

APPLICATION CHECKLIST

*Noble Co, Noble Trp. SWW #8,
Permit #*

	Date	Initials
Enter on Agenda	12/19/14	[Signature]
Completeness Review	12/23/14	[Signature]
Date - Time Stamp	12/19/11	[Signature]
Area of Review	12/23/14	[Signature]
Site Evaluation	8/3/12	[Signature]
Permitting Section	12/19/14	[Signature]
Memo to Inspector	7-25-12	[Signature]
Public Notice	8-1-12	[Signature]
Letter	8-1-12	
Date Run		
15 Days		
Review Public Notice		[Signature]
Affidavit of Notification		[Signature]
Objections Received Yes _____ No _____		[Signature]
Public Hearing Date		[Signature]
Chief's Order, if Required		[Signature]
Schematic	7-30-12	[Signature]
Plot on Map	12/23/11	[Signature]
Review by Geologist		[Signature]
Permit Conditions (Same date as permit)		[Signature]
Enter on Computer (Same or later date than Chief's Order)		[Signature]
Enter on Master List	12/23/14	[Signature]
EPA Form	12/23/14	[Signature]
Mail Permit		[Signature]
Update Agenda		[Signature]
File		[Signature]

RECORD OF CONVERSATION

** Possible mine shaft to be encountered - mine string calculation
to be applied to permit [Signature]*

Proof Sheet

URBANIZED AREA ?

APP NUMBER
 APP NUMBER
 OWNER NAME
 EXISTING WELL
 API PERMIT NO
 APPL TYPE
 TYPE OF WELL
 VARIANCE REQUEST
 WELL NAME
 WELL NUMBER
 PREV/PROPOSED TD
 DRILL UNIT ACRES
 TYPE OF TOOL
 WELL CLASS
 FIRE PHONE
 MEDICAL PHONE
 COUNTY CODE
 COUNTY NAME
 COAL (Y=-1/N=0)
 CIVIL TOWNSHIP
 SURF QUAD
 Nad 27 SURF ORIG X
 Nad 27 SURF ORIG Y
 GROUND ELEVATION
 SURF SEC
 SURF LOT
 SURF QTR TWP
 SURF ALLOT
 SURF TRACT
 SURF FRACTION

aPATT020297
 8690
 SES ASSETS LLC
 0
 NW
 SWD
 MIKA SWIW (*swiw*)
 1
 10000
 0
 RTAF
Saw
 () - 911
 () - 911
 121
 NOBLE
 -1
 NOBLE
 CALDWELL NORTH
 2,261,925
 658,405
 758
 18

DISPOSAL PLAN 1 ND
 DISPOSAL PLAN 2
 DISPOSAL PLAN 3
 DISPOSAL PLAN 4
 DISPOSAL PLAN 5
 MP Check # 0

PROPOSED FORMATIONS

CLINTON/MEDINA/KNOX/MT. SIMON

TARG CIVIL TWP
 TARG QUAD
 Nad 27 TARG ORIG X
 Nad 27 TARG ORIG Y
 TARG ELEV
 TARG SECTION
 TARG LOT
 TARG QTR TWP
 TARG ALLOT
 TARG TRACT
 TARG FRACTION

Monday, December 19, 2011



Ohio Department of Natural Resources
 Division of Mineral Resources Management
 2045 Morse Rd. Bldg. H-3 – Columbus OH 43229-6693



Pre-Construction Permit Conditions

Application Number _____	Permit Number _____	Inspection Date <u>8/1/2012</u>	Modification Date (if applicable) _____
Company <u>Select Energy</u>		Lease Name/Well # _____	Mika #1 _____
County <u>Noble</u>		Township _____	Noble _____
Section/Lot <u>18</u>		Urban Area (if applicable) _____	non urban _____
Inspected By <u>Dave Ball</u>			
Accompanied By <u>John Gados</u>			

Directions to Location 821 north of Belle Valley on right

<u>ITEM</u>	<u>LEASE ROAD, WELL SITE CONSTRUCTION</u>	<u>Comments:</u>
1	Tree/Brush Removal/Disposition	<u>to be stock piled and used for wildlife habitat</u>
2	Topsoil Removal/Stockpiles/Placement	<u>stockpile and preserve</u>
3	Erosion/Sediment Control (Silt Fence, Berms)	<u>if needed</u>
4	Drainage Controls (Diversion Ditches, Culverts, Waterways, Crossings)	<u>where needed</u>
5	Signage	<u>posted at entrance</u>
6	Apron/Culverts/Road Materials	<u>if needed</u>
7	Pull Off Area	_____
8	Parking	_____
9	GPS – Access Road	<u>39.80370 081.56750</u>
10	GPS – Well Stake	<u>39.80410 081.56760</u>
11	GPS – Tank Battery	_____
12	GPS – Pit Location	<u>to be determined</u>
13	Site Construction Plan	_____

<u>ITEM</u>	<u>DRILLING CONSIDERATIONS</u>	<u>Comments:</u>			
14	Location Dimensions (Length, Width, Approximate Acreage)	_____			
15	Multiple Wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
16	Rig Type	_____			
17	Is a blow-out preventer required?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
	If No, explain:	_____			
18	Equipment Placement/ Orientation (Rig/Frac Tanks/Etc.)	_____			
19	Mine Voids	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr> <td style="padding: 2px;">Yes</td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> <td style="padding: 2px;">No</td> </tr></table>	Yes	<input checked="" type="checkbox"/>	No
Yes	<input checked="" type="checkbox"/>	No			
20	Verify Water Wells Within 300'	<u>n/a</u>			
21	Verify Structures Within 500'	<u>n/a</u>			

22	Verify Streams and Drainage				
23	Flood Plain	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
24	Stream Crossing	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	Corps of Engineers Notified	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
25	Wetlands	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	EPA Notified	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

ITEM

PITS

Comments:

26	Source of water for drilling	local water source
27	Source of water for hydrofrac	local water source
28	Drilling Pits (Placement/Orientation)	away from highway
29	Pit Dimensions (Length, Width, Depth)	
30	Estimated Volume/Capacity	
31	Number & Type of Liners	reinforced
32	Thickness of Liner	30 mil
33	Type of Material Under Liner	felt if needed
34	Pit Construction Plan	
35	Fencing (Pits/Entire Location)	if needed

ITEM

RESTORATION

Comments:

36	Pit Closure – (Standard/Solidification/Off-Site Disposal – state time frame)	standard
37	Site-Specific Time Frame for Restoration	standard
38	Erosion/Sediment Control	where needed
39	Drainage Control	

ITEM

PRODUCTION

Comments:

40	Is the Access Road Gate required?	<input checked="" type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	non urban
	If No, explain:					

WAIVERS

Comments:

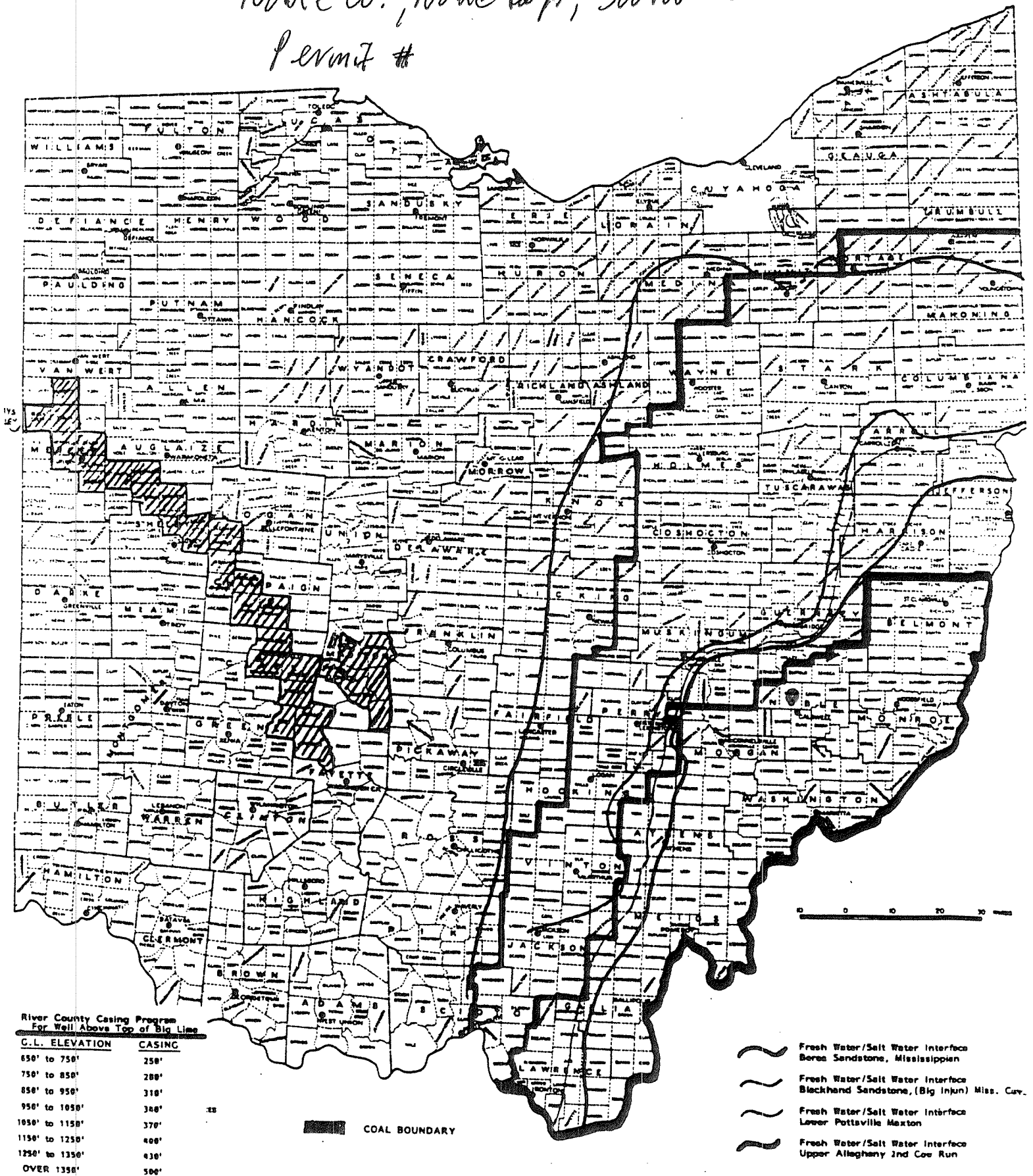
41	Is the Company required to submit a waiver?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	
	If yes, submit the following waiver requests:					

Is the Company required to submit revised drawings? Yes No

THE FOLLOWING ITEMS HAVE BEEN CHANGED FROM THE ORIGINAL APPLICATION:

Note: Possible mine shaft may be encountered.





Noble Co., Noble Deep, SWW#8
 Permit #



River County Casing Program
 For Well Above Top of Big Linn

C.L. ELEVATION	CASING
650' to 750'	250'
750' to 850'	280'
850' to 950'	310'
950' to 1050'	360'
1050' to 1150'	370'
1150' to 1250'	400'
1250' to 1350'	430'
OVER 1350'	500'

COAL BOUNDARY

-  Fresh Water/Salt Water Interface
Berea Sandstone, Mississippian
-  Fresh Water/Salt Water Interface
Blackhand Sandstone, (Big Injun) Miss. Cov.
-  Fresh Water/Salt Water Interface
Lower Pottsville Maxton
-  Fresh Water/Salt Water Interface
Upper Allegheny 2nd Cow Run

DAILY ROUTE SLIP *Noble*

APPLICATION NO. aPATT020297

TYPE: Drill New Well

CONAME SES ASSETS LLC

API

WELL NAME /NO. MIKA SWIW

1

COUNTY 121 NOBLE

INITIALS

DATE

DATE APPLICATION REC'D

PN

12/19/2011

PERMIT FEE AND CHECK NO.

\$1,000.00

15921

RUSH AMOUNT RUSH CHECK NO.

\$0.00

0

APPLICATION ENTERED

PN

12/19/11

APPLICATIONS AND PLATS SENT FOR MINE APPROVAL

COAL APPROVAL RECEIVED

OIL/GAS AFFIDAVIT REC'D

PN

12/19/11

URBANIZED AREA NOTIFICATION SENT

PN

NA

URBANIZED AREA NOTIFICATION SENT TO INSPECTOR/REC'D BACK

PN

NA

URBAN MAP REVIEW

PN

NA

SAMPLES: YES _____ /SPECIAL AREAS _____

GEOLOGIST APPROVAL

PN

DATA ENTRY /ISSUED

PN

PERMIT: TAKEN _____ MAILED _____

PN

FAX TO: _____

FINAL MAP CHECK

COMMENTS:



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Richard J. Simmers, Chief
Division of Oil and Gas Resources Management
2045 Morse Road, Bldg. F-2
Columbus, OH 43229-6693
Phone (614) 265-6922 Fax (614) 265-6910

August 1, 2012

Mr. John S. Gaydos
SES Assets, LLC
3333 N I 35-BLDG F
Gainesville, TX 76240

RE: Public Notification for SWIW application for Noble County, Noble Twp., new well, SES Assets, LLC, MIKA SWD #1 injection well

Dear Mr. Kelly:

As outlined in Rule 1501: 9-3-06 (H) (1) of the Ohio Administrative Code, please consider this letter as notification from the Division for you to proceed with the public notice. Enclosed, please find a copy of the notice you will need to have run in the newspaper of general circulation in the area of the proposed injection well. **The public notice must be run for no less than five consecutive days. After running this notice in the newspaper, please send me the original proof-of-publication from the newspaper as soon as possible.**

If you have any questions regarding this matter, please feel free to contact me at (614) 265-6673.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Adgate".

Andrew Adgate, Geologist
UIC Section
Division of Oil and Gas Resources Management
2045 Morse Road, F-2
Columbus, Ohio 43229-6693

Cc: File

PUBLIC NOTICE

SES Assets, LLC, 3333 N I 35-BLDG F, Gainesville, TX 76240 (940) 668-1818 is applying to permit a well for the injection of brine water produced in association with oil and natural gas. The location of the proposed injection well is the MIKA SWD #1 well, New well, Section 18, Noble Township, Noble County, Ohio. The proposed well will inject into Clinton/Medina sandstone at a depth of 5235 to 8950 feet. The average injection is estimated to be 1000 barrels per day. The maximum injection pressure is estimated to be 1200 psi. Further information can be obtained by contacting SES Assets, LLC., or the Division of Oil and Gas Resources Management. The address of the Division is: Ohio Department of Natural Resources, Division of Oil and Gas Resources Management, 2045 Morse Road, Building F-2, Columbus, Ohio 43229-6693, (614) 265-6633. For full consideration, all comments and objections must be received by the Division, in writing, within fifteen calendar days of the last date of this published legal notice.

Geologic Review for Class II Wells

Application No. aPATT020297

SWIW: (Salt Water Injection Well)

Proposed Well Depth: 10,000 feet

Proposed Injection Zone: Clinton-Mt. Simon

Noble County, Noble Twp.

Study area investigated ~ 15 mile radius centered on the proposed well location for all maps except gravity and magnetic maps, which used a 30 mile radius.

