PINK remittance copy with your payment.

402-16

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

710335

I certify that the charges herein are correct and that payment therefor has not been received.

[Signature]
Signature

8/3/82
Date

| TYPE of SERVICE/ANALYSIS | NUMBER of TEST | PRICE per TEST | AMOUNT |
|--------------------------|--------------------|----------------|------------|
| TOC | 3 Lab #119,120,121 | 12.10 | 36.30 |
| Phenols | 3 Lab #317,318,319 | 15.00 | 45.00 |
| | | | AMOUNT DUE |
| | | | \$ 81.30 |

Sent 8/8

SLD 011 Form Revised 8/78
(Replaces SLS 011)

Distribution:
White—Original Canary—Duplicate Pink—Remittance Goldenrod—SLD File



HEALTH AND ENVIRONMENT DEPARTMENT
SCIENTIFIC LABORATORY DIVISION
Phone: 843-9240

FOR LABORATORY SERVICES

| | | |
|-----------------------|------------------------------|--------------------------|
| Date Aug. 11, 1982 | User Identification 52999 | Billing period 8/9/82 |
|-----------------------|------------------------------|--------------------------|

Please forward your check, payable to: Scientific Laboratory Division, 700 Camino de Salud NE, Albuquerque, NM 87106
Purpose: SLD ANALYTICAL SERVICES 402-09

Please return PINK remittance copy with your payment.

Oil Conservation Div.
P.O. Box 2088
Santa Fe, NM 87501

710433

I certify that the charges herein are correct and that payment therefor has not been received.

[Signature]
Signature

8/11/82

Date

| TYPE of SERVICE/ANALYSIS | NUMBER of TEST | PRICE per TEST | AMOUNT |
|--------------------------|------------------------------------|----------------|-------------------------|
| TOC | 6 Lab #325,326,327, 328,329,336 | 12.10 | 72.60 |
| Boron | 6 Lab #330,331,332, 333,334,335 | 9.00 | 54.00 |
| Sulfate | 6 Same as above | 7.00 | 42.00 |
| Chlorides | 6 Same as Above | 6.00 | 36.00 |
| Residue Total Filterable | 6 Same as above | 7.00 | 42.00 |
| | | | AMOUNT DUE \$ 246.60 |

SLD 011 Form Revised 8/78
(Replaces SLS 011)

Distribution:

White—Original Canary—Duplicate Pink—Remittance Goldenrod—SLD File



HEALTH AND ENVIRONMENT DEPARTMENT
SCIENTIFIC LABORATORY DIVISION
Phone: 843-9240

INVOICE FOR LABORATORY SERVICES

| | | |
|----------------------|---------------------|--------------------------|
| Date Aug. 5, 1982 | User Identification | Billing period 8/5/82 |
|----------------------|---------------------|--------------------------|

Please forward your check, payable to: Scientific Laboratory Division, 700 Camino de Salud NE, Albuquerque, NM 87106
Purpose: SLD ANALYTICAL SERVICES 402-16

Please return PINK remittance copy with your payment.

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

710398

I certify that the charges herein are correct and that payment therefor has not been received.

[Signature]
Signature

8/5/82

Date

| TYPE of SERVICE/ANALYSIS | NUMBER of TEST | PRICE per TEST | AMOUNT |
|--------------------------|----------------------------------|----------------|-------------------------|
| Cyanide | 5 Lab #320,321,322, 323 & 324 | 34.85 | 174.25 |
| | | | AMOUNT DUE \$ 174.25 |

SLD 011 Form Revised 8/78
(Replaces SLS 011)

Distribution:

White—Original Canary—Duplicate Pink—Remittance Goldenrod—SLD File

ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 Jefferson, North
Albuquerque, New Mexico
Telephone: (505) 345-1964

STATEMENT

JUL 21 1982

TO: ENERGY & MINERALS DEPARTMENT
P. O. BOX 2088D, NW,
SANTA FE, NEW MEXICO 87501

OIL CORP.

SANTA FE

Invoice Date: 7-16-82

AAL Vendor No. 00015

AAL NO. 7072-001

through -019

| ITEM# | NO. OF ANALYSES | DESCRIPTION | UNIT PRICE | AMOUNT |
|-------|-----------------|------------------------|------------|--------|
| 1 | 19 | TOTAL ORGANIC CARBON | 15.00 | 285.00 |
| 2 | 19 | BORON | 8.00 | 152.00 |
| 3 | 19 | COBALT | 8.00 | 152.00 |
| 4 | 19 | CHROMIUM | 8.00 | 152.00 |
| 5 | 19 | LEAD | 8.00 | 152.00 |
| 6 | 19 | CHLORIDE | 8.00 | 152.00 |
| 7 | 19 | FLUORIDE | 10.00 | 190.00 |
| 8 | 19 | TOTAL DISSOLVED SOLIDS | 7.00 | 133.00 |

SUB-TOTAL 1358.60

4% TAX..... 54.72

INVOICE TOTAL ---- 1422.72

Terms for Payment are 1% 10 days, net 30 days.

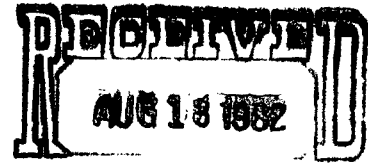


United States Department of the Interior

BUREAU OF RECLAMATION
UPPER COLORADO REGIONAL OFFICE
P.O. BOX 11568
SALT LAKE CITY, UTAH 84147

IN REPLY
REFER TO: UC-440
840.

AUG 11 1982



Mr. Joe Ramey
Director
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

This letter is in reference to a July 20, 1982, telephone conversation with Mr. Oscar Simpson of your staff and Tom Scoville of this office regarding the sale of Navajo Reservoir water to Plateau, Inc. at Bloomfield, New Mexico.

It is our understanding that there may be serious environmental problems surrounding Plateau, Inc.'s current operating practices. The State has therefore initiated an investigation to assess the impacts of oil seeps from Plateau's refinery on the San Juan River and the Hammond Ditch. We also understand that Plateau, Inc. is aware of the problems and the State's concern, and is planning to perform work that will control the above problem. This work was discussed in the company's proposed discharge plan. We share concern over Plateau's apparent refinery waste discharges into the Hammond Canal and San Juan River. In addition, we concur that Plateau should be required to correct the problem within a specific time period.

We have a responsibility under the National Environmental Policy Act of 1969 (NEPA) to assess the impacts of the proposed sale of water to Plateau, Inc. We would appreciate your informing us of the State's specific requirements that Plateau, Inc. must comply with. We would also appreciate receiving your time schedule for defining and implementing these requirements. We need this information to document all conditions that will be included in any proposed water sales contract between Plateau, Inc. and the Department of the Interior.

We have given Plateau, Inc. a 90-day extension on their request for renewing their present water sales contract. This was done to allow the State as well as the Bureau, time to develop the necessary documentation and plan for correcting the apparent pollution problem. The 90-day extension expires on October 12, 1982, at which time we must either enter into a longer term contract with Plateau, Inc. or cancel their water contract for the oil refinery.

Sincerely yours,

F. Phillip Sharpe
For Clifford I. Barrett
Regional Director



United States Department of the Interior

BUREAU OF RECLAMATION
~~WATER AND POWER RESOURCES SERVICE~~

UPPER COLORADO REGIONAL OFFICE

P. O. BOX 11568

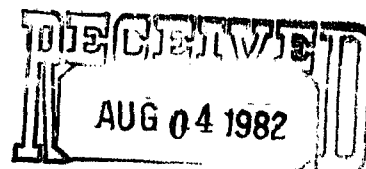
SALT LAKE CITY, UTAH 84147

(54)

IN REPLY
REFER TO: UC-440
832.

AUG 2 1982

Mr. Dwight J. Stockham
Associate Environmental Engineer
Plateau Inc.
P.O. Box 26251
Albuquerque, New Mexico 87125



OIL CONSERVATION

Dear Mr. Stockham:

One original copy of a fully executed contract between your company and the United States is enclosed. The term of this contract is 3 months and it expires on October 12, 1982.

We will soon contact you regarding the administration of the environmental provisions of this contract. If you have any questions, please contact Ms. Deborah Linke, Chief, Repayments Staff, at (801) 524-5435.

Sincerely yours,

For

Clifford I. Barrett
Regional Director

Enclosures

cc: Mr. Steve Reynolds
State Engineer
Water Resources Division
Bataan Memorial Building, Room 101
Sante Fe, New Mexico 87503

~~Mr.~~ Oscar Simpson
State of New Mexico
Oil Conservation Division
P.O. Box 2088
Sante Fe, New Mexico 87501

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLORADO RIVER STORAGE PROJECT

NAVAJO UNIT

INTERIM CONTRACT BETWEEN THE UNITED STATES AND
PLATEAU, INCORPORATED
FOR FURNISHING WATER

1 THIS CONTRACT, made this 12th day of July 1982,
2 pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388),
3 and acts amendatory thereof or supplementary thereto, and particularly
4 pursuant to the Colorado River Storage Project Act approved April 11, 1956
5 (70 Stat. 105), between THE UNITED STATES OF AMERICA, hereinafter referred to
6 as the United States, represented by the officer executing this contract, his
7 duly appointed successor or his duly authorized representative, hereinafter
8 referred to as the Contracting Officer, and Plateau, Incorporated, a corpora-
9 tion organized under the laws of the State of New Mexico, with its executive
10 offices at Farmington, New Mexico, hereinafter referred to as the Contractor,

11 WITNESSETH:

12 WHEREAS, the following statements are made in explanation:

13 (a) The United States has constructed Navajo Dam and Reservoir
14 as a unit of the Colorado River Storage Project, for the furnishing of water
15 for irrigation, municipal, industrial and other beneficial uses.

16 (b) The Contractor is in need of a water supply for industrial
17 use in the area for use at their petroleum refinery facilities located near
18 Bloomfield, New Mexico, and water is available on a temporary basis to supply
19 the Contractor from Navajo Reservoir.

1 NOW, THEREFORE, in consideration of the mutual and dependent
2 covenants herein contained, the parties hereto agree as follows:

3 TERM OF CONTRACT

4 1. This contract shall be effective for 3 months.

5 WATER DELIVERY

6 2. The United States grants the Contractor the right, during the
7 term of this contract, to have delivered from Navajo Reservoir, as hereinafter
8 provided not to exceed 70 acre-feet of water at such times as best suits its
9 needs and the Contractor shall pay for the water as provided in Article 4.

10 FOR INDUSTRIAL USE ONLY

11 3. The water sold hereunder shall be used by the Contractor
12 only for industrial use. The Contractor shall prepare and furnish such
13 reports on water use and related data as required by the Contracting Officer.

14 RATE AND METHOD OF PAYMENT FOR WATER

15 4. The Contractor shall annually pay in advance for the quantity
16 of water which it has contracted to take and pay for, whether or not it
17 actually takes and uses such water. The rate of \$40 per acre-foot, plus
18 \$1 per acre-foot for operation and maintenance charges as follows is payable
19 by the Contractor for water service.

| | | |
|----|------------------|----------------------|
| 20 | | First Annual Payment |
| 21 | Water Contracted | (Based on \$41.00) |
| 22 | (acre-feet) | per acre-foot |
| 23 | <u>70</u> | <u>\$2,870</u> |

24 MEASUREMENT AND RESPONSIBILITY FOR DISTRIBUTION

25 5. (a) The water to be furnished to the Contractor will be
26 measured by facilities of the United States at the outlet works of Navajo
27 Reservoir. The Contractor shall suffer all distribution and administration
28 losses from the point of such delivery to the place of use. The Contractor
29 agrees to provide a measuring device, which is acceptable to the Contracting

1 Officer, at or near the Contractor's point of diversion, to measure the
2 quantity of water delivered and diverted under this contract. The Contractor
3 is responsible for making arrangements with the State of New Mexico and
4 others needed for the transportation and diversion of such water. The
5 Contractor shall pay any charges from the New Mexico State Engineer's Office
6 for the distribution, handling, or administration of this water.

7 (b) The United States shall not be responsible for the
8 control, carriage, handling, use, disposal, or distribution of water taken
9 by the Contractor hereunder, and the Contractor shall hold the United States
10 harmless on account of damage or claim of damage of any nature whatsoever,
11 including property damage, personal injury or death arising out of or
12 connected with the control, carriage, handling, use, disposal, or distribu-
13 tion of such water by the Contractor.

