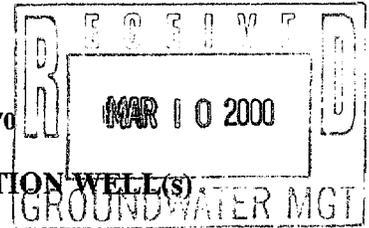


**ARIZONA DEPARTMENT OF WATER RESOURCES
GROUNDWATER MANAGEMENT SUPPORT SECTION
MAIL TO: P.O. BOX 458, PHOENIX, ARIZONA 85001-0458
FOR INFORMATION CALL: MONICA ORTIZ AT (602) 417-2470**



NOTICE OF INTENTION TO DRILL AND ABANDON EXPLORATION WELL(S)

PLEASE READ GENERAL INSTRUCTIONS AND LIMITATIONS ON REVERSE SIDE OF THIS FORM BEFORE COMPLETING.

- WELL / LAND LOCATION:**

1/4 1/4 1/4
10 ACRE 40 ACRE 160 ACRE

Section: 25

Township: 14 N/S

Range: 13 W
- County:** Pima
- Applicant Name/Lessee (Circle one)**

Arizona Department of Environmental Quality

3033 North Central Ave
Address

Phoenix AZ 85012
City State Zip

Samantha Roberts
Name of Contact Person

Phone Number: 602 207 4847
- Owner of Well:**

Arizona Department of Environmental Quality
Name

3033 North Central Ave
Address

Phoenix AZ 85012
City State Zip

Phone Number: 602 207 4847
- Purpose of well(s) drilled pursuant to this Notice:**

Mineral Exploration _____

Geotechnical X w/ variance

Cathodic Protection _____

Grounding _____

Heat Pump _____
- Number of Wells (Holes)** 10
- Owner of Land of Wellsite:**

City of South Tucson
Name

P.O. Box 7307
Address

South Tucson AZ 85725
City State Zip

Brad Brown
Contact Person

Phone Number: 520 792 2424
- DESCRIPTION OF THE WELL:**

Diameter 105/8 inches

Depth 75 feet

Type of casing. If none, state: 4" schedule 40 PVC 0 to 25 feet before ground, 4" schedule 40 PVC screen 25 to 70 feet below ground

Construction will start: 3 1 2000
Month Day Year
- Drilling Firm:**

Geo mechanics Southwestern
Name

7400 South Nogales Highway #4
Address

Tucson AZ 85706
City State Zip

Phone Number 520 889 7787

498
DWR License Number

079441 Class A-04
ROC License Category
- Is the well to be available for re-entry?**

Yes X No X

If so, for how long? 2 years

* DO NOT WRITE IN THIS SPACE
OFFICE RECORD
File No. D(14-13)25
Filed 3-10-00
Input _____

DUPLICATE
Mailed 3-28-00 By YB
Registration 55-550118
AMA/INA TUCSON
W/S 09 S/B 10

RD
W-XX

KM
3-27-00
Plan
action

KM
3-27-00
Plan
action

- Proposed method of abandonment of well(s) after project is completed: Backfill with cement grout per ADWR well abandonment requirements, pursuant to R12-15-816.
- Is the proposed wellsite within 100 feet of a septic tank system, sewage disposal area, landfill, hazardous waste facility, storage area of hazardous materials or petroleum storage area and tanks? Yes _____ No X

I state that this Notice is filed in compliance with Rule A.A.C. R12-15-809 and R12-15-816(F), and is complete and correct to the best of my knowledge and belief and that I understand the conditions set forth on the reverse side of this form.

14. Samantha Roberts 3-6-00
Signature of Land Owner, Lessee or Exploration Firm Date

NECESSARY STEPS AND INSTRUCTIONS TO OBTAIN DRILLING AUTHORITY

1. Arizona Revised Statute ("A.R.S.") § 45-596 requires the well owner, lessee or exploration firm to file two Notices of Intention to Drill with original signatures prior to drilling an exploration well. More than one well (hole) may be drilled under a single Notice of Intent for mineral exploration and geotechnical wells, as long as they are located within a single section.
2. Information to complete items 1, 2 and 13 should be on your county tax receipt or available at the County Assessor's Office. The location of mineral exploration and geotechnical wells may be limited to the section, township and range. However, a complete legal description may be provided at the option of the well owner.
3. Information to complete items 8, 9 and 10 should be available from your driller.
4. Should any entity other than the well owner, lessee or exploration firm sign the Notice of Intent an original notarized letter of authorization from the well owner, lessee or exploration firm must accompany the Notices.
5. In accordance with A.R.S. § 45-113, please submit a \$10.00 processing fee with the Notice. Mail them to P. O. Box 458, Phoenix, Arizona, 85001-0458, or hand deliver to 500 North Third Street, Phoenix, Arizona.

