

APPENDIX 5

OIL, GAS, SOLUTION MINING, GAS STORAGE, BRINE DISPOSAL, STRATIGRAPHIC, AND GEOTHERMAL WELL DRILLING

ENVIRONMENTAL ASSESSMENT FORM

Purpose: The EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action is likely to have a significant effect on the environment as required by Article 8 of the Environmental Conservation Law. The question of whether or not an action is significant is not always easy to answer. Therefore this form has been designed to gather comprehensive information regarding environmental impacts of drilling oil, gas and solution mining wells while being flexible enough to allow site specific characteristics of individual operations to be included. There are no "right" or "wrong" answers; rather the information may be evaluated in total to determine environmental significance.

Process: This form is to be completed and submitted with each well drilling permit application. Your answers to the attached questions will be evaluated by the agencies having jurisdiction over the proposed well site. If an environmental impact is found to be both large and its consequence is important, a draft environmental impact statement may be required.

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INSTRUCTIONS

- This form is designed for DRILLING PERMITS. If your application is not for a drilling permit, ask for a standard Environmental Assessment form.
- ANSWER EVERY QUESTION. INCOMPLETE ASSESSMENT FORMS WILL BE RETURNED. If you are unable to answer some questions, contact the Mineral Resource Personnel in your region for guidance.
- Attach a sketch or additional pages if you feel it will clarify your answers.
- If you believe your drilling plan(s) prevent a potentially large impact, describe your prevention on an attached sheet.

November 1985 - Division of Mineral Resources

Effective April 1, 1986

Effective July 23, 1987 for Brine Disposal, Geothermal and Stratigraphic Wells

WELL NAME AND NUMBER: _____

NAME AND ADDRESS OF APPLICANT:

Name: _____
Street: _____
P.O.: _____ State: _____ Zip: _____
Business Phone: (____) _____

DESCRIPTION OF PROJECT: (Briefly describe type of project or action)

PROJECT LOCATION: (or attach plat of wellsite) _____

PROJECT SITE IS THE WELL SITE AND SURROUNDING AREA WHICH WILL BE DISTURBED DURING CONSTRUCTION OF SITE, ACCESS ROAD, PIT AND ACTIVITIES DURING DRILLING AND COMPLETION AT WELLHEAD.

(PLEASE COMPLETE EACH QUESTION - Indicate N.A. if not applicable)

A. SITE DESCRIPTION

(Physical setting of developed project site, including site of well, pits, access road and staging area.)

Land Use of Project Site

1. Total area of project site: _____ sq. ft. Approximate square footage of the items below:

	Presently (Sq. ft.)	During Construction (Sq. ft.)	After Completion (Sq. ft.)
Agricultural (cropland, hayland, pasture, vineyard, etc.)	_____	_____	_____
Meadow or Brushland (non agricultural)	_____	_____	_____
Forested	_____	_____	_____
Wetland (as per Article 24 ECL)	_____	_____	_____
Non vegetated (rock, soil, fill)	_____	_____	_____

2. General character of land: Generally uniform slope _____, Generally uneven and rolling _____, Generally even and flat _____.

3. Present land use: Rural _____, Forest _____, Agricultural _____, Suburban _____, Industrial _____, Commercial _____, Urban _____, Other _____.

4. What is the dominant land use and zoning classification within a 1/4 mile radius of the project (e.g., single family residential, R-2) and the scale of development (e.g., 2-story)? _____

5. Is the site presently used by the community or neighborhood as an open space or recreation area? _____ Yes _____ No

6. Is any portion of the well site within an agricultural district approved pursuant to Article 25AA of the Agriculture and Markets Law? _____ Yes _____ No If yes, which one? _____

7. Is any portion of the site within a land parcel having a soil and water conservation plan pursuant to NYS Soil and Water Conservation Law, Subdivision 7-a; Section 9? _____ Yes _____ No