Gravity Bouguer Anomaly

- The Gravity Bouguer Anomaly map shows a broad gravity low approximately 2 miles south of the permit application. This low parallels the Parkersburg Lorain syncline evident on the Onondaga structure map.

Gravity Free Air

- The free air map shows a NE-SW trending gravity low approximately 2 miles south of the permit application. This low parallels the Parkersburg Lorain syncline evident on the Onondaga structure map.

Magnetic First Derivative

- There are no major anomalies shown on this map, except for 2 isolated highs to the SW (4 miles away) and SE (8 miles away) of the permit application.

Magnetic Second Derivative

- There are no major anomalies shown on this map, except for 2 isolated highs to the SW (4 miles away) and SE (6 miles away) of the permit application.

Magnetic Reduce Dipole

- The permit application is located within a broad high.

Precambrian Structure from PG-23

- The permit application is located about 1/2 mile west of the NW-SE trending Cambridge CSSD.

Knox Structure

- The permit application is located about 1/2 mile west of the NW-SE trending Cambridge CSSD.

Trenton Structure

- The permit application is located about 1/2 mile west of the NW-SE trending Cambridge CSSD.

EGSP Onondaga Structure

- No major anomalies are shown on this map near the permit application.

MRCSP Onondaga Structure

- The permit application is located about 1/2 mile west of the NW-SE trending Cambridge CSSD.

EGSP Berea Structure

- The permit application is located on the western flank of the NW-SE trending Cambridge CSSD.

Mississippian/Pennsylvanian Unconformity Surface

- The Mississippian-Pennsylvanian unconformity shows several local closed highs on this unconformity surface NE and south of the permit application.

Middle Kittanning Coal Structure

- The permit application is located on the western flank of a feature that follows the NW-SE trend of the Cambridge CSSD.

Upper Freeport Coal Structure

- The permit application is located on the western flank of a broad feature that follows the NW-SE trend of the Cambridge CSSD.

Pittsburgh Coal Structure

- The permit application is located on the western flank of a feature that follows the trend of the Cambridge CSSD.

Bedrock Geology

- The top of bedrock for the permit application is the Pennsylvanian Conemaugh Group that trends NW-SE parallel to the Cambridge CSSD.

Bedrock Topography

- The bedrock topography map indicates the permit application is located within a NW-SE trending valley that parallels that Cambridge CSSD.

EGSP Aerial Photo Lineament

- Numerous lineaments generally less than 1 mile in length have been interpreted from aerial photos by Gray and others (1982) throughout the study area of the permit application with 2 dominant directions oriented northwest-southeast and northeast-southwest.

EGSP LANDSAT Lineament

- A NE-SW trending lineament is present about 1/2 mile west of the permit application.

Mason Lineament

- A NW-SE trending lineament that parallels the Cambridge CSSD is present less than 1/2 mile west of the permit application.
- Another intersecting lineament trending roughly NW-SE is present about 1 mile east of the permit application.
- Approximately 6 miles to the north of the permit application is another NW-SE trending lineament.

Oil and gas fields

- Production in the study area is in the Berea, Devonian Shale, and Clinton. The permit application is within a Berea and Clinton producing field.

Earthquakes

- There are no epicenters in the study area. The closest epicenter is 20 miles to the south.

Injection Wells

- There are 9 SWD (active salt water disposal) wells within the 30 mile study area that are injecting in the Berea, Clinton, "Newburg," and Cambrian. The nearest SWD well is approximately 2 miles to the SE of the permit application. There is one IEO (injection-enhanced oil recovery) well approximately 15 Miles SW of the application permit injecting in the Clinton.

To summarize, this well is of concern because faulting related to the Cambridge CSSD is shown within a mile of the injection permit on the Precambrian, Knox, Trenton, and Onondaga structure maps. The NW-SE trending Cambridge CSSD is also reflected on the shallow Berea, Middle Kittanning coal, Upper Freeport coal, and Pittsburgh coal structure maps. A NW-SE trending lineament parallel to the Cambridge CSSD is also present on the lineament map of Mason (1999); this surface lineament is defined by a series of straight line segments of the West Fork of Duck Creek. No historic earthquakes are known to have occurred within the study area, with the nearest being about 20 miles to the south. This application is requesting to inject in the Clinton through Mt. Simon (Cambrian basal sandstone). The proposed location is within an area of established/older Berea and Clinton production wells, with little deep well control close in. There are currently 9 SWD wells injecting in the Berea, "Clinton," and Cambrian in the study area and one IEO injecting in the Clinton.

INTER-OFFICE MEMO

TO: Dave Ball, Mineral Resources Inspector
FROM: Andrew Adgate, Geologist AA
SUBJECT: Application and Site Evaluation for a SWIW permit
DATE: July 25, 2012

The Division of Oil and Gas Resources Management has received an application for the proposed saltwater injection well as described below:

OPERATOR: Select Energy Services
WELL NAME & NUMBER: Mika #1
PERMIT NUMBER: Drill new well, SWIW #8
LOCATION: 870' SL & 1180' WL of NE quarter of SEC 18, Noble Twp., Noble County
PROPOSED INJECTION ZONE: Clinton/Medina sandstone through Mt. Simon (Knox & Mt. Simon Primary Target)
DATE RECEIVED: December 19, 2011

Please inspect proposed site and evaluate for any potential water wells or surface bodies of water within close proximity that would require any additional permit conditions for the construction of the SWIW surface facilities. Please e-mail me a copy of the site inspection report with any recommendations.

February 28, 2012

Mr. Tom Tomastik
Ohio Department of Natural Resources
2054 Morse Rd., Bldg. H-3
Columbus, OH 43229

Dear Mr. Tomastik:

We have been advised by Select Energy Services, LLC of its intent to drill a salt water disposal well on the Mika property located at GPS coordinates: latitude 39.80409622 and longitude -81.56758118. We understand the proposed disposal well is within the Ohio Department of Natural Resource's half-mile Area of Review of our domestic well located at GPS coordinates: latitude 39.8042284727378 and longitude -82.5639654009998. This letter shall serve as notice to the ODNR that we do not object to the drilling or completion of the proposed salt water disposal well by Select Energy Services in the Clinton Formation.

Thank you for your attention to this matter.

Sincerely, *Scott Chew Dawn Chew*

Scott Chew and Dawn Chew
4850 State Route 821
Caldwell, Ohio 43724



THE STATE OF OHIO §
COUNTY OF Noble §

This instrument was acknowledged before me on this 29th day of February, 2012 by Scott Chew.

Freddie Powell
Notary Public, State of Ohio

My commission expires: 4/14/2014

THE STATE OF OHIO §
COUNTY OF Noble §

This instrument was acknowledged before me on this 29th day of February, 2012 by Dawn Chew.

Freddie Powell
Notary Public, State of Ohio

My commission expires: 4/14/2014

February 28, 2012

Mr. Tom Tomastik
Ohio Department of Natural Resources
2054 Morse Rd., Bldg. H-3
Columbus, OH 43229

Dear Mr. Tomastik:

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Thank you for your attention to this matter.

Sincerely,

Scott Chew Dawn Chew

Scott Chew and Dawn Chew
4850 State Route 821
Caldwell, Ohio 43724

THE STATE OF OHIO §
 §
COUNTY OF Noble §

This instrument was acknowledged before me on this 29th day of February, 2012 by Scott Chew.

Freddie Powell
Notary Public, State of Ohio

My commission expires: 2/14/2014

THE STATE OF OHIO §
 §
COUNTY OF Noble §

This instrument was acknowledged before me on this 29th day of February, 2012 by Dawn Chew.