CONSTRUCTION AND FOLLOW-UP REQUIREMENTS

1. Construction and abandonment standards for all wells must be in accordance with Department Rules.
2. No drilling authority is necessary for mineral exploration, geotechnical, cathodic protection, grounding and heat pump holes of 100 feet of depth or less. However, if water is encountered during the drilling of these well(s), the well(s) must be abandoned in accordance with Arizona Administrative Code ("A.A.C.") R12-15-816.
3. The drilling contractor is not required to file a Notice of Intent to Abandon if the well(s) are abandoned in the course of drilling, however, the drilling rig must not be removed from the well site before the abandonment is complete, otherwise, a Notice of Intent to Abandon must be filed prior to abandonment, and abandonment may not commence until Department authority has been issued. A geotechnical well with a granted variance must be abandoned before the drilling rig is removed from the site.
4. Whether or not an abandonment authorization card was issued or required, Arizona Administrative Code R12-15-816(F) requires a Well Abandonment Completion Report be filed within 30 days of abandonment.
5. Pursuant to A.R.S. § 45-596(E), drilling of well(s) must be completed within one year after the date of the Notice of Intent. If the well(s) are not completed within one year, a new Notice of Intent to Drill must be filed with the Department before proceeding with further construction.
6. Within thirty (30) days of completion of drilling geotechnical, cathodic protection, grounding or heat pump wells, a Well Driller Report and Log of Well form must be filed. Within thirty (30) days of completion of drilling mineral exploration holes, a Project Completion Report form must be filed. If the drilling project included multiple holes (authorized by the issuance of a single drill card for the project as a whole), a single report will suffice, however, a cover letter identifying the number of holes drilled, unusual problems associated with the project, or variations in hole design should be included.
7. Pump equipment may not be installed in wells (holes) drilled for mineral exploration, geotechnical, cathodic protection or grounding purposes.

TIME FRAME FOR REVIEW OF YOUR APPLICATION

Within fifteen (15) days after receipt of your Notice of Intention, the Department will determine whether your application should be granted or denied, unless this time is extended because your application is deemed incomplete or incorrect.

If your application is incomplete or incorrect, the Department will notify you in writing and will specify what information is necessary to make the application complete and correct. Until the missing information is received, the time frame for review of your application will be suspended. Your application will not be complete and correct until all of the requested information is received. If you do not supply the missing information within sixty (60) days, the Department may deem your application for drilling authority withdrawn and close the file.

At the end of its review, the Department will send you written notice either granting or denying your application for drilling authority. If your application is approved, the Drill Card will be mailed directly to the drilling company. If denied, the Department's notice will state justification for the denial and an explanation of your right to appeal.

HP24

WOARF/CERCLA ROUTING SHEET

Should be D(14-13)25

REGISTRATION N° 55- 580118
Date Received 3-10-00
Date Returned to GMSS 3-27-00

CADASTRAL LOCATION D(14-13)25
Date to Water Quality 3-14-00
Date to Hydrology 3-14-00 @ 1530 HRS

Variance Letter Received Yes No
Well Diagram received Yes No

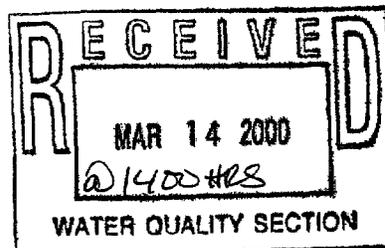
TYPE OF WELL:

Monitor/Piezometer Other
Domestic NOI to Abandon
Geotechnical

WATER QUALITY - WOARF ANALYST COMMENTS:

Drilling a geotechnical well (10 holes) located
in the buffer zone of the Tucson International
Airport Area ~~WOARF~~ CERCLA site.

