



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

GARREY CARRUTHERS  
GOVERNOR

October 31, 1990

*Hold C-104  
for 1st Reg #4 well*

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

Maralex Resources, Inc.  
518 17th Street  
Suite 1030  
Denver, CO 80202

Attention: A.M. O'Hare

*Administrative Order NSL-2922*

Dear Mr. O'Hare:

Reference is made to your application dated October 5, 1990 for a non-standard coal gas well location for your Hammond W.N. Federal Well No. 10 to be located 690 feet from the South line and 1145 feet from the West line (Unit M) of Section 26, Township 27 North, Range 8 West, NMPM, Basin Fruitland Coal (Gas) Pool, San Juan County, New Mexico. The W/2 of said Section 26 shall be dedicated to the well forming a standard 320-acre gas spacing and proration unit for said pool.

By the authority granted me under the provisions of Rule 8 of the Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool as promulgated by Division Order No. R-8768, the above-described unorthodox coal gas well location is hereby approved.

Sincerely,

William J. LeMay  
Director

WJL/MES/ag

cc: Oil Conservation Division - Aztec  
US Bureau of Land Management - Farmington

*m 26 27N8W*

**RECEIVED**  
NOV 06 1990  
OIL CON. DIV  
DIST. 3



*Attn: E. B. B. 10/11/90*

October 5, 1990

518 17th St., Suite 1030  
Denver, Colorado 80202  
(303) 571-4220

State of New Mexico  
Energy, Minerals and Natural Resources Dept.  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504

Attn: William J. Lemay

Re: Unorthodox Location  
Hammond W.N. Federal No. 10  
SW Sec. 26, T27N, R8W  
San Juan County, NM

**RECEIVED**  
OCT 12 1990  
OIL CON. DIV.  
DIST. 3

Gentlemen:

Maralex Resources, Inc. (Maralex) hereby submits the following application in triplicate for an unorthodox location for the subject well. ARCO Oil and Gas has previously submitted a permit application (see Attachment No. 1) for the subject well with the Bureau of Land Management.

The proposed well is located 690' from the south line and 1145' from the west line of Section 26. Attachment No. 2 is a completed C-102. A suitable location for the well could not be found in the southwest quarter of Section 26 due to the topography. Directional drilling of the well is not feasible due to the shallow total depth and the distance from a legal location to the surface location required due to the above mentioned cause.

Topographic obstructions, as shown on Attachment No. 3 include the steep terrain and cliffs leading from Blanco Mesa into Largo Canyon. Although there is one existing well within the orthodox location window, there is not sufficient room on the existing pad for another drilling location.

Attachment No. 4 shows existing wells in the area and all offset operators. To the best of our knowledge, the information on this map is current and correct. None of the offsetting wells are currently producing from the Basin Fruitland Coal pool.

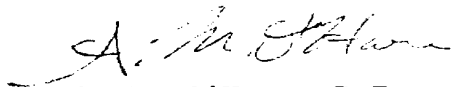
By copy of this letter sent through certified mail, the offset operators are being notified of this application for unorthodox location. They are being requested to return to

the NMOCD an executed waiver of objections to the unorthodox location that is provided at the end of this letter. Maralex will submit to the NMOCD the return receipt cards signifying receipt by the offset operators of this notification as soon as they are returned to us.

By virtue of our purchase of ARCO's operating rights to the Fruitland Formation in all of Township 27 North, Range 8 West, San Juan County, New Mexico, Maralex is now the operator of the shallow rights designated under ARCO on Attachment No. 4.

Please call me at (303) 571-4220 at your earliest convenience if any additional information is required for processing of this application.

Sincerely,



A. M. O'Hare, P.E.  
President  
Maralex Resources, Inc.

cc: Great Lakes Chemical, Certified  
Western Oil & Minerals Ltd., Certified  
Bureau of Land Management,  
Farmington Resource Area

If you have no objection to the proposed unorthodox location, please sign the waiver below and forward to the NMOCD in the envelop provided.

