

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

July 22, 2015

WELL WORK PERMIT

Secondary Recovery Well

This permit, API Well Number: 47-4303509, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

Operator's Well No: EDNA MAY # 147

Farm Name: SMITH, DOYLE & JUDY

API Well Number: 47-4303509

Permit Type: Secondary Recovery Well

Date Issued: 07/22/2015

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- 1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
- 3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
- 4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours
- 7. Well work activities shall not constitute a hazard to the safety of persons.
- 8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

FORM WW-3 (B) 1/12



I) Date:	05/18/20	15				
2) Operator	s Well N	lo.	Edi	na J. May 147	7	
3) API Well	No.:	47	-	Lincoln	-	
		State		County		Permit
4) UIC Pern	nit No.	UIC2	R043	01AP		

STATE OF WEST VIRGINIA NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WELL OPERATOR: HG Energy, LLC			n: 840'				tershed: Bea	r Fork	Quadran	gle Griffithsville 7.5'
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RECEIVED
Office of Oil and Gas

JUN 0 4 2015

07/24/2015

CYPT 3030 430 35095

FORM WW-3 (A) 1/12



1)	Date:	05/18/20	15					
2)	Operato	r's Well	No.	Edna J.	May 147			
3)	API We	II No.:	47	-		4		
			State	_	County		Permit	
45	LHC Dan	mit NIa	11100		6			

STATE OF WEST VIRGINIA

NOTICE OF LIQUID INJECTION OF WASTE DISPOSAL WELL WORK PERMIT APPLICATION

	mer(S) To Be Served	7) (a) Coal Op	
(a) Name	Judy Miller Smith	Name	N/A
Address	25 Pond Gap Road	Address	
	Yawkey, WV 25573	- marg 10	(0) With D. L. of the Office of
(b) Name	Arthur & Romaline White		wner(S) With Declaration Of Record
Address	7564 Plum Orchard Road	Name	N/A
	Munith, MI 49259	Address	-
(c) Name	Justin White	Name	
Address	53 Bear Fork Road	Address	
	Yawkey, WV 25573		
) Inspector	Ralph Triplett	7) (c) Coal Le	essee with Declaration Of Record
Address	5539 McClellan Hwy	Name	N/A
	Branchland, WV 25506	Address	
Telephone	304-389-0350		
parties inv 2) The plat (3) The Cons	volved in the drilling or other work; surveyor's map) showing the well loca	tion on Form WW- m WW-9 (unless the	e well work is only to plug a well), which sets out the
	proposed for the first injection or w		20 15 .
THE REASON APPLICATION THE APPLICA ACTION AT A	N YOU HAVE RECEIVED THESE N WHICH ARE SUMMARIZED IN T ATION [(FORM WW-3(B))] DESIGN. ALL.	DOCUMENTS IS THE "INSTRUCTI ATED TO YOU.	S THAT YOU HAVE RIGHTS REGARDING THE ONS" ON THE REVERSE SIDE OF THE COPY OF HOWEVER YOU ARE NOT REQUIRED TO TAKE
Notice and Ap West Virginia	plication and accompanying documen Department of Environmental Protect	ts for a Well Work ction, with respect	Permit with the Chief of the Office of Oil and Gas, to a well at the location described on the attached Notice, the Application, the plat, and the Construction

and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of the mailing or delivery to the Chief.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator	HG Energy, LLC	
Address	5260 Dupont Road	
	Parkersburg, WV 26101	
By:	Diane White	
Its:	Agent	

Signature: RECEIVE Office of Oil and Gas

JUN 0 4 2015

07/24/2015

WW-2B1	
(5-12)	

Well No.	Edna J.	May	147	

West Virginia Department of Environmental Protection Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Sampling Contractor		Sturm Environmental Lab	
		Sturm Environmental Lab	
Well Operator	HG Energy, L	rc	
Address 5260 Dupont		Poad	
	3200 Dupont	11000	
	Parkersburg,		

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

- See Attached Form-

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Office of Oil and Gas

JUN 0 4 2015

WV Department of Environmental Protection/24/2015

Well No. Edna J May 147

West Virginia Department of Environmental Protection Office of Oil and Gas

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FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

Surface Owners Identified With Water Sources to be Sampled and Tested:

- Mark Adams
 255 Bear Fork Road
 Griffithsville, WV 25521
- Ronald & Debra Tawney
 91 Pond Gap Road
 Yawkey, WV 25573
- Michael Saul
 PO Box 272
 Griffithsville, WV 25521
- Herbert Morgan
 72 Bear Fork Road
 Yawkey, WV 25573
- John Chandler
 62 Bear Fork Road
 Yawkey, WV 25573
- David Lawson
 First American Way
 Westlake, TX 76262
- Venita Gail Hager
 38 Bear Fork Road
 Yawkey, WV 25573
- Ruth Jones Smith
 59 Bear Fork Road
 Yawkey, WV 25573

