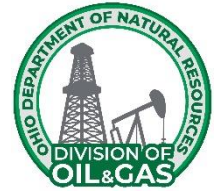




SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PROJECT DESCRIPTION

FEDERAL FUNDED PROJECT: Note: This project will be FEDERALLY FUNDED.
Contractors/subcontractors shall comply with additional requirements related to this project
being federally funded.

The Noble 16F Project shall include the following wells:

<u>Well Name</u>	<u>API Number</u>	<u>County</u>	<u>Township</u>	<u>Ingress/Egress Latitude, Longitude</u>	<u>Wellhead Latitude, Longitude</u>
DANFORD GARFIELD 1	34121205230000	Noble	Olive	39.747477,- 81.502189	39.747570,- 81.501800
DAVIS BLAKE 3	34121241230000	Noble	Olive	39.706672,- 81.553391	39.707484,- 81.553070
DAVIS LEE 1	34121202930000	Noble	Olive	39.739204,- 81.498579	39.740371,- 81.496943
DUDLEY # 2	34121236910000	Noble	Brookfield	39.830409,- 81.606275	39.838431,- 81.609123
E. HOHMAN # 1	34121228240000	Noble	Enoch	39.720000,- 81.465933	39.719441,- 81.466520
GEORGE P. & HELEN MIZIK # 1	34121215300000	Noble	Noble	39.785954,- 81.597145	39.783957,- 81.599675
HEDGE 1	34121215030000	Noble	Brookfield	39.768847,- 81.647312	39.768949,- 81.648779
HEISLER CA 1	34121209040000	Noble	Olive	39.748397,- 81.527478	39.749208,- 81.527343
HEPPNER E 1	34121212240000	Noble	Olive	39.742950,- 81.507755	39.743294,- 81.507555
ITOL REED	34121221690000	Noble	Brookfield	39.754094,- 81.699568	39.762936,- 81.695222
ITOL REED 2	34121221070000	Noble	Brookfield	39.758002,- 81.672260	39.767199,- 81.689303
JOHN HEDGE # 2	34121236950000	Noble	Brookfield	39.777428,- 81.653136	39.772941,- 81.650808
L HEDGE 1	34121220030000	Noble	Brookfield	39.797817,- 81.613234	39.790657,- 81.610229
MCFARLAND WAYNE 2	34121212220000	Noble	Olive	39.722412,- 81.544192	39.722316,- 81.543757

MILLER	34121219660000	Noble	Brookfield	39.797817,- 81.613234	39.786731,- 81.604033
MILLER 1	34121219690000	Noble	Brookfield	39.797817,- 81.613234	39.782813,- 81.603126
MORRIS J& E 2	34121205480000	Noble	Olive	39.739204,- 81.498579	39.741159,- 81.497414
OHIO POWER-FRED ZINN	34121215830000	Noble	Brookfield	39.790301,- 81.676293	39.790652,- 81.679110
OHIO POWER-NICHOLS 1	34121238890000	Noble	Brookfield	39.748568,- 81.630114	39.752813,- 81.631899
TETERS 2	34121237100000	Noble	Brookfield	39.757277,- 81.621650	39.753745,- 81.624864
TETERS 1	34121213770000	Noble	Brookfield	39.757277,- 81.621650	39.757446,- 81.6222080
Way 3	34121667880000	Noble	Olive	39.739204,- 81.498579	39.741541,- 81.496272

PROJECT SCOPE OF WORK:

This project includes mobilization, access and well site development, drilling or cleaning out of and plugging of the above twenty-two Orphan Wells, storage and disposal of all materials generated during the plugging of the wells, decommissioning, removal, storage and disposal of all casing, tubing, well and production equipment and affiliated lines and restoration of all areas disturbed during this project.

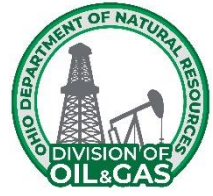


SCOPE OF WORK

Noble 16F PROJECT

Multiple Orphan Well Sites

Noble County, Olive, Brookfield, Enoch, Noble Townships



GENERAL SCOPE OF WORK

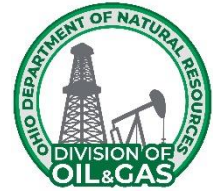
The Contractor, the Contractor's agents, representatives, and subcontractors shall perform this Plugging Project in accordance with Ohio Revised Code 1509, Ohio Administrative Code Chap. 1501:9-11 and 1501:9-12, the Agreement, and in accordance with the following documents that are attached hereto and made a part hereof:

1. Project Description;
2. General Scope of Work;
3. Davis-Bacon Wage Requirements;
4. General Conditions;
5. General Specifications;
6. Sequence of Work;
7. Well Description;
8. Plugging Plan;
9. Detailed Specifications;
10. Appendix I – Ohio One-Call;
11. Appendix II – Well Records;
12. Quantity Sheet;
13. & Drawing Plan Set.
14. Davis-Bacon Wage Determination

Subject to the Contractor's compliance with this Scope of Work, Contractor is solely responsible for and has control over all plugging and reclamation construction means, methods, manners, techniques, sequences, and procedures, for safety precautions and programs in connection with the Plugging Project, and for coordinating all portions of the Plugging Project.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
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GENERAL CONDITIONS

PART 1: OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS

This Noble 16F Project (Project) references the Ohio Department of Transportation (ODOT) Construction and Material Specifications (ODOT CMS). Any reference to these specifications is to ODOT's most current version of the specifications. The ODOT CMS can be found at <https://www.dot.state.oh.us/Divisions/ConstructionMgt/OnlineDocs/Pages/2023-Online-Spec-Book.aspx>

PART 2: PRE-SITE MEETING

The Contractor or Contractor's representative must attend the pre-site meeting. Failure to attend the pre-site meeting is grounds for the Division to reject the Contractor's Offer.

The Ohio Department of Natural Resources, Division of Oil & Gas Resources Management (Division) intends to begin the pre-site meeting on time. At the meeting, the Division will circulate and collect attendance sign-in forms to all contractors present. Only those contractors in attendance throughout the pre-site meeting, including the discussion of the Scope of Work, will be considered present for the pre-site meeting.

PART 3: MODIFICATIONS TO THE SCOPE OF WORK PRIOR TO AWARD

The Scope of Work may only be altered by written modification. The Division may issue an Amendment to the Scope of Work and will provide a notification of the Amendment by email to all Department of Administrative Services (DAS) pre-qualified contractors. Each contractor is responsible for logging into OhioBuys and submitting an offer that is responsive to all Amendments issued. All offers submitted prior to an amendment being issued shall become null/void and not consider in the opening. All Amendments shall become part of the Scope of Work.

Any interpretation or clarification of the Scope of Work made by any person other than the Division, or in any manner other than a written Amendment, is not binding and the Contractor cannot rely upon any such interpretation or clarification.

The Contractor cannot, at any time after the award of the Scope of Work be compensated for any issue with the Scope of Work, including alleging insufficient data, incomplete, ambiguous, conflicting, or erroneous language, or incorrectly assumed conditions regarding the nature or character of the work.

PART 4: PERMIT AND INSPECTION REQUIREMENTS

The Division will obtain and pay for all building and U.S. Army Corps of Engineers permits unless otherwise specified in the Detailed Specifications. However, the Contractor shall determine and include in his or her Offer Sheet the costs required to obtain and pay for all other requirements by the applicable governmental agencies; including but not limited to, all certificates of inspection/operation, guarantees,

licenses, etc. required to complete the work as described within this document. The contractor shall follow all applicable laws and permit requirements and the Division will not be held responsible for damages that result from violation of laws or permits.

PART 5: INSTRUCTIONS FOR PREPARING AN OFFER

A Contractor's offer must be submitted online through **OhioBuys**. (<https://procure.ohio.gov/bidders-and-suppliers>). **All offers submitted prior to an Amendment being issued shall automatically become null/void and not consider in the opening.**

Offers shall include labor, equipment, and material cost plus a proportionate share of the Contractor's overhead costs, other indirect costs, and anticipated profit. An offer must be mathematically and materially balanced. A "mathematically unbalanced offer" is an offer containing lump sum or unit price items that do not include reasonable labor, equipment, and material costs plus a reasonable proportionate share of the Contractor's overhead costs, other indirect costs, and anticipated profit. A mathematically unbalanced offer typically contains token prices (i.e. \$1 prices), front loadings, or prices with large variations from the engineer's estimate. A "materially unbalanced offer" is a mathematically unbalanced offer that will not result in the lowest ultimate cost to the Division.

During the Division's initial review of offers, if the Division finds an offer may be mathematically unbalanced, the Contractor may be required to submit proof of the mathematically unbalanced line items' proposed cost within 24 hours after notification from the Division. At a minimum, a Contractor may be required to submit copies of all material/rental quotes, intended labor costs (hours/rates), and contract agreements with subcontractors to support their offer. If the Contractor fails to submit the required proof, the Contractor's offer shall be deemed withdrawn from consideration. The Division shall evaluate the documentation and may verify quotes with vendors. After a review of the documentation, the Division will reject any offer it determines is mathematically and materially unbalanced.

A Contractor shall maintain an up-to-date schedule on file with the Division that sets forth dates by which the Contractor will plug each well that the Division previously awarded to the Contractor. A Contractor shall update their work schedule as often as necessary to maintain a current schedule with the Division. To be awarded new contracts, the Contractor must be able to complete all previously awarded work within the due dates set in each contract with the Division. Upon request, a Contractor shall provide an up-to-date schedule to the Division that reflects when all awarded work will be completed.

Please note that a Contractor's offer must be submitted online through OhioBuys.

1. Refer to the Scope of Work posted in OhioBuys with this solicitation.
2. **Only Contractors who are pre-qualified to offer this service on an existing State Contract beginning with CSP900-922 (DAS Index No. MAC110) may respond to this solicitation.** All CSP900922 Contract Terms & Conditions apply to this solicitation. No additional terms and conditions will be accepted. The Division will reject Offers from any Contractor that is not pre-qualified.
3. Completion of the grid is required and will be considered the response for evaluation. No outside or additional documentation will be considered.
4. Fixed prices will be automatically added to Contractor's proposals when shown. Contractors are not to enter pricing for fixed price items.
5. Confirm that your bid has been successfully imported into OhioBuys for all items before submitting. Incomplete bids and/or attachments will not be evaluated.
6. The most recent bid submitted in OhioBuys will be the bid that is evaluated, all prior bids submitted in the same solicitation will not be evaluated.

7. **The Contractor or Contractor's representative must attend the site meeting.** Failure to attend the site meeting is grounds for the Division to reject the Contractor's Offer.

PART 6: DIVISION'S OFFER SELECTION

Except when the Division rejects an offer, the Division will select the lowest offer submitted to the Division. The Division may reject an offer if any one of the following applies to the Contractor's offer:

- Is not submitted online through **OhioBuys**;
- Fixed reference prices and/or any other imported information is incorrectly and/or not imported into **OhioBuys**;
- Is conditional;
- Is a mathematically unbalanced offer and a materially unbalanced offer;
- Is behind schedule on other projects with the Division; or
- Is not able to schedule this project within the contract due dates.

PART 7: WITHDRAW OF OFFERS

At any time prior to the opening of the Offers, a Contractor may submit a written request to the Division, at the location where the Offers are received, to withdraw its offer. The request to withdraw the Offer must be signed by the person who executed the Offer.

PART 8: EFFECTIVE DATE AND TERM

The effective date of this Project is the date of the Letter to Proceed that is sent to the Contractor. The Contractor must start work at the project site within three (3) months of the end of the contract and the Contractor shall continue diligently working toward the completion of the project once work has commenced. The Project must be completed **eighteen (18) months after the effective date** or by June 30, 2027, whichever is sooner. If the Project terminates on June 30, 2027 and the Project is not completed, the Scope of Work may be renewed on the same terms if the Division sends written notice to the Contractor. Failure to complete work by the contract due dates may result in the suspension or termination of the contract and may result in the Division pursuing the Suspension and Termination and/or the Contract Remedies sections defined in the MAC 110 contract.

For properties owned by the Division of Wildlife the following Hunting Season Restriction Dates apply. See below for a list of applicable wells.

Plugging activities, including site development and restoration shall be restricted to dates outside of weekends and all gun seasons during deer hunting season as well as all weekends and the first complete week of spring turkey hunting season. Specific dates will be announced prior to each hunting season and can be found within the latest Division of Wildlife's Ohio Hunting and Trapping Regulations: <https://dam.assets.ohio.gov/image/upload/ohiodnr.gov/documents/wildlife/laws-regs-licenses/Ohio%20Hunting%20and%20Trapping%20Regulations%20ENGLISH.pdf>

Project Name	Well Name	API #	Coordinates	Parcel ID#
Noble 16F	Itol Reed 3	34121221690000	39°45'46.63"N, 81°41'43.33"W	3002124400 0
Noble 16F	Itol Reed 2	34121221070000	39°46'1.93"N, 81°41'21.47"W	3002124500 0

Noble 16F	Hedge 1	34121215030000	39°46'8.22"N, 81°38'56.44"W	3002132000 0
Noble 16F	John Hedge 2	34121236950000	39°46'22.65"N, 81°39'1.28"W	3002132000 0
Noble 16F	L Hedge 1	34121220030000	39°47'26.34"N, 81°36'36.65"W	3002133000 0
Noble 16F	Miller 1	34121219690000	39°46'58.21"N, 81°36'11.33"W	3002133400 0
Noble 16F	Miller 2	34121219660000	39°47'12.30"N, 81°36'14.51"W	3002133400 0

PART 9: TERMINATION AT WILL

The Division may terminate this Scope of Work without cause. Any payment due to the Contractor at the time of termination by the Division shall be paid to the Contractor on a pro rata basis.

PART 10: RELATIONSHIP BETWEEN COMPONENTS OF THE SCOPE OF WORK

This Scope of Work includes drawings that are duplicates of drawings on file with the Division. The Scope of Work documents are complementary. All sections of the Scope of Work are binding. The titles and headings in the Scope of Work are for reference and in no way affect the interpretation of the provisions of the Scope of Work. Further, if any part of this Scope of Work is found to be unenforceable, no such event will affect the enforceability or applicability of any other part of the Scope of Work.

If a conflict between the drawings and the specifications arises, the Contractor must notify the Division. In the event of a conflict of any provision in the Scope of Work the order of priority within the Scope of Work is as follows: Drawings, Detailed Specifications, General Specifications, Plugging Plan, and Sequence of Work.

PART 11: CONTRACTOR'S RESPONSIBILITY FOR SUBCONTRACTORS

The Contractor is responsible for the conduct of its subcontractors and for persons its subcontractors directly or indirectly employ.

PART 12: USE OF DOMESTIC STEEL AND BUY AMERICAN ACT **(For Federally Funded Projects only)**

For infrastructure projects that utilize federal funds, the contractor and subcontractors shall comply with Executive Order No. 14005 Ensuring the Future Is Made in All of America by All of America's Workers; the Code of Federal Regulations Title 2, Subtitle A, Chapter I, Part 184; U.S.C. 52.225-11 Buy American-Construction Materials under Trade Agreements (Nov 2023) clause; and Buy America Preferences for Infrastructure Projects and the Infrastructure and Jobs Act (Public Law 117-58) Division D, Title IX, Subtitle A, Part I, Buy America Sourcing Requirements. The contractor and subcontractors are required by law to supply domestically produced iron or steel products, manufactured products, and construction materials such as non-ferrous metals (steel, iron, aluminum), plastics, PVC pipe, glass, fiber optic cable, optical fiber, engineered wood, and lumber products for infrastructure on all projects funded in whole or in part with federal funds. The Infrastructure, Investment, and Jobs Act (Public Law 117-58) Division D, Title IX, Subtitle A, Part I, Buy America Sourcing Requirements exempts cement, cementitious materials, aggregates such as stone, sand, gravel, or aggregate binding agents or additives from these requirements.

PART 13: STANDARDS

If the Division identifies a “standard” by reference to manufacturer and/or model number, all offers will be evaluated to ensure that the identified standard is used. The Division will not consider an offer in which a substitution for the standard is offered. After the Letter to Proceed is issued, the Contractor may submit a written proposal for a substitution of a standard.

PART 14: SUBSTITUTIONS DURING THE PROJECT

After the Letter to Proceed is issued, the Contractor may offer substitutions for the standards set forth in the Scope of Work. The decision to allow substitution is solely within the discretion of the Division, which will consider, among other factors, availability, time of delivery, the aesthetic value of the proposed substitution, general differences in the knowledge of the product, service history, quality, efficiency, performance, and architectural, engineering, inspection, testing and administrative expenses. Any changes to the Offer price and/or Scope or Work must be memorialized by a Field Order or Change Order, as applicable. The savings in cost in allowing any substitutions during the Project will be solely to the benefit of the Division.

PART 15: QUANTITIES OF WORK

15.1 Unit Price Items

For items in the Offer that require a unit price, the quantities listed on the Offer Sheet are an approximation and are to be used only for the comparison of offers. The scheduled quantities may be increased or decreased without invalidating or altering the Offer and will be considered within the Scope of Work.

Payments for unit price items will be made to the Contractor for actual quantities of work performed and materials furnished in accordance with the Scope of Work; however, the Contractor may not exceed the unit quantities shown on the Offer Sheet without prior written approval of the Division through a Field Order. Even if the Contractor determines that additional unit priced quantities (above and beyond the original Offer Sheet quantity) are required to meet plan and/or specification dimensions, the Contractor must not exceed the Offer Sheet quantities without prior written approval of the Division. The Division will not pay for quantities above and beyond the Offer Sheet quantity without prior written approval of the Division.

15.2 Lump Sum Items

For items in the Offer Sheet that require a lump sum price, the Division will not pay for work, materials, or equipment that exceeds the amount provided by the Contractor on the Offer Sheet. The lump sum price on the Offer Sheet must include all work, materials, and equipment necessary to properly complete the Project.

15.3 Additional/Contingency Items

The contingency items set forth in the Offer Sheet are not projected as necessary to complete the Project. Rather, the contingency items will first be used when unforeseen work arises, and the Division determines the contingency item is applicable. To be compensated for contingency items, the Contractor must have a written Field Order from the Division authorizing the contingency item in a specified quantity. Use of contingency items will not require the execution of a Change Order. The Contractor must be prepared to supply all items identified in the contingency specifications for use on this Project.

PART 16: OMISSIONS IN THE SCOPE OF WORK

If the Contractor notices an error or omission in the Scope of Work during performance of the Project, the Contractor shall immediately notify the Division of such omission or error and shall not proceed with the Project until directed by the Division. Any work performed by the Contractor prior to clarification by the Division may not be entitled to compensation.

PART 17: INTERPRETATIONS CONCERNING THE SCOPE OF WORK

During the Project, if a question arises on the Scope of Work, the labor or materials to be supplied, or costs potentially exceeding the Contractor's Offer, such questions must, prior to the work being performed, be submitted to the Division for a determination. A Division determination will be issued in writing and any work performed prior to such a determination will be performed at no cost to the Division. The Division will also begin executing a Change Order, when appropriate.

If the Division receives a written question concerning the Project, the Division will determine if the work must be performed by the Contractor at no increase in price to the Scope of Work. If so, the Division will issue a Field Order setting forth the Division's determination. Each Field Order issued must be signed by the Contractor acknowledging receipt. If the Contractor disagrees with the Division's interpretation in a Field Order, the Contractor may submit a protest by certified mail to the Chief within ten (10) days following the date of issuance of the protested Field Order. However, the Contractor must immediately proceed with the instructions given in the issued Field Order.

If, upon receipt of a written protest of a Field Order, the Division determines that the work referred to in the protest is outside the Scope of Work, the Division will not issue a Field Order and instead will issue a Change Order.

Field Orders, which are interpretations of the requirements of the Scope of Work, may be issued by the Division at any time during the performance of the work. The Contractor, at all times, is required to immediately execute the instructions of all issued Field Orders.