8. Is the well site located within a coastal zone management area?
 _____ Yes _____ No

Physical Characteristics of Project Site

9. What is the predominant soil type(s) at the site? _____
10. What is the estimated depth to bedrock? _____ ft.
11. What is the estimated depth to the water table? _____ ft.
12. Is the well site located within or adjacent to a public water supply (e.g., aquifer, reservoir)? _____ Yes _____ No
 If yes, what is the name of the supply? _____
 Distance from project site _____ ft.
13. Is the project site over a primary or principal aquifer? (These are potential high-yield aquifers that are currently being used or have the potential to be used for drinking water).
 _____ Yes _____ No
14. Are there lakes or ponds within or nearby the project site? _____ Yes
 _____ No If yes, name _____, size _____ acres.
 Distance from project site to lake/pond. _____ ft.
15. Are there streams within or nearby the project site? _____ Yes _____ No
 If yes, name of stream and river to which it is a tributary. _____
 Distance from project site to stream. _____ ft.
16. Is any portion of the property located in the 100 year flood plain?
 _____ Yes _____ No.
17. Is there a wetland located at or adjacent to the well site? _____ Yes
 _____ No
18. Does the project site contain any species of plant or animal life that are as threatened or endangered? _____ Yes _____ No.
 If yes, identify the species and source of information. _____
19. Are there any known archaeological and/or historical resources which will be affected by drilling operations? _____ Yes _____ No
20. Have you consulted with the NYS Office of Parks, Recreation, and Historic Preservation or other authority regarding the archaeological or historical resources at the site? _____ Yes
 _____ No If yes, who was consulted? _____

B. PROJECT DESCRIPTION

(Physical setting of developed project site, including site of well, pits, access road and staging area.)

1. What are the physical dimensions and size of the project site?
- | | Presently | During Construction | After Completion |
|----------------------------------|-----------|---------------------|------------------|
| a) Access Road: (length & width) | _____ | _____ | _____ |
| b) Well Site: (length & width) | _____ | _____ | _____ |
| c) Total Area: (Sq. ft.) | _____ | _____ | _____ |

Access Road

2. Is it possible to utilize existing or common corridors when building the access road? _____ Yes _____ No Locate access road on attached plat.
3. Will material be brought in to build the access road and/or well site? _____ Yes _____ No If yes, describe the type of material.

4. Will any measures be used to control access to the site? (e.g., gates, fencing, etc.) Yes No If yes, describe. _____
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5. What will be the anticipated average number of vehicle trips onto public roads per day? During drilling _____ After completion _____
6. Will access roads be treated to control dust? Yes No
If yes, what will be used? _____
-

Erosion Control

7. Are erosion control measures needed during construction of the access road and well site? Yes No If yes, describe. _____
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8. How will surface run-off be minimized? _____
-

Drilling

9. What will the operating hours of the rig be? _____
Anticipated length of drilling operations. _____ days.
10. How distant will the nearest noise receptor be from the well and production facilities (house, office, etc.)? _____ ft.
11. From where will the water used on-site be supplied? _____
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12. If there is a discharge of fresh water during drilling operations, is there the potential that it may interfere with the flow of nearby streams? Yes No Cause erosion? Yes No
Raise the water level in nearby ponds or lakes? Yes No
13. What possible fluids will be produced during drilling operations (e.g., oil, gas, fresh water, brine, etc.)? _____
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14. How will the drilling fluids and stimulation fluids be contained and disposed of? _____
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15. Will waste of any type be disposed of at the site? Yes No
If yes, describe. _____
16. Will fuel and/or other lubricants be stored on-site? Yes No
If yes, what additional measures will be taken to contain or contain accidental spills or leakage during the drilling phase? _____
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17. Will any open burning take place during drilling operations? Yes No
If yes, what type of materials will be burned? _____
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Production and Site Restoration

18. Will the topsoil which is disturbed be stockpiled for reclamation use? Yes No
19. What will be the approximate duration of soil disturbance on this well site, staging area, and access road? _____ days.