14 (c) This contract and all water taken pursuant thereto shall
15 be subject to and controlled by the Colorado River Compact dated November 24,
16 1922, and proclaimed by the President of the United States, June 25, 1929,
17 the Boulder Canyon Project Act approved December 21, 1928, the Boulder
18 Canyon Project Adjustment Act of July 19, 1940, the Upper Colorado River
19 Basin Compact dated October 11, 1948, the Mexican Water Treaty of February 3,
20 1944, and the Colorado River Basin Project Act of September 30, 1968, Public
21 Law 90-537. In the event water available to the Contractor is required to
22 be curtailed under and by reason of the provisions of the foregoing acts,
23 including the reaching of maximum use of water allotted to the State of
24 New Mexico, no liability shall attach to the United States for such curtail-
25 ment, and the Contractor agrees to reduction of the amount of water taken
26 hereunder as the Secretary determines necessary to comply with the provisions
27 of said acts.

1 UNITED STATES NOT LIABLE FOR WATER SHORTAGE - ADJUSTMENTS

2 6. On account of drought, errors in operation, or other causes,
3 there may occur at times, a shortage during any year in the quantity of
4 water available to the Contractor by the United States pursuant to this
5 contract through and by means of the project, and in no event shall any
6 liability accrue against the United States or any of its officers, agents,
7 or employees for any damage direct or indirect, arising therefrom. In
8 any year in which there may occur such a shortage, the United States reserves
9 the right to apportion the available water supply among the Contractor and
10 others entitled, under existing and future contracts, to receive water from
11 the same project water supply all in a manner to be prescribed by the
12 Contracting Officer.

13 NOTICES

14 7. Any notice, demand, or request authorized or required by this
15 contract shall be deemed to have been given, on behalf of the Contractor
16 when mailed, postage prepaid, or delivered to the Regional Director, Upper
17 Colorado Region, Bureau of Reclamation, P.O. Box 11568, 125 South State
18 State, Salt Lake City, Utah 84147, and on behalf of the United States, when
19 mailed, postage prepaid, or delivered, to the Plateau, Incorporated, P.O.
20 Box 108, Farmington, New Mexico 87401. The designation of the addressee or
21 the address may be changed by notice given in the same manner as provided in
22 this article for other notices.

23 STANDARD CONTRACT ARTICLES

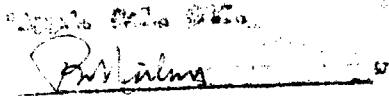
24 8. The standard contract articles applicable to this contract
25 are listed below. The full text of these standard articles is attached as
26 Exhibit A and is hereby made a part of this contract.

- 27 A. Contingent Upon Appropriation or Allotment of Funds
28 B. Officials Not To Benefit
29 C. Assignment Limited - Successor's and Assigns Obligated
30 D. Books, Records, and Reports
31 E. Rules, Regulations, and Determinations


- 1 F. Quality of Water
2 G. Water and Air Pollution Control
3 H. Equal Opportunity
4 I. Title XI, Civil Rights Act of 1964
5 IN WITNESS WHEREOF, the parties hereto have signed their names
6 the day and year first above written.

THE UNITED STATES OF AMERICA

(seal)



By:


Regional Director
Bureau of Reclamation

ATTEST:

PLATEAU, INCORPORATED

By:

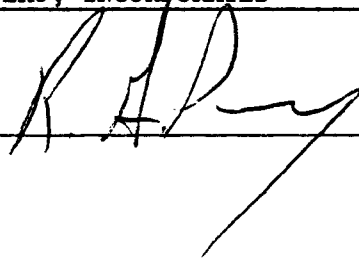


EXHIBIT A

A. CONTINGENT ON APPROPRIATION OR ALLOTMENT OF FUNDS

The expenditure or advance of any money or the performance of any work by the United States hereunder which may require appropriation of money by the Congress or the allotment of funds shall be contingent upon such appropriation or allotment being made. The failure of the Congress to appropriate funds or the absence of any allotment of funds shall not relieve the Contractor from any obligations under this contract. No liability shall accrue to the United States in case such funds are not appropriated or allotted.

B. OFFICIALS NOT TO BENEFIT

1. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom. This restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

2. No official of the Contractor shall receive any benefit that may arise by reason of this contract other than as a water user within the project and in the same manner as other water users within the project.

C. ASSIGNMENT LIMITED - SUCCESSORS AND ASSIGNS OBLIGATED

The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract or any part or interest therein shall be valid until approved by the Contracting Officer.

D. BOOKS, RECORDS, AND REPORTS

The Contractor shall establish and maintain accounts and other books and records pertaining to its financial transactions, water use, and to other matters as the Contracting Officer may require. Reports thereon shall be furnished to the Contracting Officer in such form and on such date or dates as he may require. Subject to applicable Federal laws and regulations, each party shall have the right during office hours to examine and make copies of each other's books and records relating to matters covered by this contract.

E. RULES, REGULATIONS, AND DETERMINATIONS

(a) The Contracting Officer shall have the right to make, after an opportunity has been offered to the Contractor for consultation, rules, and regulations consistent with the provisions of this contract, the laws of the United States and the State of New Mexico, to add or to modify them as may be deemed proper and necessary to carry out this contract, and to supply necessary details of its administration which are not covered by express provisions of this contract. The Contractor shall observe such rules and regulations.

(b) Where the terms of this contract provide for action to be based upon the opinion or determination of either party to this contract, whether or not stated to be conclusive, said terms shall not be construed as permitting

1 such action to be predicated upon arbitrary, capricious, or unreasonable
2 opinions or determinations. In the event that the Contractor questions any
3 factual determination made by the Contracting Officer, the findings as to
4 the facts shall be made by the Secretary only after consultation with the
5 Contractor and shall be conclusive upon the parties.

6 F. QUALITY OF WATER

7 The operation and maintenance of project facilities shall be performed in such
8 manner as is practicable to maintain the quality of raw water made available
9 through such facilities at the highest level reasonably attainable as deter-
10 mined by the Contracting Officer. The United States does not warrant the
11 quality of water and is under no obligation to construct or furnish water
12 treatment facilities to maintain or better the quality of water.

13 G. WATER AND AIR POLLUTION CONTROL

14 The Contractor, in carrying out this contract, shall comply with all applicable
15 water and air pollution laws and regulations of the United States and the
16 State of New Mexico and shall obtain all required permits or licenses from the
17 appropriate Federal, State, or local authorities.

18 H. EQUAL OPPORTUNITY

19 During the performance of this contract, the Contractor agrees as follows:

20 1. The Contractor will not discriminate against any employee or
21 applicant for employment because of race, color, religion, sex, or national
22 origin. The Contractor will take affirmative action to ensure that applicants
23 are employed, and that employees are treated during employment, without
24 regard to their race, color, religion, sex, or national origin. Such
25 action shall include, but not be limited to, the following: Employment,
26 upgrading, demotion, or transfer; recruitment or recruitment advertising;
27 layoff or termination; rates of pay or other forms of compensation; and
28 selection for training, including apprenticeship. The Contractor agrees to
29 post in conspicuous places, available to employees and applicants for
30 employment, notices to be provided by the Contracting Officer setting
31 forth the provisions of this nondiscrimination clause.

32 2. The Contractor will, in all solicitations or advertisements for
33 employees placed by or on behalf of the Contractor, state that all qualified
34 applicants will receive consideration for employment without discrimination
35 because of race, color, religion, sex, or national origin.

36 3. The Contractor will send to each labor union or representative of
37 workers, with which it has a collective bargaining agreement or other
38 contract or understanding, a notice, to be provided by the Contracting
39 Officer, advising the said labor union or workers' representative of the
40 Contractor's commitments under Section 202 of Executive Order 11246 of
41 September 24, 1965, and shall post copies of the notice in conspicuous
42 places available to employees and applicants for employment.

43 4. The Contractor will comply with all provisions of Executive
44 Order No. 11246 of September 24, 1965, as amended, and of the rules,
45 regulations, and relevant orders of the Secretary of Labor.

1 5. The Contractor will furnish all information and reports required
2 by said amended Executive Order and by the rules, regulations, and orders of
3 the Secretary of Labor, or pursuant thereto, and will permit access to its
4 books, records, and accounts by the Contracting Officer and the Secretary of
5 Labor for purposes of investigation to ascertain compliance with such rules,
6 regulations, and orders.

7 6. In the event of the Contractor's noncompliance with the nondiscrim-
8 ination clauses of this contract or with any of the said rules, regulations,
9 or orders, this contract may be canceled, terminated, or suspended, in whole
10 or in part and the Contractor may be declared ineligible for future Government
11 contracts in accordance with procedures authorized in said amended Executive
12 Order, and such other sanctions may be imposed and remedies invoked as
13 provided in said Executive Order, or by rule, regulation, or order of the
14 Secretary of Labor, or as otherwise provided by law.

15 7. The Contractor will include the provisions of paragraphs (1)
16 through (7) in every subcontract or purchase order unless exempted by the
17 rules regulations, or orders of the Secretary of Labor issued pursuant to
18 Section 204 of said amended Executive Order, so that such provisions will be
19 binding upon each subcontractor or vendor. The Contractor will take such
20 action with respect to any subcontract or purchase order as may be directed
21 by the Secretary of Labor as a means of enforcing such provisions, including
22 sanctions for noncompliance: Provided, however, That in the event a
23 Contractor becomes involved in, or is threatened with, litigation with a
24 subcontractor or vendor as a result of such direction, the Contractor may
25 request the United States to enter into such litigation to protect the
26 interests of the United States.

27 I. TITLE VI, CIVIL RIGHTS ACT OF 1964

28 1. The Contractor agrees that it will comply with Title VI of the Civil
29 Rights Act of July 2, 1964 (78 Stat. 241) and all requirements imposed by or
30 pursuant to the Department of the Interior Regulation (43 CFR 17) issued pur-
31 suant to that title, to the end that, in accordance with Title VI of that Act
32 and the Regulation, no person in the United States shall, on the ground of
33 race, color, or national origin be excluded from participation in, be denied
34 the benefits of, or be otherwise subjected to discrimination under any program
35 or activity for which the Contractor receives financial assistance from the
36 United States and hereby gives assurance that it will immediately take any
37 measures to effectuate this agreement.

38 2. If any real property or structure thereon is provided or improved
39 with the aid of Federal financial assistance extended to the Contractor by
40 the United States, this assurance obligates the Contractor, or in the
41 case of any transfer of such property, any transferee for the period during
42 which the real property or structure is used for a purpose involving the
43 provision of similar services or benefits. If any personal property is so
44 provided, this assurance obligates the Contractor for the period during
45 which it retains ownership or possession of the property. In all other
46 cases, this assurance obligates the Contractor for the period during which
47 the Federal financial assistance is extended to it by the United States.

48 3. This assurance is given in consideration of and for the purpose of
49 obtaining any and all Federal grants, loans, contracts, property, discounts,

1 or other Federal financial assistance extended after the date hereof to the
2 Contractor by the United States, including installment payments after such
3 date on account of arrangements for Federal financial assistance which were
4 approved before such date. The Contractor recognizes and agrees that such
5 Federal financial assistance will be extended in reliance on the representa-
6 tions and agreements made in this assurance, and that the United States shall
7 reserve the right to seek judicial enforcement of this assurance. This
8 assurance is binding on the Contractor, its successors, transferees, and
9 assignees.

Refinery Seepage Stirs Dispute

By NOLAN HESTER
Journal Staff Writer

7/25/82

The state and a Bloomfield refinery are locked in a dispute over whether the firm is letting an estimated 50,000 gallons a week of oil-contaminated water escape into the San Juan River.

Oil Conservation Division chief Joe Ramey has threatened to press for fines against Plateau Inc. for refusing to cooperate with his staff.

While Plateau officials admit that the plant does have some seepage, vice president Bob Perry insisted that none of it is reaching the river.

Perry added that the firm has tried to work with the state on the matter, but said, "We feel like we're being picked on."