PART 18: CHANGES IN THE SCOPE OF WORK

18.1 The Division's Right to Require Change Orders

The Division may issue a Change Order directing the Contractor to immediately perform extra work that differs from the Scope of Work. The Contractor shall perform the work as directed. The changes in the work will consist of additions, deletions, or other revisions. When the Contractor performs the work, the Offer amount will be adjusted as described within this Scope of Work.

If the Contractor protests the issuance of the Change Order, any such protest has no bearing on any work requirements arising out of the Change Order in that the Contractor must immediately perform the work required in the Change Order so as not to delay the progress of the work at the Project.

18.2 Unauthorized Work

Only work performed under the Scope of Work or work authorized by a Field Order or a Change Order is eligible for compensation. If the Contractor performs any work or purchases any materials without an approved, applicable Field Order or Change Order, such work performed, and purchases made are within the Scope of Work at no additional cost to the Division.

18.3 Contractor's May Request Change Orders

If the Contractor determines that the Scope of Work does not address conditions at the Project, the Contractor may provide written notice to the Division of the conditions and request a Change Order. No oral communications will be acceptable as justification for a Change Order.

18.4 Determining Price of a Proposed Change Order

The following methods will be used to determine the price of a proposed Change Order:

- a. If a Change Order involves items not listed on the Offer Sheet, the Contractor must present the Division with labor and/or material price quotes for the proposed Change Order item(s). The Division may request these quotes either in unit prices or as lump sums; or
- b. If the work involved in the Change Order is not definable, the Division may request the work be performed on a time and material basis and include a maximum amount to be paid for the work. The method will be based on unit prices for both labor and materials agreed to by the Division prior to the Contractor commencing the work.

18.5 Disputes Regarding Change Order Prices

If the Contractor and the Division cannot agree on the cost of the work for a Change Order, using site-specific information including, but not limited to, Division historic public offer information, the Division will determine and set a fair price for the work and materials that are the subject of the Change Order.

PART 19: PAY ESTIMATES

19.1 General Information

Payments issued to the Contractor as the work progresses are not acceptance of any portion of the work not completed in accordance with the Scope of Work nor do such payments relieve the Contractor of liability with respect to any obligation or any expressed or implied warranties or responsibilities for faulty materials or workmanship.

19.2 Required Review by the Division

Prior to the submittal of each payment request, the Contractor and the Division must meet at the Project site to review the Project progress. The Contractor and the Division's Project Representative must mutually agree on quantity and percent of work completed for all offer items prior to submittal of each payment request. No payment request will be approved for work that has not been approved by the Division's Project Representative. Field verification of all lump sum quantities and weight slips for all unit price quantities invoiced must be submitted to the Division's Project Representative for review during the meeting.

The Contractor's payment request must be submitted to the Division via the Orphan Well Program email at OrphanWellProgram@dnr.ohio.gov. The payment request must include a form furnished by the Division along with all backup documentation. The Division will confirm in writing that the payment request is accurate.

For Federally Funded Projects: The Contractor/Subcontractor shall submit payroll reports with each Payment Request. Payroll reports shall be completed according to Part 3 of the **Davis-Bacon Requirements** included in the Scope of Work.

Payment requests received by the Division containing errors or requesting amounts that cannot be approved will be returned to the Contractor. The Contractor may resubmit a payment request after correcting errors.

19.3 Documents to be Submitted for Payment

Once the Division confirms the payment request is accurate, the contractor may submit an invoice on company letterhead to Ohio Shared Services at invoices@ohio.gov. Refer to the instruction on the payment request form furnished by the Division for additional submittal details.

With each request for payment the Contractor certifies that:

- a. The request for payment is accurate as to materials and the work completed under the terms and conditions of the Scope of Work and any Change Order, as applicable, including full compliance with all labor provisions; and
- b. All subcontractors and material suppliers have been paid for the work or materials that are applicable to all previous payment requests. As certification, each request for payment, at the Division's request, may need to be accompanied with a properly executed "Waiver of Liens" from all subcontractors and material suppliers to show that all previous payments made by the Division to the Contractor have been applied to fulfill, in full, all of the Contractor's obligations reflected in prior requests for payment.

19.4 Effect of Liens on Payment Requests

All work, materials, and equipment covered by any request for payment, whether incorporated in the Project or not, will pass to the Division at the time of payment free and clear of all liens, claims, security interests and encumbrances.

If there is evidence of any lien or claim that is chargeable to the Contractor, the Division will withhold all payments due to the Contractor to secure such lien or claim. If there are any previous liens or claims after payments are made to the Contractor, the Contractor may be required to refund to the Division a sum of money equal to the sum of all monies that the Division may be compelled to pay in discharging any lien or claim as a result of the Contractor's default.

PART 20: RETAINAGE FOR FINAL STABILIZATION

If the Scope of Work requires revegetation of disturbed area, the Division will retain five percent (5%) of the sum of (1) the Offer amount and (2) all approved Change Orders. The five percent (5%) amount retained shall be released once the Division completes a Final Stabilization Inspection and determines that vegetation has reached final stabilization. "Final stabilization" means vegetation established in a uniform perennial vegetative cover with at least a seventy percent (70%) grass cover. "Final stabilization" also means that no large barren areas exist, and the vegetation is of an equal or better condition than before the project started. The Contractor must remove all temporary erosion and sediment controls once final stabilization is achieved.

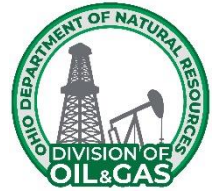
PART 21: REDUCED GAS EMISSIONS CREDITS

No one may directly or indirectly use the reduced gas emissions from wells plugged with State of Ohio funds or Infrastructure, Investment and Jobs Act funds, in whole or in part, to monetize, generate, or collect credits to include but not be limited to carbon, methane, or fugitive emissions, or otherwise use

the plugging of wells funded with State of Ohio funds or with Infrastructure, Investment and Jobs Act funds to generate income of any type by offsetting their own or another party's gas emissions.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Multiple Townships



DAVIS-BACON WAGE REQUIREMENTS

PART 1: PAYMENT OF PREVAILING WAGES

- 1.1 The Contractor/Subcontractor shall pay the prevailing wage rates of the Project locality, as determined by the U.S. Secretary of Labor, to laborers and mechanics performing Work on the Project.
- 1.2 The Contractor/Subcontractor shall comply with the provisions, duties, obligations, and is subject to the remedies and penalties of 40 U.S.C. parts 3141-3144, 3146 3147; 42 U.S.C. part 3212 The Davis- Bacon Act; and 40 U.S.C. parts 3701-3708 The Contract Work Hours and Safety Standards Act.
- 1.3 The Contractor/Subcontractor shall submit all payroll reports in compliance with the requirements of Section 1.2 for all employees.
- 1.4 By executing a Contract, the Contractor/Subcontractor certifies that it based its Bid upon the prevailing rates of wages as ascertained by the U.S. Secretary of Labor.
- 1.5 The Contractor/Subcontractor may access the U.S. Secretary of Labor at its website, **<https://sam.gov/content/wage-determinations>**, to obtain the current wage rates. A copy of the current wage rates is included herein.

PART 2: PAYROLL SCHEDULE

- 2.1 Within 10 days of the date of the Notice to Proceed, the Contractor/Subcontractor shall provide the Contracting Authority's Prevailing Wage Coordinator a schedule of dates during the term of the Contract on which wages shall be paid to employees for the Project.

PART 3: PAYROLL REPORTS

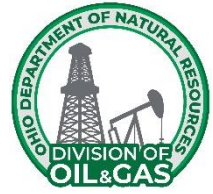
- 3.1 The Contractor/Subcontractor shall submit payroll reports with each Payment Request, which reports shall be certified by the Contractor/Subcontractor that the payroll is correct and complete, and that the wage rates shown are not less than those required by the Contract.
 - 3.1.1 Each payroll report shall indicate the period covered and include a list containing the name, address, and last four digits of the social security number of each employee of the Contractor/Subcontractor paid for the Work.
 - 3.1.2 Each payroll report shall list the number of hours each employee worked each day on the Project during the reporting period, the total hours each day on the Project per job classification, the total hours each week on the Project, the employee's hourly rate of pay, job classification, hourly rate of fringe benefits, all deductions from wages and net pay

(actual wages paid).

- 3.1.3 Each payroll report shall list each fringe benefit and state if it is paid as cash to the employee or to a named plan.
- 3.1.4 The Contractor/Subcontractor shall submit apprenticeship agreements for all apprentices utilized on the Project.
- 3.2 The Contractor/Subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract.
- 3.3 The records to be maintained under this paragraph shall be made available by the Contractor/Subcontractor for inspection, copying, or transcription by authorized representatives of the Contracting Authority and the U.S. Department of Labor, and the Contractor or Subcontractor will permit such representatives to interview employees during working hours on the job.
- 3.4 Payroll report submittal shall be made via software designated by the Division.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



GENERAL SPECIFICATIONS

Unless there is a specific pay item in the Detailed Specifications, the work defined in the General Specification shall be incorporated into other items of work.

PART 1: HOURS OF WORK

The Contractor, the Contractor's agents, representatives, and subcontractors shall perform plugging projects during the days of Monday through Friday. Work will not be conducted on weekends or state/national holidays except with Division approval or during emergency situations. A workday is defined as eight (8) hours. However, additional hours may be worked with Division approval or during emergency situations.

PART 2: EQUIPMENT

The Contractor equipment shall pass all safety requirements of local, state, and federal agencies. The Ohio Department of Natural Resources, Division of Oil and Gas Resources Management reserves the right to inspect the equipment prior to the Recommendation of Award.

Unless otherwise noted, all equipment and materials required to complete the work described shall be provided by the Contractor.

PART 3: NOTIFICATIONS

3.1 Seven Working Day Notice

The Contractor, the Contractor's agents, representatives, subcontractors, or independent contractors shall contact the responsible Division Orphan Well Inspector (the "Inspector") no less than seven (7) working days prior to commencement of work. Notice may be written or oral. This notice will allow the appropriate Division staff time to mark the approved access route and any sensitive areas that need to be left undisturbed.

The Contractor, the Contractor's agents, representatives, and sub-contractors shall contact each utility company that has utilities that directly affect plugging activities at the well location(s).

3.2 Public 48 Hour Notice

Prior to initiating well plugging operations, the Contractor shall give a minimum of 48-hour notice to the local fire department. Confirmation of this notification shall also be made to the Inspector or the Division Regional Office.

3.3 Emergency Notification

When emergency conditions are encountered, such as a release of hydrogen sulfide gas (H₂S), natural gas, crude oil, condensate, or brine that threatens human health, safety or the environment, as described in Ohio Administrative Code 1501:9-08-02, the Contractor shall notify the local fire

department, the Local Emergency Planning Committee (LEPC) and call the 24/7 incident notification number: 1-844-OH-Call1 (1-844-642-2551) within 30 minutes of the occurrence.

3.4 Plugging Completion Notice

No sooner than three business days after emplacing the uppermost plug, the Division will review the well to determine if any additional plugging work shall be required at that time. If additional work is needed, a Field Order will be issued by the Division. The Field Order shall state what must be completed and what, if any, Change Orders shall be required. If additional work is not needed the contractor shall cut the casing as defined in the Plugging Plan and set the plugged well identification as outlined in these **General Specifications** and Ohio Administrative Code 1501-9-11-10.

PART 4: ACCESS AND PRESERVATION OF SITE

All costs for the adequate access to the well site for the plugging equipment shall be included in the Offer. Unless waived, placement of all tanks and equipment shall be subject to Division's approval. If requested by the Division, access roads will be chained or cabled to prevent unauthorized use.

Special attention shall be given to maintaining trees and other vegetation that have scenic value, provide shade, reduce erosion and runoff, or add to the aesthetics of the area. No trees three (3) inches or larger in diameter shall be removed without the Division's permission. Any alterations to the natural topography required to provide ingress and egress to the well site must be approved by the Division before work begins.

PART 5: DAMAGE CAUSED BY CONTRACTOR

All damage caused by the Contractor's negligence in carrying out of this scope of work to any public or private property of any nature whatsoever, including trees, shrubs, and crops, shall be corrected to Division's satisfaction at the expense of the Contractor. If crops are damaged and the Contractor, landowner, or tenant cannot reach a settlement, the County Cooperative Extension Service shall set a fair price for crop damages and the decision shall be final and binding upon all parties. All subsequent payments due the Contractor shall be withheld until the Contractor provides proof of payment of any such claim.

The Contractor shall be responsible for all costs of repairing or replacing any survey monument that is disturbed or destroyed by the Contractor. The Contractor shall utilize a professional surveyor who is licensed and registered by the State of Ohio to perform the re-establishment of said monuments according to the standards set forth by the governing body or law of said monument. For the purpose of this scope of work, the term survey monument shall apply to any property boundary marker, federal, state or county geodetic benchmark, state, or county right of way monument, FEMA benchmarks or flood elevation markers.

PART 6: SAFETY

The following safety protocols shall be completed for each well that is being plugged. The Division, at its discretion, may waive the requirement if all wells in the project are on the same lease/property.

6.1 Public Safety Coordination Meeting

The Contractor shall hold a safety meeting with the local fire department, Division Emergency Operations staff and Inspector, and other applicable contracting staff prior to commencement of plugging activities. The meeting shall review 1) the safety of the public during operations, 2) the safety of workers during operations, 3) emergency notifications of events, 4) site set up and layout, 5) general overview of operations, 6) nearest hospital's address and directions.

6.2 Daily Safety Meetings

The Contractor shall hold a daily safety meeting for all personnel on-site prior to the commencement of work. The Contractor shall provide and maintain a sign in/out sheet for all people on location. The Contractor shall immediately report any accidents and/or safety concerns to the Inspector.

6.3 Operational Standards

The Contractor shall follow the rules established by Occupational Safety and Health Administration (OSHA) Basic Construction Safety 29 CFR 1926 on all onsite project operations.

6.4 Excavation and Trenching Requirements

The Contractor shall follow the notification protocol as specified in Part 3 of the General Specifications before the start of any excavating activities. The Contractor will comply with OSHA Construction Standards for excavation and trenching under 29CFR 1926 Subpart P.

6.5 Hazardous Communications Requirements

The Contractor shall maintain Safety Data Sheets (SDS) for all chemicals stored and/or used on-site. A copy of all SDS will be supplied to the local Fire Department and to the Division.

6.6 Site Security

The Contractor shall provide and install protective barriers/fencing around the work area to prevent unauthorized access. Ingress and Egress access must be maintained at all times.

6.7 Wind Direction Indicator

The Contractor shall install a windsock in an open area of the well location where it is visible to all onsite personnel. It shall be constructed of high visibility material and deployed no less than six (6) feet above grade during the plugging operations.

6.8 Muster and Smoking Areas

The Contractor shall mark and assign a primary and a secondary muster area daily upwind of the well location. These are to be determined based on prevailing wind direction, as indicated by the windsock. The Contractor will post an emergency contact information sheet at each muster site. The Contractor will establish a safe location for a designated smoking area.

6.9 Ignition Sources and Parking Areas

The Contractor shall identify and mark all potential ignition sources within a 50-foot radius of the well. The designated parking area will be outside the 50-foot radius from the well.

6.10 Air Monitoring and Worker Safety

The Contractor shall supply and place a 4-gas monitor at the wellhead. The gas monitor must be calibrated and maintained to monitor Methane (CH₄), Oxygen (O₂), Carbon Monoxide (CO) and Hydrogen Sulfide (H₂S).

Stop work must be followed when any of the levels listed below occur:

- Methane - 1000 parts per million (PPM)/5% Lower Explosive Limit (LEL),
- Oxygen - saturation below 19.5% or above 23%,
- Carbon Monoxide – 50 PPM,
- Hydrogen Sulfide - 10 PPM.

The levels stated above are directly from the Occupational Safety and Health Administration (OSHA) and The National Institute for Occupational Safety and Health (NIOSH) and are standard for air monitoring procedures for safety and work environments. If any of the above levels are alarmed, all personnel will shut down ignition sources and report to the muster area. From the muster area, the Contractor will call 911 for assistance from the local Fire Department.

Division Emergency Operations personnel or the Inspector has the right to stop work if the actions are unsafe or the actions cause or are likely to cause danger to the workers, public, or the environment.

PART 7: MAINTENANCE OF TRAFFIC

The Contractor shall at all times install, maintain, and operate all traffic and traffic control devices in conformance with the requirements of the "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways," hereinafter called The Ohio Manual.

The Contractor shall notify the appropriate public officials and the Division and shall obtain all required permits prior to any lane closure of a public road.

The Contractor shall maintain ingress/egress to all properties associated with the project at all times during the project unless agreed upon in writing by the Division and the landowner.

7.1 STREET CLEANING

The Contractor shall be required to provide street cleaning services in order to remove sediment/debris tracked from the construction site/access drive onto private or public roadways during all phases of the Project.

The Contractor shall work diligently to minimize the amount of sediment tracked onto roadway. The Contractor will conduct all construction and ingress/egress operations in conformance with Part 9: Erosion and Sediment Control of the General Specifications. Use of other erosion and sediment control measures to prevent sediment runoff during period of rains and non-working hours.

The Contractor will provide street cleaning, such as sweeping or vacuuming, at locations around the project ingress/egress where plugging operations has caused tracking of sediments onto roadways. Mechanical sweepers shall be vacuum-type or regenerative sweepers. Sweeping speed will not exceed 6 mph. A minimum of two passes shall be made. Streets must be cleaned daily before the end of the workday. If excess sediments have been tracked onto the streets or if rain is expected, the Division may direct the Contractor to clean the street as often as necessary to keep the street clean at all times.

The Contractor shall be required to remove and dispose of sediments properly. Removal of collected sediment deposits will be disposed on the project site. If sediment deposits cannot be disposed of on-site, an alternative location will be approved by the Division. No offsite disposal will be in or adjacent to a stream and/or floodplain. Sediments to be placed at the project site will

be in conjunction with site restoration and should be spread, compacted, covered, and stabilized in accordance with the site restoration line item. **Sediment will not be allowed to flush into stream or drainage way and washing or flushing of sediments into adjacent drainage systems is prohibited.** If sediment has been contaminated, it will be disposed of in accordance with the contaminated material disposal line item.

The cost of this work shall be included in Contract bid prices for items of which this work is a component.

PART 8: PROTECTION OF EXISTING UTILITIES

Before construction begins, the Contractor, acting as an agent for the Division, shall locate all utilities in the vicinity of the work. The Contractor shall be responsible for complying with the regulations pertaining to utilities in the State of Ohio. The Contractor shall assume all risk for all utilities located in the vicinity of the work, whether above or below the surface of the ground. The Contractor shall also be responsible for all damages and assume all expense for direct or indirect injury, caused by his work, to any of the utilities, or any person or property by reason of injury to them, whether such utilities are or are not shown on the drawings, once they have been uncovered by the work. **In compliance with Ohio Revised Code 3781, two working days before digging the Contractor shall contact the Ohio Utility Protection Service (OUPS) and Oil and Gas Producers Underground Protection Service (OGPUPS) using the Ohio811 one call service by calling 811 or by using the i-dig login found on the internet at OHIO811.org. The Contractor shall maintain a current OUPS/OGPUPS call ticket during the entire project.**

PART 9: EROSION AND SEDIMENT CONTROL

Temporary erosion control measures are required during the course of this project. These measures may consist of the installation of straw bale dikes, silt fence, filter socks, inlet protection structures, erosion control blankets, energy dissipation, and temporary seeding and mulching.

Once construction begins, the Contractor shall be solely responsible for all construction related to the control of off-site sedimentation. This sediment shall be removed by the Contractor at the Division's direction.