Freddie Powell
Notary Public, State of Ohio

My commission expires: 2/14/2014

Tomastik, Tom

From: Marty Shumway [marty@mackex.com]
Sent: Thursday, March 01, 2012 11:38 AM
To: Tomastik, Tom
Cc: John Gaydos
Subject: Re: Permit Application
Attachments: Chew_non-objection_SES_Mika SWIW#1.pdf

Tom,

Please find attached a letter of non-objection from Scott & Dawn Chew for their domestic well located within the 1/2 AOR for SES Assets, LLC - Mika SWIW #1.

What is the status of this permit application? I understand the Division is working on modifying some of the rules, do you have any information regarding the time frame for the permit to be issued?

Please let me know if you need anything else to complete the permit application.

Thanks,
Marty

--
Martin R. Shumway, PE, CPG
MacKenzie Land & Exploration, Ltd.
137 E Dublin Granville Rd Ste E | Worthington, OH 43085
O: 614.785.1682 | M: 614.403.2672 | <http://www.mackex.com>

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On Tue, Dec 20, 2011 at 8:05 AM, Tomastik, Tom <Tom.Tomastik@dnr.state.oh.us> wrote:
Marty:

I will need to know right away whether or not Mr. Scott Chew is going to object to using the Clinton as a disposal zone. If so, we want to eliminate the Clinton/Medina from the application prior to publishing the legal notice. I would get with Mr. Chew as soon as possible and if he has no objections, get a letter from him stating that.

Thanks,

Tom Tomastik, Geologist 4

Division of Oil and Gas Resources Management

2045 Morse Road, H-3

3/1/2012

Columbus, Ohio 43229-6693

(614) 265-1052

From: Marty Shumway [mailto:marty@mackex.com]
Sent: Monday, December 19, 2011 11:16 AM
To: Tomastik, Tom
Cc: John Gaydos
Subject: Permit Application

Tom,

I dropped a permit application off this morning at your office on behalf of SES Assets, LLC for the Mika SWIW #1. Please let me or John Gaydos (614) 809-1059 know if you need any information or have any questions. Thanks.

Marty

Martin R. Shumway CPG, PE
MacKenzie Land & Exploration, Ltd.
mail: PO Box 166
courier: 137 E Dublin Granville Rd Ste E
Worthington, OH 43085

www.mackex.com

phone: 614-265-1052
fax: 614-265-1051
cell: 614-265-1052

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3/1/2012

APPLICATION FOR A PERMIT (FORM 1)
 OHIO DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF MINERAL RESOURCES MANAGEMENT
 2045 Morse Road, Building H-3
 COLUMBUS, OHIO 43229-6693
 (614) 265-6633

#15421
 \$1000.00
 A

APATHO 20297

SEE INSTRUCTIONS ON PAGE 2 (BACK)

1. I, We (applicant) <u>SES ASSETS, LLC</u>		2. Owner #: <u>8690</u>	
(address) <u>3333 N I 35-BLDG F, GAINESVILLE TX, 76240</u>		Phone #: <u>(940) 668-1818</u>	
hereby apply this date <u>7-Dec</u> , 20 <u>11</u>		for a permit to:	
<input type="checkbox"/> Reissue (check appropriate blank) <input checked="" type="checkbox"/> Drill New Well <input type="checkbox"/> Drill Directionally <input type="checkbox"/> Drill Horizontally		<input type="checkbox"/> Revised Location <input type="checkbox"/> Plug Back <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Orphan Well Program <input type="checkbox"/> Convert <input type="checkbox"/> Deepen <input type="checkbox"/> Reopen <input type="checkbox"/> Temporary Inactive	
3. TYPE OF WELL:			
<input type="checkbox"/> Oil & Gas <input type="checkbox"/> Stratigraphic Test <input type="checkbox"/> Solution Mining* <input type="checkbox"/> Input/Injection		<input type="checkbox"/> Annular Disposal <input type="checkbox"/> Gas Storage <input type="checkbox"/> Enhanced Recovery* <input type="checkbox"/> Water Supply	
		<input checked="" type="checkbox"/> Saltwater Injection <input type="checkbox"/> Other (explain): _____ (* if checked, select appropriate box below)	
4. MAIL PERMIT TO: SELECT ENERGY SERVICES ATTN: JOHN GAYDOS 101 HILLPOINTE DR STE 111 CANONSBURG, PA 15317		20. TYPE OF TOOLS:	
5. COUNTY: <u>NOBLE</u>		<input type="checkbox"/> Cable <input type="checkbox"/> Cable / Air Rotary <input type="checkbox"/> Cable / Fluid Rotary <input type="checkbox"/> Cable / Air / Fluid Rotary	
6. CIVIL TOWNSHIP: <u>NOBLE</u>		<input type="checkbox"/> Air Rotary <input checked="" type="checkbox"/> Air / Fluid Rotary <input type="checkbox"/> Fluid Rotary <input type="checkbox"/> Service Rig	
7. SECTION: <u>18</u>	8. LOT: _____	21. PROPOSED CASING PROGRAM:	
9. FRACTION: _____	10. QTR TWP: <u>SE 1/4 NW 1/4</u>	16" ~100' Conductor	
11. TRACT / ALLOT: _____	12. WELL #: <u>1</u>	13-3/8" ~500' (fresh water)	
13. LEASE NAME: <u>MIKA SWIW</u>	14. PROPOSED TOTAL DEPTH: <u>10,000</u>	9-5/8" ~1350' (100' below Berea)	
15. PROPOSED GEOLOGICAL FORMATION: <u>CLINTON/MEDINA/KNOX/MT SIMON</u>	16. DRILLING UNIT IN ACRES (must be same as acres indicated on plat): _____	7" ~7650' (Gull River)	
17. IF PERMITTED PREVIOUSLY:		22. FIRE AND MEDICAL DEPARTMENT TELEPHONE NUMBERS: (closest to well site)	
API #: _____	OWNER: _____	Fire: <u>9-1-1</u>	
WELL #: _____	LEASE NAME: _____	Medical: <u>9-1-1</u>	
TOTAL DEPTH: _____	GEOLOGICAL FORMATION: _____	23. MEANS OF INGRESS & EGRESS:	
18. IF SURFACE RIGHTS ARE OWNED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES		Township Road: _____	
Division Name: _____	Division Phone: _____	County Road: _____	
		Municipal Road: _____	
		State Highway: <u>SR 821</u>	
		24. IS THE WELL LOCATION OR PRODUCTION FACILITIES WITHIN AN URBANIZED AREA AS DEFINED BY 1509.01(Y)?	
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
RECEIVED			
19. LANDOWNER ROYALTY INTEREST:			
Is There An Attached List? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Name: <u>ANTHONY & MARK KAY MIKA</u>			
Address: <u>48665 WARGO RD, CALDWELL, OHIO 43724</u>			
Name: _____			
Address: _____			
Name: _____			
Address: _____			

DEC 19 2011

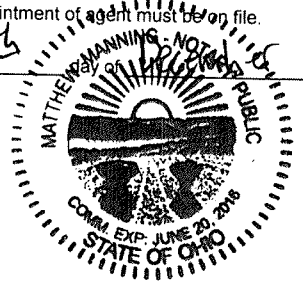
I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

I, the undersigned, further depose and state that I am the person who has the right to drill on the tract or drilling unit and to drill into and produce from a pool and to appropriate the oil or gas that I produce therefrom either for myself or others as described in this application. And furthermore, I the undersigned, being duly sworn, depose and state at this time that I am not liable for any final nonappealable order of a court for damage to streets, roads, highways, bridges, culverts, or drainage ways pursuant to Section 5577.12 of the Ohio Revised Code (ORC). I, the undersigned, further depose and state that all notices required by 1509.06 (A) (9) ORC for this application have been duly provided by me. If applying for a permit to plug and abandon a well, I hereby certify that the written notices, as required in Section 1509.13, ORC, have been given.