Both sides agree that the clash started earlier this year when Plateau asked the state to amend its existing water discharge permit for the Bloomfield refinery, which stands on a bluff on the San Juan River's south side. Ramey's office is charged with policing oil operations that might affect

underground water supplies.

Perry said Plateau wanted to change its plan to allow the refinery to use some waste water to irrigate open fields nearby. At the same time, the firm outlined a plan for recapturing waste water which escapes the plant and seeps out along the bluff.

"We do have seeps but the plan states how they will be recovered," Perry said. "Nothing is reaching the river nor will it ever." He estimated the seepage rate is about five to six gallons a minute, or the equivalent of 50,000 gallons a week.

Ramey said his staff discovered a series of unexplained seeps when it began to review the refinery's plans. That prompted still more questions about the adequacy of the plant's original discharge plan.

Ramey said he was especially concerned about oil-based wastes from the refinery which are seeping into a nearby irrigation ditch from which some residents fill their cisterns.

While Ramey has not yet received the results of tests on samples taken

from the area, he said at least one area reeked of oil. Ramey added that Plateau has not consented to submitting its own samples of the refinery wastes.

Perry complained that the state has continually changed its demands and placed few of them in writing. "They're being very picky. They want everything (in the plan) to be just perfect," he said.

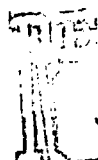
Ramey offered a rebuttal, explaining, "Maybe we've been more thorough than we need to be, but we can't say that until we find where the seeps are coming from. The indications are they're coming from the refinery."

Though Plateau is going along with Ramey's requests for now, Perry said the firm ultimately will challenge the agency's jurisdiction over the plant. Perry argued that since only surface water seems to be involved, Ramey's division has no jurisdiction.

Ramey said he will ask the state Water Quality Control Commission to back him up on the matter by levying a fine against Plateau.

PLATEAU, INC.

July 20, 1982



JUL 21 1982

OIL

SANTA FE

P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221

52

Mr. Oscar Simpson
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Dear Oscar:

Please find outlined below the chemicals and the vendors who supply these chemicals to our Refinery.

CHEMICAL

Polymer 1190
Betz 2040
Betz 2020
Balanced Polymer AP-II
Industrial Corrogen
Slimicide 508
HTH Dry Chlorine
Chlorine
Petromeen WS-66
Petromeen OS-16
Petromeen EB-911
Neutrafilm 463
Tetramix 50
MLA 500
MPA 447R
Oil Bronze Dye
Tolad 346
Stadis 450

COMPANY

Betz Labs
Betz Labs
Betz Labs
Betz Labs
Betz Labs
Betz Labs
Betz Labs
Olin Corporation
Thatcher Chemical Co.
Betz Process Chemicals, Inc.
Betz Process Chemicals, Inc.
Betz Process Chemicals, Inc.
Betz Labs
Dupont
Ethyl
Ethyl
Ethyl
Tretolite
Tretolite

The products that we refine or produce are readily available at any of our service stations for purchase.

If you have further questions, feel free to contact me.

Sincerely yours,

Dwight J. Stockham
Assoc. Environmental Engineer

DJS:Lh

Enclosure

cc: G.A. Masson
Chad King
P. W. Liscom
R. G. Perry



PETROLEUM REFINERS • MARKETERS

Betz Laboratories
4636 Somerton Road
Trevose, PA 19047

Olin Corporation
120 Long Ridge Road
Stanford, Connecticut 06904

Betz Process Chemicals, Inc.
2203 Timberloch Place, Ste. 250
The Woodlands, TX 77380

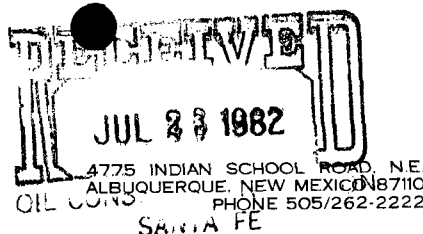
Ethyl Corporation
Petroleum Chemicals Division
2 Houston Center, Ste. 900
Houston, TX

E. I. DuPont De Nemours
File No. 7761
1000 W. Temple
Los Angeles, CA 90074

Tretrolite Division
P. O. Box 14513B
St. Louis, MO 63178

Thatcher Chemical Co.
1900 Fortune Road
Salt Lake City, UT 84104

PLATEAU, INC.



July 19, 1982

Joseph Ramey, Director
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
PO Box 2088
State Lane Office Building
Santa Fe, NM

Dear Mr. Ramey:

On July 12, 1982, I had occasion to meet with Oscar Simpson of your office at Plateau's Bloomfield New Mexico Refinery offices. Also present at the meeting were Rex Edwards from the Bureau of Reclamation, and for Plateau, Robert Perry, Dwight Stockham, Chad King and Mike Palumbo along with Bill Turner from American Groundwater Consultants, Inc., the company which prepared the Up-dated Discharge Plan which was submitted to your office on June 2, 1982.

Mr. Simpson called this meeting to learn from Plateau what Plateau planned to do about some water seeps in the Northwest corner of its property that Mr. Simpson stated were, in his opinion, polluting ground water adjacent to the San Juan River. Mr. Simpson stated that he had come onto Plateau's property the previous Tuesday to take water and soil samples of earth from areas along the river, which samples have not yet been fully analyzed. He also stated that he would make arrangements to come onto Plateau's property on July 13, 1982, to do some organic sampling and take samples of the river water in the areas most likely to show whether or not harmful concentrations of effluent, as defined in the regulations, were being discharged into the river. For our purposes, I will assume that the term "discharge" is as defined in Section 1-203(c) of the regulations.

I asked Mr. Simpson under what provisions of the regulations he felt Plateau was required to file a water discharge plan. It is my understanding that he relies on Section 3-101 of the regulations which sets forth the purpose of the regulations as to protect all ground water of the state for present and potential future use as a domestic and agricultural water supply and to protect those segments of surface water which are gaining because of ground water inflow.

I had already pointed out to you over the telephone two weeks ago that my understanding of the facts and the regulations had led me to believe that no discharge

plan was required because Plateau was not discharging effluent so that it may move directly or indirectly into ground water. I do understand that the aquifer which Mr. Simpson is concerned with on the Northwest portion of Plateau's property may be considered to contain ground water as that term is defined in Section 1-101(M) of the regulations. However, I must point out that this aquifer is at the bottom of a 150 foot embankment adjacent to the river and is also part of the flood plain of the river. No one is ever going to be using that tiny area to drill a well for domestic or agricultural use. You will also note that Section 3-103 speaks of present or "reasonably foreseeable future use". Thus, I think it is clear that the requirement that Plateau file a discharge plan under those circumstances would not be consistent with the intent of the regulations. I will also point out that to date, there is no empirical evidence to show that Plateau is in fact discharging into ground water not in conformance with applicable effluent concentration standards. Hopefully, the present testing will reveal whether Plateau is or is not doing so. In addition, as far as the San Juan River is concerned, Section 3-101 talks about surface waters which are gaining because of ground water inflow. I understand that along Plateau's property the San Juan River is a losing stream rather than a gaining stream. Again, I hope that the tests will bring us evidence of this.

Based upon my impressions of last Monday's meeting, I request that you send me a written statement of the Commission's position on the applicability of Section 3-104 to Plateau. Perhaps this could be prepared by Perry Pierce. I would appreciate receiving such a statement at your earliest convenience. Inclusion of a marked up aerial photo of the Plateau property would be most helpful.

As far as the testing itself is concerned and the ongoing efforts of Plateau to ensure that no water contamination takes place, I wish to make a few points. First, Plateau would appreciate it if Mr. Simpson would contact its offices in advance when he desires to come on to Plateau's property to inspect or to take samples of anything. This is for Mr. Simpson's own personal safety, a matter of simple courtesy and to ensure that testing is done in a way that results in admissible evidence. Without a Plateau presence at the time of the sampling, there is no independent support for the test results on questions of when the tests were taken, by whom, or the location of the test areas. On the other hand, a Plateau presence would serve to establish the verifiability of the testing by joint initialing of samples taken and joint sample taking.

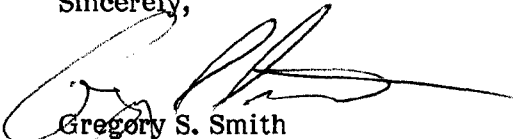
Secondly, Plateau had submitted a draft discharge plan for your comment and review. You were asked to go over the plan and tell Plateau all that it had yet to do to satisfy the Commission. The Commission came back with a letter dated February 24, 1982 specifying those items, all of which Plateau has addressed. Mr. Simpson recalls having mentioned testing and handling of the Northwest seeps in a meeting between himself and Plateau personnel. There is no written record of such a request and no recollection of such a request by any Plateau person or by Mr. Turner. Thus it appeared to Plateau as though your office was never satisfied. Be that as it may, and perhaps from a simple failure of communication, I think you can appreciate the feeling of frustration experienced by Plateau at hearing about yet another matter that had not been mentioned in the February 24 letter. Ironically, Mr. Simpson stated that Plateau had not addressed the Northwest seep matter at all in its discharge plan. On the contrary, page 34 of the plan does in fact address the question of additional seeps and how Plateau could handle them. Now Mr. Simpson asks for time schedules for this process. What will be next?

Plateau will wait to see the results of the current testing and I will look forward to a statement from your office on the question of the applicability of Section 3-104 to Plateau. While I can easily see that under proper circumstances Plateau might be subject to Sections 1-201 and 1-203 of the regulations, without a cogent explanation of the Commission's position on Section 3-104 I might be prepared to recommend that Plateau simply disregard the Commission's authority regarding the filing of, compliance with, supplements to, amendments of, or anything else having to do with a water discharge plan.

Plateau has been taking steps in good faith to ensure that there is no water contamination on or off its property and wants to cooperate with whoever can provide advice on how best to accomplish that goal. In order for this to take place however, we must be open with one another on the reasons and authority for requesting or demanding things, the planning on how things will be accomplished and the practical business problems which Plateau might face in trying its best to do the job right.

I look forward to hearing from you soon.

Sincerely,



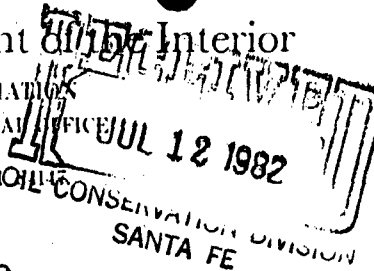
Gregory S. Smith
Staff Attorney

bv



United States Department of the Interior

BUREAU OF RECLAMATION
UPPER COLORADO REGIONAL OFFICE
P.O. BOX 11568
SALT LAKE CITY, UTAH 84111



IN REPLY
REFER TO: UC-440
832.

Mailed → JUL 8 1982

Mr. Dwight J. Stockham
Associate Environmental Engineer
Plateau Inc.
P.O. Box 26251
Albuquerque, New Mexico 87125

Dear Mr. Stockham:

This letter responds to your requests dated April 13, 1982, and May 11, 1982, for water service from Navajo Reservoir, Colorado River Storage Project, New Mexico.

We have reviewed your immediate 2 year contract request for consistency with the National Environmental Policy Act of 1969. These reviews are required of Federal agencies prior to decision making on resource allocation. Essentially, we assess the environmental impacts likely to occur or which presently occur from using water resources. A "categorical exclusion checklist form" is enclosed which illustrates our methods of evaluating environmental impacts for this type of water service.

While assessing environmental impacts associated with Plateau's operation, we discovered that significant water quality problems may be occurring. We understand that the State of New Mexico, Oil Conservation Division, has required you to submit a "Discharge Plan" to satisfy these apparent environmental problems. Under articles 7 and 9 of your existing contract and article 8, parts F and G, of the enclosed contract, we are concerned about these water quality issues and believe they must be resolved.

Given these circumstances, we prefer to renew your contract for 3 months and schedule an on-site inspection with your company, the State of New Mexico, and ourselves to identify the problem. We will consider a 1 year contract if we can resolve the existing environmental problems to conform with the State of New Mexico's and the Secretary's regulations and requirements.

Please have an authorized official of your company execute both copies of the contract and return them to us along with full payment for the water. We will then execute the contracts on behalf of the United States and return one fully executed copy to you.