20. Does the reclamation plan include restoration of land management systems for soil and water conservation or require permanent drainage features (e.g., diversion terraces, subsurface drain lines, culverts, outlet ditches, etc.)? Yes No
Describe: _____
21. Does the reclamation plan include revegetation after the drilling is completed? Yes No If yes, what plant materials will be used? _____
Approximately how soon after drilling will seeding/mulching take place? _____ days.
22. Will the pit liner be removed after drilling operations?
 Yes No
23. Please outline your planned production facility including permanent structures for this well. (Include wellhead equipment, pump jacks, and production waste containment) _____

24. Will production brine be stored on site? Yes No If yes, how will it be stored? (i.e., underground tank, above ground tank).

25. What method of disposal will be used for production brine/wastes?

Other Permits Needed

26. Are any additional permits required for this project? (local, state, federal). Please list each additional permit separately.

Permit	Approval Required	Submittal Date	Approval Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Preparer's Signature: _____
 Name/Title (Please Print): _____
 Representing: _____
 Date: _____

SUGGESTED SOURCES OF INFORMATION FOR OIL, GAS AND SOLUTION MINING
ENVIRONMENTAL ASSESSMENT FORM

A.4 Dominant Land Use and Zoning Classifications

Sources: Local planning office
Town Supervisor's Office
Town Clerk's Office

A.6 Agricultural District Information

Sources: Cooperative Extension
DEC - Division of Lands and Forests
NYS Dept. of Agriculture and Markets
DEC Regional Division of Regulatory Affairs
DEC Regional Division of Mineral Resources

A.7 Soil and Water Conservation Plan

Sources: County Soil and Water Conservation District Office

A.8 Coastal Zone Management Areas

Sources: Local unit of Government
NYS Dept. of State, Coastal Management Program
DEC - Division of Water (maps)
DEC Regional Division of Regulatory Affairs (maps)

A.9 Dominant Soil Type

Sources: NYS Dept. of Agriculture and Markets
Soil Conservation Service
Cooperative Extension
Soil Survey Map U.S.D.A.
Region 9 contact: Paul Puglia
Agricultural Central
Rural Route No. 2
Turner Road
Jamestown, NY 14701
(716) 664-2351
DEC Regional Division of Regulatory Affairs

A.10 Estimated Depth to Bedrock

Sources: H₂O Well Drillers
Landowners
Previously drilled wells - in DEC Division of Mineral Resources files
DEC Division of Mineral Resources offices have maps with overburden information which might be used for estimating depth to bedrock.
County bedrock maps being prepared by the New York State Geological Survey

A.11 Estimated Depth to Water Table

Sources: H₂O Well Drillers
Landowners
Previously drilled wells in DEC Division of Mineral Resources files.

A.12 Public Water Supply

Sources: Local unit of government
NYS Dept. of Health
NYS Atlas of Community Water Systems Sources, 1982, NYS
Department of Health.
Atlas of Eleven Selected Aquifers in New York State,
United States Geological Survey, 1982.

A.13 Primary or Principal Aquifer

Sources: Local unit of government
NYS Dept. of Health
NYS DEC Division of Water - Regional Office
Availability of Water from Aquifers in New York State -
U.S.G.S. Department of the Interior
Availability of Water from Unconsolidated Deposits in
Upstate New York - U.S.G.S. Department of the
Interior.

A.16 100 Year Flood Plain

Sources: DEC Division of Water
DEC Regional Divisions of Regulatory Affairs
DEC Region 9 Division of Mineral Resources flood plain
maps by municipality.

A.17 Wetlands

Sources: DEC Regional Division of Fish and Wildlife
DEC Region 9 Division of Mineral Resources has wetland
maps for each county in Region 9.

A.18 Threatened or Endangered Species

Sources: DEC Significant Habitat Unit - Delmar
DEC Regional Division of Regulatory Affairs

A.19 Archaeological or Historic Resources

Sources: NYS Office of Parks, Recreation and Historic Preservation
circles and squares map
DEC Division of Construction Management - Cultural
Resources Section
DEC Regional Division of Regulatory Affairs

B.26 Additional Permits Needed

Sources: DEC Regional Division of Regulatory Affairs
DEC Regional Division of Mineral Resources
NYS Office of Business Permits

APPENDIX 5, COMMENTS

COMMENTS OF THE OIL, GAS, AND SOLUTION MINING ADVISORY BOARD

ON THE WELL DRILLING ENVIRONMENTAL ASSESSMENT FORM

Comment

Add language to purpose section stating that "those who will need to determine significance will range from those with little or no formal knowledge of the environment to those who are technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance".