That I hereby agree to conform with all provisions of Chapter 1509, ORC, and Chapter 1501, OAC, and all orders and conditions issued by the Chief, Division of Mineral Resources Management.

Signature of Owner/Authorized Agent John S. Gaydos
 Name (Type or Print) JOHN S. GAYDOS Title SWD Well Manager

If signed by Authorized Agent, a certificate of appointment of agent must be on file.
 Sworn to and subscribed before me this the 6th, 2011



Matthew Manning
 (Notary Public)
June 20, 2016
 (Date Commission Expires)

SUPPLEMENT TO APPLICATION
PERMIT FOR A SALTWATER INJECTION WELL (Form 210)

Ohio Department of Natural Resources, Division of Oil and Gas Resources Management
2045 Morse Road, Bldg H3
Columbus, OH 43229-6693

AREA OF REVIEW. An application for a saltwater injection well (SWIW) will be evaluated on the basis of an "area of review" surrounding the proposed well. The area of review for wells in which injection of greater than two hundred barrels per day is proposed shall be the area circumscribed by a circle with the center point at the location of the injection well and a radius of one-half mile. The area of review for wells in which a maximum injection of two hundred barrels per day or less is proposed shall be the area circumscribed by a circle with the center point at the location of the injection well and a radius of one-quarter mile.

31. PROPOSED INJECTION ZONE

Geological Formation: CLINTON/MEDINA THROUGH MT. SIMON (KNOX & MT. SIMON PRIMARY TARGET)
Injection Interval: From: 5235 feet to 8950
Geologic description of injection zone: SANDSTONE, DOLOMITE

32. WELL CONSTRUCTION AND OPERATION

- A. Description of the proposed casing and cement program for new wells, or of the casing, cementing or sealing with prepared clay for existing wells to be converted:
CONDUCTOR - 100' OF 16" CEMENTED TO SURF.; FRESHWATER - 500' OF 13-3/8" CEMENTED TO SURF.;
BEREA - 1350' OF 9-5/8" CEMENTED TO SURFACE;
PRODUCTION- 7650' OF 7" CEMENTED TO DEPTH OF 3650' (1585' ABOVE INJECTION ZONE)
INJECTION TUBING - 5135' OF 3-1/2" SET ON PACKER
- B. Proposed method for testing the casing:
HYDRAULIC PRESSURE OF 3-1/2" TUBING AND 7" CASING ANNULUS
PRESSURE TEST ANNULUS TO 1400 PSI FOR 15 MINUTES WITH NO MORE THAN 5% PRESSURE DECLINE
- C. Description of the proposed method for completion and operation of the injection well:
PERFORATE SELECTED INTERVALS IN THE CLINTON/MEDINA OPEN HOLE KNOX THRU MT. SIMON
ACIDIZE PERFORATIONS WITH 1000 GALLONS OF ACID
FRACTURE STIMULATE CLINTON/MEDINA WITH 200 SX SAND
- D. Description of the proposed unloading, surface storage, and spill containment facilities:
CONCRETE UNLOADING PAD WITH CONCRETE VAULT
6-500 BARREL TANKS (3000 BBLs)
CONCRETE WALLED SECONDARY CONTAINMENT BERM WITH CONCRETE FLOOR
SECONDARY CONTAINMENT DIMENSIONS 90' X 80' X 3'
3000 BBLs OF STORAGE WILL BE TIED TOGETHER AT THE BOTTOM
SECONDARY CONTAINMENT SUFFICIENT TO CONTAIN 3000 BBLs PLUS 25 YR 24 HR STORM

33. PROPOSED INJECTION VOLUMES

- A. Indicate the estimated amount of saltwater to be injected into the proposed injection well per day:
AVERAGE: 1000 BBLs MAXIMUM: 2000 BBLs
- B. Indicate the method to be used to measure the actual amount of saltwater injected into the well:
DAILY WATER TICKETS AND FLOW METER

34. PROPOSED INJECTION PRESSURES

- A. Indicate the estimated pressure to be used for injection of saltwater into the proposed injection well:
AVERAGE: 1000 MAXIMUM: 1200
- B. Indicate the method to be used to measure the actual daily injection pressure:
PRESSURE GAGE AND CHART RECORDER

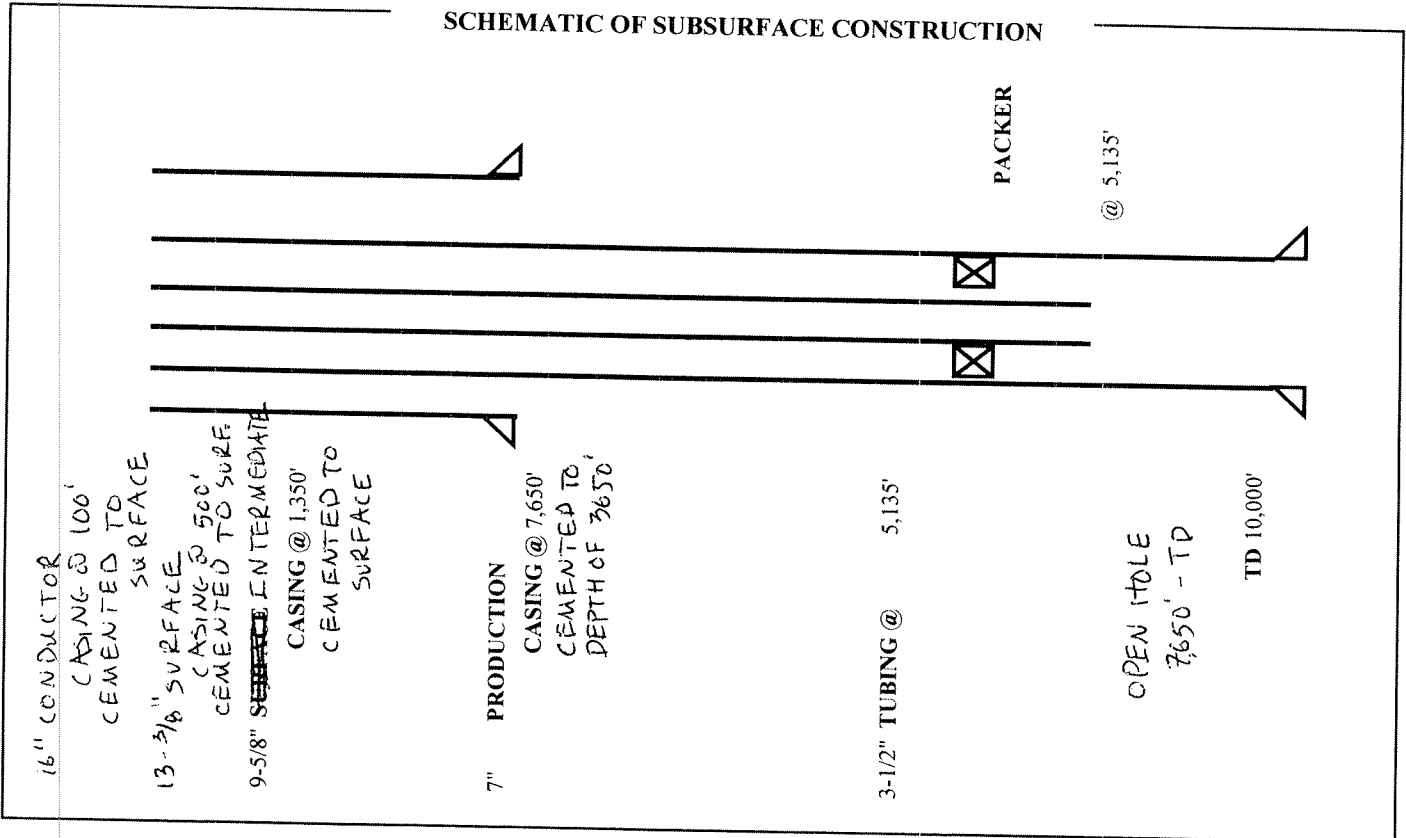
35. PROPOSED CORRECTIVE ACTION

Explain any corrective action proposed for wells penetrating the proposed injection formation or zone within the area of review:

API #34121213790000 IS A DOMESTIC WELL AND WILL BE PURCHASED AND PLUGGED.