Your 8 year contract term request presents a problem since your actual water service needs appear to be of a longer term. Long term contracts for water

service from Navajo Reservoir must be approved in Congress. In your response please inform us of the longest term you would request water service. We prefer to fill your long term needs with a long term contract rather than with interim measures. In addition, long term water use will require a more detailed NEPA compliance.

We will contact you for a date to meet with you and the State of New Mexico on these issues. We recommend a date between now and July 21, 1982. Please contact Ms. Deborah Linke, Chief, Repayments Staff, at (801) 524-5435 if you have any questions.

Sincerely yours,

For **F. Phillip Sharpe**
Clifford I. Barrett
Regional Director

Enclosure

cc: Mr. Steve Reynolds
State Engineer
Water Resources Division
Bataan Memorial Building, Room 101
Santa Fe, New Mexico 87503

✓ Mr. Oscar Simpson
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Hammond Conservancy District
P.O. Box 517
Bloomfield, New Mexico 87413



BRUCE KING
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

July 12, 1982

Plateau, Inc.
P. O. Box 159
Bloomfield NM 87413

Attn: Paul Liscom

Re: Discharge plan for Plateau Refinery, Inc.

Dear Sir,

The Oil Conservation Division hereby requests Plateau to submit samples of the treatment chemicals that they have listed in their Discharge Plan as described in attachment #2. Also submit samples of the products they refine or produce and the chemical additives used to supplement the refined products. Please attach with these samples the product manufacturer, brand name, and generic composition for each sample.

The Oil Conservation Division under the authority of the Water Quality Control Commission Regulations WQCC 81-2 Part 3 Water Quality Control section 3-106, (C-7) and section 3-107 (D-3) and the Oil Conservation Commission Section 70-2-12 NMSA 1978 make this request.

If you have any questions concerning this matter call me at (505) 827-2534.

Sincerely,

Oscar A. Simpson

Oscar Simpson
Water Resource Specialist

OS:gc

PS: This letter will be hand delivered by myself and presented to you or Chad King upon submittal. The Oil Conservation Division requests Plateau to submit the samples to me at that time or within seven days of the date of this letter to the Oil Conservation Division, P.O. Box 2088, Santa Fe New Mexico 87501 (O.H.S.)

45

PLATEAU, INC.

P.O. BOX 26251
ALBUQUERQUE, N.M. 87125-6251
PHONE 505/262-2221

June 2, 1982

Mr. Joe Ramey, Director
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico

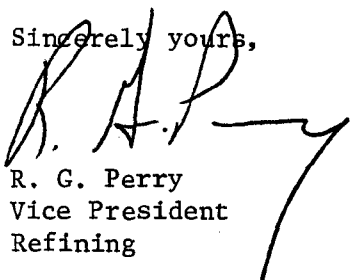
Dear Mr. Ramey:

Plateau, Inc. has completed all the information requested in the Oil Conservation Division's letter of February 24, 1982 to William M. Turner. Plateau, Inc. also has authorization for expenditure (A.F.E.) for the project which was mandated by your office. (attached)

Plateau has been advised by counsel that the discharge plan that is being submitted is not required by the Water Quality Control Commission Regulations. We are submitting this discharge plan in good faith and as a good neighbor to the State of New Mexico. However, we do intend to follow up our protest of having to submit this discharge plan.

Plateau will not allow the disagreement over this matter to interfere with our commitment to observing the environmental rules and regulations applicable to our facility. We look forward to a continued good relationship with you and your staff.

Sincerely yours,



R. G. Perry
Vice President
Refining

RGP/shm

Enclosure



PETROLEUM REFINERS • MARKETERS

Submitted To OCD *on* June 2, 1982

CAPITAL EXPENDITURE DISPERSAL FORM

PROJECT: Oil Conservation Commission Ground Water Retention Project

C.I.P. # 500-015-162

DATE OF APPROVAL: April 16, 1982

AMOUNT APPROVED: \$ 35,000.00

Attached is a copy of the approved Request for Capital Expenditure which will provide pertinent information.

DESCRIPTION OF PROJECT: See attached

DISTRIBUTION:

ORIGINATOR: P. Liscom/Bloomfield Refinery

DEPARTMENT HEAD: Refining Coordination

PURCHASING

INTERNAL AUDITING

ASSET ACCOUNTING K. K. MORGAN

ACCOUNTS PAYABLE D. F. Bryant

SAFETY

DATA PROCESSING C. ZARECKI

OTHER: _____

SUBURBAN PROPANE GAS CORPORATION

MAR 22 1982

REQUEST FOR CAPITAL EXPENDITURE SUMMARY

500-015-162

| | | | |
|---------------------------------------|--|--|--------------------------|
| DIVISION: Plateau, Inc. | DATE: 3-10-82 | PROPOSAL IN <input type="checkbox"/> NOT IN <input checked="" type="checkbox"/> FISCAL YEAR <u>82</u> BUDGET | BUDGETED AMOUNT: \$ 0 |
| PROPOSED STARTING DATE: March 1982 | ESTIMATED COMPLETION DATE: May 1982 | PROJECT CAPITAL EXPENDITURE TYPE: ACQUISITION <input checked="" type="checkbox"/> LEASE <input type="checkbox"/> | |

PROJECT OBJECTIVE:

ADDITION/EXPANSION ☐ PROFIT IMPROVEMENT ☐ REPLACEMENT/MAINTENANCE ☐ OTHER (Specify) ☒

Oil Conservation Commission Ground

Water Retention Project - Bloomfield Refinery

TOTAL CASH OUTLAY: \$ 35,000.00

DESCRIPTION OF PROPOSAL: (Use additional sheets if necessary)

This project will consist of the following: (1) Build two earthen dikes in arroyos south of Sullivan Road and east of the proposed spray irrigation area on Plateau's property. (2) Build a small retaining wall along the east side of the spray area extending from Sullivan Road to the south end of Plateau's property. (3) Build concrete retention dams in three arroyos north of the refinery. These dams will be located in the outcrop of the (CONTINUED ON PAGE 2)

PURPOSE OR NECESSITY OF PROJECT: (Use additional sheets if necessary)

The purpose of this project is the following: (1) Contain any possible runoff from the spray irrigation area. (2) Recover any water seeping from the evaporation ponds and running down arroyos north of the refinery towards the San Juan River.

JUSTIFICATION/NATURE OF SAVINGS OR BENEFITS: (Use additional sheets if necessary)

This project has been mandated by the New Mexico Oil Conservation Division and agreed upon by Plateau.

MONTHS DURING WHICH FUNDS WILL BE REQUIRED AND APPROXIMATE AMOUNTS:

March 1982 - \$10,000 May 1982 - \$10,000
April 1982 - \$15,000

TOTAL INVESTMENT: (Include incremental working capital and attach Form GEN. 5149)

35,000.00

RETURN ON INVESTMENT:

PRESENT VALUE NET CASH FLOW @ 10% \$

ACTUAL RETURN: (CORPORATE USE)

PRESENT VALUE NET CASH FLOW @ % \$

No economic justification calculated

INVESTMENT PAYBACK:

NUMBER OF YEARS ☒N/A ☐

REQUESTED BY:

K. Sinks (signature on original)

DATE

3-15-82

APPROVED:

DIVISION CONTROLLER

DATE

3/29/82

APPROVED:

DIVISION PRESIDENT

DATE

4/2/82

APPROVED:

R. G. Perry (signature on original)

DATE

3-19-82

APPROVED:

P. W. Liscom (signature on original)

DATE

3-24-82

APPROVED:

R.M. Cresson JR Telephone 418122 etc

DATE

4-12-82

APPROVED:

WJ Dwyer

DATE

4-12-82

SUBURBAN PROPANE GAS CORPORATION
REQUEST FOR CAPITAL EXPENDITURE SUMMARY

MAR 22 1982

| | | | |
|---------------------------------------|--|---|--------------------------|
| DIVISION: Plateau, Inc. | DATE: 3-10-82 | PROPOSAL <input type="checkbox"/> IN <input type="checkbox"/> NOT IN <input checked="" type="checkbox"/> FISCAL YEAR <u>82</u> BUDGET | BUDGETED AMOUNT: \$ 0 |
| PROPOSED STARTING DATE: March 1982 | ESTIMATED COMPLETION DATE: May 1982 | PROJECT CAPITAL EXPENDITURE <input checked="" type="checkbox"/> TYPE: ACQUISITION <input type="checkbox"/> LEASE <input type="checkbox"/> | |

PROJECT OBJECTIVE:

ADDITION/EXPANSION ☐ PROFIT IMPROVEMENT ☐ REPLACEMENT/MAINTENANCE ☐ OTHER (Specify) ☒

Oil Conservation Commission Ground
Water Retention Project - Bloomfield Refinery

TOTAL CASH OUTLAY: \$ 35,000.00

DESCRIPTION OF PROPOSAL: (Use additional sheets if necessary)

This project will consist of the following: (1) Build two earthen dikes in arroyos south of Sullivan Road and east of the proposed spray irrigation area on Plateau's property. (2) Build a small retaining wall along the east side of the spray area extending from Sullivan Road to the south end of Plateau's property. (3) Build concrete retention dams in three arroyos north of the refinery. These dams will be located in the outcrop of the (CONTINUED ON PAGE 2)

PURPOSE OR NECESSITY OF PROJECT: (Use additional sheets if necessary)

The purpose of this project is the following: (1) Contain any possible runoff from the spray irrigation area. (2) Recover any water seeping from the evaporation ponds and running down arroyos north of the refinery towards the San Juan River.

JUSTIFICATION/NATURE OF SAVINGS OR BENEFITS: (Use additional sheets if necessary)

This project has been mandated by the New Mexico Oil Conservation Division and agreed upon by Plateau.

| | |
|--|--|
| <p>MONTHS DURING WHICH FUNDS WILL BE REQUIRED AND APPROXIMATE AMOUNTS:</p> <p>March 1982 - \$10,000 May 1982 - \$10,000 April 1982 - \$15,000</p> <p>TOTAL INVESTMENT: (Include incremental working capital and attach Form GEN. 5149)</p> <p>\$ 35,000.00</p> <p>RETURN ON INVESTMENT:</p> <p>PRESENT VALUE NET CASH FLOW @ 10% \$ _____</p> <p>ACTUAL RETURN: (CORPORATE USE)</p> <p>PRESENT VALUE NET CASH FLOW @ ____ % \$ _____</p> <p>No economic justification calculated</p> <p>INVESTMENT PAYBACK:</p> <p align="center">NUMBER OF YEARS <input checked="" type="checkbox"/> XX</p> <p align="center">N/A <input type="checkbox"/></p> | <p>REQUESTED BY: _____ DATE 3-15-82</p> <p>K. Sinks (signature on original)</p> <p>APPROVED: _____ DATE 3-24-82</p> <p>DIVISION CONTROLLER</p> <p>APPROVED: _____ DATE 4/2/82</p> <p>DIVISION PRESIDENT</p> <p>APPROVED: _____ DATE 3-19-82</p> <p>R. G. Perry (signature on original)</p> <p>APPROVED: _____ DATE 3-24-82</p> <p>P. W. Liscom (signature on original)</p> <p>APPROVED: _____ DATE _____</p> <p>APPROVED: _____ DATE _____</p> <p>APPROVED: _____ DATE _____</p> |
|--|--|

MAR 22 1982

OIL CONSERVATION COMMISSION GROUND WATER RETENTION PROJECT - 500

DESCRIPTION OF PROPOSAL:

Nacimiento formation in each canyon, the footing being sunk at least two feet into that impervious layer. The concrete dike will be 8-12' wide and high enough to retain a water volume for pumping, probably 3-4'. (4) Gravity flow water from each of the above retention ponds to a common pump station or install a pump at each pond. Piping will be run to bring the water back up to the refinery waste water system. (5) Install a pump station at natural drainage pond located east of the evaporation ponds and pipe this water back to the refinery. (6) Install a totalizing water meter on the spray irrigation line leaving the refinery. (7) Modify existing equipment to eliminate the possibility of sump overflow at pump station located on the north oily water pond.