Site Map attached - Referred to Hydrologist
Subbasin map attached - returned to GMSS



WATER QUALITY APPROVAL:

Granted
Not granted
Letter issued

Signature: Shannon L. Beif Date: 3-14-00

HYDROLOGY DIVISION - WOARF HYDROLOGIST COMMENTS:

Clock Stopped 3-16-00
Restarted 3-27-00

HYDROLOGY DIVISION APPROVAL:

Granted
Not Granted
Letter Issued

Variance
Not Required
Granted
Not Granted
Letter issued

Signature: Kay McNeely Date: 3-27-00

Revision Date: 12/2/99

CERCLARTNG

YB

ARIZONA DEPARTMENT OF WATER RESOURCES

500 North 3rd Street, Phoenix, Arizona 85004
Telephone (602) 417-2470
Fax (602) 417-2422



JANE DEE HULL
Governor

RITA P. PEARSON
Director

March 28, 2000

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
3033 N CENTRAL AVE
PHOENIX, AZ 85012

Registration No. 55-580118
File No. D(14-13) 25

Dear Well Owner:

Enclosed for your records is an annotated copy of the Notice of Intention to Drill a well. This is returned to you as evidence of compliance with A.R.S. §45-596. A drilling card has been mailed to your designated driller. Prior to drilling he must have it in his possession.

Since this well is being drilled as a Monitor well, or for Cathodic Protection, Grounding, Geotechnical or Piezometer purposes, our standard driller report form is also being furnished to the driller. He is required to complete it and return it to the Department within 30 days after the completion of the well. A Completion Report form is being furnished for monitor wells where pump installation is authorized. This must be completed within thirty days of installation as required by A.R.S. §45-600.

A Change of Well Information form is enclosed for your future use. If you deem it necessary to change the location of the proposed well, please notify the Department on the enclosed form. A properly amended Drilling Card will then be issued and must be in possession of the driller before drilling begins. During the drilling of a new well, if it is determined that it must be abandoned, then a Well Abandonment Completion Report must be submitted per R12-15-816.F.

Per A.R.S. §45-593, the person to whom a well is registered shall notify this Department of a change of ownership of the well and/or information pertaining to the physical characteristics of the well, in order to keep the well registration file current and accurate.

Sincerely,

Toni Bergeman
Water Resource Technician
Groundwater Management Support Section

Enclosures



- *Environmental Consultants*
- *Groundwater Specialists*

4665 South Ash Avenue
 Suite G-1
 Tempe, Arizona 85282
 Voice: 480-839-2800
 Fax: 480-839-2828

Memorandum

To: Kay McNeely

From: Christiaan Culbertson

Subject: ADWR Well #55-580118

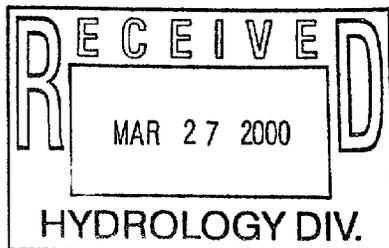
Date: March 22, 2000

After discussing the abandonment of the wells with the driller who will be drilling the exploration wells, Geomechanics Southwest Inc., it has been decided that the exploration wells will be abandoned using one of the following three methods:

1. Abandon with a neat cement using the tremie method from the bottom of the borehole to the ground surface.
2. Abandon with a cement/bentonite slurry using the tremie method from the bottom of the borehole to the ground surface.
3. Abandon with a high solids bentonite grout using the tremie method from the bottom of the borehole to the ground surface.

As you may recall, the borings will be completed to just above the water table (approximately 77 feet) and a groundwater sample will be collected using a hydropunch sampling device. The borings will then be abandoned using one of the methods described above.

If you have any questions please call me at 480 839-2800.



ARIZONA DEPARTMENT OF WATER RESOURCES

Hydrology Division
500 North Third Street, Phoenix, Arizona 85004
Telephone (602) 417-2448
Fax (602) 417-2425



JANE DEE HULL
Governor

RITA P. PEARSON
Director

March 16, 2000

FOR
FILE

CHRISTIAN CULBERTSON
HIS GEOTRANS
4665 S. ASH ST. STE G1
TEMPE, AZ 85282

**Re: Notice of Intention to Drill and Abandon Exploration Wells
Well Registration No. 55-580118
T14S, R13E, Section 20**

Dear Mr. Culbertson:

Enclosed is our most recent draft of ADWR's Well Abandonment Substantive Policy Statement, the Notice of Policy Regarding Variances for Geotechnical Wells, an interoffice memo with guidance on Soil Vapor Extraction wells, and forms for filing for SVE's.