36. **MAP.** Each application for a permit shall be accompanied by a map or maps showing and containing the following information:
- A. The subject tract of land on which the proposed injection well is to be located.
 - B. The location of the proposed injection well on the subject tract established by an Ohio registered surveyor showing the distances in feet from the proposed well site to the boundary lines on the subject tract;
 - C. The geographic location of all wells, penetrating the formation proposed for injection regardless of status, within the area of review;
 - D. All holders of the land owner's royalty interest of record, or holders of the severed oil and gas mineral estates of record in the subject tract;
 - E. All owners or operators of wells producing from or injecting into the same formation proposed as the injection formation.

37. **SCHEMATIC DRAWING OF SUBSURFACE CONSTRUCTION.** Label the schematic drawing below indicating size and setting depth of surface casing, intermediate (if any) and production casings; amount of cement used, measured or calculated tops of cement; size and setting depth of tubing; type and setting depth of packer; geologic name of injection zone showing top and bottom of injection interval. If the proposed input well design is substantially different from the schematic below, attach on a separate sheet a schematic of your proposal labeled with the above information.



38. Public notice of an application for an enhanced recovery project is required by law. In addition, the applicant must submit, on an attached sheet, a list of the names and address of those persons required to receive personal notice in accordance with Rule 1501:9-5-05(E)(1), of the Ohio Administrative Code.

After submitting the application, and after a determination by the Division that it is complete as required by the rules of the Division, a legal notice must be published by the applicant in a newspaper of general circulation in the area of review. The legal notice must contain the information described in Rule 1501:9-5-05(E)(1) of the Ohio Administrative Code. A copy of the notice must be delivered to all owners or operators of wells within the area of review producing from or injecting into the same formation proposed as the injection formation. Proof of publication, publication date, and an oath as to the delivery to those entitled to receive personal notice under this method must be filed with the Division within thirty days after the Division determines that the application is complete.

In addition, notice of all applications for enhanced recovery projects will be published in the Division's Weekly Circular. **RECEIVED**

The undersigned hereby agrees to comply with all provisions for an enhanced recovery project as required by Chapter 1501:9-5 of the Ohio Administrative Code. In addition, the undersigned deposes and says that he shall conform to all provisions of Section 1509.072 of the Ohio Revised Code, and to all orders and rules issued by the Chief, Division of Mineral Resources Management.

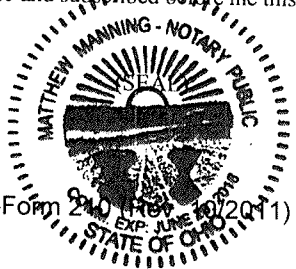
Owner/Authorized Agent (Type or Print): JOHN S. GAYDOS

Signature of Owner/Authorized Agent: *John S. Gaydos* Title: SWD Well Manager

Permanent Address of Home Office: SES ASSETS, LLC, 3333 N I 35-BLDG F, GAINESVILLE TX, 76240

If signed by Authorized Agent, a certified copy of appointment of agent must be on file with the Division.

SWORN to and subscribed before me this 6th day of December, 2011.



Matthew Manning
Notary Public
June 19, 2016
Date Commission Expires

Joe Macenko No. 1
(Final Restoration)
Permit No. 2-1351

RECEIVED

DEC 19 2011

Andrew Mika Etal

Davis Otis No. 3
(Plugged & Abandoned)
Permit No. 6-2637

Jack Blakeslee

Anthony & Mary K Mika

Mika SWIW No. 1

Donald & Irene Moore

Paul Blalko

1180'

Pavement

Anthony & Mary K Mika

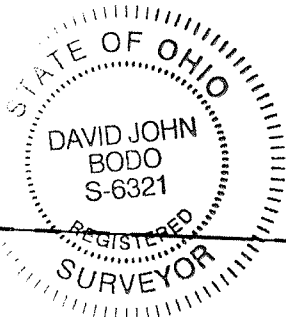
John Mackie Jr.

S.R. 821

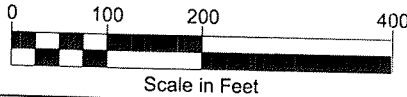
870' SL & 1180' WL
NE 1/4 of Section 18

Jerry Wheeler

870'



N.W. 1/4 Sec. 18
N.E. 1/4 Sec. 18
S.W. 1/4 Sec. 18
S.E. 1/4 Sec. 18



Names and acreages compiled from the Noble County Auditor's and/or Recorder's records.

Scale in Feet

Plat Showing Location of Well
State of Ohio, Department of Natural Resources -- Division of Oil & Gas Resources Management, Columbus, Ohio

Mika SWIW No. 1

Oil or Gas

New Location

Class II Injection Well

Scale: 1" = 200'

I hereby state that all drilling or producing wells within 1000 feet and all public roads, railroads, buildings and streams within 200 feet have been shown, there are no drilling unit lines nearer than 500 feet, that this plat is true and correct and was prepared according to the current Ohio Department of Natural Resources, Division of Oil & Gas Resources Management (OAC 1501:9-1).

David J. Bodo

David Bodo & Associates, Inc.

Professional Surveyors
5175 Tongo Rd NW, Carrollton, Ohio, 44615
(330) 863-2300 **SES 2096**

Registered Surveyor Number 6321 or Registered Surveyor Number 8239

Operator: **SES Assets, LLC**

Address: 3333 N I 35-BLDG F, Gainesville, Texas, 76240

Landowner: Surface Anthony & Mary Mika
Minerals --

Well Number: 1 Drilling Unit Acre: --

County: Noble Township: Noble

Urbanized Area: Non-Urbanized

Quad: Caldwell North

(NAD 83) Ohio State (NAD 27)

Plane Coordinates (South Zone)

X 2,230,460 X 2,261,925

Y 658,445 Y 658,405

N.E. 1/4 Sec. 18

870' to S.L.

1180' to W.L.