, PLATEAU, INC.
REQUEST FOR CAPITAL EXPENDITURE SUMMARY
(For Internal Use Only)

| | | | | | |
|---------------------------------------|--|---|--|--------|-------------------------|
| DIVISION: Bloomfield Refinery | DATE: March 10, 1982 | PROPOSAL <input type="radio"/> IN <input type="radio"/> NOT IN <input checked="" type="radio"/> | FISCAL YEAR <u>82</u> | BUDGET | BUDGETED AMOUNT \$ - |
| PROPOSED STARTING DATE: March 1982 | ESTIMATED COMPLETION DATE: May 1982 | PROJECT TYPE: | CAPITAL EXPENDITURE <input checked="" type="radio"/> ACQUISITION <input type="radio"/> LEASE <input type="radio"/> | | |

PROJECT TITLE: Oil Conservation Commission Ground Water Retention Project

CHARGE DEPT. #

PROJECT OBJECTIVE:

ADDITION/EXPANSION PROFIT IMPROVEMENT REPLACEMENT/MAINTENANCE OTHER (specify)

TOTAL CASH OUTLAY \$ 35,000 _____

TOTAL ASSET WRITEOFF \$ _____ (Bus. Serv. Only) _____

TOTAL PROJECT COST \$ _____ (Bus. Serv. Only) _____

DESCRIPTION OF PROPOSAL: (use additional sheets if necessary)

This project will do the following: (1) Build two earthen dikes in arroyos south of Sullivan Road and east of the proposed spray irrigation area on Plateau's property. (2) Build a small retaining wall along the east side of the spray area extending from Sullivan Road to the south end of Plateau's property. (3) Build concrete retention dams in three arroyos north of the refinery. These dams will be located in the outcrop of the Nacimiento formation in each canyon, the footing being sunk at least two feet into that impervious layer. The concrete dike will be 8-12' wide and high enough to retain a water volume for pumping, probably 3-4'. (4) Gravity flow water from each of the above retention ponds to a common pump station or install a pump at each pond. Piping will be run to bring the water back up to the refinery waste water system. (5) Install a pump station at natural drainage pond located east of the evaporation ponds and pipe this water back to the refinery. (6) Install a totalizing water meter on the spray irrigation line leaving the refinery. (7) Install equipment for eliminating the possibility of sump overflow at pump station located on the north oily water pond.

MONTHS DURING WHICH FUNDS WILL BE REQUIRED
AND APPROXIMATE AMOUNTS:

March 10,000, April 15,000, May 10,000

TOTAL INVESTMENT: (include incremental working
capital - see page 4)

\$ _____

REQUESTED BY:

DATE:

[Signature]
APPROVED: (DEPT. HEAD)

15 MAR '82

DATE:

PURPOSE OR NECESSITY OF PROJECT: (use additional sheets if necessary)

The purpose of this project is the following:

- 1) Contain any possible runoff from the spray irrigation area.
- 2) Recover any water seeping from the evaporation ponds and running down arroyos north of the refinery towards the San Juan River.

JUSTIFICATION/NATURE OF SAVINGS OR BENEFITS: (use additional sheets if necessary)

This project has been mandated by the New Mexico Oil Conservation Division and agreed upon by Plateau.

PLATEAU, INC.
INVESTMENT SUMMARY

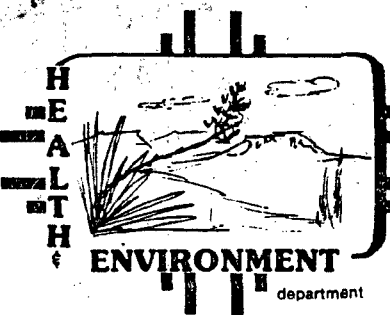
Date: 3-10-82

PROJECT: Oil Conservation Commission Ground Water Retention Project.

| Permanent Capital: | Capital Investment | Capital Write-Off | Salvage Value | Total (B.S. Use Only) |
|----------------------|-----------------------|----------------------|------------------|--------------------------|
| Land | \$ _____ | _____ | _____ | _____ |
| Buildings | _____ | _____ | _____ | _____ |
| Equipment | _____ | _____ | _____ | _____ |
| Vehicles | _____ | _____ | _____ | _____ |
| Furniture & Fixtures | _____ | _____ | _____ | _____ |
| Leases | _____ | _____ | _____ | _____ |
| Other | _____ | _____ | _____ | _____ |
| TOTAL | _____ | _____ | _____ | _____ |
| Working Capital: | | | | |
| Accounts Receivable | _____ | | | |
| Inventories | _____ | | | |
| Other | _____ | | | |
| TOTAL | _____ | | | _____ |
| TOTAL INVESTMENT | \$ _____ | _____ | _____ | _____ |

PAYBACK: $\frac{\text{Total Investment}}{\text{Net Income After Taxes \& Depreciation}}$ = None yrs.

RETURN ON INVESTMENT: For purposes of preliminary review by departmental management, computations generally show that an investment which has a payback of 4.5 years or less will normally show a R.O.I. exceeding 20%. Business Services will compute R.O.I. as part of the formal presentation.



STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 827-5271
Thomas E. Baca, M.P.H., Director

Bruce King
GOVERNOR

George S. Goldstein, Ph.D.
SECRETARY

Larry J. Gordon, M.S., M.P.H.
DEPUTY SECRETARY

RECEIVED
APR 02 1982

March 31, 1982

*HMZ
2/14/767 9726
SCOT NICKELSON*

Zoe K. Shultz
EPA
RCRA Permits Section (6E-GR)
First International Building
1201 Elm Street
Dallas, TX 75270

*Plateau Recharge
Plan*

EID Comments

Dear Ms. Shultz:

Enclosed are some questions and comments concerning the two ground-water monitoring waiver justification reports that you submitted to the New Mexico Environmental Improvement Division on October 22, 1981. I reviewed them upon request by Dr. Raymond Krehoff.

If you have any questions, please call me at the above telephone number, Ext. 237.

Sincerely,

Kent Bostick

Kent Bostick
Ground-Water Hydrologist
Water Pollution Control Bureau

KB:md

Enclosure

cc: Ray Krehoff, PEM
✓ O. Simpson, OCD

Discharge and Monitoring Plan for a Refinery Operated by Plateau, Inc. near Bloomfield, New Mexico.

1. All potential seepage sites and seepage rates at the plant must be assessed. Operation of the oily water ponds and the solar evaporation ponds can be expected to produce some seepage. The quantity of seepage depends on the hydraulic conductivity of the bentonite liners, the thickness of the liners, the area of the ponds and the amount of hydraulic head above the liners. As none of this information has been provided in the report, seepage rates cannot be calculated. However, using estimated parameters of a hydraulic conductivity of 10 ft/year, a one foot thick liner and 1 foot of head on a pond area of 5 acres, seepage from the evaporation ponds alone could amount to one-half of the plant discharge. For a monitoring waiver requirement to be considered, the quantity of seepage needs to be more adequately assessed as seepage rates could be as high as several thousand gallons per day.
2. The neutron logging, thermionics and Zeta-SP methods of ground water monitoring have not been sufficiently documented. For instance, there is no map showing the locations of the monitoring points around the ponds. No monitoring points have been provided for the oily water ponds, which also may seep. Will the thermionic measurements be made in different holes than those provided for the neutron logging? If so, how many holes will be provided and what are their locations? How does Plateau propose to measure Zeta-SP at discrete locations in the bottom of the pond? Will electrodes be installed in the bottom of the pond before construction? If so, how many installations will there be and at what locations? Will you also monitor the oily water ponds with Zeta-SP?
3. The statement that Fluorocarbon tracers have no measurable background in natural waters on page 36 is false. Waters derived from meteoric sources where recharge has been relatively recent, may have detectable limits of fluorocarbons. It is then necessary to establish background concentrations.
4. No procedure for fluorocarbon sampling has been presented. Are samples to be collected from seeps along escarpments near the Hammond Ditch or the San Juan River? This should be requested, as the seepage will probably create a zone of saturation in the cobble strata that overlies the Nacimiento Formation. The seepage will probably flow to the northwest along the contact between the Nacimiento Formation and the cobble zone and discharge at seeps.
5. Organic pollutants have not been addressed by the study. Washdown water and the presence of oily water ponds implies that organic compounds resulting from the fuel refining process, are potential pollutants. (These compounds and their biologically altered derivatives are classified in New Mexico as Toxic Pollutants. The impact of their discharge to the San Juan River and the Hammond Ditch is extreme as they may be concentrated in the aquatic food chain. A request should be made for periodic sampling of potential organic contaminants and for an assessment of the impact of their discharge to surface waters in the area.

In review, the document lacks the necessary details concerning monitoring procedures and the number and location of monitoring points to facilitate a waiver of the ground water monitoring requirements. These procedures and items must be described in detail so that there is no equivocation as to their installation and operation. Because

* Plateau has not done this to our satisfaction, we suggest that you request a monitoring plan. The possible contamination of surface water bodies in the area by Toxic Pollutants emanating from plant process makes this request imperative and undermines their described ability to monitor possible sources of pollutions by their own volition, as they didn't even consider toxic pollutants. Also, no contingency plan has been presented, should pollution be found to occur. (An industrial-chemical plant with such a potential for pollution must have a contingency plan.

Recent communications with Oscar Simpson of the New Mexico Oil Conservation Division (OCD) indicate that seepage from the ponds has occurred and is currently flowing into the San Juan River. Concrete diversions and an irrigation scheme are being employed to reduce the potential rates of seepage. The OCD has requested a Discharge Plan which should be submitted shortly. Any further questions should be submitted to Oscar Simpson as he is familiar with OCD's Discharge Plan.

AMERICAN GROUND WATER CONSULTANTS, INC.

2300 CANDELARIA ROAD, N.E.
ALBUQUERQUE, NEW MEXICO 87107
TELE: (505) 345-9505 CABLE: HYDROCONSULT
TELEX: 66-0422 TELECOPIER: (505) 247-0155

March 9, 1982

Mr. Robert Perry, Vice President
Plateau, Inc.
4775 Indian School Road, NE
Albuquerque, New Mexico 87110

Dear Mr. Perry:

American Ground Water Consultants is pleased to present herewith our report entitled: Updated Discharge Plan for a Refinery Operated by Plateau, Inc. near Bloomfield, New Mexico.

It is our opinion that based upon:


1. regulations of the New Mexico Water Quality Control Commission,
2. existing and planned waste-water handling plans which will capture any waste water before leaving the refinery property, and
3. the absence of natural ground water in the vicinity of the refinery

that no discharge plan is required under existing regulations.

The present report is submitted to update the previous discharge plan dated September 30, 1977.

Respectfully submitted,

AMERICAN GROUND WATER CONSULTANTS, INC.


Dr. William M. Turner
President

COVER SHEET
FOR FINAL DRAFT
BLACK BINDER

File Copy March 1982

**UPDATED DISCHARGE PLAN
FOR A REFINERY
OPERATED BY PLATEAU INC.,
NEAR BLOOMFIELD, NEW MEXICO**

**SUBMITTED TO
PLATEAU INC.,
ALBUQUERQUE, NEW MEXICO**

**SUBMITTED BY
AMERICAN GROUND WATER CONSULTANTS, INC.
CONSULTING GROUND WATER GEOLOGISTS & HYDROLOGISTS
ALBUQUERQUE, NEW MEXICO**

AMERICAN GROUND WATER CONSULTANTS, INC.

2300 CANDELARIA ROAD, N.E.
ALBUQUERQUE, NEW MEXICO 87107
TELE: (505) 345-9505 CABLE: HYDROCONSULT
TELEX: 66-0422 TELECOPIER: (505) 247-0155

March 9, 1982

Mr. Robert Perry, Vice President
Plateau, Inc.
4775 Indian School Road, NE
Albuquerque, New Mexico 87110

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1. regulations of the New Mexico Water Quality Control Commission,
2. existing and planned waste-water handling plans which will capture any waste water before leaving the refinery property, and
3. the absence of natural ground water in the vicinity of the refinery

that no discharge plan is required under existing regulations.

The present report is submitted to update the previous discharge plan dated September 30, 1977.

Respectfully submitted,

AMERICAN GROUND WATER CONSULTANTS, INC.