Condition 2 of the Well Abandonment Policy deals with wells in areas of water quality concern. Because the boreholes for DEQ will be located within ADWR's one-mile buffer zone around the TIAA CERCLA site plume boundary, Condition 2 applies. The type of grout used to abandon these boreholes should be neat cement, cement/bentonite slurry, or high solids bentonite grout. Answering question 12 on the form with "backfill with cement grout per ADWR well abandonment requirements" is not specific enough for our review. As soon as your fax is received specifying your choice of grout, the application will be processed.

Geotechnical wells with Variance cannot be converted to any other use. They must be abandoned before the drill rig is removed from the site.

Soil Vapor Extraction wells do not require a permit if they are less than 100 feet deep and do not encounter groundwater. A computer query of ADWR's Groundwater Site Inventory (GWSI) database indicates water levels are quite shallow (less than 100 feet) in Section 17, just north of the area of the ADEQ proposed boreholes. Therefore, each SVE well requires a distinct registration number. The appropriate forms, Notice of Intention to Drill Deepen or Modify a Well, (DWR55-40), are provided in this envelope. Please note that it is no longer a requirement to submit two original notices for each well; one NOI per well is now sufficient.

If you have any questions, I can be reached at 602-417-2400, x7258.

Sincerely,

A handwritten signature in cursive script that reads "Kay McNeely".

Kay McNeely
Hydrologist, Technical Support Section

within one mile of one or more WQARF sites
Township 14.0s Range 13.0e Section 25 000 (D14013025000)
is in Tucson AMA* E
is in PIMA county 10
is in TUCSON AMA basin UPPER SANTA CRUZ subbasin* 16
* Asterisk after the subbasin indicates groundwater basins or subbasins
that contain a Superfund or WQARF site
is in SANTA CRUZ RIVER watershed 09
is within one mile of one or more WQARF sites XXX

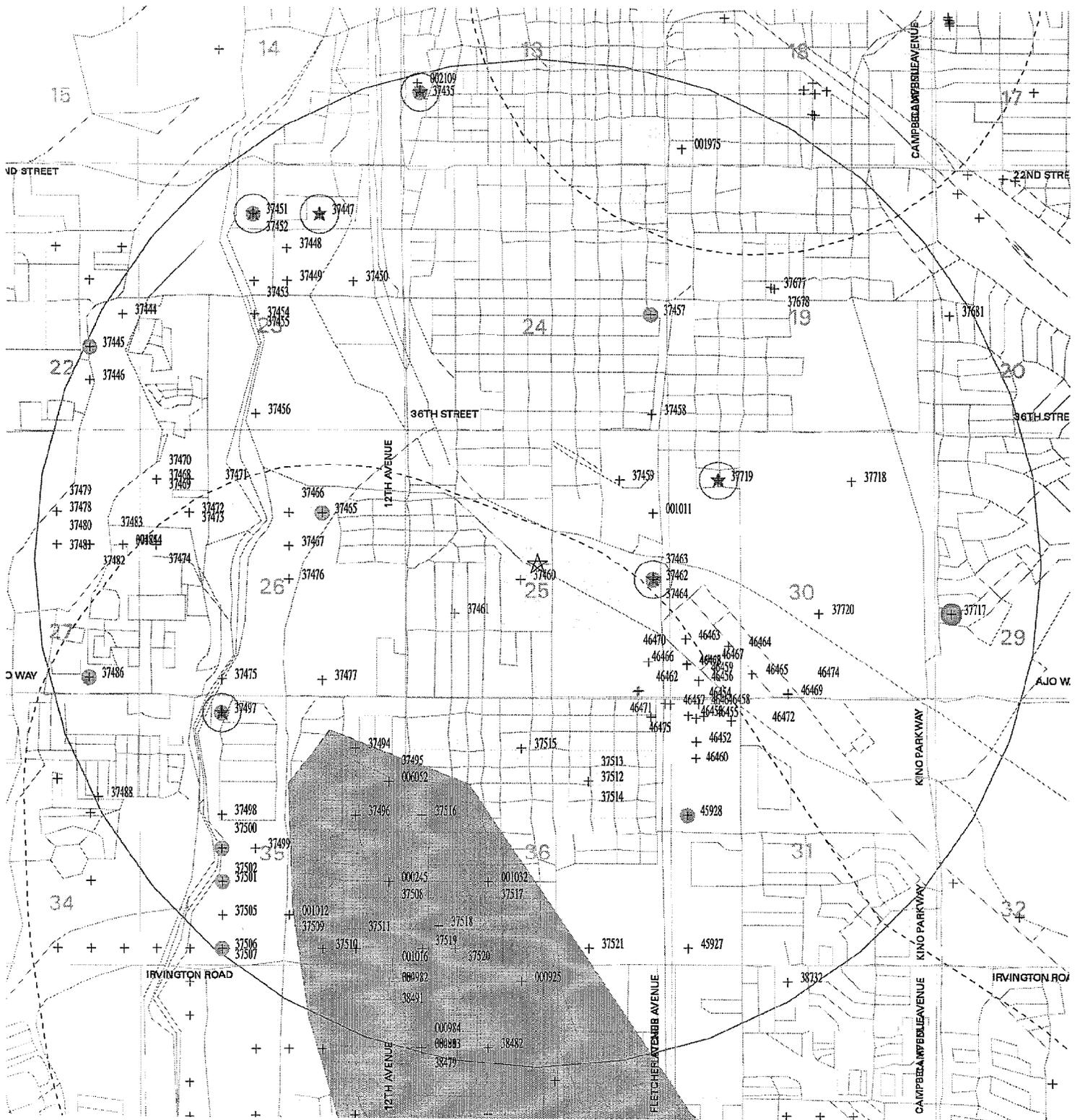
Click Back to return to the form.