9.1 Temporary Measures

Temporary erosion control structures shown on the Drawing Plan Set, identified with these specifications, or as directed by the Division shall be placed as soon as construction starts and must be maintained during the course of the project. At the direction of the Division, the Contractor shall remove the temporary controls when they are no longer needed or when required permanent control measures have been completed.

If sediment escapes the site, accumulations must be removed at a frequency to minimize further negative effects, and whenever feasible, prior to the next rain event.

The contractor shall be responsible for revegetation of all areas in which sediment escapes the site. These areas shall be included in the final stabilization of the project and shall be at the cost of the contractor.

9.2 Maximum Exposed Areas

Stabilization measures must be initiated as soon as practicable in portions of the site where

construction activities have temporarily or permanently ceased, and except as provided below, must be initiated no more than seven (7) days after the construction activity in that portion of the site has temporarily or permanently ceased.

Where the initiation of stabilization measures by the seventh day after construction activity temporarily or permanently ceased is precluded by snow cover, or frozen ground conditions, stabilization measures must be initiated as soon as practicable.

Where construction activity on a portion of the site is temporarily ceased, and earth-disturbing activities will be resumed within fourteen (14) days, temporary stabilization measures do not have to be initiated on that portion of site.

The Division may limit the area of excavation, borrow and embankment operations in progress commensurate with the Contractor's capability and progress in keeping the finished grading, re-soiling, mulching, seeding and other such permanent control measures current in accordance with the acceptable schedule.

9.3 Winterization

When an incomplete project will be left exposed throughout the winter season, the Contractor shall furnish the Division a plan indicating the control measures to be installed and maintained until the next construction season.

If the winter period falls within the anticipated construction period of the Scope of Work and as indicated in the original approved construction schedule, control structures will be paid for by the Division at the unit prices in the Offer.

If the project is not substantially completed prior to the winter season due to the failure of the Contractor to meet the completion date, these necessary control structures will be installed and maintained by the Contractor at his expense and these items will not be paid for under the terms of the Scope of Work, except those that are permanent facilities to be left in place in accordance with the Drawing Plans Set and Specifications.

9.4 Other Controls

Off-site vehicle tracking of sediments and the generation of dust must be minimized, and any waste must be properly disposed.

9.5 Inspections

The Division Inspector shall conduct inspections to ensure that the control practices are functional and to evaluate whether the erosion and sediment control measures are adequate and properly implemented.

9.6 Enforcement

The Division shall take appropriate steps to ensure that sedimentation does not leave the project site. The Division shall require the removal of off-site sediment by the Contractor if such sediment resulted from the Contractor's negligence to place and maintain sediment control structures in accordance with the Drawing Plan Set and Specifications.

PART 10: SPILL PREVENTION AND REMEDIATION

The Contractor is expected to prevent and, if necessary, contain and remediate any spills that may occur at the site due to plugging activities. All stationary plugging equipment on well locations that are in tiled farm fields, residential neighborhoods, parks, or in/adjacent to areas determined by the Division to be environmentally sensitive, will be staged on an impermeable liner and berm. **The Contractor will have oil absorbent pads and booms available onsite during the plugging operations.**

PART 11: HYDROGEN SULFIDE

If the well that is being plugged is known to produce hydrogen sulfide (H₂S), the following considerations must be observed:

- A. The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H₂S emitted from the well. If the Contractor does not have the appropriate equipment to properly detect and abate any H₂S emitted from the well, they will utilize an appropriate party to provide these services.
- B. The Contractor will shut-in the well each night after the plugging operations have ceased, unless otherwise instructed by the Division. The Contractor will continue this process until the plugging operations are complete and there are no further signs of a gas release.

PART 12: CASING

The Division reserves the right to require the removal and or placement of any tubing, casing, or liners deemed necessary to properly plug and abandon the well. If a string of casing that would normally be pulled cannot be removed, the Contractor may be required to log the well and perforate the casing, in accordance with the Division's instructions, so that cement can be circulated behind the casing.

The Contractor shall run an operational string of casing when caving of the well prevents clean out to depth required in the scope of work.

PART 13: DEFINITIONS

13.1 Clean Out

The process in which the contractor would use a smaller diameter tubular to circulate out material from inside a larger diameter wellbore/tubular. This shall include removing mud-laden fluid, prepared clay, bridge plugs (e.g. brush and stone plugs, surface debris), and wellbore cave-in (e.g. swelling shales, red clays). Equipment needed includes, but is not limited to, tubing, a mud pump, a power swivel/power sub or a tubing swivel, a drill bit with the jets removed and/or a notched collar.

13.2 Drill Out

The process in which the contractor would use a drill string, associated fittings, and a bit to remove an obstruction from inside of the wellbore or casing. This shall include removing cement, grout, wood plugs, or other materials in which a cleanout operation failed to remove. Equipment needed includes, but is not limited to, a mud pump, power swivel/power sub, drill string (including collars and casing or tubing), cross over subs, bit sub, and drill bit.

13.3 Wash Over

A process in which the contractor would use an intermediate size working string of casing, usually equipped with a carbide coated collar on the bottom joint, to run down over the smaller well tubular and clean out the annular space between the well tubulars. This process would include utilizing a power swivel or power sub to rotate the working string of casing and a mud pump to circulate fluid down between the working string and the outside of the smaller well tubular to wash out the material in the annular space between the well tubulars. This shall include removing mud-laden fluid, prepared clay, cement, grout, field packers, and surface debris. When needed, a wash over bit shall be attached on the bottom of the larger casing to act as a cutting edge for the material on the backside of the tubular being washed over.

13.4 Milling

The process in which the contractor shall use a drill string and bit to remove a metal obstruction from inside of the wellbore or casing. Equipment needed includes, but is not limited to, a mud pump, power swivel/power sub, drill string (includes collars and casing or tubing), cross over subs, bit sub, and mill. The mill type would depend on the material encountered.

13.5 Fishing

The process in which the contractor shall use a specialized tools or fishing tool to eliminate an obstruction from inside of the wellbore or casing. Equipment needed includes, but is not limited to, a fishing tool(s) and fishing string.

13.6 Bail & Grout

The process the contractor shall use when determined that the wellbore can be bailed of all fluid, and grouted. Equipment needed includes, but is not limited to, tubing, a bailer, and a grout pump. Grout shall be gravity feed to the bottom. This can be done in one application or in stages, depending on the well depth and condition. If the well cannot be bailed completely dry the contractor shall use a siphon string/tremie tube to remove the water from the well during grout application.

PART 14: WELL OBSTRUCTION ASSESSMENT

If an obstruction is encountered in the well bore that prevents the Contractor from reaching total depth, the Contractor will attempt to identify/assess the nature of the obstruction and attempt to remove any obstruction deemed an impediment to the plugging operation. **The Contractor will supply impression blocks as part of their normal rig equipment.**

PART 15: REMOVAL OF AN OBSTRUCTION

The removal of an unknown obstruction that is encountered during the cleanout of a well may require the use of milling and/or fishing tooling and equipment. The Contractor will include the costs for these services on the appropriate line items in the contingency section of this offer unless these costs are part of a planned procedure. The Division will approve a method for the Contractor to remove the well obstruction. The Division will first utilize contingency specifications and line items to define this work. **The Division will not be responsible for milling or fishing charges that are due to Contractor negligence or Contractor equipment failure.**

PART 16: PLUGGED WELL IDENTIFICATION

In compliance with Ohio Administrative Code 1501:9-11-10, a steel plate, a minimum of ¼-inch thick, shall be tack welded on top of all plugged wells. The well's permit number and "ODNR" shall be welded on the plate in numbers/letters as large as practical. Letters shall have a minimum relief of 1/8-inch.

PART 17: TOILET FACILITIES

Where there are no readily accessible public toilet facilities, the Contractor will provide a portable field toilet on the location during plugging operations.

PART 18: COMPLETION, GUARANTEES AND WARRANTIES

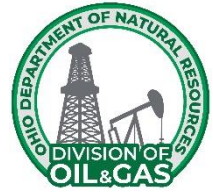
Upon completion of the work described in the Project SOW, the Contractor shall request a Project Completion Inspection be performed by the Division. The Division shall inspect the Project site(s) for completeness and acceptance against the Project SOW, and if the Division determines necessary, develop a list of incomplete and unacceptable work and conditions to be corrected by the Contractor. The Division will reinspect the Project site(s) until the Division determines all work described in the Project SOW is complete and acceptable.

The Contractor warrants (represents) that their work will be conducted in accordance with the standards described in the Project SOW (i.e., the SOW Detailed Drawings and Specifications) and that the Contractor's work be free of defects. Contractor guarantees their work and materials for a Warranty Period of one year, unless otherwise stated as a special provision of the SOW Detailed Specifications. The one-year Warranty Period commences on the date of inspection on the Project Completion Inspection form that accepted the work.

Should defects develop with the Contractor's work or materials within the Warranty Period, the Contractor shall, upon written notice of the Division, remedy the defects and any associated disturbance at their own expense. If the Contractor, after receiving the Division's notice, does not remedy the defects to the satisfaction of the Division, the Division may proceed against the Contractor as prescribed by the Department of Administrative Services (DAS), Index Number MAC110. All representations, warranties, and guarantees made in the DAS Index Number MAC110 contract and the Project SOW shall survive final payment and termination or completion of this Contract.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



SEQUENCE OF WORK

General: Performance of all work shall be coordinated with the Division of Oil and Gas Resources Management (“Division”) Orphan Well Inspector (“Inspector”). The Sequence of Work shall be repeatable for all the project’s wells. The Sequence of Work for the Orphan Well Project shall be as follows:

Phase I:

- 1) Contact the Ohio Utility Protection Service and the Ohio Oil & Gas Producers Underground Protection Service.
- 2) Coordinate with the Orphan Well Inspector and the local authorities for the mobilization of equipment over the roads and bridges to the site as applicable.
- 3) Verify with the Orphan Well Inspector that the pre-construction staking (i.e. Construction Work Limits) has been completed by the Division. **The pre-construction staking must be completed prior to mobilization.**

Phase II:

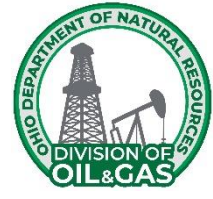
- 1) Mobilize all necessary equipment to the site and develop the site access as shown on the **Drawing Plan Set**.
- 2) Implement site safety and secondary containment as described in the **Detailed Specifications**.
- 3) Install perimeter sediment controls as required by the Division.
- 4) Prepare the well for plugging as described in the **Detailed Specifications, “Well Head Control.”**
- 5) Upon successful installation and approval of the wellhead and establishment of well control, the Contractor shall begin to plug the well as described in the **Plugging Plan and Detailed Specifications, “Well Preparation & Plugging.”**
- 6) **No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut the casing as defined in the Plugging Plan.**
- 7) The Contractor shall set the plugged well identification as outlined in the **General Specifications** and Ohio Administrative Code 1501-9-11-10.

Phase III:

- 1) Within three (3) working days after Division has determined the plugging operations are completed, the Contractor shall remove all well and well plugging-related equipment, fluids, and cuttings from the site. The Contractor shall also excavate and remove all contaminated soils present onsite if present.
- 2) Within fourteen (14) days after the completion of the plugging operations, the Contractor shall reseed as applicable, final grade, disc, fertilize, seed, and mulch all disturbed areas. **If work cannot be complete due to the season or weather conditions, the site shall be winterized per the General Specifications, Part 9 Erosion and Sediment Control and the site restoration shall be scheduled for completion.**
- 3) All reclamation shall be finished to an equal or better condition than what existed prior to construction. The Division shall give the final approval for the restoration of the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Danford #1
Noble County, Olive Township



WELL DESCRIPTION

This Well Description is for:

Danford #1 (34-121-2-0523-00-00), Noble County, Olive Township.

Background: The Danford #1 is located between two parcels, on a right-of-way in the Sunset Hills Subdivision owned by Edward Crock. The site can be accessed via Kennedy Drive, Caldwell, OH 43724.

Division inspection found the well located in a precast concrete vault with a metal hatch. 2-inch tubing equipped with a ball valve and regulator was noted during the inspection but casing was not visible. The bottom of the vault was lined with gravel. The well is in an urban area and less than 300 feet from multiple residences.

The Danford #1 was drilled in 1946 to a total depth of 1,934 and produced from the Gordon sand.

Formation data for the Danford #1 (34-121-2-0523-00-00), shows the following:

Formation	Top	Bottom	Remarks
Red rock		110	
Red rock	172	208	
Red rock	287	311	
Sand	408	454	
Sand	915	1,106	
Slate, black	1,140	1,175	
Sand	1,544	1,562	*Gas in top
Gordon	1,900	1,934	* dry
Total Depth		1,934	

Casing data for the Danford #1 (34-121-2-0523-00-00), shows the following:

- 13-inch conductor at 39 feet – pulled
- 10-inch surface casing at 130 feet – pulled
- 8-inch intermediate casing at 415 – pulled
- 6.625-inch production casing set at 1,175 feet

For the purposes of this scope of work, it is assumed that the Danford #1 was drilled to a total depth of 1,934 feet and originally produced from the Gordon sand. The well is equipped with 1,175 feet of 6.625-inch production casing and approximately 1,930 feet of 2.38-inch tubing set at 1,476 on a formation packer. The annulus was filled with mud laden fluid from 1,476 to surface. The well located in a precast concrete vault.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater

resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

The Danford #1 (34-121-2-0523-00-00) is in an urban area.

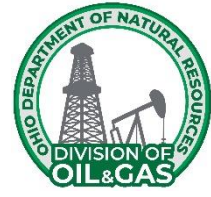
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize Kennedy Drive to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



**SCOPE OF WORK
NOBLE #1 PROJECT
Danford #1
Noble County, Olive Township**



PLUGGING PLAN

This Plugging Plan is for:

Danford #1 (34-121-2-0523-00-00), Noble County, Olive Township.

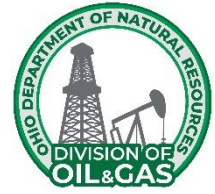
For the purposes of this scope of work, it is assumed that the Danford #1 was drilled to a total depth of 1,934 feet and originally produced from the Gordon sand. The well is equipped with 1,175 feet of 6.625-inch production casing and approximately 1,930 feet of 2.38-inch tubing set at 1,476 on a formation packer. The annulus was filled with mud laden fluid from 1,476 to surface. The well located in a precast concrete vault.

- 1) The Contractor shall excavate around the precast concrete vault in order to perform relief cuts in the concrete to allow for safe and controlled removal of the vault from the existing wellhead and casing.
- 2) The Contractor shall visually examine the existing casing to evaluate its condition immediately below grade. If the casing is found to be severely degraded the Contractor will remove the incompetent section of casing and install enough new casing of similar diameter to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 100 barrels of freshwater on location for use as well control fluid.
- 5) The Contractor will run their tools into the 2.38-inch tubing to ensure it is clear and to verify the total depth (TD) of the well, which is estimated to be 1,934 feet in the Gordon sandstone.
- 6) The contractor shall perforate the tubing below the packer before setting the bottom plug.
- 7) The bottom plug shall be set through a working string of one (1) inch diameter tubing using **Class A cement mixed at a lighter weight (14.5-15.0 pounds/gallon) to accommodate the narrow tubing annulus. Due to the narrow tubing annulus, the Contractor shall not run lost circulation material (LCM) prior to setting this cement plug.** Circulation must be achieved, and all free crude oil shall be circulated from the wellbore with fresh water prior to setting any plug.
- 8) The Contractor will set a 500-foot cement bottom plug from total depth to the bottom of the packer, estimated from 1,934 feet to 1,434 feet. Once this plug has been set, the Contractor will pull the working string of tubing and wait on cement for a minimum of eight (8) hours, after which the Contractor will run their tools into the well to verify the depth to the top of the plug. If it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.

- 9) The Contractor will perforate any zones of poor or no bond in the annulus behind the tubing below the production casing to allow for cement to be squeezed into the open annular voids. The Contractor shall not perforate the tubing at any depth higher than 1,200 feet.
- 10) The Contractor will set a 400-foot cement plug across the perforated zones and will apply appropriate squeeze pressure to facilitate flow of cement into any open annular voids. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 11) The Contractor will clean out the prepared clay from the tubing annulus to a depth of 500 feet using 4.5-inch OD casing equipped with a sawtooth collar bit.
- 12) The Contractor will shoot the 2.38-inch OD tubing off at a depth of 500 feet, remove it from the wellbore, and stage it on a bermed liner for further evaluation. The Contractor will provide an accurate tally of all tubing recovered from the well.
- 13) The Contractor will perforate any zones of poor or no bond in the annulus of the existing 6.63-inch diameter casing to allow for cement to be squeezed into the open annular voids. The Contractor shall not perforate the casing at any depth interval shallower than 250 feet below ground surface
- 14) The Contractor will set a 200-foot cement plug across the perforated zones and will apply appropriate squeeze pressure to facilitate flow of cement into any open annular voids. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 15) All remaining cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**
- 16) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

Davis, Lee #1 (34-121-2-0293-00-00), Noble County, Olive Township.

Background: The Davis, Lee #1 is located on a 35.48-acre parcel #280021241000 owned by Oran & Brenda Way, the address is 18466 Frostyville Rd, Caldwell, OH 43740.

Division inspection found the well equipped with open 5.38-inch casing near Salt run. Oil and brine appear to wash out of the casing each time the creek level rises. No conductor or wellhead were present.

Well records for the Davis Lee #1 state that it was drilled in 1941 to a total depth of 264 feet and produced from the Macksburg sand.

Formation data for the Davis, Lee #1 (34-121-2-0293-00-00), shows the following:

Formation	Top	Bottom	Remarks
Gravel & Shale		18	
Cambridge Lime	36	46	Water at 42
140' shale	50	78	
Dark shale	78	89	
Fire clay	90	113	
Brown shale	113	121	
Green shale	121	155	
Black shale	155	197	
White shale	197	240	Show oil-Top of Mahoning
White sand	240	264	
Total Depth		264	

Casing data for the Davis, Lee #1 (34-121-2-0293-00-00), shows the following:

- 6.25-inch surface casing at 90 feet
- 4.88-inch production casing set at 182 feet

For the purposes of this scope of work, it is assumed that the Davis, Lee #1 was drilled to a total depth of 264 feet and originally produced from the Macksburg sand. The well is equipped with 182 feet of 5.38-inch production casing.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater

resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

The Davis, Lee #1 is withing 800 feet of water well #211885, which draws from a sand aquifer at 41 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

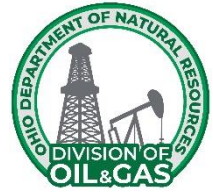
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Frostyville Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This Plugging Plan is for:

Davis, Lee #1 (34-121-2-0293-00-00), Noble County, Olive Township.
Morris, J&E #2 (34-121-2-0548-00-00), Noble County, Olive Township.

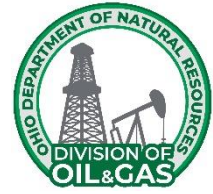
For the purposes of this scope of work, it is assumed that the above wells on the Way property were drilled to total depths ranging from 248 to 264 feet and were originally produced from the Mahoning sand. The wells are equipped with 4.88-inch production casing set between 169 and 182 feet.

- 8) The Contractor will safely relieve any pressure that may be built up on these wells prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down each well.
- 8) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellheads to capture any fluids generated during the plugging process.
- 8) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casings are found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 8) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the wells. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 75 barrels of freshwater on location for use as well control fluid.
- 8) The Contractor will clean out the material in each well bore to its total depth (TD) or a depth approved by the Division.
- 8) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug
- 8) The Contractor will set cement plugs from total depth to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 8) No sooner than three (3) business days after placing the uppermost plugs, the Division will inspect each well at surface to determine if any additional plugging work shall be required at that time. If additional

work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

Heisler, CA #1 (34-121-2-0904-00-00), Noble County, Olive Township.