Dr. William M. Turner
President

SUMMARY

Since the approval of Plateau's original discharge plan some changes have taken place which may require submittal of additional information if in fact required. These changes include:

1. Slight increase in the amount of waste-water discharge by the plant.

2. Construction of surface water retention facilities in an arroyo north of the refinery.

3. Application of excess waste-water from the evaporation ponds to a land disposal site and the eventual use of this water for irrigated agriculture. *Error & wrong*

4. Development of a small diesel fuel seep into the Hammond Ditch immediately downstream from the El Paso Natural Gas right-of-way.

5. Detection of a small amount of seepage from the solar evaporation ponds *Exploen*

To reduce waste-discharge, a program of recycling water, has been implemented such that total average waste-water discharge is about 50 gallons per minute. This water is sent to the solar evaporation ponds and excess will be used for irrigation of alfalfa on company property.

Any excess irrigation water applied to the irrigated area will be retained by low berms which will be constructed at necessary locations around the irrigated area. These berms will also serve to retain rainfall from precipitation events.

Any seepage of water from the evaporation ponds or from irrigation will drain to the north on the subcrop surface of the Nacimiento Formation and will surface as seeps in southward trending arroyos north of the Hammond Ditch. This water will be captured behind small concrete dikes embedded in the Nacimiento Formation and pumped back to waste-water facilities of the refinery.

Seepage of diesel fuel into the Hammond Ditch is presently being recovered by sumps constructed in the bed of the Hammond Ditch.

There is no ground water in the vicinity of the refinery which could be potentially contaminated by waste-water seepage from refinery waste-water handling facilities and any seepage from these facilities will not escape the refinery property upon full implementation of the plan.

Monitoring methods required by the original discharge plan have served their usefulness and are not now providing any new information inasmuch as a new steady-state hydrologic situation has developed since the original discharge plan was approved. It is recommended that the former monitoring plan be discontinued.

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LIST OF ATTACHMENTS

Attachment

- 1 Summary and recommendations from first and second milestone reports
- 2 Description of refinery process
- 3 Monitoring results and lithologic logs
- 4 Calculations for irrigation water suitability

INTRODUCTION

Plateau, Inc. operates a refinery near Bloomfield, New Mexico. The location of the refinery is shown in figures 1 and 2. A waste-water discharge plan for the refinery was approved by the New Mexico Oil Conservation Commission (NMOCC) on June 5, 1977. Two subsequent reports on the monitoring activities at the refinery have been submitted by Plateau, Inc., to the NMOCC and the New Mexico Environmental Improvement Division (NMEID). The discharge plan and the addendum to the discharge plan as well as the milestone reports on monitoring activities were prepared by American Ground Water Consultants. The summaries from these reports are given in the references section and summaries and conclusions from the first two reports are included in Attachment 1 of this report.

When the original discharge plan was prepared, significant refinery expansion construction was underway and items such as the expected amount and quality of waste water discharge were estimated. Since approval of the original discharge plan, the volume of effluent from the refinery has increased from a projected 20.5 gallons per minute to an average of 50 gallons per minute. In addition, several changes have occurred in the handling of waste water from the refinery and it has become necessary to update the discharge plan to adequately set forth the proposed and actual methods of handling waste-water discharge from the refinery.

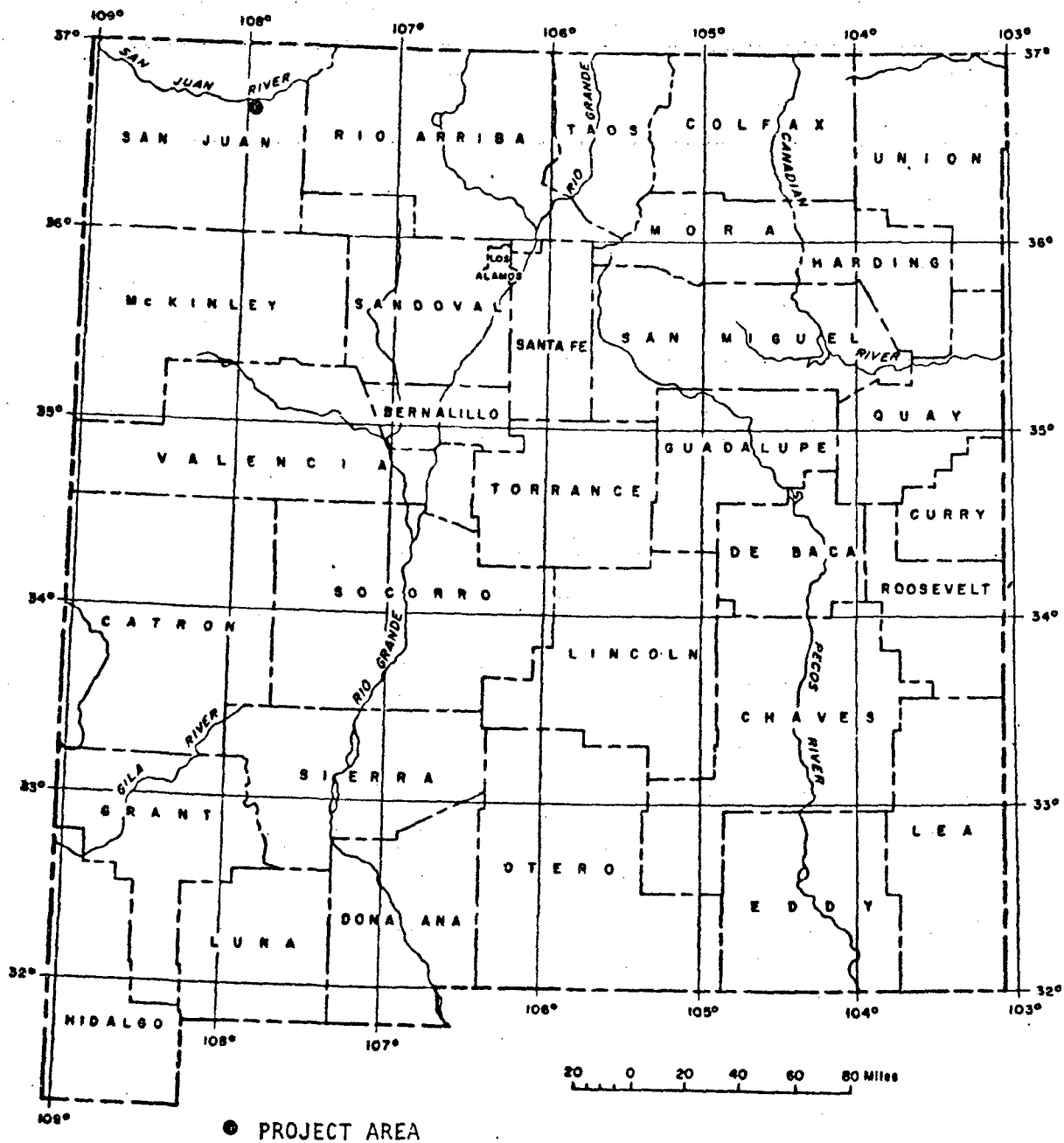


Figure 1. Map of New Mexico showing the location of the project area.

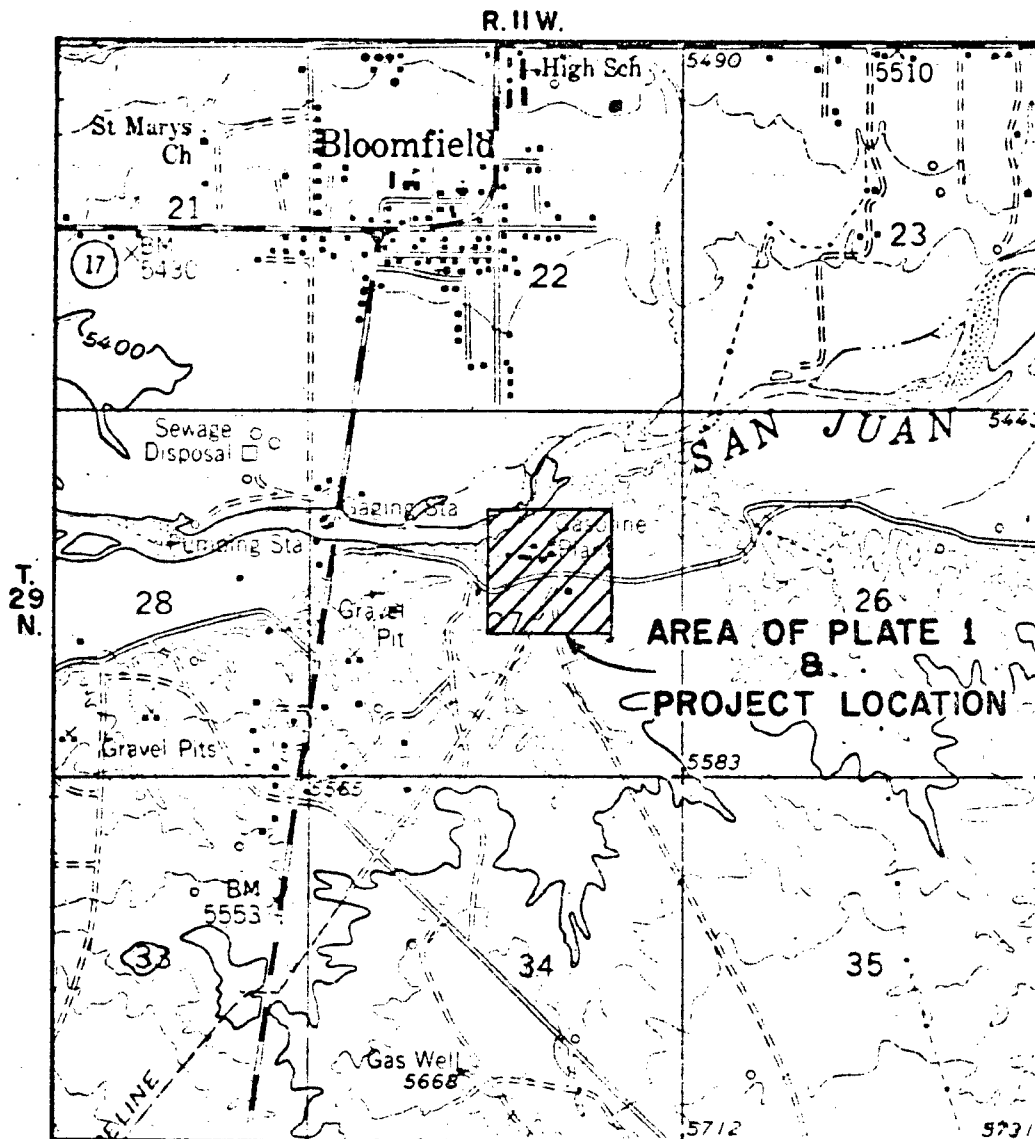


Figure 2. Diagram showing the location of the Plateau Refinery near Bloomfield, New Mexico.

This document is intended to provide sufficient information to update the discharge plan for the Plateau refinery at Bloomfield, if in fact an updated discharge plan is required. Plate 1 is an aerial photograph of the refinery. The boundaries of the refinery property and its legal description are given in Plate 2. Plates 3 through 5 are detailed topographic maps of the refinery property together with all improvements current as of April 1981. The process description for the refinery is included as Attachment 2.

REFINERY SETTING

The refinery is located on the Jackson Lake Terrace of the San Juan River (Pastuzak, 1968), about 120 feet above the present river level and about 500 feet from the river. The terrace was formed during the Pleistocene by downcutting of a former valley floor which had been aggraded with cobble and gravel deposits during the last glacial advance. At that time, the San Juan River was swollen with meltwater and carried great quantities of glaciofluvial outwash. In former times, the valley floor was three to five miles wide.

During the last glacial retreat, wind-blown sand and silt from the floodplains settled over the coarse clastics to form structureless loess deposits.

The terrace deposits on which the refinery is situated are comprised of about 15 feet of cobbles and gravels

overlying the Nacimiento Formation of Tertiary age. The cobble bed is overlain by about 20 feet of fine-grained, wind-blown silt and sand. South of the refinery, the cobble bed wedges out leaving only loess in overlying contact with the Nacimiento Formation. As far as can be determined, the Pleistocene cobble bed occurs everywhere beneath the refinery. Lithologic logs for monitoring wells drilled in the vicinity of solar evaporation pond 1 are given in Attachment 3 of the original discharge plan.