Arizona Department of Environmental Quality



ARIZONA DEPARTMENT OF WATER RESOURCES



- 1 points > HBGL shown
- 16 points > Secondary MCL shown
- ★ 6 points > MCL shown
- + No Exceedances or Outside Radius

Water Quality Sample Test Results for
 ADEQ Wells within 1000 Feet of
 T 14.0 S R 13.0 E S 25 000
 Printed 03/14/00 Scale 1:auto
 Map Number 000314151936

- ⋯ One Mile Buffer Around WQARF Site
- WQARF Sites
- ⌒ Specified Radius
- ★ Specified Center Point

ARIZONA DEPARTMENT OF WATER RESOURCES

Water Quality Assurance Program
500 North Third Street, Phoenix, Arizona 85004
Telephone 602 417-2473
Fax 602 417-2426



JANE DEE HULL
Governor

RITA P. PEARSON
Director

March 14, 2000

Arizona Department of Environmental Quality
Attn: Samantha Roberts
3033 North Central Avenue
Phoenix, Arizona 85012

RE: Well Registration #55-580118

Dear Ms. Roberts:

The Department of Water Resources recently received your Notice of Intention to drill and abandon a geotechnical well (ten holes) located in Township 14 South, Range 13 East, Section 25. This location has been determined to be in proximity to a contaminated groundwater area known as the Tucson International Airport Area Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) remedial site; see attached map.

Please be advised that according to R12-15-851, you are required to notify the Department at least two (2) business days in advance of commencement of well drilling activities for the above referenced well(s). You may submit this required notice to the Department by either letter or facsimile, and the Department must receive it at least two (2) business days prior to drilling.

Mailing Address:
Water Quality Assurance Program
Arizona Department of Water Resources
500 N. 3rd Street
Phoenix, AZ 85004

Facsimile Number:
(602) 417-2426

If you have any questions, please contact the WQARF Section at (602) 417-2473.

Sincerely,


Shannon L. Reif
Water Quality Section

attachments: as stated

**ARIZONA DEPARTMENT OF WATER RESOURCES
GROUNDWATER MANAGEMENT SUPPORT SECTION
500 North Third Street
Phoenix, Arizona 85004**

GEOTECHNICAL WELL VARIANCE ISSUED

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO: 55-580118

AUTHORIZED DRILLER: GEOMECHANICS SOUTHWEST, INC.

LICENSE NO: 498

NOTICE OF INTENTION TO DRILL A GEOTECHNICAL WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: ARIZONA DEPARTMENT OF ENVIROMENTAL QUALITY 3033 N CENTRAL AVE PHOENIX, AZ 85012

The well(s) is/are to be located in the:

¼ of the ¼ of the ¼ Section 25 Township 14 SOUTH Range 13 EAST

No. of wells in this project: 10

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE 9TH DAY OF MARCH, 2001

ARD

GROUNDWATER MANAGEMENT SUPPORT

THE DRILLER MUST FILE A LOG OF THE WELL
WITHIN 30 DAYS OF COMPLETION OF DRILLING