Background: The Heisler, CA #1 is located on a 0.29-acre parcel #290022015000 owned by Evangaline Crum, the address is 1217 Cliff Rd Caldwell, OH 43750.

Division inspection found the well equipped with 5.187-inch casing equipped with a wellhead and a 2-inch tubing string set on a packer. The well is in an urban area and less than 300 feet from multiple residences.

Well records state the CA Heisler #1 was drilled to a total depth of 1,434 feet in 1953 and produced from the Berea Sandstone.

Formation data for the Heisler, CA #1 (34-121-2-0904-00-00), shows the following:

Formation	Top	Bottom	Remarks
Sand	20	45	
Coal	45	47	
Shale, red	165	175	
Sand, hard	775	1,007	Water @ 800'
Sand, hard	1,405	1,420	
Total Depth		1,434	

Casing data for the Heisler, CA #1 (34-121-2-0904-00-00), shows the following:

- 8.25-inch surface casing at 85 feet
- 6.625-inch intermediate casing at 480 feet
- 5.187-inch production casing set at 1,020 feet

For the purposes of this scope of work, it is assumed that the Heisler, CA #1 was drilled to a total depth of 1,434 feet and produced from the Berea sand. The well is equipped with 1,020 feet of 5.187-inch production casing. Records indicate the surface and intermediate casing were pulled.

The Heisler, CA #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater

resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

Heisler, CA #1 (34-121-2-0904-00-00) is in an urban area.

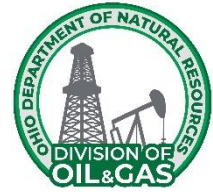
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Cliff Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This plugging plan is for:

Heisler, CA #1 (34-121-2-0904-00-00), Noble County, Olive Township

For the purposes of this scope of work, it is assumed that the Heisler, CA #1 was drilled to a total depth of 1,434 feet and originally produced from the Berea sand. The well is equipped with 1,020 feet of 5.187-inch production casing. Records indicate the surface and intermediate casing were pulled.

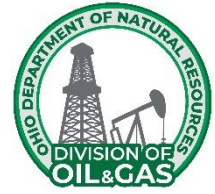
- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 100 barrels of freshwater on location for use as well control fluid.
- 5) The Contractor will run their tools into the well to ensure it is clear and to verify the total depth (TD) of the well, which is estimated to be 1,434 feet in the 2nd Berea Sandstone.
- 6) Contractor will perforate the tubing below the packer before setting the bottom plug.
- 7) The bottom plug shall be set through a working string of one (1) inch diameter tubing using **Class A cement mixed at a lighter weight (14.5-15.0 pounds/gallon) to accommodate the narrow tubing annulus. Due to the narrow tubing annulus, the Contractor shall not run lost circulation material (LCM) prior to setting this cement plug.** Circulation must be achieved, and all free crude oil shall be circulated from the wellbore with fresh water prior to setting any plug.
- 8) The Contractor will set a 450-foot cement bottom plug from total depth to the bottom of the packer, estimated from 1,434 feet to 985 feet. Once this plug has been set, the Contractor will pull the working string of tubing and wait on cement for a minimum of eight (8) hours, after which the Contractor will

run their tools into the well to verify the depth to the top of the plug. If it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.

- 9) The Contractor will then shoot the 2.38-inch diameter tubing at the lowest free point, estimated to be at a depth of 950 feet and remove it from the wellbore. All tubing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for tubing retrieved from the wellbore.
- 10) All remaining cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**
- 11) The Contractor will set a 200-foot cement plug from 950 feet to 750 feet to isolate the parted 2.38-inch tubing.
- 12) The Contractor will perforate any zones of poor or no bond in the annulus of the existing 5.19-inch diameter casing to allow for cement to be squeezed into the open annular voids. The Contractor shall not perforate the casing at any depth interval shallower than 250 feet below ground surface
- 13) The Contractor will set a 200-foot cement plug across the perforated zones and will apply appropriate squeeze pressure to facilitate flow of cement into any open annular voids. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at surface shall be filled with cement.
- 15) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

McFarland #2 (34-121-2-1222-00-00), Noble County, Olive Township.

Background: The McFarland #1 is located on a 39.25-acre parcel #280021709000 owned by Maryellen Schleappi. The address is 43080 Parrish Rd, Caldwell, OH 43724.

Division inspection found the well equipped with open 6.25-inch surface casing, 4.875-inch production casing, 2.375-inch tubing on hangers, a stuffing box, and rods. A 1-inch vent pipe was also present but there was no wellhead.

The W. McFarland #1 was drilled in 1962 to a total depth of 751 feet and produced from the Macksburg 700' formation.

Formation data for the McFarland #1 (34-121-2-1222-00-00), shows the following:

Formation	Top	Bottom	Remarks
Clay		14	
Red shale	61	76	
Sandstone	116	170	
Red shale	170	271	
Macksburg 700'	734	750	*saltwater @ 735"
Total Depth		751	

Casing data for the McFarland #1 (34-121-2-1222-00-00), shows the following:

- 6.25-inch surface casing at 220 feet
- 4.875-inch production casing set at 735 feet

For the purposes of this scope of work, it is assumed that the McFarland #1 was drilled to a total depth of 751 feet and produced from the Macksburg, sand. The well is equipped with 220 feet of 6.25-inch surface casing, 735 feet of 4.875-inch production casing, 2.38-inch tubing on a hanger, and rods.

The W. McFarland #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250

feet deep, the average well depth is 95 feet.

The McFarland #2 is less than 200 feet from a domestic water well (#105152) that draws from a Limestone aquifer at 55 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

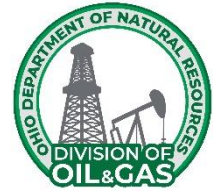
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Parrish Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This plugging plan is for:

McFarland #2 (34-121-2-1222-00-00), Noble County, Olive Township.

For the purposes of this scope of work, it is assumed that the McFarland #2 was drilled to a total depth of 751 feet and produced from the Macksburg, sand. The well is equipped with 220 feet of 6.25-inch surface casing, 735 feet of 4.875-inch production casing, 2.38-inch tubing on a hanger, and rods.

The W. McFarland #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

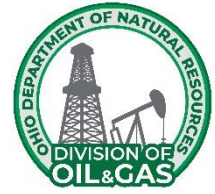
- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 100 barrels of freshwater on location for use as well control fluid.
- 5) The Contractor shall remove the rods, 1-inch OD tubing, 2.38-inch OD tubing, and packer from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the rods and tubing removed from the well.
- 6) The Contractor will run their tools into the well to ensure it is clear and to verify the total depth (TD) of the well, which is estimated to be 751 feet in the Macksburg sandstone.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A**

minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.

- 8) The Contractor will set a 350-foot bottom hole cement plug, estimated from 751 feet to 401 feet. Once this plug has been set, the Contractor will pull the working string of tubing and wait on cement for a minimum of eight (8) hours, after which the Contractor will run their tools into the well to verify the depth to the top of the plug. If it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.875-inch diameter casing at the lowest free point, estimated to be at a depth of 400 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for tubing retrieved from the wellbore.
- 10) The Contractor will set a 300-foot cement plug from 400 feet to 100 feet to isolate the parted 4.875-inch casing as well as the 6.25-inch surface casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 11) The Contractor will set a cement plug from 100 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 12) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

Heppner, E #1 (34-121-2-1224-00-00), Noble County, Olive Township.

Background: The Heppner, E #1 is located on a 1.51-acre parcel #290024006000 owned by Dennis Crock. The address is 110 Olive St, Caldwell, OH 43724. The well site is situated in the parking lot of the F&W grocery company, and the well itself is in the side of an embankment.

Division inspection found the well equipped with 8.625-inch surface casing, and 5.187-inch production casing. The well was originally on top of the hill but the embankment side was cut to make room for the parking lot exposing the uppermost 30-feet of well casing. Division UPC contractor cut the top 25-feet of surface and production casings, lowering the wellhead to a good working height. Each of the casing strings was equipped with a wellhead. **(Note: due to the uppermost sections of casing being removed from the well, all true depths should be calculated as 30-feet shallower than the depths shown on these records.)** Records indicate the well was filled with prepared clay behind the 5.187-inch casing from 986 to surface.

Well records for the E. Heppner #1 state the well was drilled in 1963 to a total depth of 1,387 feet and produced from the Berea sand.

Formation data for the Heppner, E #1 (34-121-2-1224-00-00), shows the following:

Formation	Top	Bottom	Remarks
Slate	5	80	
Buell Run sand	80	100	
300' sand	175	260	
500' sand	360	380	
700' sand	565	580	
Big Injun sand	740	974	
Berea sand	1,370	1,372	
Total Depth		1,387	

Casing data for the Heppner, E #1 (34-121-2-1224-00-00), shows the following:

- 8.25-inch conductor set at 80 feet
- 6.625-inch surface casing set to 380 feet
- 5.187-inch production casing set at 986 feet

For the purposes of this scope of work, it is assumed that the Heppner, E #1 was drilled to a total depth of 1,387 feet and produced from the Berea sandstone. The well is equipped with 80 feet of 8.25-inch conductor, 380 feet of 6.625-inch surface casing, and 986 feet of 5.167-inch production casing.

The well was filled with prepared clay behind the 5.167-inch casing from 986 to surface.

The Heppner, E. #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

The Heppner, E #1 (34-121-2-1224-00-00) is in an urban area.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Olive Street to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.

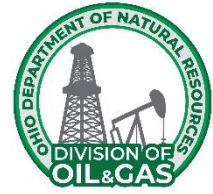


SCOPE OF WORK

Noble 16F PROJECT

Multiple Orphan Well Sites

Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This plugging plan is for:

Heppner, E #1 (34-121-2-1224-00-00), Noble County, Olive Township.

For the purposes of this scope of work, it is assumed that the Heppner, E #1 was drilled to a total depth of 1,387 feet and originally produced from the Berea sandstone. The well is equipped with 80 feet of 8.25-inch conductor, 380 feet of 6.625-inch surface casing, and 986 feet of 5.167-inch production casing. The well was filled with prepared clay behind the 5.167-inch casing from 986 to surface.

(Note: due to the uppermost sections of casing being removed from the well through a UPC contract, all true depths should be calculated as 30-feet shallower than the depths shown on these records.)

The Heppner, E. #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

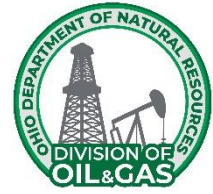
- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 100 barrels of freshwater on location for use as well control fluid.
- 5) The Contractor will clean out the material in the well bore to its total depth (TD) 1,387 or a depth approved by the Division.
- 6) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A**

minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.

- 7) The Contractor will set a 450-foot bottom hole cement plug from 1,387 feet to 937 feet to cover the Berea sand. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 8) The Contractor will then sever the 5.187-inch diameter casing at the lowest free point, estimated to be at a depth of 600 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 9) The contractor will set a 200-foot cement plug to isolate the parted 5.19-inch casing.
- 10) The Contractor will set a 200-foot cement plug from 400 feet to 200 feet to cover any shallow producing zones. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 11) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 12) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

Davis, Blake #3 (34-121-2-4123-00-00), Noble County, Olive Township.

Background: The Davis, Blake #3 is located on a 221.96-acre parcel #280051313000 owned by Raymond and Michelle Calhoun, the property address is not listed but is located along Bells Church Lane. Division inspection found the well equipped with 7-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. There are multiple steel production tanks and separators associated with this well.

The well was drilled in 2005 to a total depth of 2,250 feet and produced from Berea and the Ohio Shale.

Formation data for the Davis, Blake #3 (34-121-2-4123-00-00), shows the following:

Formation	Top	Bottom	Remarks
Big Injun sand		1,254	
Berea sand	1,621	1,642	
Ohio shale	1,642		
Total Depth		2,272	

Casing data for the Davis, Blake #3 (34-121-2-4123-00-00), shows the following:

- 9.625-inch conductor set at 35 feet
- 7-inch surface casing set to 1,254 feet with 240 sacks
- 4.5-inch production casing set at 2,230 feet with 110 sacks

For the purposes of this scope of work, it is assumed that the Davis, Blake #3 was drilled to a total depth of 2,272 feet and produced from the Ohio shale and the Berea sandstone. The well is equipped with 35 feet of 9.625-inch conductor, 1,254 feet of 7-inch surface casing, 2,230 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

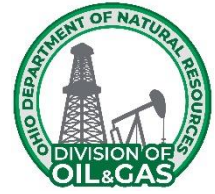
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Bells Church Lane to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This plugging plan is for:

Davis, Blake #3 (34-121-2-4123-00-00), Noble County, Olive Township.

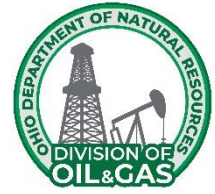
For the purposes of this scope of work, it is assumed that the Davis, Blake #3 was drilled to a total depth of 2,272 feet and produced from the Ohio shale and the Berea sandstone. The well is equipped with 35 feet of 9.625-inch conductor, 1,254 feet of 7-inch surface casing, 2,230 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

1. The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
2. The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
3. The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
4. The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
5. The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
6. The Contractor will clean out the material in the well bore to its total depth (TD) 2,230 or a depth approved by the Division.
7. All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**

8. The Contractor will set a 400-foot bottom hole cement plug from 2,230 feet to 1,830 feet to cover the Ohio shale and the bottom of the 4.5-inch casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
9. The Contractor will set a 400-foot cement plug from 1,830 feet to 1,430 feet to cover the perforations across the producing intervals in the Ohio Shale and the Berea sand. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
10. The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 1,150 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
11. The contractor will set a 200-foot cement plug to isolate the parted 4.5-inch casing.
12. The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
13. No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



This Well Description is for: _____

Hohman, E #1 (34-121-2-2824-00-00), Noble County, Enoch Township.

Background: The Hohman, E #1 is located on a 77.61-acre parcel #130050239000 owned by Curtis P. Gill, the address is 43029 Hohman Rd, Caldwell, OH 43724.

Division inspection of the well as a result of a landowner request found the well casing cut off just below ground surface and leaking brine and gas. There was a slight sheen in the fluid as well. The visible casing strings were measured and a corrugated 24-inch, HDPE, plastic riser was set over the well to contain the escaping fluids. The Division inspector also stated that the 4.5-inch production casing was exposed to excessive pressures during the completion process which resulted in the 4.5-inch being removed from the well. Only 8.63-inch and 7-inch casing were noted during the inspection. The 4.5-inch casing was not witnessed at the surface and the well appears to have never been placed into production.

Well records state the Hohman, E. #1 was drilled in 1982 to a total depth of 4,041 feet and produced from the Ohio Shale. Completion records for the well were incomplete and conflicted with drilling records. A letter from Geologist Sam Wilder of Brown Petroleum written to the ODNR confirms an open hole completion with a TD of 3,974 feet. Issues with poor quality pipe being used to case the well are mentioned in the cementing records. Cementing records indicate proper circulation was never achieved on the intermediate cementing job.

Formation data for the Hohman, E #1 (34-121-2-2824-00-00) shows the following:

Formation	Top	Bottom	Remarks
First Cow run sand	292	320	
Second Cow run sand	375	404	
Maxton	733	766	
Keener	864	894	
Injun sand	902	1,006	
Berea sand	1,425	1,460	
Ohio shale	1,460		
Total Depth		3,990	*Well may have been drilled to 4,041 feet

Casing data for the Hohman, E #1 (34-121-2-2824-00-00) shows the following:

- 8.625-inch surface casing set to 280 feet
- 7-inch intermediate casing set at 2,118 feet with 455 sacks
- 4.5-inch production casing set at 3,774 feet with 50 sacks

For the purposes of this scope of work, it is assumed that the Hohman, E #1 was drilled to a total depth of 3,990 feet and experienced an unsuccessful completion process. The well is equipped with 280 feet of 8.625-inch surface casing, 2,118 feet of 7-inch intermediate casing, and originally had 3,774 feet of 4.5-inch production casing that may have parted at an unknown depth and then removed from the wellbore.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet. A domestic water well (#104920) is less than 300 feet from the Hohman #1.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

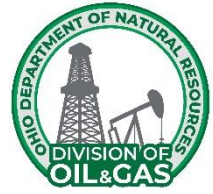
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Hohman Rd to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This plugging plan is for:

Hohman, E #1 (34-121-2-2824-00-00), Noble County, Enoch Township.

For the purposes of this scope of work, it is assumed that the Hohman, E #1 was drilled to a total depth of 3,990 feet and experienced an unsuccessful completion process. The well is equipped with 280 feet of 8.625-inch surface casing, 2,118 feet of 7-inch intermediate casing, and originally had 3,774 feet of 4.5-inch production casing that may have parted at an unknown depth and then removed from the wellbore.

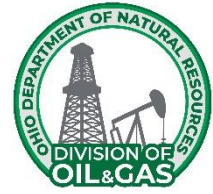
1. The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
2. The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
3. The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
4. The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
5. The Contractor will clean out the material in the well bore to its total depth (TD) 3,990 or a depth approved by the Division.
6. All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**
7. The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item

“Lost Circulation Material” specification included in the contingency specifications and shall be available at the site during the completion of the line item.

8. The Contractor will set a 450-foot bottom hole cement plug from 3,990 feet to 3,540 feet to cover the Ohio shale and the top of the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
9. The Contractor will set a 250-foot cement plug from 2,268 feet to 2,018 feet to cover the bottom of the 7-inch diameter casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
10. The Contractor will perforate any zones of poor or no bond in the annulus of the existing casing to allow for cement to be squeezed into the open annular voids. The Contractor shall not perforate the casing at any depth interval shallower than 300 feet below the top of casing.
11. The Contractor will set a 400-foot cement plug across the perforated zones and will apply appropriate squeeze pressure to facilitate flow of cement into any open annular voids. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
12. The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
13. No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

Itol #3 (34-121-2-2169-00-00), Noble County, Brookfield Township.

Background: The Itol #3 is located on parcel #0300212440000 owned by the State of Ohio, Department of Natural Resources and does not have an address or street frontage.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. There is a 210 bbl steel production tank and a mechanical separator near the well.

Formation data for the Itol #3 (34-121-2-2169-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,700	1,748	
Ohio Shale	1,748	3,696	
Big Lime	3,696	4,894	
Salina	4,003	4,618	
Lockport	4,618	4,843	
Clinton	4,843	5,073	
Clinton	5,083	5,128	
Clinton	5,128	5,192	
Medina	5,246	5,258	
Queenston	5,258	5,299	
Total Depth		5,299	

Casing data for the Itol #3 (34-121-2-2169-00-00) shows the following:

- 8.625-inch surface casing set to 670 feet; cemented to surface.
- 4.5-inch production casing set at 5,286 feet with 100 sacks

For the purposes of this scope of work, it is assumed that the Itol #3 was drilled to a total depth of 5,299 feet and produced from the Clinton sand. The well is equipped with 670 feet of 8.625-inch surface casing, 5,286 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Itol #3 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater

resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is located within a released surface mine listed as Permit ID: A-0820.

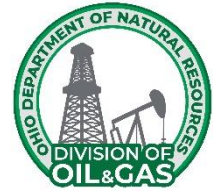
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Resources Rd #1 to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This plugging plan is for:

Itol #3 (34-121-2-2169-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the Itol #3 was drilled to a total depth of 5,299 feet and produced from the Clinton sand. The well is equipped with 670 feet of 8.625-inch surface casing, 5,286 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Itol #3 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

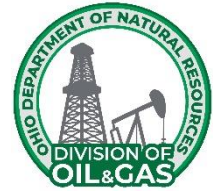
- 17) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 17) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 17) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 17) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 17) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 17) The Contractor will clean out the material in the well bore to its total depth (TD) 5,299 or a depth approved by the Division.
- 17) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A**

minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.