- * Judy Miller Smith 25 Pond Gap Road Yawkey, WV 25573
- Vicky Adkins
 5115 Straight Fork Road
 Griffithsville, WV 25521
- Lester Smith
 82 Bear Fork Road
 Yawkey, WV 25573
- Monnie Woodrum
 64 Bear Fork Road
 Yawkey, WV 25573
- Gregory Brisendine
 50 Bear Fork Road
 Yawkey, WV 25573
- Linda Owsley
 P. O. Box 246
 Griffithsville, WV 25521
- Arthur & Romaline White 7564 Plum Orchard Road Munith, MI 49259
- Leonard McCormick
 450 Breedlove Road
 Yawkey, WV 25573

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JUN 0 4 2015

WV Department of Environmental Protection 07/24/2015

WW-9 Rev. 5/10

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API Number 47 -		
Operator's Well No. Edr	a J. May	147

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

Operator Name HG Energy, LL	C		OP Code 49449794	8
Watershed Bear Fork		Quadrangle	Griffithsville 7.5'	
Elevation 840'	CountyLincoln		DistrictDuval	
Description of anticipated Pit V	Waste: Fluids encountered while d	rilling subject v	vell.	
Do you anticipate using more t	han 5,000 bbls of water to comple	e the proposed	d well work? Yes	No X
Will a synthetic liner be used i	n the pit? Yes If	so, what mil.?	20 Mil	
Und Reu X Off	Treated Pit Wastes: d Application erground Injection (UIC Permit It se (at API Number Site Disposal (Supply form WW-! er (Explain	for disposal		
-If oil based, what typ Additives to be used? Water, S Will closed loop system be use Drill cuttings disposal method? -If left in pit and plan		Tsite, etc. Lea	ve in pit Iime, sawdust_Native soil	, cement. líme
on August 1, 2005, by the Offic provisions of the permit are er law or regulation can lead to er I certify under penals application form and all attacobtaining the information, I be	y of law that I have personally or chments thereto and that, based elieve that the information is tru formation, including the possibility	inia Departme iny term or co examined and on my inquir e, accurate, a	ant of Environmental Prot indition of the general per am familiar with the in y of those individuals in and complete. I am awa	ection. I understand that the ermit and/or other applicable formation submitted on this mmediately responsible for
Company Official (Typed Nar	ne)_Diane White			JUN 0 4 2015
Company Official Title Agen				2014 0 3 5012
company official ritic			Er	WV Department of wironmental Protection
Subscribed and sworn before n	day of May A day of May A day of May	oxy	2016	OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA S. DIANNE DULANEY 5260 Dupont Road arkersburg, West Virginia 26101 Commission Expires Oct. 4, 2016

Operator's Well No. EJ May 147

	LEGEND	
Property Boundary	Diversion Control	<u> </u>
Road = = = = = = = = = = = = = = = = = = =	Spring —	
Existing Fence — X — X — X —	Wet Spot	
Planned Fence / / /	Drain Pipe with size in inches	_
Stream Stream	Waterway \longleftrightarrow	\Longrightarrow
Open Ditch	Cross Drain	
Rock ESESSE	Antificial Filter Strip XXXX	XXXXXXXXXXX
North N	Pit: cut walls	
Buildings	Pit: compacted fill walls	No.
Water wells	Area for Land Application of Pi	t Waste
Drill site	6.3	
1 00	acres	
Proposed Revegetation Treatment: Acres Disturbed 1.00	Prevegetation pH	
Lime Tons/acre or to correct to pl	н6.5	
500		
Fertilizer (10-20-20 or equivalent)	os/acre (500 lbs minimum)	
Mulch Straw 2 Tons	a/acre	
Se	ed Mixtures	
Агеа І	Are	a II
Seed Type lbs/acre	Seed Type	lbs/acre
Tall Fescue 40	Tall Fescue	40
Ladino Clover 5	Ladino Clover	5
Attach: Drawing(s) of road, location,pit and proposed area for land ap	oplication.	
Photocopied section of involved 7.5' topographic sheet.	Offic	RECEIVED ce of Oil and Gas
Plan Approved by: Rolph D. Trupladd		JUN 0 4 2015
Comments:	WV	Denart-
Commono.	Enviror	Department of Omental Protection
Title: Lincoln Yes (Date: May 27, 36	o