Add language before "Name and Number of Project" to indicate that "it is expected that completion of the Environmental Assessment Form will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance".

Depth to bedrock may be unknown prior to drilling.

An appendix should be attached to the EAF which provides the name, address and telephone number of the person or agency who may be contacted for information on threatened or endangered plant or animal life, 100 year flood plain, municipal water supplies, coastal zone management area, land use and zoning classifications and archeological and/or historic resources that exist on the project site.

The fill-in-the-blank statements for distance to the stream or lake or pond are superfluous under the questions about whether or not the project site is contiguous to a stream or lake or pond.

DEC Response

This exact wording was not adopted, however, a reference list showing where information can be obtained for the EAF has been prepared. The Division is developing standard environmental mitigation measures as part of the GEIS.

Not incorporated because most if not all the information is currently available. A reference list has been prepared to show the types of sources that can be used to get information on fourteen environmental questions operator's may have difficulty answering.

The word "estimated" is incorporated in the question and a reference list has been prepared indicating where this information might be obtained.

Agree. A reference list for the EAF has been prepared.

The questions are reworded to address this concern.

APPENDIX 5, COMMENTS (CON'T)

Comment

The size of the wetland which triggers completion of this item should be listed.

Delete question about whether or not project site is located within an agricultural district.

The question about fluids that will be produced does not apply to disposal wells.

The questions about whether material will be brought in to build the access road/well site cannot be answered accurately.

The question about operating hours of the rig should be deleted.

The question about distance of the nearest noise receptor to the rig should be deleted.

The question about where the water used on-site will be supplied should be revised to include "If water supply is from wells, indicate pumping capacity __ gallons/minute", to conform with EAP's for other activities in New York State.

DEC Response

Not incorporated. DEC Staff will decide if mitigation measures may be needed in relation to the wetland, once one is identified.

Not incorporated. Actions affecting agricultural districts are subject to more detailed environmental review under SEQR.

If the questions do not apply, the respondent should so indicate.

The respondent should answer to the best of his/her ability. If not sure, then respondent should so indicate.

This question is necessary on the EAF. This EAF is designed to more closely assess the environmental impacts of oil, gas and solution mining activities. The operating hours of the rig may need to be adjusted under special circumstances in order to decrease the noise level impacts of drilling on other residents or facilities in the immediate area.

This question is necessary to address the impacts of the operation of the surrounding area. Under special circumstances, rig operating hours may need to be adjusted to decrease adverse affects of noise.

Not incorporated.

APPENDIX 5, COMMENTS (CON'T)

Comment

The question about depth to water table should be revised to read "What is the anticipated depth to water table".

The question about minimizing surface run-off should be deleted.

The question about storage of fuel and/or lubricants on-site should be deleted.

The questions about open burning, controlled access to the site, stockpiling topsoil and duration of soil disturbance and revegetation after drilling should be deleted from the EAP. These questions are not in other EAP's used by the Department.

Add an item about the number of jobs generated before and after construction/drilling.

DEC Response

This question was revised to read "What is the estimated depth to water table".

Disagree. This question is necessary to ensure that an environmentally sound drilling operation is conducted. Uncontrolled surface run-off leads to erosion, sedimentation and vegetation loss.

This question is necessary for environmental safety reasons. The proper location of fuel and/or lubricants on-site will reduce the chances of accidents and explosions and thereby reduce environmental problems that could result from such accidents.

Disagree. These questions are important to assess the overall impacts of oil, gas and solution mining on the environment. The impacts of a project on soil and soil stability are legitimate concerns under SEQR and should be minimized where possible.

Disagree. The number of jobs created by an individual drilling/construction operation will have little impact on assessing the overall environmental impact of the project and mitigation measures that should be adopted.