The Nacimiento Formation is a massively bedded, olive green, unctuous clay. The clay at the outcrop is a tight unfractured rock unit. As measured in nearby oil wells the Nacimiento Formation is about 500 feet thick. A log of the AMOCO DAVIS gas unit F-1 gas well was presented in Attachment 2 of the original discharge plan. At least 100 feet of this rock unit is exposed in the cliff face north of the refinery and adjacent to the San Juan River.

HYDROLOGIC FEATURES

San Juan River

The San Juan River is the only perennial river in the vicinity of the refinery. Along the reach of the San Juan River in the vicinity of the refinery, the river is neither a gaining nor a losing stream. Its alluvium-filled channel is incised into the impermeable clay of the Nacimiento Formation. The flow of the San Juan River at Bloomfield is

regulated by Navajo Dam and there is no danger of flooding of the refinery site by the San Juan River. The usual flow of the river is 500 cfs.

Hammond Ditch

In addition to the San Juan River and the intermittent stream channels which traverse the area of interest, the Hammond Irrigation Ditch passes from east to west through the refinery property between the refinery and the San Juan River. The ditch passes through an inverted siphon upon entering the refinery property on the east side. The ditch is unlined and is excavated into the Quaternary Jackson Lake Terrace deposits. The course of the ditch through the refinery property and its geological setting are shown in Plate 1.

The Hammond Ditch conveys water only during the irrigation season from mid-May to early October. Although attempts have been made by the Hammond Ditch Conservancy District to line the ditch with silt from local borrow pits, leakage from the ditch and into the cobble bed is significant. The valleys of nearly all intermittent stream channels which descend from the Jackson Lake Terrace south of the San Juan River are choked with trees, bullrushes, marsh grass and other vegetation. The source of water which supports the vegetation is leakage through the bed of the Hammond Ditch. Photographs of these valleys are presented in the original discharge plan.

The Hammond Ditch is a man-made, constant-head, line-source of recharge to the cobble bed during the irrigation season. Observation wells which have been constructed in the vicinity of the solar evaporation ponds indicate that the cobble bed is saturated. This water flows back into the Hammond Ditch after the flow to the ditch has been turned off in October. When the ditch water is turned off, there is absolutely no water entering the ditch through the inverted siphon at the eastern edge of the refinery property. Observations of the ditch at the western edge of the property show a flow of about two gallons per minute. Much of this is return flow of bank storage. This is evident from thawed ice on the south side of the surface of the ditch water during winter. That is, warm water from bank storage enters the ditch from the south. Bank storage on the north side of the ditch flows to the north and not back into the ditch thereby sustaining water seepage into the intermittent valleys north of the ditch.

Oliver

A Ground Water Occurrence

Ground water is defined by Section 1-101(M) of the New Mexico Water Quality Control Regulations as: "... interstitial water which occurs in saturated earth material and which is capable of entering a well in sufficient amounts to be utilized as a water supply." Based upon this

definition, there is no ground water in the vicinity of the refinery which could be affected by any discharge from the refinery. *wrong*

To verify that the cobble bed is void of natural ground water, the contact between the cobble bed and the underlying Nacimiento Formation was staked at numerous points shown in figure 3. Elevations of the contact were then levelled. The elevations of the contacts are also shown in figure 3. Elevations shown in italics represent elevations of the contact at points where small seeps of water were observed.

It is evident from figure 3 that the slope of the subcrop beneath the cobble bed is to the north or northwest at about 1.2 degrees. It is also evident that the subcrop topography is slightly undulose and this is easily visible in the outcrop. The spatial occurrence of the cobble bed indicates that it is dry. Any natural recharge to the cobble bed would drain to the north and either discharge into one of the southward trending valleys or onto the northward facing cliff immediately north of the refinery. All seeps indicated on Plate 1 were present before the evaporation ponds were filled. All seeps have been closely observed for a period of almost four years. The Hammond Ditch has been walked during January from 1978 until the present and in the vicinity of the filled evaporation ponds no detectable seepage has been observed. — *wrong* *Personal OCD observation indicates leakage*

It is concluded, therefore, that there is no naturally occurring ground water within the cobble bed capping the *wrong*

*show how well we recharge
from ditch would
not be a problem
clear*

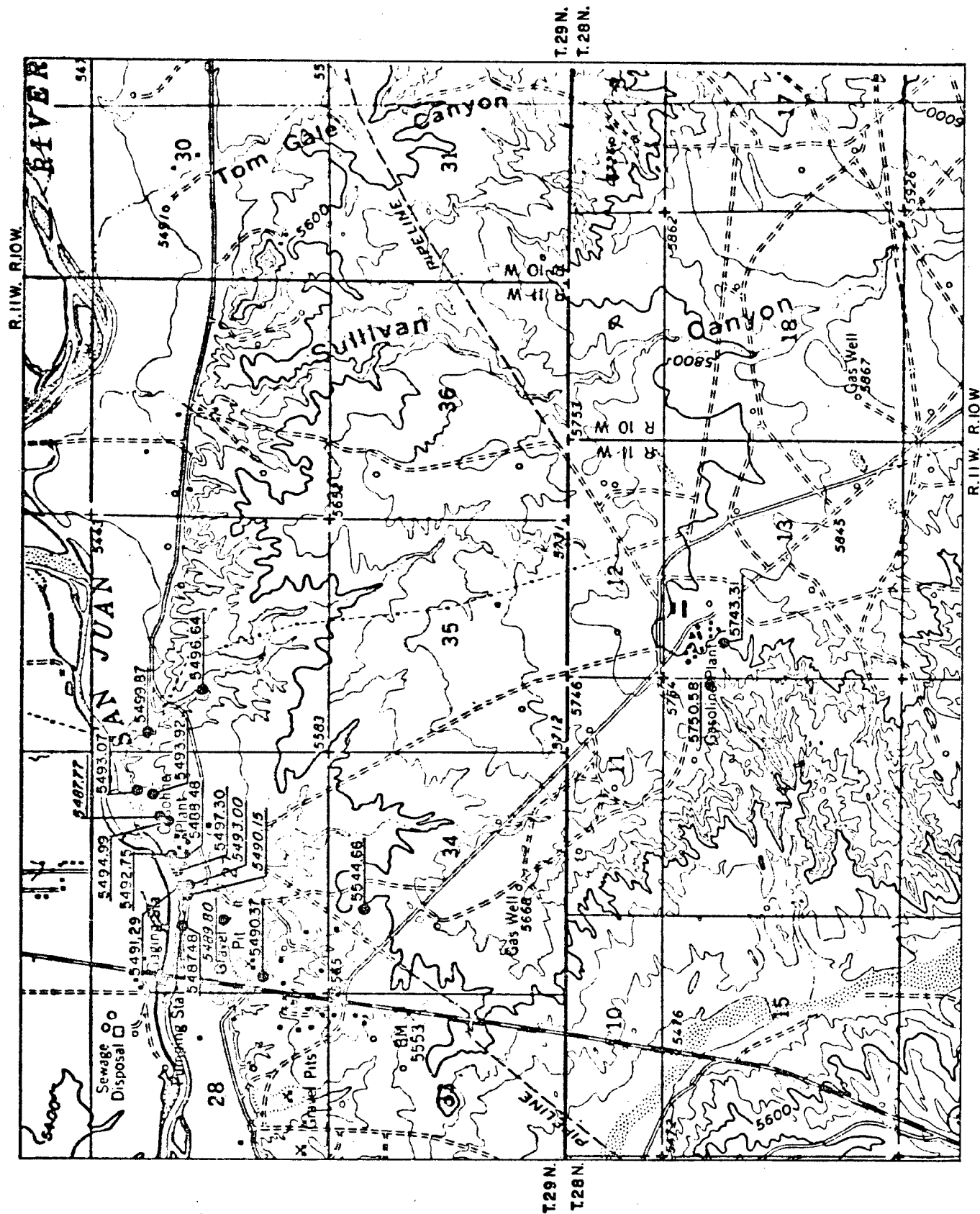


Figure 3. Map of Plateau refinery and vicinity showing elevation of the contact between the Nacimientos Formation and the cobble bed.

Jackson Lake Terrace which could yield water to domestic wells. This conclusion is supported by the absence of private domestic water wells at nearby private dwellings. - *Pool Reduction*

The Nacimiento Formation is about 500 feet thick and within the upper exposed 100 feet of the formation the only known seeps of water occur at its contact with the overlying Pleistocene cobble bed. Therefore, it is also concluded that there is no ground water within the Nacimiento Formation which could be recovered for domestic purposes. The impermeability of the Nacimiento Formation supports the conclusion that the Nacimiento Formation does not supply ground water to the San Juan River.

Furthermore, the San Juan river traverses the normal ground-water discharge zone of the San Juan Great Artesian Basin (Lyford, personal communication). Within ground-water discharge zones in artesian ground-water basins, the hydraulic head increases with depth (Freeze, 1969; Toth, J., 1963) and it is therefore impossible to cause downward vertical seepage into any water-bearing zone. As a result, should there be any potential aquifer at depth beneath the Nacimiento Formation, percolating water would be rejected and it could not recharge the aquifer to ever become a health hazard.

FLOODING POTENTIAL

The refinery is located on the Jackson Lake Terrace which, for a small area such as is occupied by the refinery,

may be considered for all intents and purposes as level. There are no arroyos or other intermittent stream channels developed south of the refinery which would collect large amounts of surface runoff during transient thunderstorms and which would lead to flooding of the refinery property. The rising slope of the land surface south of the refinery is determined from the U.S.G.S. topographic map shown in figure 3 and from Plate 5 to be about 0.02 or 2 feet of rise per 100 feet of distance to the south. The land south of the plant is covered for the most part by native grasses and no flooding has ever been observed in the area.

The refinery property itself possesses many small embankments or berms which enclose hydrocarbon storage tanks and other facilities and which separate the refinery from the Hammond Ditch in places. These embankments are intended to contain any potential accidental hydrocarbon spills. Moreover, they act to contain rainfall on the property and to prevent runoff of rainfall into the nearby Hammond Ditch. *in Rony*

Existent over Hammond ditch
In 1980, Plateau constructed two small catchment ponds in a southward trending arroyo directly north of the second oily water pond and north of the Hammond Ditch. These ponds were constructed to intercept any spill from the oily water pond or rainfall runoff from the refinery which might drain across the Hammond Ditch over the El Paso Natural Gas Pipeline right-of-way. These catchment basins have served their purpose and have captured runoff. At present, they are

full and their fluid level is maintained by seepage from the Hammond Ditch which was noted before the catchment ponds were filled.

These two ponds are not included in the original discharge plan and were not intended as storage ponds for waste water. It is Plateau's intention to pump these ponds X out so that they may continue to serve the purpose for which they were built.

SEEPAGE

Results of monitoring at the refinery suggest that 10 to 20 gallons per minute of seepage may be taking place. However, observations of seepage in northward draining arroyos and the Hammond Ditch during winter suggest a total seepage including bank storage return of about 10-15 gallons per minute. *How did determine what mea.*

X/T
ACCIDENT
NO MEASUREMENT.

Any seepage from any waste-water impoundments or from irrigation of alfalfa on refinery property to the east of the truck-maintenance workshops must move slowly to the north in the down-dip direction of the contact between the cobble bed and the Nacimiento Formation. Any seepage will therefore appear as seeps along the contact between the Nacimiento Formation and the cobble bed where it is exposed in the southward trending arroyos. These arroyos behave then as collector drains and will intercept and channelize any seepage from the refinery property.

WATER CHEMISTRY

Water samples were collected by Oscar Simpson of the NMOCC from seven locations at and near the refinery property on September 3, 1981. These samples were analysed for specific solutes by the New Mexico State Laboratory. The results of the analyses are presented in tables 1 and 2.

Figure 4 is the Schoeller diagram of ionic concentrations of specific ions expressed in milliequivalents per liter for water samples collected by the NMOCC. Schoeller diagrams are useful for determining the chemical similarity or dissimilarity between different waters. Regardless of actual ionic concentrations, for example, a similar slope of lines joining the concentrations of various ions from different water samples indicates that the relative concentrations of these solutes are similar and that the water is of similar character.