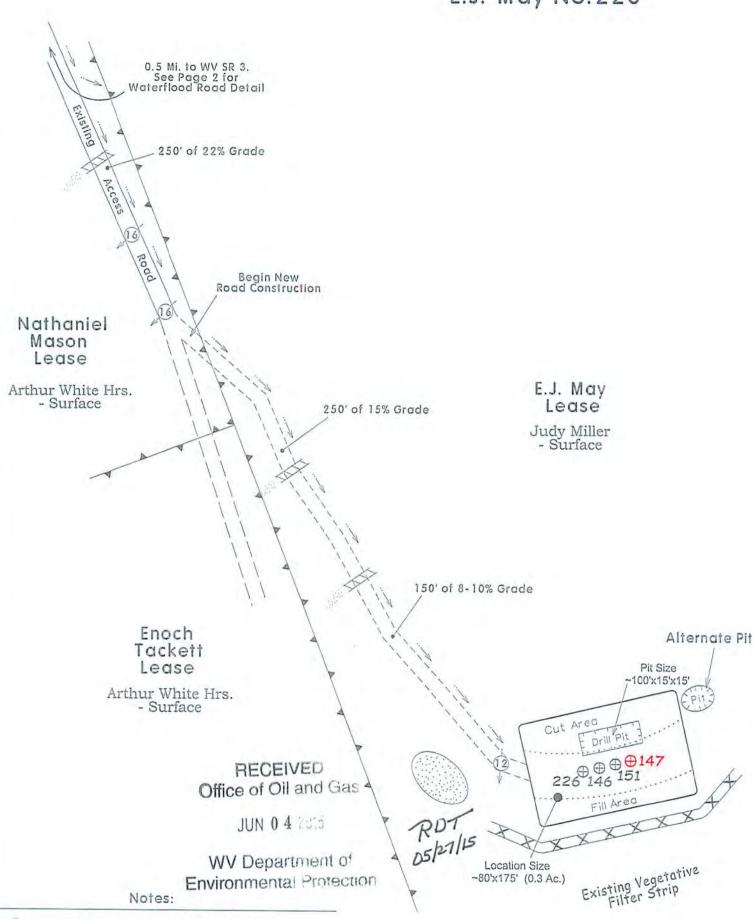
Reclamation Plan For:

E. Tackett No. 146

E.J. May No. 147

E.J. May No. 151

E.J. May No. 226

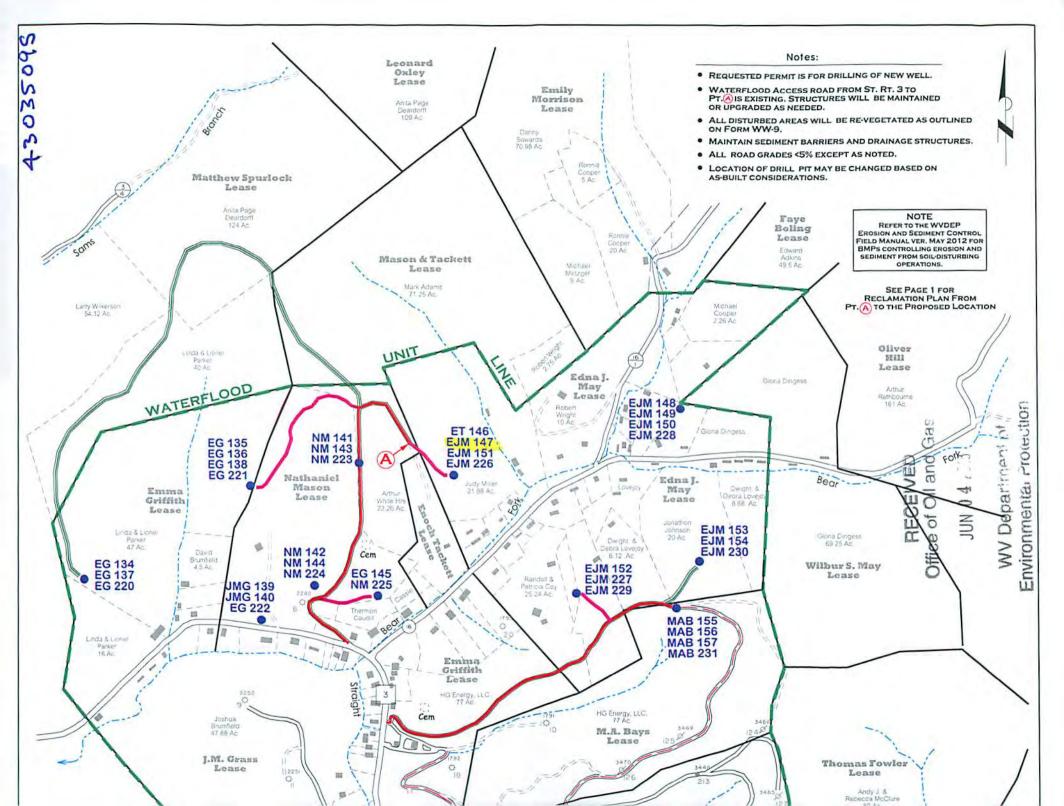


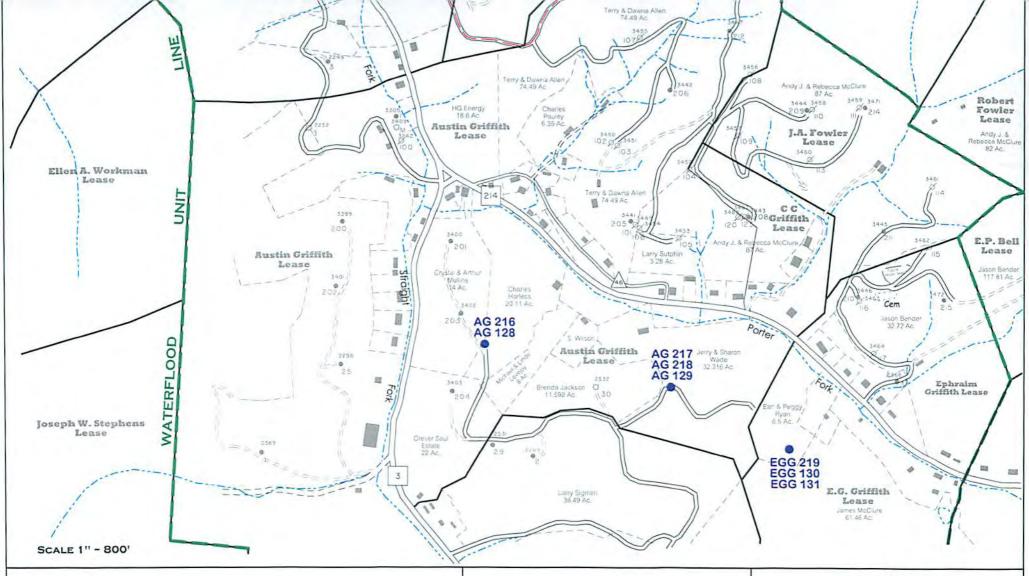
- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- SOME ACCESS ROADS ARE EXISTING AND WILL BE UPGRADED TO WVDEP STANDARDS. NEW STRUCTURES WILL BE INSTALLED AS SHOWN.
- STOCKPILE TOPSOIL FOR RE-DRESSING LOCATION DURING RECLAMATION
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- ALL ROAD GRADES <5% EXCEPT AS NOTED.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- STACK BRUSH BELOW DISTURBED AREAS FOR SEDIMENTATION CONTROL.
- O DRAWING NOT TO SCALE.

07/24/2015

NOTE

REFER TO THE WVDEP
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPS CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.







MARCH 3, 2015

GRIIFTHSVILLE WATERFLOOD

Lincoln County, W.Va.

RECLAMATION PLAN SHOWING ROAD SYSTEMS TO BE USED FOR 2015 **DRILLING PROGRAM** (NORTH)

NOTES

- 1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR BMP'S CONTROLLING **EROSION AND SEDIMENTATION FROM ALL** SOIL-DISTURBING OPERATIONS.
- 2. SEE PAGE ONE OF RECLAMATION PLAN FOR DETAILS OF NEW ROAD CONSTRUCTION AND ROAD UPGRADES FROM POINT A TO DRILL SITE LOCATION.
- 3. EXISTING WATERFLOOD ACCESS ROADS WILL BE MAINTAINED IN PRESENT CONDITION. THESE ROADS WERE CONSTRUCTED UNDER CONDITIONS SET FORTH IN VARIOUS DRILLING PERMITS ISSUED BY WVDEP-OOG PRIOR TO 2015 (AS SHOWN). SEE PERMITS ON FILE FOR MORE DETAIL.

LEGEND

EXISTING WATERFLOOD ROADS TO BE USED. OTHER EXISTING MAIN WATERFLOOD ROADS (Possible Access).

EXISTING LEASE OR FARM ROADS TO BE UPGRADED.

NEW ROADS TO BE CONSTRUCTED.

LOCATION FOR PROPOSED WELLS

AG 216

POTENTIAL WATER SUPPLY SOURCE TO BE SAMPLED (LOC. APPROX.)

PAGE 2