Subdivision Civil Township

Township: 7

Range: 9

Section: 18 Lot: --

Tract: --

Subdivision: Congress Lands

--

FEMA Panel No.: 39121C0137C

Zone: "X" Effective Date: Jan. 06, 2011

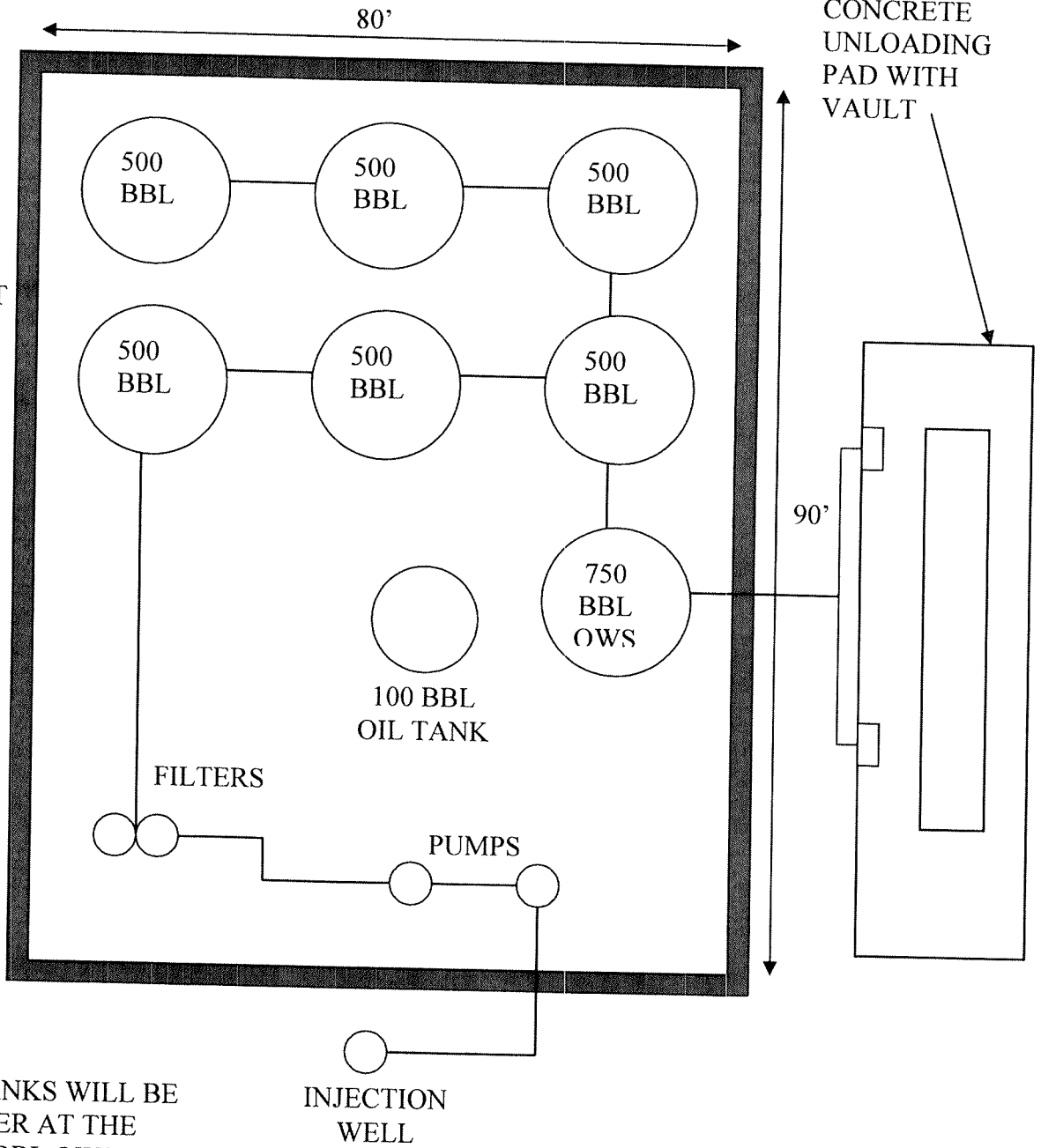
Elevation: 758 Date: 12/08/2011

Coordinates are based on actual GPS field observations

SES ASSETS, LLC
MIKA SWIW #1
SECONDARY CONTAINMENT SCHEMATIC

RECEIVED
FEB 19 2011

SECONDARY
CONTAINMENT
80' x 90' x 3'



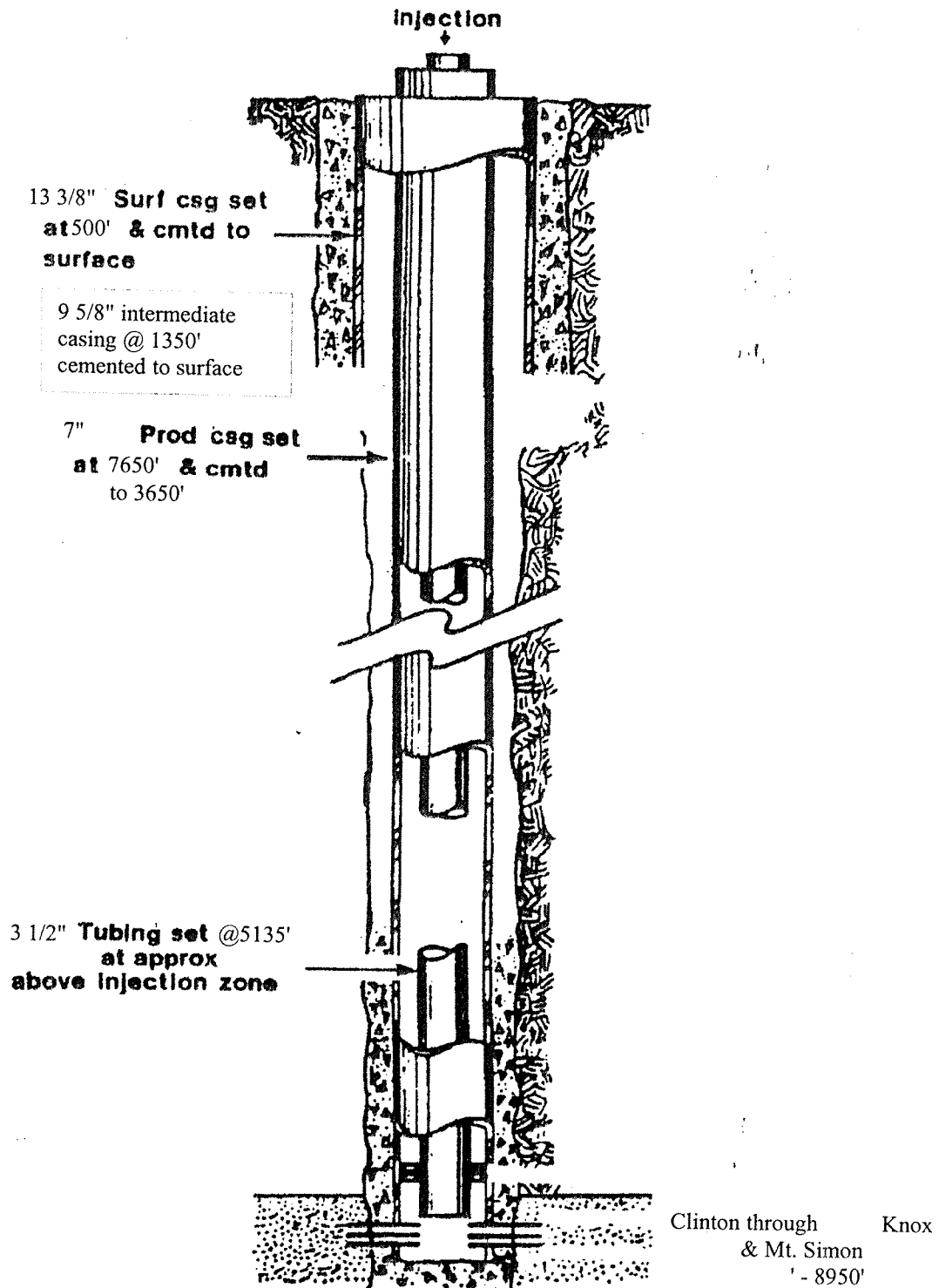
6 - 500 BBL TANKS WILL BE
TIED TOGETHER AT THE
BOTTOM. 750 BBL OWS TIED
TO 500 BBL TANKS AT TOP

Revision 1: 12/6/2011

Noble County, Noble Twp., SWIW # 8
Mika SWIW #1

**Subsurface Construction
For Injection Well**

Maximum Injection Pressure: psi



Total Depth: 4300'

APPLICATION FOR A PERMIT (Form 1)
 OHIO DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF MINERAL RESOURCES MANAGEMENT
 2045 Morse Road, Building H-3
 COLUMBUS, OHIO 43229-6693
 (614) 265-6633