Samples 3 and 7 are from upstream and downstream of the Hammond Ditch, respectively. The sample locations are shown in Plate 1. The chemical character of the samples is similar. A slight increase in the chloride concentration downstream from the refinery seems to indicate leakage from the ponds to the ditch. However, a similar flouride and sulfate concentration from upstream to downstream suggest the chloride analysis is in error and that no detectable seepage of refinery effluent enters the Hammond Ditch. ^{with} Samples 1 and 2 are from ponds on the refinery grounds. Samples 4, 5

Table 1. Chemical analyses of water samples from the Bloomfield refinery. Concentrations in milligrams/liter (mg/l). Samples were collected September 3, 1981 by the Oil Conservation Division. See Plate 1 for sample locations. ["less than"]

| ION | STATE | STD | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----|-------|--------|-------|------|-------|-------|-------|------|------|
| CA | - | - | - | - | - | - | - | - | - |
| MG | - | - | - | - | - | - | - | - | - |
| NA | - | - | - | - | - | - | - | - | - |
| K | - | - | - | - | - | - | - | - | - |
| FE | 1 | .4 | .4 | - | - | - | .1 | - | .1 |
| MN | .2 | .1 | .1 | - | - | - | .1 | - | .1 |
| NI | .2 | .04 | .04 | - | - | - | .01 | - | .01 |
| MO | 1 | .01 | .01 | - | - | - | .01 | - | .01 |
| CO | .05 | .005 | .005 | - | - | - | .005 | - | .005 |
| AS | .1 | .046 | .046 | - | - | - | .005 | - | .005 |
| BA | 1 | .4 | .4 | - | - | - | .4 | - | .1 |
| CD | .01 | .001 | .001 | - | - | - | .001 | - | .001 |
| CR | .05 | .009 | .009 | - | - | - | .005 | - | .005 |
| PB | .05 | .005 | .005 | - | - | - | .005 | - | .005 |
| HG | .002 | .0005 | .0005 | - | - | - | .0005 | - | .005 |
| SE | .05 | .005 | .005 | - | - | - | .005 | - | .005 |
| AG | .05 | .001 | .001 | - | - | - | .001 | - | .001 |
| ZN | 10 | .1 | .1 | - | - | - | .1 | - | .1 |
| CU | 1 | .061 | .061 | - | - | - | .05 | - | .05 |
| AL | 5 | .1 | .1 | - | - | - | .24 | - | .1 |
| B | .75 | 1.2 | 1.2 | - | - | - | .28 | - | .04 |
| SCN | .2 | - | - | - | - | - | - | - | - |
| NO3 | 10 | - | - | - | - | - | - | - | - |
| S04 | 600 | 355.2 | 563.3 | 46.3 | 314.3 | 1118 | 1896 | 46.5 | 46.5 |
| CL | 250 | 1102.2 | 997.8 | 3.6 | 235.8 | 603.9 | 696.8 | 4.6 | 4.6 |
| F | 1.6 | .45 | .56 | .16 | 1.12 | 1.16 | .77 | .15 | .15 |
| TDS | 1000 | | | | | | | | |
| PH | 6-9 | | | | | | | | |

Table 2. Chemical analyses of water samples from Plateau Bloomfield refinery with concentrations in meq/l of selected ions from Table 1. (meq/l=gram formula weight/valence/mg/l) See Plate 1 for sample locations.

| SAMPLE | S04-- | CL- | F- | B+3 |
|-----------|-------|-------|------|------|
| STATE STD | 12.49 | 7.05 | .084 | .208 |
| 1 | 7.4 | 31.09 | .024 | .333 |
| 2 | 11.73 | 28.14 | .029 | - |
| 3 | .964 | .1 | .008 | - |
| 4 | 6.54 | 6.65 | .059 | - |
| 5 | 23.38 | 17.03 | .061 | .078 |
| 6 | 39.47 | 19.65 | .04 | - |
| 7 | .968 | .13 | .008 | .011 |

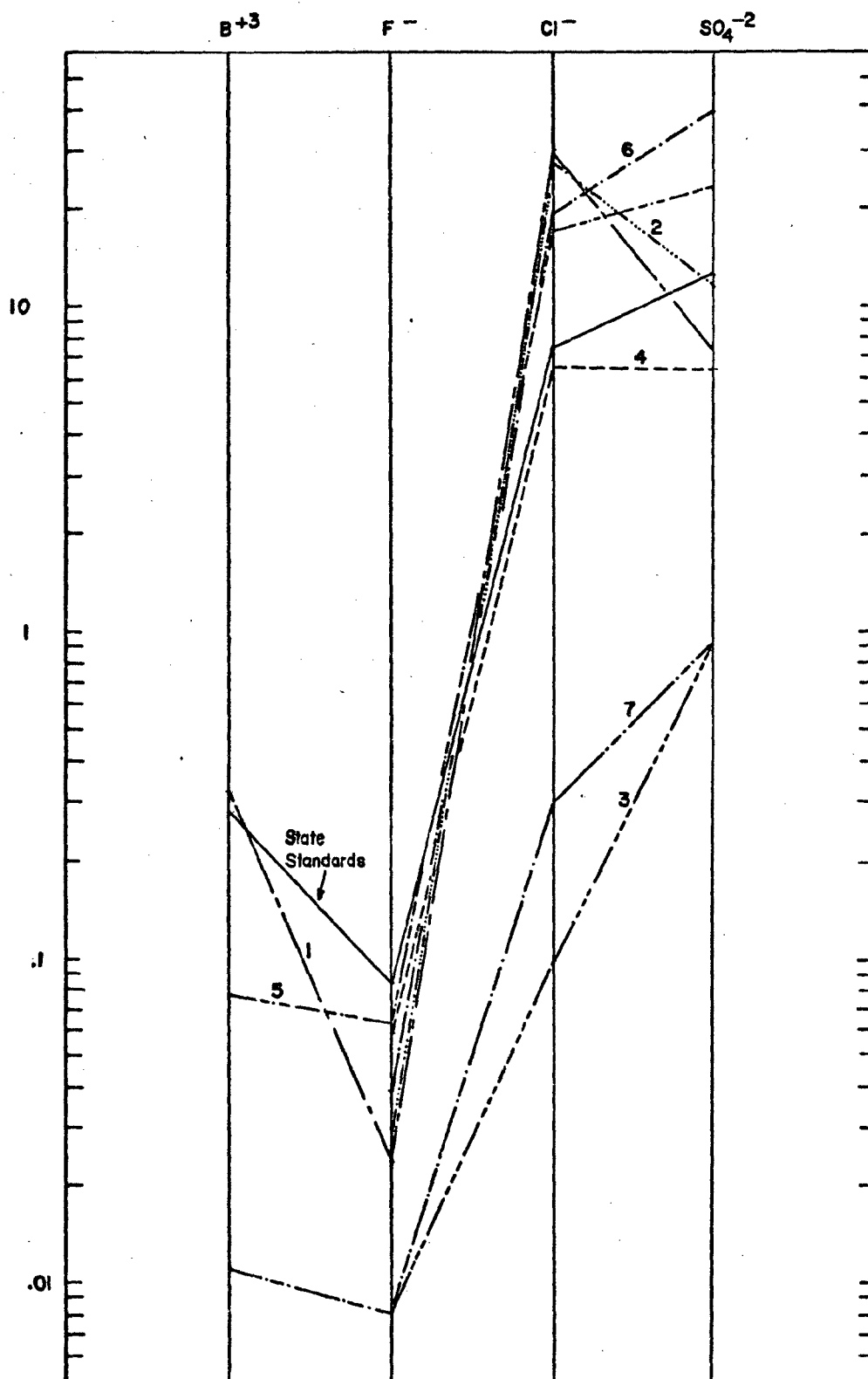


Figure 4. Schoeller diagram of water analyses for boron, fluoride, chloride, and sulfate. Concentrations are expressed in meq/l. Data from Table 2.

and 6 from seeps in the arroyos between the Hammond Ditch and the San Juan River should show concentration values falling between the ditch and pond values if water is leaking from the refinery to the arroyos and the San Juan River. This is the case for boron and chloride, and sample 4 for sulfate. The similar slopes of segments between boron and flouride for samples 5 and 7 indicate ditch contribution to the arroyo seeps. Similar slopes for 1, 2, 4, 5, and 6 between flouride and chloride show pond leakage.

Samples 4 and 5 are higher in flouride than either the ditch water or the ponds, and 5 and 6 are higher in sulfate than ditch water or the two pond-water analyses. There may be two possible explanations. First, the quality of water in the ponds may vary and seepage originated at the ponds when the concentrations of flouride and sulfate were much higher in the ponds. Second, significant evapotranspiration takes place in these arroyos and the solutes remain behind in the remaining water at higher concentrations. Both causes are probably operative.

The values for the state standards set by the New Mexico Water Quality Control Commission are also plotted on figure 4 and show water from seeps at sample sites 5 and 6 and water in the ponds have higher than permissible values of chloride and sulfate. Boron is also higher than state standards in the ponds.

MONITORING

American Ground Water Consultants has monitored this seepage with regular water-level measurements, neutron logging, Thermonics, ZETA-SP, and AQUATRACE since April 1977. The dates of monitoring and the type of monitoring done are given in Table 3. The monitoring information is presented in Attachment 3 together with lithologic logs from each of the monitoring wells. No construction details are presented for the monitoring wells. They were constructed by mud rotary drilling methods. Each well was completed by installing blank 2-inch diameter schedule-40 PVC casing to the bottom. The annular space was filled with dry bentonite drilling mud. The casings are only open at their bottoms.

The results of the monitoring program at the refinery to date has already been detailed above and in milestone reports which have been submitted to the NMOCC and the NMEID. Based upon the results of the monitoring program it may be concluded that further monitoring using the present methodologies will yield no further useful new information and it is recommended that all monitoring of the evaporation ponds be terminated.

Plateau will establish a daily visual monitoring program for monitoring spills at the refinery and monthly program for monitoring seepage north of the property. *low* *NO* Visual inspection of the small arroyos contiguous to the irrigated area will be made weekly to detect seepage of water applied for irrigation. *check down*

Table 3. Dates and type of monitoring activity at the Plateau refinery.

N=Neutron Logging, W = Water-Level Measurements, T = Thermonics,
Z = ZETA-SP, A = AQUATRACE

| | |
|-------------|-------|
| 26 Apr 1977 | NW |
| 6 May 1977 | NW |
| 21 May 1977 | NWT |
| 15 Jul 1977 | NWTZ |
| 11 Sep 1977 | NWT |
| | NWTA |
| 27 Mar 1978 | NWTA |
| 28 Jun 1978 | NWA |
| 12 Jul 1978 | WTZA |
| 25 Aug 1978 | NWTZA |
| 20 Sep 1978 | NWTZA |
| 13 Dec 1978 | NWA |
| 9 Mar 1979 | NWTA |
| 16 Jun 1979 | NWA |
| 19 Sep 1979 | NWTA |
| 12 Dec 1979 | NWA |
| 9 Jul 1980 | NWA |
| 20 Oct 1980 | NWA |
| 11 Dec 1980 | NWA |
| 13 Mar 1981 | NA |
| 5 Jun 1981 | NWA |
| 17 Sep 1981 | NWA |
| 8 Dec 1981 | NWA |

Because there is no naturally occurring ground water in the vicinity of the refinery property, there is no ground water quality assessment plan maintained at the refinery.

WATER SUPPLY AND DISCHARGE

Water used by the Plateau refinery is obtained directly from the San Juan River. It is stored in two fresh water retention ponds pending use. These ponds are identified on Plate 1. Water for human consumption is purchased from the City of Bloomfield.

The circulation of water through the refinery is shown in figure 5. The flow diagram indicates that 80 gallons per minute discharge to the solar evaporation ponds. This is based upon meter readings. The water is comprised of the following streams:

| ITEM | gpm |
|------------------------|-----------|
| Cooling tower blowdown | 30 |
| Boiler blowdown | 12 |
| Desalter effluent | 18 |
| Softener effluent | 2 |
| Crude process water | 8 |
| FCC process water | 10 |
| | <u>80</u> |

Recently however, Plateau began recycling 30 gallons per minute within the refinery thereby reducing the average *(value)*