- 17) The Contractor will set a two-stage 600-foot bottom hole cement plug from 5,300 feet to 4,700 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 17) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,300 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 17) The contractor will set a 200-foot cement plug to isolate the parted 4.5-inch casing.
- 17) The Contractor will set a 200 foot cement plug from 3,900 feet to 3,700 feet to isolate the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 17) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 17) The Contractor will set a 200-foot cement plug from 1,950 to 1,750 feet to isolate the top of the Ohio Shale formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 17) The Contractor will set a 200-foot cement plug from 1,750 feet to 1,550 feet to cover the Berea sandstone.
- 17) The Contractor will set a 250-foot bottom of the surface casing cement plug from 820 feet to 570 feet. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 17) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

Itol #2 (34-121-2-2107-00-00), Noble County, Brookfield Township.

Background: The Itol #2 is located on parcel #0300212450000 owned by the State of Ohio, Department of Natural Resources and does not have an address or street frontage.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. There is a 210 bbl steel production tank and a mechanical separator near the well.

Well records for the Itol Reed #2 state the well was drilled in 1978 to a total depth of 5,310 and produced from the Clinton sandstone.

Formation data for the Itol #2 (34-121-2-2107-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,682	1,724	
Ohio Shale	1,723	3,692	
Big Lime	3,692	4,900	
Bass Island	3,808	3,990	
Salina	3,990	4,620	
Lockport	4,620	4,808	
Clinton, red	5,136	5,152	
Clinton, white	5,152	5,196	
Medina	5,252	5,264	
Total Depth		5,310	

Casing data for the Itol #2 (34-121-2-2107-00-00) shows the following:

- 8.625-inch surface casing set to 644 feet with 250 sacks
- 4.5-inch production casing set at 5,212 feet with 100 sacks

For the purposes of this scope of work, it is assumed that the Itol #2 was drilled to a total depth of 5,310 feet and originally produced from the Clinton sand. The well is equipped with 644 feet of 8.625-inch surface casing, 5,212 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Itol #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is located within a released surface mine listed as Permit ID: A-0820.

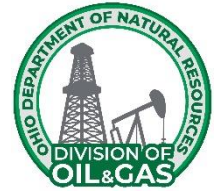
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize St Rt 83 to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This plugging plan is for:

Itol #2 (34-121-2-2107-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the Itol #2 was drilled to a total depth of 5,310 feet and originally produced from the Clinton sand. The well is equipped with 644 feet of 8.625-inch surface casing, 5,212 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Itol #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

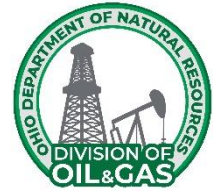
- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,310 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A**

minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.

- 8) The Contractor will set a 500-foot bottom hole cement plug from 5,212 feet to 4,712 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,300 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot cement plug to isolate the parted 4.5-inch casing.
- 11) The Contractor will set a 200 foot cement plug from 3,892 feet to 3,692 feet to isolate the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a 200-foot cement plug from 2,000 to 1,800 feet to isolate the top of the Ohio Shale formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 200-foot cement plug from 1,774 feet to 1,574 feet to cover the Berea sandstone.
- 15) The Contractor will set a 250-foot cement plug from 800 feet to 550 feet. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 16) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

Hedge #1, 34-121-2-1503-00-00, Noble County, Brookfield Township.

Background: The Hedge #1 is located on parcel #030021320000 owned by Ohio Franklin Realty, PO Box 16428, Columbus, Oh 43216 and is accessible from Lincoln Highway.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. A 100 Bbl steel tank and a mechanical separator were on site near the well.

Well records for the Hedge #1 state that the well was drilled in 1971 and produced from the Clinton sandstone.

Formation data for the Hedge #1, (34-121-2-1503-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,540	1,580	
Big Lime	3,633	4,858	
Oriskany	3,740	3,754	
Clinton	5,067	5,155	
Red Medina	5,216	5,232	
Total Depth		5,290	

Casing data for the Hedge #1, (34-121-2-1503-00-00) shows the following:

- 8.625-inch surface casing set to 1,628 feet with 450 sacks
- 4.5-inch production casing set at 5,276 feet with 100 sacks

For the purposes of this scope of work, it is assumed that the Hedge #1 was drilled to a total depth of 5,290 feet and originally produced from the Clinton/Medina sands. The well is equipped with 1,628 feet of 8.625-inch surface casing, 5,276 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift assembly.

The Hedge #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management this well is located on restored strip mine ground but there are no active mines located in the area of review.

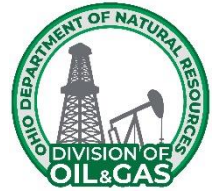
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize Lincoln Hwy to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



PLUGGING PLAN

This plugging plan is for:

Hedge #1, 34-121-2-1503-00-00, Noble County, Brookfield Township

For the purposes of this scope of work, it is assumed that the Hedge #1 was drilled to a total depth of 5,290 feet and originally produced from the Clinton/Medina sands. The well is equipped with 1,628 feet of 8.625-inch surface casing, 5,276 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift assembly.

The Hedge #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

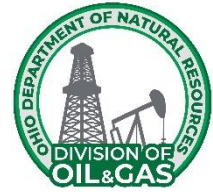
- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,276 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A**

minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.

- 8) The Contractor will set a 500-foot bottom hole cement plug from 5,276 feet to 4,776 feet to cover the Clinton/Medina sandstones. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,300 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot cement plug to isolate the parted 4.5-inch casing.
- 11) The Contractor will set a 200-foot cement plug from 3,800 feet to 3,600 feet to isolate the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a 250-foot cement plug from 1,778 feet to 1,528 feet to isolate the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 15) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive, Brookfield, Enoch, Noble Townships



WELL DESCRIPTION

This Well Description is for:

Hedge, John #2 (34-121-2-3695-00-00), Noble County, Brookfield Township.

Background: The Hedge, John #2 is located on a parcel #030021320000 owned by Ohio Franklin Realty, PO Box 16428, Columbus, OH 43216 and is accessible from Township Highway 2.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. The entire wellhead assembly is roughly 8 feet off the ground.

Well records for the John Hedge #2 state the well was drilled in 1991 and produced from the Clinton sandstone.

Formation data for the Hedge, John #2 (34-121-2-3695-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1674	1722	
Ohio Shale	1722	3768	
Big Lime	3768	4996	
Stray Clinton	5,208	5,226	
Clinton	5236	5286	
Medina	5354	5370	
Total Depth		5470	

Casing data for the Hedge, John #2 (34-121-2-3695-00-00) shows the following:

- 13-inch conductor set at 120 feet
- 8.625-inch surface casing set to 1,314 feet with 265 sacks
- 4.5-inch production casing set at 5,430 feet with 150 sacks

Cementing records indicate a basket was ran at 90 feet on the 8.625-inch surface casing. While the surface casing was being set the drillers never achieved returns, but 20 sacks were later used to top off the annulus.

For the purposes of this scope of work, it is assumed that the Hedge, John #2 was drilled to a total depth of 5,470 feet and produced from the Clinton sand. The well is equipped with 120 feet of 13-inch conductor, 1,314 feet of 8.625-inch surface casing, 5,430 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift. Due to use of a basket at 90 feet and a failed surface job that was later grouted from the surface, voids on the backside of the 8.625-inch surface casing are possible.

The Hedge, John #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is located on reclaimed Surface Mine ground.

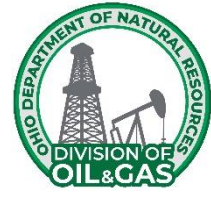
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Township Hwy 2 to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Hedge, John #2
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

Hedge, John #2 (34-121-2-3695-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the Hedge, John #2 was drilled to a total depth of 5,470 feet and produced from the Clinton sand. The well is equipped with 120 feet of 13-inch conductor, 1,314 feet of 8.625-inch surface casing, 5,430 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift. Due to use of a basket at 90 feet and a failed surface job that was later grouted from the surface, voids on the backside of the 8.625-inch surface casing are possible.

The Hedge, John #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

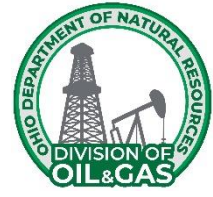
- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,470 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**

- 8) The Contractor will set a 450-foot bottom hole cement plug from 5,470 feet to 5,020 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,200 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot cement plug to isolate the parted 4.5-inch casing.
- 11) The Contractor will set a 200-foot cement plug from 4,000 feet to 3,700 feet to isolate the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a plug from 200 feet below the top of the Ohio Shale formation to the top of the Ohio Shale formation from 2,000 to 1,800 feet. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 200-foot cement plug from 1,770 feet to 1,570 feet to cover the Berea sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 15) The Contractor will set a 250-foot cement plug bottom from 1,464 feet to 1,214 feet to cover the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of 8 hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 16) The Contractor will perforate any zones of poor or no bond in the annulus of the existing casing to allow for cement to be squeezed into the open annular voids. The Contractor shall not perforate the casing at any depth interval shallower than 300 feet below the top of casing.
- 17) The Contractor will set a 400-foot cement plug across the perforated zones and will apply appropriate squeeze pressure to facilitate flow of cement into any open annular voids. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.

- 18) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 19) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Dudley #2
Noble County, Brookfield Township



WELL DESCRIPTION

This Well Description is for:

Dudley #2 (34-121-2-3691-00-00), Noble County, Brookfield Township.

Background: The Dudley #2 is located on a 107.66 acre parcel #0300211260000 owned by Shawn & Kim Ray. The address is 50725 Ray lane, Cumberland, Oh 43732.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. There is a 100 bbl, a 210 bbl steel production tank, and two mechanical separators near the well.

Well records state the Dudley #2 was drilled to a total depth of 5,454 feet and produced from the Clinton and Medina formations.

Formation data for the Dudley #2 (34-121-2-3691-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,424	1,466	
Ohio Shale	1,466	3,724	
Big Lime	3,724	5,012	
Clinton	5,206	5,316	
Medina	5,366	5,374	
Total Depth		5,454	

Casing data for the Dudley #2 (34-121-2-3691-00-00) shows the following:

- 8.625-inch surface casing set to 1,108 feet with 330 sacks
- 4.5-inch production casing set at 5,448 feet with 150 sacks

For the purposes of this scope of work, it is assumed that the Dudley #2 was drilled to a total depth of 5,454 feet and originally produced from the Clinton sand. The well is equipped with 1,108 feet of 8.625-inch surface casing, 5,448 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Dudley #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

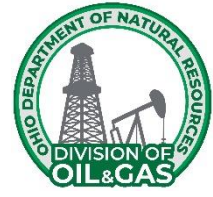
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Raynor Rd to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Dudley #2
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

Dudley #2 (34-121-2-3691-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the Dudley #2 was drilled to a total depth of 5,454 feet and originally produced from the Clinton sand. The well is equipped with 1,108 feet of 8.625-inch surface casing, 5,448 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

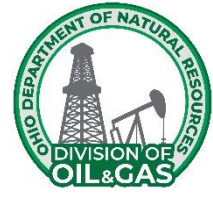
The Dudley #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,454 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**

- 8) The Contractor will set a 450-foot bottom hole cement plug from 5,454 feet to 5,004 feet to cover the Clinton and Medina sandstones. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,950 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot cement plug from 4,950 feet to 4,750 feet to isolate the parted 4.5-inch casing.
- 11) The Contractor will set a 200 foot cement plug from 3,924 feet to 3,724 feet to isolate the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a 200-foot cement plug from 1,750 to 1,550 feet to isolate the Ohio Shale formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 300-foot cement plug from 1,550 feet to 1,250 feet to cover the Berea sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 15) The Contractor will set a 250-foot cement plug from 1,250 feet to 1,000 feet to isolate the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 16) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Hedge, L #1
Noble County, Brookfield Township



WELL DESCRIPTION

This Well Description is for:

Hedge, L #1 (34-121-2-2003-00-00), Noble County, Brookfield Township.

Background: The Hedge, L #1 is located on parcel #0300213300000 owned by Ohio Franklin Realty, PO Box 16428, Columbus, OH 43216 and does not have an address or street frontage.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. A steel 210 Bbl tank and a mechanical separator were on site near the well. The well itself was located inside a 6-foot high chainlink fence.

Well records state the L. Hedge #1 was drilled in 1977 to a total depth of 5,565 and produced from the Clinton sand.

Formation data for the Hedge, L #1, (34-121-2-2003-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,672	1,712	Wet gas show
Ohio shale	1,712	3,924	
Big lime	3,924	5,186	Little Oriskany gas
Clinton red	5,429	5,444	Gas show
Clinton white	5,444	5,480	Free gas
Medina	5546	5,565	Wet gas show
Total Depth		5,565	

Casing data for the Hedge, L #1, (34-121-2-2003-00-00) shows the following:

- 8.625-inch surface casing set to 724 feet
- 4.5-inch production casing set at 5,557 feet with 100 sacks

For the purposes of this scope of work, it is assumed that the Hedge, L #1 was drilled to a total depth of 5,565 feet and produced from the Clinton sand. The well is equipped with 724 feet of 8.625-inch surface casing, 5,557 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Hedge, L #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management this well is located within an active surface coal mine area, Permit ID A-0007.

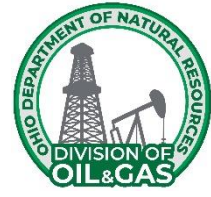
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize County Rd 11, Brooktown Heights to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Hedge, L #1
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

Hedge, L #1 (34-121-2-2003-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the Hedge, L #1 was drilled to a total depth of 5,565 feet and produced from the Clinton sand. The well is equipped with 724 feet of 8.625-inch surface casing, 5,557 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

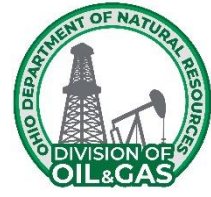
The Hedge, L #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,557 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**

- 8) The Contractor will set a two-stage 600-foot bottom hole cement plug from 5,557 feet to 4,957 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,300 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot cement to isolate the parted 4.5-inch casing.
- 11) The Contractor will set a 200-foot cement plug from 4,100 to 3,900 feet to cover the top of the Big Lime. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a 200 foot cement plug from 2,000 to 1,800 feet to isolate the top of the Ohio Shale. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 250-foot cement plug from 1,800 feet to 1,550 feet to cover the Berea sandstone.
- 15) The Contractor will set a 250-foot cement plug from 875 feet to 625 feet to cover the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of 8 hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 16) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Miller #1
Noble County, Brookfield Township



WELL DESCRIPTION

This Well Description is for:

Miller #1 (34-121-2-1969-00-00), Noble County, Brookfield Township.

Background: The Miller #1 is located on parcel #0300213340000 owned by the State of Ohio, Department of Natural Resources and does not have an address or street frontage.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. The tank battery is a 210 Bbl steel tank and a mechanical separator. A noticeable H₂S odor was indicated by the inspector as well as highly degraded tubing, production casing, and fittings.

Well records for the Miller #1 state the well was drilled in 1980 to a total depth of 5,455 feet and produced from the Clinton sands.

Formation data for the Miller #1 (34-121-2-1969-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,592	1628	Small show gas
Big Lime	3,862	5,128	
Packer shell	5,314	5,331	
Clinton	5,380	5,438	Free gas
Total Depth		5,455	

Casing data for the Miller #1 (34-121-2-1969-00-00) shows the following:

- 8.625-inch surface casing set to 663 feet with 230 sacks
- 4.5-inch production casing set at 5,455 feet with 150 sacks
- 1.19-inch tubing set to 5,370 feet

For the purposes of this scope of work, it is assumed that the Miller #1 was drilled to a total depth of 5,455 feet and produced from the Clinton sand. The well is equipped with 663 feet of 8.625-inch surface casing, 5,455 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Miller #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is located within a released historic surface mine and within 300 feet of an active surface mine listed as Permit ID: A-0264, owned and operated by Central Ohio Coal Co.

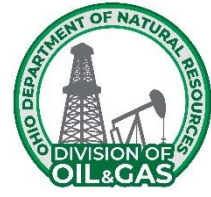
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize County Rte. 11 Brockton Heights to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Miller #1
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

Miller #1 (34-121-2-1969-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the Miller #1 was drilled to a total depth of 5,455 feet and originally produced from the Clinton sand. The well is equipped with 663 feet of 8.625-inch surface casing, 5,455 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Miller #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor will load the annular space between the 4.5-inch production casing and 8.63-inch surface casing with saltwater mixed with an **approved H₂S scavenger to temporarily mitigate the production of H₂S gas from the well. Due to heavily corroded fittings, it may be necessary to hot tap the surface casing to gain access to annular space.**
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of saltwater on location for use as well control fluid.
- 6) The Contractor shall load the 1.9-inch diameter tubing with saltwater, shoot the tubing off at a point directly above the mud anchor assembly at an approximate depth of 5,400 feet to allow for cement to be pumped through the tubing.
- 7) The Contractor will set a 500-foot bottom hole cement plug from 5,400 feet to 4,900 feet to cover the Clinton sandstone. This cement plug shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **Due to the potential presence of H₂S gas, circulation will not be established prior to the setting of this cement plug.** The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it

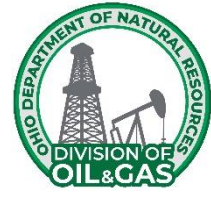
is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.

- 8) The Contractor will remove the existing 1.9-inch diameter tubing from the wellbore and stage in on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the amount of tubing removed from the wellbore.
- 9) The Contractor will perforate the 4.5-inch diameter casing at intervals above and below the Newburg/Lockport Dolomite at approximate depths of 4,828 feet and 5,128 feet. The Contractor shall perforate 200-feet below the top of the Big Lime and at the top of the Big Lime at approximate depths of 4,062 feet and 3,862 feet.
- 10) The Contractor will set a 300-foot cement plug across the lower perforated intervals to cover the Newburg/Lockport Dolomite. This plug will be set through a working string of 1.5-inch diameter tubing. **Due to the potential presence of H2S gas, circulation will not be established prior to the setting of this cement plug.**
- 11) The Contractor will set a 200-foot cement plug across the upper perforated intervals to cover the top of the Big Lime. This plug will be set through a working string of 1.5-inch diameter tubing. **Due to the potential presence of H2S gas, circulation will not be established prior to the setting of this cement plug.** The Contractor will wait on the cement for a minimum of eight (8) hours, after which the Contractor will run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 3,700 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 13) All remaining cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**
- 14) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 15) The Contractor will set a 200-foot cement plug to isolate the ripped 4.5-inch casing.
- 16) The Contractor will set a 200-foot cement plug from 2,000 to 1,800 feet to isolate the top of the Ohio Shale. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 17) The Contractor will set a 250-foot cement plug from 1,678 feet to 1,478 feet to cover the Berea sandstone.

- 18) The Contractor will set a 250-foot bottom of the surface casing cement plug from 813 feet to 563 feet. The Contractor will wait on cement a minimum of 8 hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 19) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 20) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Miller #2
Noble County, Brookfield Township



WELL DESCRIPTION

This Well Description is for:

Miller #2 (34-121-2-1966-00-00), Noble County, Brookfield Township.

Background: The Miller #2 is located on parcel #0300213340000 owned by the State of Ohio, Department of Natural Resources and does not have an address or street frontage.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system.

Well records state the well was drilled in 1977 to a total depth of 5,558 feet and produced from the Clinton sand.