WE HEREBY WAIVE OUR RIGHT TO OBJECT TO THE UNORTHODOX LOCATION PROPOSED IN THIS APPLICATION BY MARALEX RESOURCES, INC.

\_\_\_\_\_  
Company Name

BY: \_\_\_\_\_

Date: \_\_\_\_\_

Attachments

*Attachment No. 1*  
**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

**SUBMIT IN TRIPLICATE\***  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <b>SF - 078480</b>
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>NONE</b>
2. NAME OF OPERATOR <b>ARCO Oil and Gas Company, a Division of Atlantic Richfield Co.</b>		7. UNIT AGREEMENT NAME <b>-----</b>
3. ADDRESS OF OPERATOR <b>P.O. Box 1610, Midland, Texas 79702</b>		8. FARM OR LEASE NAME <b>Hammond W.N Federal</b>
4. LOCATION OF WELL (Report clearly and in accordance with any State requirements.) At surface <b>690' FSL &amp; 1145' FWL (Unit Letter M)</b> At proposed Prod. zone <b>Approximately the same</b>		9. WELL NO. <b>#10</b>
13. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE <b>approximately 22 miles SE of Blanco, New Mexico</b>		10. FIELD AND POOL, OR WILDCAT <b>Basin-Fruitland Coal Gas</b>
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any) <b>690'</b>	16. NO. OF ACRES IN LEASE <b>2560</b>	11. SEC., T., M., OR BLK. AND SURVEY OR AREA <b>Sec 26, T27N-R8W</b>
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. <b>388'</b>	19. PROPOSED DEPTH <b>2460'</b>	12. COUNTY <b>San Juan</b>
21. ELEVATIONS (Show whether GH or KB) <b>6650.0' GR</b>		13. STATE <b>NM</b>
		17. NO. OF ACRES ASSIGNED TO THIS WELL <b>320, W/2</b>
		20. ROTARY OR CABLE TOOLS <b>Rotary</b>
		22. APPROX. DATE WORK WILL START <b>Spud 11/90</b>

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT <sup>11</sup> 3
12-1/4"	8-5/8"	24#	500'	384 cuft/325 SX
7-7/8"	5-1/2"	15.5#	2460'	533 cuft/330 SX

It is proposed to drill a 12-1/4" hole to 500' using fresh water spud mud. After setting surface casing, the shoe will be drilled out with a 7-7/8" bit, continuing to TD. A low solids, fresh water gel/polymer mud system will be utilized. A water loss of less than 20cc will be maintained and a mud weight of 9.5 ppg will be used to balance the 1600 psi Fruitland pore pressure. At TD, open-hole logs consisting of GR/CAL/FDC will be run and 5-1/2" production casing will be set and cemented to surface.

Pursuant to the "Onshore Oil and Gas Order #1" attachments are as follows:

1. Certified Location Plat
2. Drilling Plan with attachments
3. Surface Use Plan with attachments

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED *Kennell* TITLE *Regulatory Coordinator* DATE *9-14-90*  
(This space for Federal or State Use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

**\*See Instructions On Reverse Side**

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

*Attachment No. 2*  
State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

**OIL CONSERVATION DIVISION**  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

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

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

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

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

All Distances must be from the outer boundaries of the section

Operator ARCO Oil and Gas Company			Lease Hammond W.N. Federal		Well No. 10
Unit Letter M	Section 26	Township 27 North	Range 8 West	County San Juan	
Actual Footage Location of Well: 690 feet from the South line and 1145 feet from the West line					
Ground level Elev. 6650		Producing Formation Fruitland	Pool Basin-Fruitland Coal Gas	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_  
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_  
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

**OPERATOR CERTIFICATION**

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

Signature *Ken W. Gosnell*  
Printed Name Ken W. Gosnell  
Position Regulatory Coordinator  
Company ARCO Oil & Gas Co.  
Date 9-14-90