SEE INSTRUCTIONS ON PAGE 2 (BACK)

1. I, We (applicant) SES ASSETS, LLC 2. Owner #: 8690
 (address) 3333 N I 35-BLDG F, GAINESVILLE TX, 76240 Phone #: (940) 668-1818
 hereby apply this date 7-Dec, 20 11 for a permit to:

- | | | |
|--|--|---|
| <input type="checkbox"/> Reissue (check appropriate blank) | <input type="checkbox"/> Revised Location | <input type="checkbox"/> Convert |
| <input checked="" type="checkbox"/> Drill New Well | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Deepen |
| <input type="checkbox"/> Drill Directionally | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Reopen |
| <input type="checkbox"/> Drill Horizontally | <input type="checkbox"/> Orphan Well Program | <input type="checkbox"/> Temporary Inactive |

3. TYPE OF WELL:

<input type="checkbox"/> Oil & Gas	<input type="checkbox"/> Annular Disposal	<input checked="" type="checkbox"/> Saltwater Injection
<input type="checkbox"/> Stratigraphic Test	<input type="checkbox"/> Gas Storage	<input type="checkbox"/> Other (explain): _____
<input type="checkbox"/> Solution Mining*	<input type="checkbox"/> Enhanced Recovery* (* if checked, select appropriate box below)	
<input type="checkbox"/> Input/Injection	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Observation
		<input type="checkbox"/> Production/Extraction

4. MAIL PERMIT TO:
 SELECT ENERGY SERVICES
 ATTN: JOHN GAYDOS
 101 HILLPOINTE DR STE 111
 CANONSBURG, PA 15317

20. TYPE OF TOOLS:

<input type="checkbox"/> Cable	<input type="checkbox"/> Air Rotary
<input type="checkbox"/> Cable / Air Rotary	<input checked="" type="checkbox"/> Air / Fluid Rotary
<input type="checkbox"/> Cable / Fluid Rotary	<input type="checkbox"/> Fluid Rotary
<input type="checkbox"/> Cable / Air / Fluid Rotary	<input type="checkbox"/> Service Rig

5. COUNTY: NOBLE
 6. CIVIL TOWNSHIP: NOBLE
 7. SECTION: 18 8. LOT: _____
 9. FRACTION: _____ 10. QTR TWP: SE 1/4 NW 1/4
 11. TRACT / ALLOT: _____
 12. WELL #: 1

21. PROPOSED CASING PROGRAM:

16" ~100' Conductor
 13-3/8" ~500' (fresh water)
 9-5/8" ~1350' (100' below Berea)
 7" ~7650' (Gull River)

13. LEASE NAME: MIKA SWIW
 14. PROPOSED TOTAL DEPTH: 10,000

22. FIRE AND MEDICAL DEPARTMENT TELEPHONE NUMBERS: (closest to well site)

Fire: 9-1-1
 Medical: 9-1-1

15. PROPOSED GEOLOGICAL FORMATION:
CLINTON/MEDINA/KNOX/MT SIMON

16. DRILLING UNIT IN ACRES (must be same as acres indicated on plat): _____

23. MEANS OF INGRESS & EGRESS:

Township Road: _____
 County Road: _____
 Municipal Road: _____
 State Highway: SR 821

17. IF PERMITTED PREVIOUSLY:

API #: _____
 OWNER: _____
 WELL #: _____
 LEASE NAME: _____
 TOTAL DEPTH: _____
 GEOLOGICAL FORMATION: _____

24. IS THE WELL LOCATION OR PRODUCTION FACILITIES WITHIN AN URBANIZED AREA AS DEFINED BY 1509.01(Y) ?

Yes No

18. IF SURFACE RIGHTS ARE OWNED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES

Division Name: _____
 Division Phone: _____

19. LANDOWNER ROYALTY INTEREST:

Is There An Attached List? Yes No

Name: ANTHONY & MARK KAY MIKA
 Address: 48665 WARGO RD, CALDWELL, OHIO 43724

RECEIVED

DEC 19 2011

Name: _____
 Address: _____
 Name: _____
 Address: _____

I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

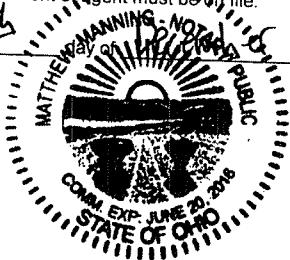
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 Name (Type or Print) JOHN S. GAYDOS

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Sworn to and subscribed before me this the 6th day of December, 2011



Matthew Manning
 (Notary Public)
 June 20, 2016

(Date Commission Expires)

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 DIVISION OF MINERAL RESOURCES MANAGEMENT
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 COLUMBUS, OHIO 43229-6693
 (614) 265-6633

SEE INSTRUCTIONS ON PAGE 2 (BACK)

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(address) <u>3333 N I 35-BLDG F, GAINESVILLE TX, 76240</u>		Phone #: <u>(940) 668-1818</u>
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<input type="checkbox"/> Drill Directionally	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Reopen
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6. CIVIL TOWNSHIP: <u>NOBLE</u>	16" ~100' Conductor	
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LEASE NAME: _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
TOTAL DEPTH: _____		
GEOLOGICAL FORMATION: _____		
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Division Name: _____		
Division Phone: _____		
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Is There An Attached List? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Name: <u>ANTHONY & MARK KAY MIKA</u>		
Address: <u>48665 WARGO RD, CALDWELL, OHIO 43724</u>		
Name: _____		
Address: _____		
Name: _____		
Address: _____		

I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

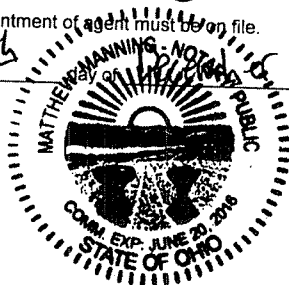
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Sworn to and subscribed before me this the 6th day of December, 2011



Matthew Manning
 (Notary Public)
June 20, 2016
 (Date Commission Expires)

SUPPLEMENT TO APPLICATION
PERMIT FOR A SALTWATER INJECTION WELL (Form 210)

Ohio Department of Natural Resources, Division of Oil and Gas Resources Management
2045 Morse Road, Bldg H3
Columbus, OH 43229-6693

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Injection Interval: From: 5235 feet to 8950
Geologic description of injection zone: SANDSTONE, DOLOMITE

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- A. Description of the proposed casing and cement program for new wells, or of the casing, cementing or sealing with prepared clay for existing wells to be converted:
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ACIDIZE PERFORATIONS WITH 1000 GALLONS OF ACID
FRACTURE STIMULATE CLINTON/MEDINA WITH 200 SX SAND
- D. Description of the proposed unloading, surface storage, and spill containment facilities:
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6-500 BARREL TANKS (3000 BBLs)
CONCRETE WALLED SECONDARY CONTAINMENT BERM WITH CONCRETE FLOOR
SECONDARY CONTAINMENT DIMENSIONS 90' X 80' X 3'
3000 BBLs OF STORAGE WILL BE TIED TOGETHER AT THE BOTTOM
SECONDARY CONTAINMENT SUFFICIENT TO CONTAIN 3000 BBLs PLUS 25 YR 24 HR STORM

RECEIVED

DEC 18 2011

33. PROPOSED INJECTION VOLUMES

- A. Indicate the estimated amount of saltwater to be injected into the proposed injection well per day:
AVERAGE: 1000 BBLs MAXIMUM: 2000 BBLs
- B. Indicate the method to be used to measure the actual amount of saltwater injected into the well:
DAILY WATER TICKETS AND FLOW METER

34. PROPOSED INJECTION PRESSURES

- A. Indicate the estimated pressure to be used for injection of saltwater into the proposed injection well:
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