Formation data for the Miller #2 (34-121-2-1966-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,631	1,670	wet
Ohio Shale	1,670	3,908	
Big Lime	3,908	5,177	
Packer shell	5,360	5,378	
Clinton, red	5,426	5,438	Free gas
Clinton, white	5,446	5,488	Little show gas
Medina	5,542	5,558	
Total Depth		5,558	

Casing data for the Miller #2 (34-121-2-1966-00-00) shows the following:

- 8.625-inch surface casing set to 720 feet with 250 sacks
- 4.5-inch production casing set at 5,557 feet with 100 sacks
- 1.5-inch tubing set at 5,405 feet

For the purposes of this scope of work, it is assumed that the Miller #2 was drilled to a total depth of 5,558 feet and produced from the Clinton sand. The well is equipped with 720 feet of 8.625-inch surface casing, 5,557 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Miller #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is located within a released historic surface mine and within 500 feet of an active surface mine listed as Permit ID: A-0264, owned and operated by Central Ohio Coal Co.

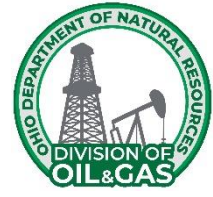
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize County Rte. 11 Brockton Heights to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Miller #2
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

Miller #2 (34-121-2-1966-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the Miller #2 was drilled to a total depth of 5,558 feet and originally produced from the Clinton sand. The well is equipped with 720 feet of 8.625-inch surface casing, 5,557 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

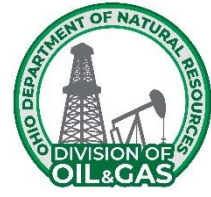
The Miller #2 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,557 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**

- 8) The Contractor will set a 600-foot bottom hole cement plug from 5,557 feet to 4,957 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,600 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot rip plug directly above the point where the 4.5-inch casing was severed to isolate the casing and cover any shallow production zones.
- 11) The Contractor will set a 200 foot cement plug from 200 feet from 4,100 to 3,900 feet to isolate the top of the Big Lime. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a 200-foot cement plug from 2,000 to 1,800 feet to isolate the top of the Ohio Shale. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 300-foot cement plug from 1,800 feet to 1,500 feet to cover the Berea sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 15) The Contractor will set a 250-foot cement plug from 870 feet to 620 feet to cover the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of 8 hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 16) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Miznik, George & Helen #1
Noble County, Noble Township



WELL DESCRIPTION

This Well Description is for:

Miznik, George & Helen #1, (34-121-2-1530-00-00), Noble County, Noble Township.

Background: The Miznik, George & Helen #1 is located on a 39-acre parcel (#030021566000) owned by James P. Miznik. The address is 47223 Deere Run Rd, Caldwell, Oh 43724.

Division inspection found the well equipped with 8.625-inch surface casing and a 4.5-inch production casing with a 4x2 swadge and a closed valve.

Well records state the Miznik #1 was drilled in 1972 to a total depth of 5,557 feet and produced from the Clinton sand.

Formation data for the Miznik, George & Helen #1, (34-121-2-1530-00-00), shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1594	1630	
Big lime	3882	5148	
Clinton	5398	5448	Gas
Medina	5515	5530	
Total Depth		5,557	

Casing data for the Miznik, George & Helen #1, (34-121-2-1530-00-00) shows the following:

- 8.625-inch surface casing set to 565 feet with 200 sacks
- 4.5-inch production casing set at 5,550 feet with 125 sacks
- 1.5-inch tubing set at 5,315 feet

For the purposes of this scope of work, it is assumed that the Miznik, George & Helen #1 was drilled to a total depth of 5,557 feet and originally produced from the Clinton sand. The well is equipped with 565 feet of 8.625-inch surface casing and 5,550 feet of 4.5-inch production casing.

The Miznik, George & Helen #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management there are no active mines in in this location, but the well is within 400 feet of an active surface mine, permit ID; A-0264.

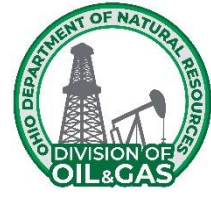
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize Deere run Rd to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Miznik, George & Helen #1
Noble County, Noble Township



PLUGGING PLAN

This Plugging Plan is for:

Miznik, George & Helen #1, (34-121-2-1530-00-00), Noble County, Noble Township.

For the purposes of this scope of work, it is assumed that the Miznik, George & Helen #1 was drilled to a total depth of 5,557 feet and originally produced from the Clinton sand. The well is equipped with 565 feet of 8.625-inch surface casing and 5,550 feet of 4.5-inch production casing.

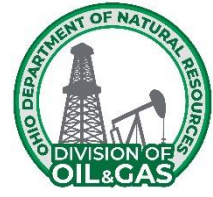
The Miznik, George & Helen #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 5) The Contractor will clean out the material in the well bore to its total depth (TD) 5,550 or a depth approved by the Division.
- 6) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**
- 7) The Contractor will set a 600-foot bottom hole cement plug from 5,550 feet to 4,950 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.

- 8) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,500 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 9) The contractor will set a 200-foot rip plug directly above the point where the 4.5-inch casing was severed to isolate the casing and cover any shallow production zones.
- 10) The Contractor will set a 300-foot cement plug from 4,100 to 3,800 feet to isolate the top of the Big Lime. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 11) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 12) The Contractor will set a 200-foot cement plug from 2,000 to 1,800 feet to isolate the top of the Ohio Shale. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 13) The Contractor will set a 300-foot cement plug from 1,800 feet to 1,500 feet to cover the Berea sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 250-foot cement plug from 715 feet to 465 feet to isolate the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of 8 hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 15) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 16) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Davis, Lee #1
Noble County, Olive Township



WELL DESCRIPTION

This Well Description is for:

Davis, Lee #1 (34-121-2-0293-00-00), Noble County, Olive Township.

Background: The Davis, Lee #1 is located on a 35.48-acre parcel #280021241000 owned by Oran & Brenda Way, the address is 18466 Frostyville Rd, Caldwell, OH 43740.

Division inspection found the well equipped with open 5.38-inch casing near Salt run. Oil and brine appear to wash out of the casing each time the creek level rises. No conductor or wellhead were present.

Well records for the Davis Lee #1 state that it was drilled in 1941 to a total depth of 264 feet and produced from the Macksburg sand.

Formation data for the Davis, Lee #1 (34-121-2-0293-00-00), shows the following:

Formation	Top	Bottom	Remarks
Gravel & Shale		18	
Cambridge Lime	36	46	Water at 42
140' shale	50	78	
Dark shale	78	89	
Fire clay	90	113	
Brown shale	113	121	
Green shale	121	155	
Black shale	155	197	
White shale	197	240	Show oil-Top of Mahoning
White sand	240	264	
Total Depth		264	

Casing data for the Davis, Lee #1 (34-121-2-0293-00-00), shows the following:

- 6.25-inch surface casing at 90 feet
- 4.88-inch production casing set at 182 feet

For the purposes of this scope of work, it is assumed that the Davis, Lee #1 was drilled to a total depth of 264 feet and originally produced from the Macksburg sand. The well is equipped with 182 feet of 5.38-inch production casing.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

The Davis, Lee #1 is withing 800 feet of water well #211885, which draws from a sand aquifer at 41 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

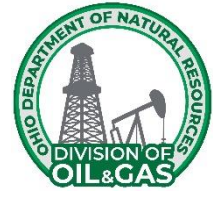
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Frostyville Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Morris, J&E #2
Noble County, Olive Township



WELL DESCRIPTION

This Well Description is for:

Morris, J&E #2 (34-121-2-0548-00-00), Noble County, Olive Township.

Background: The Morris, J&E #2 is located on a 35.48-acre parcel #280021241000 owned by Oran & Brenda Way, the address is 18466 Frostyville Rd, Caldwell, OH 43740.

Division inspection found the well equipped with open 5-inch casing near Salt run. The casing had been cut off 2-inches below grade with the casing head buried near the well, the casing had been packed with dirt and did not appear to be leaking.

Well records state that the J & E Morris #2 was drilled in 1947 to a total depth of 248 feet and produced from the Macksburg sand.

Formation data for the Morris, J&E #2 (34-121-2-0548-00-00) shows the following:

Formation	Top	Bottom	Remarks
Clay & Shale		35	
Cambridge Lime	34	40	
140' shale	45	65	*Fresh water 52'
Buell Run	65	81	
Fire clay	81	110	
Dark shale	150	195	
Light sandy shale	195	217	
300' or Dunkard sand	217	230	*Show oil
Sand	237	248	*1 barrel of oil
Total Depth		248	

Casing data for the Morris, J&E #2 (34-121-2-0548-00-00) shows the following:

- 6.25-inch surface casing at 60 feet
- 4.875-inch production casing set at 169 feet

For the purposes of this scope of work, it is assumed that the Morris, J&E #2 was drilled to a total depth of 248 feet and originally produced from the Macksburg sand. The well is equipped with 169 feet of 4.875-inch production casing.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

The Morris, J&E #2 is within 1,000 feet of water well #211885, which draws from a sand aquifer at 41 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

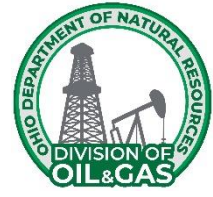
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Frostyville Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Multiple Orphan Well Sites
Noble County, Olive Township



PLUGGING PLAN

This Plugging Plan is for:

Davis, Lee #1 (34-121-2-0293-00-00), Noble County, Olive Township.

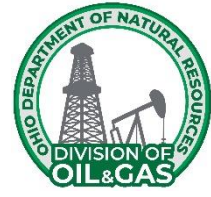
Morris, J&E #2 (34-121-2-0548-00-00), Noble County, Olive Township.

For the purposes of this scope of work, it is assumed that the above wells on the Way property were drilled to total depths ranging from 248 to 264 feet and were originally produced from the Mahoning sand. The wells are equipped with 4.88-inch production casing set between 169 and 182 feet.

- 1) The Contractor will safely relieve any pressure that may be built up on these wells prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down each well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellheads to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casings are found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the wells. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 75 barrels of freshwater on location for use as well control fluid.
- 5) The Contractor will clean out the material in each well bore to its total depth (TD) or a depth approved by the Division.
- 6) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug
- 7) The Contractor will set cement plugs from total depth to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 8) No sooner than three (3) business days after placing the uppermost plugs, the Division will inspect each well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Ohio Power-Fred Zinn #1
Noble County, Brookfield Township



WELL DESCRIPTION

This Well Description is for:

Ohio Power-Fred Zinn #1, (34-121-2-1583-00-00), Noble County, Brookfield Township.

Background: The Ohio Power-Fred Zinn #1 is located on a 71.39-acre parcel (#030021215000) owned by American Electric Power Ohio Transmission Inc, the parcel is located along the Renrock Rd (Co Rd 83) in Caldwell, OH 43724.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. Two steel 100 Bbl tanks, a steel 50 Bbl tanks, and a mechanical separator were on site near the well. The well itself was located inside a 6-foot high chainlink fence.

Well records for the Ohio Power-Fred Zinn #1 state the well was drilled in 1973 to a total depth of 5,350 feet and produced from the Clinton sand.

Formation data for the Ohio Power-Fred Zinn #1, (34-121-2-1583-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,688	1,731	Water
Ohio shale	1,731	3,712	
Big lime	3,712	4,924	
Clinton sand	5,150	5,202	
Medina sand	5,271	5,278	
Total Depth		5,350	

Casing data for the Ohio Power-Fred Zinn #1, (34-121-2-1583-00-00) shows the following:

- 8.625-inch surface casing set to 526 feet with 200 sacks
- 4.5-inch production casing set at 5,343 feet with 100 sacks

For the purposes of this scope of work, it is assumed that the Ohio Power-Fred Zinn #1 was drilled to a total depth of 5,350 feet and originally produced from the Clinton sand. The well is equipped with 526 feet of 8.625-inch surface casing, 5,343 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The Ohio Power-Fred Zinn #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management this well is located on restored strip mine ground but there are no active mines located in the area of review.

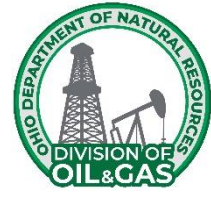
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize Renrock Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Ohio Power-Fred Zinn #1
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

Ohio Power-Fred Zinn #1, (34-121-2-1583-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the Ohio Power-Fred Zinn #1 was drilled to a total depth of 5,350 feet and originally produced from the Clinton sand. The well is equipped with 526 feet of 8.625-inch surface casing, 5,343 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

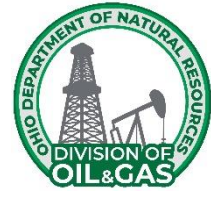
The Ohio Power-Fred Zinn #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,343 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**

- 8) The Contractor will set a two-stage 600-foot bottom hole cement plug from 5,343 feet to 4,743 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,200 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot cement plug to isolate the top of the parted 4.5-inch casing.
- 11) The Contractor will set a 200-foot cement plug from 3,912 to 3,712 feet to isolate the top of the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a 200-foot cement plug from 2,000 to 1,800 feet to isolate the top of the Ohio Shale formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 300-foot cement plug from 1,800 feet to 1,500 feet to cover the Berea sandstone.
- 15) The Contractor will set a 250-foot cement plug from 676 feet to 426 feet to cover the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 16) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
King Unit (Ohio Power-Franklin) #1
Noble County, Brookfield Township



WELL DESCRIPTION

This Well Description is for:

King Unit (Ohio Power-Franklin) #1, (34-121-2-3889-00-00), Noble County, Brookfield Township.

Background: The King Unit (Ohio Power-Franklin) #1 is located on a 163.01-acre parcel (#030021037000) owned by Joseph and Melissa Day. The property has no address or street frontage.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 1.9-inch tubing, and a plunger lift system. A steel 100 Bbl tank is on sitemear the well.

Well records for the King Unit (Ohio Power Franklin) #1 state the well was drilled in 1994 to a total depth of 5,605 feet and produced from the Clinton sand.

Formation data for the King Unit (Ohio Power-Franklin) #1, (34-121-2-3889-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,762	1,810	
Ohio shale	1,810	3,908	
Big lime	3,908	5,160	
Clinton stray	5,380	5,400	
Clinton white	5,412	5,460	
Medina	5,520	5,542	
Total Depth		5,605	

Casing data for the King Unit (Ohio Power-Franklin) #1, (34-121-2-3889-00-00) shows the following:

- 8.625-inch surface casing set to 1,478 feet with 325 sacks
- 4.5-inch production casing set at 5,556 feet with 175 sacks
- 1.5-inch tubing set at 5,380 feet

For the purposes of this scope of work, it is assumed that the King Unit (Ohio Power-Franklin) #1 was drilled to a total depth of 5,605 feet and originally produced from the Clinton sand. The well is equipped with 1478 feet of 8.625-inch surface casing, 5,556 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

The King Unit (Ohio Power-Franklin) #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management there are no active mines in in this location.

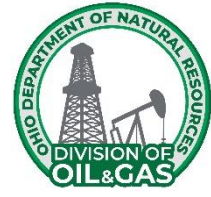
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize McConnellsville Rd, St Rt 78 to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
King Unit (Ohio Power-Franklin) #1
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

King Unit (Ohio Power-Franklin) #1, (34-121-2-3889-00-00), Noble County, Brookfield Township.

For the purposes of this scope of work, it is assumed that the King Unit (Ohio Power-Franklin) #1 was drilled to a total depth of 5,605 feet and originally produced from the Clinton sand. The well is equipped with 1478 feet of 8.625-inch surface casing, 5,556 feet of 4.5-inch production casing, and 1.9-inch tubing equipped with a plunger lift.

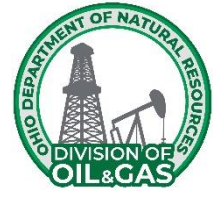
The King Unit (Ohio Power-Franklin) #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 1.9-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,556 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**

- 8) The Contractor will set a two stage 600-foot bottom hole cement plug from 5,556 feet to 4,956 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,200 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot cement plug to isolate the parted 4.5-inch casing.
- 11) The Contractor will set a 200-foot cement plug from 4,100 to 3,900 feet to isolate the top of the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a 200-foot cement plug from 2,100 to 1,900 feet to isolate the top of the Ohio Shale. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 250-foot cement plug from 1,900 feet to 1,650 feet to cover the Berea sandstone.
- 15) The Contractor will set a 250-foot cement plug from 1,650 feet to 1,400 feet to cover the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of 8 hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 16) The Contractor will set a cement plug from 200 feet to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Teters #1
Noble County, Brookfield Township



WELL DESCRIPTION

This Well Description is for:

Teters #1, 34-121-2-1377-00-00, Noble County, Brookfield Township.

Background: The Teters #1 is located on a 90.27-acre parcel (#030021001000) owned by James & Christa Domer, the address is 45372 Collins Rd, Caldwell, OH 43724.

Division inspection found the well equipped with 8.625-inch surface casing, 4.5-inch production casing, 2.875-inch tubing, and a plunger lift system. A 100 Bbl steel tank and a mechanical separator were on site near the well.

Well records for the Teters #1 state the well was drilled in 1970 to a total depth of 5,660 feet and produced from the Clinton sand.

Formation data for the Teters #1, (34-121-2-1377-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,770	1,792	
Big Lime	3,914	5,230	
Oriskany	4,200	4,243	*wet
Clinton	5,380	5,472	
Total Depth		5,660	

Casing data for the Teters #1, (34-121-2-1377-00-00) shows the following:

- 8.625-inch surface casing set to 685 feet with 240 sacks
- 4.5-inch production casing set at 5,620 feet with 120 sacks

For the purposes of this scope of work, it is assumed that the Teters #1 was drilled to a total depth of 5,660 feet and originally produced from the Clinton sand. The well is equipped with 585 feet of 8.625-inch surface casing, 5,593 feet of 4.5-inch production casing, and 2.875-inch tubing equipped with a plunger lift.

The Teters #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management, there are no mines located in the area of review.

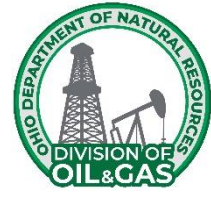
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize Collins Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #1 PROJECT
Teters #1
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

Teters #1, 34-121-2-1377-00-00, Noble County, Brookfield Township

For the purposes of this scope of work, it is assumed that the Teters #1 was drilled to a total depth of 5,660 feet and originally produced from the Clinton sand. The well is equipped with 585 feet of 8.625-inch surface casing, 5,593 feet of 4.5-inch production casing, and 2.875-inch tubing equipped with a plunger lift.

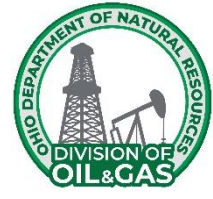
The Teters #1 is in an H₂S township; therefore, the Contractor will follow the H₂S protocol as defined in the Detailed Specifications.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall remove the 2.38-inch OD tubing and plunger lift assembly from the well and stage them on a bermed liner for further evaluation. The Contractor will provide the Division with an accurate tally of the tubing removed from the well.
- 5) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 200 barrels of freshwater on location for use as well control fluid.
- 6) The Contractor will clean out the material in the well bore to its total depth (TD) 5,660 or a depth approved by the Division.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**

- 8) The Contractor will set a 500-foot bottom hole cement plug from 5,593 feet to 5,093 feet to cover the Clinton sandstone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 4,400 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 10) The contractor will set a 200-foot cement plug to isolate the parted 4.5-inch casing.
- 11) The Contractor will set a 200 foot cement plug from 4,200 to 3,900 feet to cover the top of the Big Lime formation. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 12) The well shall be in static condition before placing cement across or above known lost circulation zones. Lost Circulation Material (LCM) may be used to aid in obtaining circulation. **LCM shall NOT be used when the tubing is smaller than 1.5-inches inside diameter.** Use of LCM shall be per the line item "Lost Circulation Material" specification included in the contingency specifications and shall be available at the site during the completion of the line item.
- 13) The Contractor will set a 200-foot cement from 2,000 to 1,800 feet to cover the top of the Ohio Shale. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 14) The Contractor will set a 200-foot cement plug from 1,800 feet to 1,600 feet to cover the Berea sandstone.
- 15) The Contractor will set a 250-foot cement plug from 835 feet to 585 feet to cover the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 16) The Contractor will set a cement plug from 200 feet to within forty-eight (48) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 17) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Teters #2
Noble County, Brookfield Township



WELL DESCRIPTION

This Well Description is for:

Teters #2, 34-121-2-3710-00-00, Noble County, Brookfield Township.