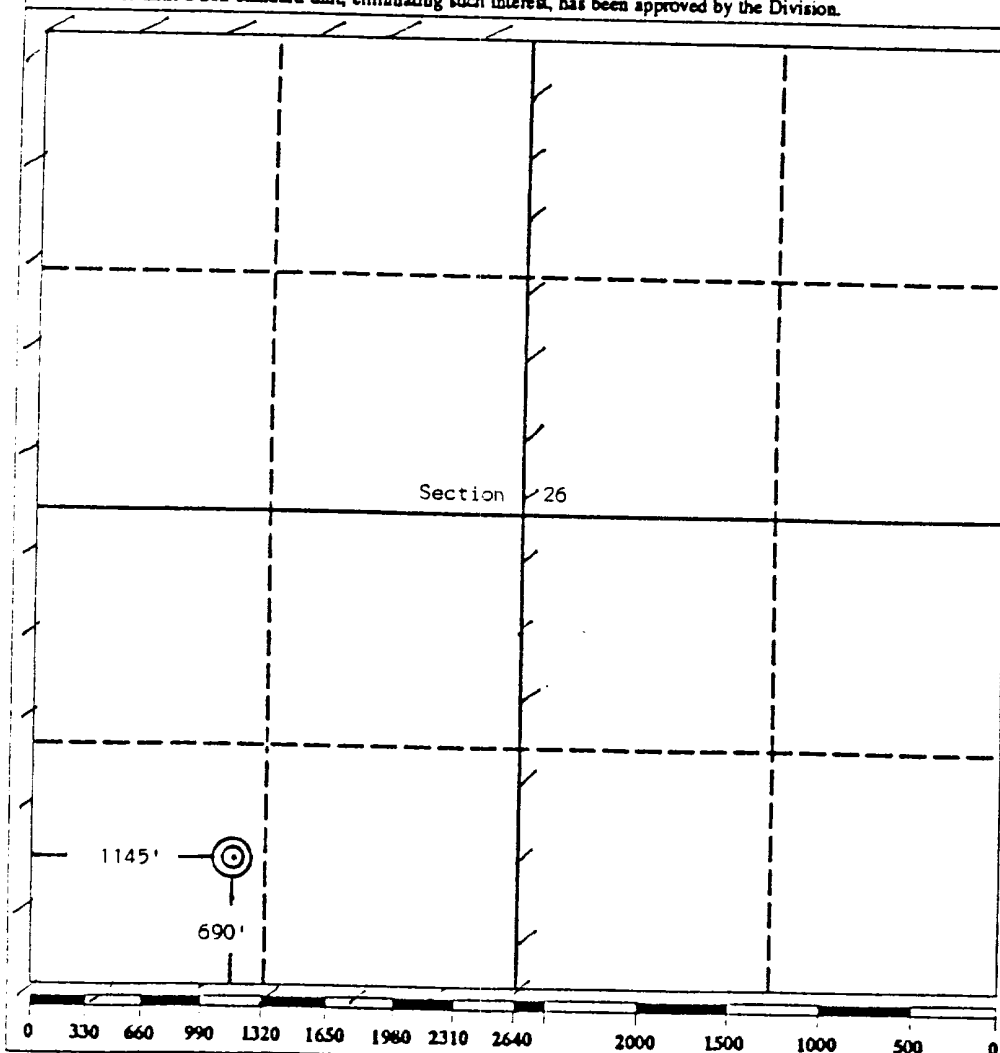
**SURVEYOR CERTIFICATION**

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

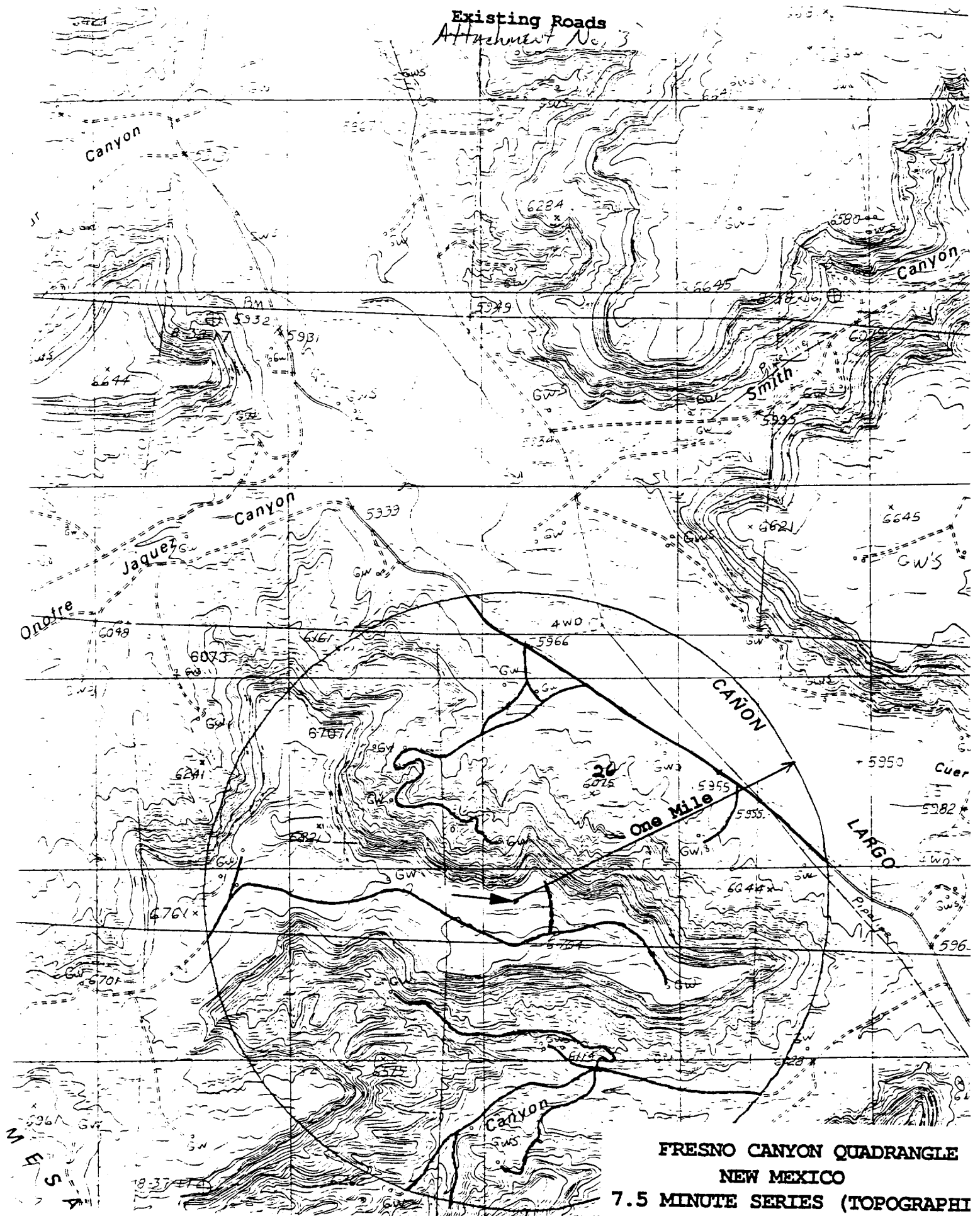
Date Surveyed August 13, 1990

Signature & Seal of Professional Surveyor

*Edgar L. Risenhoover*  
NEW MEXICO  
5979  
Edgar L. Risenhoover, P.S.



Existing Roads  
Attachment No. 3



# Exhibit 4B

## Existing Wells

Attachment No. 4

Great Lakes Chem