Background: The Teters #2 is located on a 90.27-acre parcel (#030021001000) owned by James & Christa Domer, the address is 45372 Collins Rd, Caldwell, OH 43724.

Division inspection found the well equipped with 8.625-inch surface casing below grade, 4.5-inch production casing, and a 4x2 swage with a closed 2-inch ball valve.

Well records state well was originally drilled in 1991 to a total depth of 5,628 feet and produced from the Clinton sand but was plugged back in 2005 to a depth of 3,314 feet. Plugging records state the well was recompleted in the 5th Sand/Gordon in 2005 but appears to never have been brought fully into production.

Well re

Formation data for the Teters #2, (34-121-2-3710-00-00) shows the following:

Formation	Top	Bottom	Remarks
Berea sand	1,744	1,773	Fluid at 1,300
Ohio shale	1,773	3,894	
Gantz	1,840	1,900	
Thirty Foot sand	1,960	2,010	
Gordon sand	2,100	2,150	
5 th sand	2,320	2,342	
Big Lime	3,894	5,142	
Packer Shell	5,330	5,350	
Stray Clinton	5,360	5,382	
White Clinton	5,388	5,450	
Medina	5,508	5,528	
Total Depth		5,628	

Casing data for the Teters #2, (34-121-2-3710-00-00) shows the following:

- 8.625-inch surface casing set to 1,355 feet with 265 sacks
- 4.5-inch production casing set at 5,616 feet with 150 sacks

Plug back data for the Teters #2, (34-121-2-3710-00-00) shows the following:

- 4.5-inch production casing set was ripped at 3,434 feet followed by a 100-foot cement plug from 3414 to 3314 feet.
- 4.5-inch production casing was reset at 2,450 feet with 170 sacks
- 2.38-inch tubing set at 2,280 feet.

For the purposes of this scope of work, it is assumed that the Teters #2 was plugged back to a depth of 3,414 feet and recompleted in the Ohio shale's 5th sand and Gordon sand. The well is equipped with 1,355 feet of 8.625-inch surface casing and 2,450 feet of 4.5-inch production casing with a swage and a closed 2-inch ball valve. A bond log ran during completion verified top of cement on the backside of the 4.5-inch production casing to be at 1,610 feet.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management, there are no mines located in the area of review.

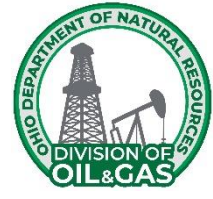
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize Collins Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Teters #2
Noble County, Brookfield Township



PLUGGING PLAN

This Plugging Plan is for:

Teters #2, 34-121-2-3710-00-00, Noble County, Brookfield Township

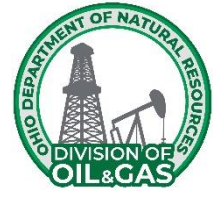
For the purposes of this scope of work, it is assumed that the Teters #2 was plugged back to a depth of 3,314 feet and recompleted in the Ohio shale's 5th sand and Gordon sand. The well is equipped with 1,355 feet of 8.625-inch surface casing and 2,450 feet of 4.5-inch production casing with a swage and a closed 2-inch ball valve. A bond log ran during completion verified top of cement on the backside of the 4.5-inch production casing to be at 1,610 feet.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 100 barrels of freshwater on location for use as well control fluid.
- 5) The Contractor will clean out the material in the well bore to its total depth (TD) 2,450 or a depth approved by the Division.
- 6) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **A minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formations.**
- 7) The Contractor will set a two-stage bottom hole cement plug from 2,450 feet to 1,700 feet to cover the perforations for the 5th Sand and Gordon Sand. The Contractor will wait on cement a minimum of four (4) hours between cement stages and a minimum of eight (8) hours after the second stage. The Contractor will then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.

- 8) The Contractor will then sever the 4.5-inch diameter casing at the lowest free point, estimated to be at a depth of 1,500 feet and remove it from the wellbore. All casing removed from the well will be staged on a bermed liner for further evaluation. The Contractor will provide accurate measurements for casing retrieved from the wellbore.
- 9) The Contractor will set a 250-foot cement plug from 1,500 feet to 1,250 feet to isolate the parted 4.5-inch production casing and the bottom of the 8.63-inch surface casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 10) The Contractor will set a cement plug from 200 feet to within forty-eight (48) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 11) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 48 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
NOBLE #16F PROJECT
Way #3
Noble County, Olive Township



WELL DESCRIPTION

This Well Description is for:

Way #3 (34-121-6-6788-00-00), Noble County, Olive Township.

Background: The Way #3 is located on a 35.48-acre parcel #280021241000 owned by Oran & Brenda Way, the address is 18466 Frostyville Rd, Caldwell, OH 43740.

Division inspection found the well equipped with open 7-inch casing near Salt run. The casing was too damaged to accurately measure and was packed with dirt and debris. A small amount of oil and brine appear to leak from the well when the creek rises.

There are no records available for the Way #3; however, the Morris, J&E #2 (34-121-2-0548), located approximately 340 feet to the southwest, was drilled in 1947 to a depth of 248 feet and produced out of an unnamed sand formation.

Formation data for the Morris, J&E #2 (34-121-2-0548), shows the following:

Formation	Top	Bottom	Remarks
Clay & Shale		35	
Cambridge Lime	34	40	
140' shale	45	65	Fresh water 52'
Buell Run	65	81	
Fire clay	81	110	
Dark shale	150	195	
Light sandy shale	195	217	
300' or Dunkard sand	217	230	Show oil
Sand	237	248	Oil
Total Depth		248	*Water sand

Casing data for the Morris, J&E #2 (34-121-2-0548-00-00) shows the following:

- 6.5-inch surface casing at 60 feet
- 4.875-inch production casing set at 169 feet

For the purposes of this scope of work, it is assumed that the Way #3 was drilled to a total depth of 250 feet and originally produced from the Buell Run sand. The well is equipped with approximately 175 feet of 7-inch production casing.

The deepest underground source of drinking water (USDW) is not mapped in this area. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Noble County, the bedrock consists of layers of thin sandstone, limestone, and sandy shales. Water wells yield less than 3 gpm on average. Nearby water wells are between 30 and 250 feet deep, the average well depth is 95 feet.

According to the Division of Mineral Resources Management the well is not located near an active mine site.

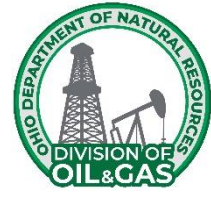
Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading of disturbed areas as described.

Designated Route: The contractor shall utilize natural Frostyville Road to access the site during all phases of the plugging operations.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



SCOPE OF WORK
NOBLE #16F PROJECT
Way #3
Noble County, Olive Township



PLUGGING PLAN

This Plugging Plan is for:

Way #3 (34-121-6-6788-00-00), Noble County, Olive Township.

For the purposes of this scope of work, it is assumed that the Way #3 was drilled to a total depth of 250 feet and originally produced from the Buell Run sand. The well is equipped with approximately 175 feet of 7-inch production casing.

- 1) The Contractor will safely relieve any pressure that may be built up on these wells prior to commencing plugging operations. The Contractor will give the property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down each well.
- 2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellheads to capture any fluids generated during the plugging process.
- 3) The Contractor shall visually examine the existing casings, to evaluate their condition immediately below grade. If the casings are found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriately sized casing string to insure there is control of any gas and/or fluids generated from the wells. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain a minimum of 75 barrels of freshwater on location for use as well control fluid.
- 5) The Contractor will clean out the material in the well bore to its total depth (TD) of 250 feet or a depth approved by the Division.
- 6) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement with 2% Calcium Chloride, mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug
- 7) The Contractor will set a 250 foot cement from total depth to within thirty (30) inches of ground level, wait on cement a minimum of eight (8) hours and top of with additional cement if necessary. Any open annular voids present at the surface shall be filled with cement.
- 8) No sooner than three (3) business days after placing the uppermost plugs, the Division will inspect each well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of 30 inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.

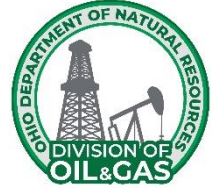


SCOPE OF WORK

Noble 16F PROJECT

Multiple Orphan Well Sites

Noble County, Olive, Brookfield, Enoch, Noble Townships



DETAILED SPECIFICATIONS

The Contractor is reminded to review the Scope of Work documents carefully. Coordination, permission, or direction of the Division may be required for use of individual Detailed Specification line items. The Division shall only pay for quantities of items that are correctly installed and completed in accordance with the Detailed Specifications and Drawing Plan Set. The Division shall not guarantee payment of any work completed without or prior to following the conditions described herein of each line item.

MOBILIZATION

- A. **Description:** This work shall consist of the development of access and the mobilization of the Contractor's forces and equipment necessary for performing the required work under the Scope of Work for the well site.

This item shall include the transportation of personnel, equipment, and supplies to and from each site as well as the maintenance of all onsite access roads.

As part as part of this line item, the contractor shall also include any maintenance of traffic required within the road right-of-way per Part 7 of the General Specifications.

Also, the Contractor shall be responsible for cleaning mud and dirt associated with construction from all roadway surfaces (public and private) as per Part 7.1 of the General Specification for the duration of the Project and as directed by the Division.

- B. **Execution:** No additional compensation shall be made to the Contractor for remobilization after his equipment has been removed from the site. If applicable, this shall include remobilization of equipment if removed due to winterization of the project.

Any damage to the road, drives, and/or culverts caused by the mobilization shall be repaired by the Contractor at the Contractor's expense. All repairs shall be done equal to or better to that which existed prior to construction activities.

- C. **Measurement:** Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. **Mobilization of equipment between wells shall be considered incidental to this line item for wells using a common entrance.**

If any portion of the item is non-performed to the satisfaction of the Division (i.e., the mud and dirt are not cleaned from the roadway, the proper signage is not used as detailed) this is considered unsatisfactory and shall be cause for the rejection of payment of this item.

- D. **Payment:** The cost of this work shall be included in the lump sum price for "**Mobilization.**"

EARTHWORK

- A. Description: This work consists of all work required to excavate, transport, and redeposit material to the lines and grades in the areas indicated on the Drawing Plan Set. This line item shall include, but not be limited to, the excavation for development of access, work areas channels, drainage ditches, culverts, test pits, blending excess materials, general grading for sediment controls and final grading.

- B. Definitions:

General Soils: Considered to be an unclassified soils unit. It is anticipated that the majority of the material to be removed will consist of a mixture of loose, unconsolidated soil, vegetative debris, and rock. Also, large seams of shale and/or boulders not designated for rock excavation may exist within the proposed excavation areas.

Rock: Rock shall be defined as material that cannot be removed by normal excavation methods and must be removed by means such as blasting, ripping, hoe ram or other methods used in the construction industry that are generally accepted practices.

- C. Execution:

1. General:

Perform the required clearing and grubbing before starting the earthwork operations. Coordinate the amount of and limit the areas of the project that are cleared and grubbed with the quantity of erosion controls that are placed according to the Drawing Plan set and/or as advised by the Division.

Profiles, cross sections, and grading plans provided on the Drawing Plan Set are only approximate and are to be used as a guide during construction. Fixed elevations shall not be held to; however, the grades shall not be steeper than three to one (3:1) or **those shown on the Drawing Plan Set** or no less than one percent (1%) grade unless approved by the Division.

At the end of each day's work and throughout the earthwork operations, the work areas shall be graded to drain, and be compacted or re-compacted to a uniformed cross-section. All ruts and low spots that could potentially hold water shall be removed.

Positive drainage shall be provided (greater than one percent (1%) grade) for all areas during and after construction unless approved by the Division. No water shall be impounded during or after construction.

Areas not designated for sheet runoff shall be graded to drain into existing or proposed swale areas. This shall include the use of diversion swales and other measures to direct runoff into storm-water collection features. The Division must approve all additional drainage swales and ditches prior to revegetation.

Slope erosion shall be repaired up to the final acceptance of the project.

All areas that settle below final plan elevation or impound water before completion of the Project shall be filled in, regraded, and reseeded.

If earthwork operations encounter any abnormal material such as, but not limited to, drums, tanks, or stained earth or any unusual odors during operations, temporarily discontinue the work in this area, leave the equipment in place, cordon off the area, and notify the Division.

- a. Follow the requirements of the Ohio EPA when handling any contaminated material.
- b. Excavate the contaminated soils to a depth to be determined by the Division. Material hauled away under the item shall be paid separately and **is not to be included** in this item.

If damage occurs to the project site caused by improper excavation or embankment (fill) methods, the Division shall not pay for removing breakages beyond the limits of the planned finished work.

If the damage was caused by the lack of implementing erosion controls, the Division will not pay for reshaping shoulders, slopes and ditches damaged by erosion during construction.

With the approval of the Division either bury or break up existing boulders, not designated for rock excavation, lying within the reclamation area. A boulder shall be defined as any stone larger than 24-inches in diameter. The Contractor shall place the boulders in a stable manner so it will not move or cause future harm.

2. Excavation (Cut):

All “cut” areas shall be reclaimed to original contour upon completion of the project per line item “Approved Resoil”.

Utilize material removal techniques that are generally considered conducive to retaining stability.

This includes, but is not limited to, working slopes from the top to the bottom in a manner as to preclude undermining and maintain the work areas in a fashion that will not induce instability.

All excess cut material shall be stockpiled and “tracked in” in the locations shown on the Drawing Plan Set. All cut shall be stockpiled on site and saved for use as designated by the Division

3. Approved Resoil:

Any encountered resoil shall be stockpiled on site and saved for use as designated by the Division.

Approved Resoil shall not be buried or used for general embankment.

4. Exploratory Excavation (Test Pits):

This shall consist of exploratory excavation to determine subsurface features and materials. The location, type, and size of the excavation shall be as directed by the Division.

Excess material, which is unsuitable for backfill, shall be disposed of on site as directed by the Division.

5. Embankment (Fill):

General Embankment (Fill) material shall be placed in uniform lifts not exceeding eighteen (18) inches in thickness and tracked-in using on-site excavation equipment not less than four

(4) passes per lift.

The Division shall be notified a minimum of three (3) business days prior to commencement of embankment construction. The Contractor shall receive approval of the prepared sub grade prior to placing any embankment or fill.

All areas of embankment shall be keyed into the existing ground. Placement of embankment shall only be made on scarified, moist surfaces. No embankment shall be placed on frozen soil, unstable soil, or soil where water is ponded.

No areas of the embankment shall be more than three (3) feet higher or lower than any other adjacent embankment areas during placement.

Rocks larger than six (6) inch diameter shall not be concentrated in any areas of the fill.

If precipitation saturates the embankment construction area, the Contractor shall stay off the embankment construction area until the embankment dries or stabilizes. Embankment construction may be expedited by removing the saturated embankment or drying the embankment by scarifying, plowing, disking, and re-compacting the embankment.

No side dumping of material on slopes shall be permitted. Dumped material in piles or windrows shall be moved and spread into uniformed lifts as described in these specifications or as detailed on the Drawing Plan Set.

Successive loads of material shall be dumped to the best distribution. The distribution throughout the areas of fill shall be such that the fill will be free from voids, pockets, and bridging of materials.

D. Measurement:

1. The approximate amount of earthwork has been listed on the drawings as a total cubic yardage of "cut". However, this figure shall only be used for estimating purposes. There shall be no final measurement.
2. The Division may use three-dimensional measurements where it is impractical to measure material by the cross-section method due to the erratic location of isolated deposits.

E. Payment: Payment for this work, which includes excavation and re-depositing material to the grades as indicated on the Drawing Plan Set, placement, construction of swales and ditches, construction of temporary erosion control measures, test pits, burial, disposal of boulders, segregation, stockpiling of resoil material and offsite disposal shall be made at the contract lump sum price for "**Earthwork**".

CLEARING & GRUBBING

- A. Description: This item covers the removal of the vegetation within the limits shown on the Drawing Plan Set to provide adequate space to maneuver equipment to complete the proposed work at each well.
- B. Execution: The Contractor shall only clear enough of the site within the limits shown on the

Drawing Plan Set to provide adequate space to maneuver equipment to complete the proposed work. The Division shall exercise control over clearing and shall designate all trees, plants, shrubs, abandoned material, trash, etc., to be removed or to remain. This work shall also include the preservation from injury or defacement of all trees designated to remain.

If the Contractor clears and/or grubs beyond the construction work limits, whether knowingly or accidentally, the Contractor shall replant and/or otherwise restore all areas outside of the limits to a condition equal to or better than what existed prior to beginning work. This shall be no at no additional expense to the Division.

All tree disturbance (trimming and/or removal) activities shall be coordinated with the Division as these trees may provide suitable roosting, foraging, or traveling habitat for Threatened & Endangered species. To prevent adverse impacts to Threatened & Endangered species, clearing of trees with a DBH (Diameter at Breast Height) greater than 3 inches, **shall not take place between April 1st and September 30th.**

All removed vegetation shall be placed in a stable manner. **Brush and debris shall be stacked to the down slope side of the work, outside of the work limits.** The Division shall make the final determination as to the stability and location of the constructed piles. The log pile(s) shall not exceed four (4) feet in height or eight (8) feet in width, and thirty (30) feet in length. The Contractor shall be responsible for the repair/reconstruction of the piles, at the discretion of the Division, up to the final acceptance of the project.

As directed by the Division, Stumps shall be cut off flush with the existing ground surface prior to placement of material or grubbed, and holes graded to assure positive drainage. Approved resoil shall be used if the area can't be properly graded.

All logs and stumps not suitable for stacking shall be hauled off site. Proper disposal is the Contractor's responsibility. If necessary, logs/vegetation shall be hauled to an authorized OEPA landfill.

Burning of debris materials shall not be permitted on-site.

- C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. This measurement shall be for the entire project as one unit.
- D. Payment: Payment shall be made at the contract lump sum price per "**Clearing & Grubbing.**"

SITE SAFETY

- A. Description: The work will include the installation and implementation of safety procedures for the plugging of the orphan well as described herein.
- B. Definitions & Installation: It is the Contractor's responsibility to properly maintain all of the latter mentioned throughout the duration of the project. Any damages shall be repaired or replaced at no additional cost to the Division. Site safety measures shall be removed prior to the demobilization of the Contractor's workforces.

Any release of materials into or onto the ground or surface waters outside of the primary

and/or secondary containment shall follow the Ohio One-Call System as described in Appendix I, “One Call”. The Ohio One-Call System shall be contacted at 1-844-OHCALL1 within 30-minutes of becoming aware of the occurrence.

1. Notification: Due to the close proximity of the wells to residences, buildings and the potential safety issues involved with the plugging procedure, the contractor or contractor’s representative will contact the residents two weeks prior to the commencement of plugging activities to notify them of the potential safety issues.
2. Hydrogen Sulfide (H₂S): The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H₂S emitted from the well. All personnel on location must have and wear H₂S monitor and/or 4-gas monitor. **Per 29 CFR 1910.1000, Air Contaminants, Table Z-2 the permissible exposure limits (PEL) ceiling standard for H₂S is 20 ppm.** The wells are located in a H₂S Township. If permissible exposure limits (PEL) are exceeded during plugging operations, the Contractor shall immediately cease operations and follow the H₂S measures as described in the Emergency Response Plan. The H₂S safety team shall be immediately called and remain on site until the geological zone of interest is covered with cement and no further H₂S issues are at surface. The H₂S safety team may be released at this point, but personal monitors and the rig monitor are still required. The H₂S safety team will be paid for on a per date rate per contingency line item **H₂S Safety Team**. The H₂S safety team shall be qualified employees of the Contractor or subcontractors.

Once detection of permissible exposure limits (PEL) are exceeded, the Contractor will not continue plugging operations until the safety team has developed and implemented a plan that is compliant with Occupational Safety and Health Administration (OSHA) regulations. The plan shall be approved by the Division prior to implementation.

A H₂S release of 20 ppm for 10 minutes or more in working areas OR a release resulting in injury or death of a person is a REPORTABLE INCIDENT. Call 1-844-OHCALL1 (1-844-642-2551) within 30 minutes after becoming aware of the occurrence.

3. Temporary Construction Fence & Posts: (The temporary construction fencing shall be composite, orange mesh with a minimum overall height of four (4) feet. Fence posts are to be steel five (5) feet t-posts. Fence materials shall meet the ODOT Construction and Materials Specifications (CMS) Item 710.11.

The posts shall be driven or set in holes to a minimum depth of one (1) foot and at intervals not to exceed ten (10) feet. The fence shall be stretched and securely fastened to each post using metal or plastic ties.

Fencing shall be placed around the entire work area. The Contractor shall work in conjunction with the Division for placement of the temporary fence. All fence shall be removed at the completion of the project.

4. Air Movers (Industrial Fans): The Contractor will also be required to have onsite industrial fans or air movers in the event natural gas is detected and found to be settling at ground level and not properly dissipating from the site.
5. FEMA 100-year Floodplain Requirements: These wells are located within the FEMA 100-year floodplain limits. In an event that the site begins to flood, the Contractor will be required to immediately shut in the well and remove all onsite equipment and chemicals that could potentially cause pollution and or contamination. **To avoid potential flood conditions if the**

weather has been rainy or timing is during the spring thaw work shall not take place. The contractor shall only work on the Morris J&E #2 or the Way #3 wells from July 1st to Oct. 31 excluding tree clearing. The contractor shall work in conjunction with the division prior to mobilizing equipment to the project site. Approval shall be based upon the time of year as well as projected weather conditions. If any freshwater mussels are encountered during construction, all work must immediately stop, and the Division of Wildlife (1-800-945-3543) and U.S. Army Corps of Engineers (419-898-3491) must be contacted within 24 hours.

6. Absorbent Boom: In addition to the requirements of Part 10 of the General Specifications, the Contractor shall supply and install an absorbent boom as shown on the Drawing Plan Set. The Contractor shall work in conjunction with the Division for the placement of the boom. The boom shall be in place for the entire duration of the Project and shall be flipped or replaced as needed in order to continually absorb any oil/hydrocarbon materials. Any pooled oil/hydrocarbon material shall be removed prior to removal of the boom.
7. Protective Barriers: During rig up and plugging operations, a physical barrier will be required between the operations and the occupied dwelling. The barrier must be of sufficient height, length and material to prevent any fluid spray from rig floor connection/disconnections and any spray from flowback operations from contacting the occupied dwelling.
8. Temporary Shut-In: The Contractor will shut-in the well each night after the plugging operations have ceased, unless otherwise instructed by the Division. The Contractor will continue this process until the plugging operations are complete and there are no further signs of a gas release.
9. Power/Utility Lines Safety: Utility lines cross over the access route which will require warning signs to insure awareness.
10. Emergency Response Plan: The Contractor will assemble an Emergency Response Plan (ERP) with all contact information, emergency preventative measures, and **contingency plans for Hydrogen Sulfide (H₂S) release** and for any well-related issues that may occur. ERPs shall be submitted to the Division via email to DOGRM.EMNOTIFY@dnr.ohio.gov for approval prior to beginning work.

The Contractor will be responsible for maintaining this ERP on site during the plugging operations. Ingress/Egress for evacuation and/or public safety will be discussed in the safety meeting to be held on location by the Contractor with local responders and Division personnel. These routes will be listed in the ERP. The Division will review with the Contractor prior to the start of plugging operations.

Well Name	Safety Measures Required
Heppner #1,	Notification,Absorbant Boom
Heisler Ca #1	Notification,Absorbant Boom,Protective Barrier
Danford Garfield #1	Notification, Absorbant Boom,Protective Barrier
E Hohman #1	FEMA 100-year Floodplain Requirements,Absorbent Booms
Way #1 & J&E Morris #2	FEMA 100-year Floodplain requirement, Absorbant Booms
George P. & Helen Mizik #1	Protective Barrier
All wells	Temporary Contruction Fence, Temporary Shut in.

- C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division.
- D. Payment: Payment for this work, including labor, installation, materials and removal shall be made at the lump sum price for **"Site Safety."**

ROAD MATS

- A. Description: This item shall consist of the transportation, delivery, installation, and removal of road mats as described. The placement of road mats within the limits of construction shall be at the discretion of the Division. This item shall be utilized to protect the existing utilities, driveways, roadway, curbs, sidewalks, and lawn space that will be traversed within the construction work limits.
- B. Material: Road matting shall be non-permeable, composite mats. Non-permeable, composite mats shall be a minimum of four (4) inches thick with a minimum surface dimension of seven (7) feet wide and thirteen (13) feet long. Non-permeable, composite mats and associated components (i.e. ramps, berms, and fittings) shall be installed per the manufacturer's recommendations.

All materials delivered to the site must be in a shape to be able to cover the area properly and still have the strength and integrity to complete the required work. The Division may reject any mats determined to be damaged beyond useful life or remove square footage as measured from each individual mat.

- C. Execution: Mats shall be kept clean throughout the project. If it is determined by the Division, the mats do not meet this requirement the Contractor shall have any sediment or mud removed immediately.
- D. Measurement: Measurement for payment for the road mats shall be made by actual field measurements of quantities satisfactorily installed at the site. Each road mat shall be measured for a square foot installed.

Road mats shall be utilized at all wells on this project, for the duration of the contract. Only one measurement and payment shall be made for "Road Mats" upon completion of the project. Measurement shall be based on the largest quantity used at a single well.

- E. Payment: The cost of this work shall be included in the unit price per square foot for **"Road Mats."**

TIMBER MATS

- A. Description: This item shall consist of the transportation, delivery, installation, and removal of road mats as described. The placement of road mats within the limits of construction shall be at the discretion of the Division and/or as shown on the Drawing Plan Set in order to enhance the subgrade conditions and/or for overtop utility crossings. This shall also include building an elevated platform as described in the plans.
- B. Material: Timber matting shall be composed of dense hardwood, shall be a minimum of six (6) inches thick, four (4) feet wide, and sixteen (16) feet long, and shall have a minimum of 1-1/4-inch

diameter lift bolts installed at each end and through the width of the mat. The size required will vary depending on the use, see details on the drawing plan sets for variations on these sizes. **The size required will vary depending on the use (airbridge), see details on the Drawing Plan Set for variations on these sizes.**

All materials delivered to the site must be in a shape to be able to cover the area properly and still have the strength and integrity to complete the required work. The Division may reject any mats determined to be damaged beyond useful life. The following grade descriptions for used mats shall be used by the Division to determine if the materials are acceptable.

1. **GRADE A** - Visually, Grade A mats look like new mats. The timbers are still square and in excellent condition and all the mat bolts are in place and fully intact. Mats must have all bolts and timbers fully intact. Mats are less than 9 months old. Very minimal wear, no chunks out of timbers missing.
 2. **GRADE B** - Essentially, Grade B mats are less pretty versions of Grade A mats. They have no structural faults; they just look a bit worn. Edges of timbers are still square, and timbers are also sound and free of rot. If one or two of the bolts are bent, they qualify as Grade B mats. These mats might also be stained, but the discoloration is not enough to affect the durability of the mat. Typically, 10-18 months of age/usage makes the mat fall into a B grade. **(All mats used to bridge over anything shall be Grade B or better and shall be as detailed on the Drawing Plan Set.)**
 3. **GRADE C** - Grade C mats are not quite up to the challenges that Grade A and B mats can handle, but they still have life left in them. Grade C Mats can have a missing or pulled rod on one end of the mat. The mat still has structural integrity inside 2' from each end though. Timbers may be broken within 2' of either end but no timbers are broken inside of the 2' of each end. No hanging timbers allowed in C grade mats. As you can imagine, these are not going to be the picture-perfect image of timber mats. They might be missing numerous bolts, incurred excessive repairs, or be slightly varied in shape. Grade C mats are less expensive, but they also have a shorter life expectancy. **Any mat meeting the Grade C rating shall be measured for square footage of acceptable usable area.**
- C. **Measurement:** Measurement for payment for the road mats shall be made by actual field measurements of quantities satisfactorily installed at the site. Each road mat shall be measured for a square foot installed.
- D. **Payment:** **The contractor should note timber mats used for the elevated platform require unique lengths and widths. Additional costs associated with these unique dimensions shall be incorporated into the unit price of this line item.** The cost of this work shall be included in the unit price per square foot for **"Timber Mats or Timber Mats (Air Bridge) or Timber Mats (Elevated Work Platform)."**

SECONDARY CONTAINMENT

- A. **Description:** This item shall include all labor and materials required for the installation, maintenance, and deconstruction of the secondary containment. Onsite materials and equipment required to be stored within the secondary containment shall be as follows: containers that store liquid brine, oilfield waste, and/or fuels as well as any required pumps. In determining the method, design, and capacity for secondary containment, the Contractor shall address the typical failure

mode, and the most likely quantity of brine or other oil field waste substance that would be discharged.

- B. Materials: The Contractor shall supply catchment basins or diversion structures to intercept and contain discharges of brine or other oilfield waste substances during the project. Materials shall consist of impermeable containers or liners made of a material that is compatible with the waste stored or used within the containment. Containment materials shall be impervious and have supporting documentation of the permeability, chemical compatibility, and other applicable QA/QC standards, is acceptable. **Use of a liner shall at a minimum be a 20-mil thickness.**

Materials shall be durable enough to support the weight of heavy equipment used for the plugging operations. Materials shall have sufficient strength and thickness to maintain the integrity of the container or liner. The container or liner shall be designed, constructed, and maintained so that the physical and chemical characteristics of the container or liner are not adversely affected by the waste and the container or liner is resistant to physical, chemical and other failure during transportation, handling, installation and use.

Liner walls shall consist of metal, wood, concrete, plastic, or approved equal. Wall materials shall be designed, constructed, and maintained to withstand the overtopping and sliding forces of secondary containment filled to capacity.

The Division shall determine the merit of the proposed materials compatibility, impermeability, integrity, and durability in determining if the material is sufficient for the project.

- C. Installation: Secondary containment shall be installed prior to any drilling or liquid storage at the project site. **Secondary containment shall provide a minimum volume equal to 50% of the primary storage capacity.**

Upon request of the Division, the Contractor shall provide calculations in tabular format of the containment providing both the secondary containment capacity and the on-site material storage. The Division can require that sections of a secondary containment be removed for inspection and sampling if a spill occurs during the project.

Installation of the containers or liners, including seams and pipe penetrations, shall be in accordance with the manufacturer's recommendations. All seams and non-seam area of the container or liner shall be inspected by the Division for defects, holes, and blisters.

Care shall be taken when operating equipment on or near the container or liner to prevent any damage to the secondary containment. If damage occurs, it shall be repaired by the Contractor at his/her expense prior to continuing the project.

The Contractor shall retain all ownership and responsibility for the secondary containment. All secondary containment shall be removed from the site and retained by the Contractor at the conclusion of the project.

- D. Measurement: Secondary containment, which includes all materials, labor, and equipment necessary to provide the required secondary containment, will be considered and measured as a unit satisfactorily completed and accepted by the Division. Secondary containment shall not be considered complete until all secondary containment has been removed from the site at the completion of the project.
- E. Payment: Payment for this work shall include all material, labor, and equipment necessary to

complete the work and be made at the lump sum price for **"Secondary Containment."**

SILT FENCE

- A. General: This item covers construction of the silt fences and/or straw bale dikes. The Division shall designate utilization of silt fence, straw bale dikes or a combination of both at locations selected for placement.

The placement of silt fence and straw bale dikes within the limits of construction shall be at the discretion of the Division.

During the life of the project, the Contractor shall maintain these silt and erosion-control structures. Accumulated silt shall be removed when it, in the Division's opinion, may damage or reduce the effectiveness of the structure.

B. Straw Bale Dikes

1. Materials: Straw bale dikes shall be constructed with twine-bound square straw or hay bales, staked to remain in place.
2. Installation and Execution: The location of the dikes shall be as directed by the Division, at the time of construction. When the usefulness of the dikes has ended, they shall be removed and disposed. Dikes may remain in place upon completion of the project only when permitted by the Division.

C. Silt Fence

1. Materials

- a. The silt fence fabric shall conform to the ODOT Item 712.09, Type C. The silt fence shall be installed in accordance with all manufacturers' instructions.

The fabric shall be free of any treatment that might significantly alter its physical properties. During shipment and storage, the fabric shall be wrapped in a heavy-duty protective covering to protect it from direct sunlight, dirt, and other debris.

The manufacturer shall submit certified test data to cover each shipment of material.

- b. The silt fence used shall be a prefabricated silt fence with fabric already attached to posts or shall be assembled in the field according to the following installation guidelines.

The fabric shall be a pervious sheet composed of a strong, rot-proof polymeric yard or fiber oriented into a stable network, which retains its relative structure during handling, placement, and long-term service. It shall have excellent resistance to deterioration from ambient temperatures, acid, and alkaline conditions, and shall be indestructible to microorganisms and insects. The material shall be resistant to deterioration by ultraviolet light and protected until placement as recommended by the manufacturer such that no deterioration occurs. During shipment and storage, the rolls of fabric shall be protected against deterioration from the sun, mud, dirt, dust, and other harmful conditions at all times until their use.

2. Installation Guidelines for Silt Fence: Silt fence shall be installed in the following manner.

- a. First, a small toe-in trench shall be dug along the line where the silt fence is to be placed. The trench shall be a minimum of 6-inch deep and 6-inch wide. The excavated material shall be placed on the front or uphill side of the trench to facilitate backfilling later.
- b. Next, fence posts shall be driven into the back or downstream side of the trench. The posts shall be driven so that at least one-third (1/3) of the height of the post is in the ground. When installing a prefabricated silt fence with fabric attached to the posts, the posts shall be driven so that at least 6-inch of fabric shall be buried in the ground. Most prefabricated silt fences have posts spaced approximately 6 feet – 8 feet apart, which is usually adequate. If there is a low spot where most sediment tends to collect, the prefabricated silt fences can be backed up with bale backup. Posts shall be hardwood with sufficient strength to support a full load of deposited sediment.
- c. Finally, the trench shall be backfilled with the excavated material and tamped so that at least 6-inch of the fabric is securely toed into the ground to prevent under-mining.
- d. The silt fences shall be maintained throughout construction. The Contractor shall conduct regular inspections and after all heavy rains. Damaged fences must be repaired immediately.
- e. At the completion of construction and upon establishment of suitable vegetation as determined by the Division, all silt fence structures shall be removed. Areas disturbed by the removal operation including temporary access roads shall be revegetated. In general, this operation shall consist of regrading, re-fertilizing, reseeding, and mulching.

D. Measurement: Measurement for payment for the above-described work shall be made by actual field measurements of quantities satisfactorily installed and completed. When using silt fence with bale backup the measurement shall be the length of the silt fence installed, plus the length of the straw bale dike installed.

E. Payment for Silt Fence and Straw Bale Dikes: Payment for this item shall be made at the unit price per linear foot of "**Silt Fence**." The Division shall only pay for quantities of items that are completed.

No. 4 STONE

A. Description: This work covers the quality, material placement and requirements as a base course stone for the project access as shown in the Drawing Plan Set.

B. Materials: The materials shall consist of sound and durable rock, gravel or stone of the proper gradation meeting ODOT specifications. The material shall be free from cracks, seams, and other defects, which tend to increase deterioration from natural causes. It shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying as evidenced by laboratory tests and/or service records. The Division at any time during the project may reject any materials, at the source or job site, not meeting the requirements of these specifications.

Acceptability of material will be determined by laboratory tests, visual inspection and/or service records as required by the Division. Service records will include documentation to show the material has performed satisfactory on similar structures.

C. Installation: Upon delivery of the material to the site the Contractor shall install the material in

place as directed by the Division. The Contractor shall not stockpile materials at the site.

The Contractor shall remove the topsoil prior to installation of any access road or work area stone. Topsoil shall be stockpiled adjacent to the location it is removed from. At the conclusion of the project, all topsoil will be replaced at original location as part of the line item **"Site Restoration."** **Existing drives upgraded for the purpose of this work shall be restored to a condition better than prior to construction.**

- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work area as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work area in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.5 ton per cubic yard of No. 4 Stone shall be used if necessary.

- E. Payment: Payment for this work as specified above shall be made based on the unit price per ton for **"No. 4 Stone."**

No. 57 STONE

- A. Description: This work covers the quality, material placement and requirements as a top course stone for the access drives as shown in the Drawing Plan Set. This material shall be placed within the current limits of the landowner's drive.
- B. Materials: The materials shall consist of sound and durable rock, gravel or stone of the proper gradation meeting ODOT specifications. The material shall be free from cracks, seams, and other defects, which tend to increase deterioration from natural causes. It shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying as evidenced by laboratory tests and/or service records. The Division at any time during the project may reject any materials, at the source or job site, not meeting the requirements of these specifications.

Acceptability of material will be determined by laboratory tests, visual inspection and/or service records as required by the Division. Service records will include documentation to show the material has performed satisfactorily on similar structures.

- C. Installation: Upon delivery of the material to the site the Contractor shall install the material in place as shown on the Drawing Plan Set.
- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.5 ton per cubic yard of No. 57 Stone shall be used if necessary.

- E. Payment: Payment for this work as specified above shall be made based on the unit price per ton for **"No. 57 Stone."**

No. 304 AGGREGATE BASE

- A. Description: This work covers the quality, material placement and requirements as an aggregate for the project access as shown in the Drawing Plan Set.
- B. Materials: The materials shall consist of sound and durable rock, gravel or stone of the proper gradation meeting ODOT specifications. The material shall be free from cracks, seams, and other defects, which tend to increase deterioration from natural causes. It shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying as evidenced by laboratory tests and/or service records. The Division at any time during the project may reject any materials, at the source or job site, not meeting the requirements of these specifications.

Acceptability of material will be determined by laboratory tests, visual inspection and/or service records as required by the Division. Service records will include documentation to show the material has performed satisfactory on similar structures.

- C. Installation: Upon delivery of the material to the site the Contractor shall install the material in place as shown on the Drawing Plan Set.

The Contractor shall remove the topsoil prior to installation of any access road or work area stone. Topsoil shall be stockpiled adjacent to the location it is removed from. At the conclusion of the project, all topsoil will be replaced at original location as part of the line item **"Site Restoration."**

- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.5 ton per cubic yard of No. 304 aggregate base shall be used if necessary.

- E. Payment: Payment for this work as specified above shall be made based on the unit price per ton for **"No. 304 Aggregate Base."**

FILTER FABRIC

- A. General: This item shall include all material, labor, and equipment necessary for the installation of the filter fabric for the base of the entrance apron & access drive that will be temporary as specified on the Drawing Plan Set.
- B. Materials: The filter fabric shall be composed of strong, rot-proof polymeric fibers formed into a fabric meeting Ohio Department of Transportation Specifications, Section 712.09, Type "D".
- C. Installation: At the time of installation, fabric shall be rejected if it has defects, rips, holes, flaws, deterioration, or damage incurred during manufacture, transportation, or storage. It shall be laid smooth and free from tension, stress, folds, wrinkles, or creases. The strips shall be placed to provide a minimum width of 6 inches of overlap for each side or end. Any damage to the fabric during its installation or during placement of the stone shall be replaced or repaired by the Contractor at no cost to the Division. The filter fabric shall be protected from damage due to placement of the stone or other materials by limiting the height of the drop of the material.

The Contractor shall install the filter fabric once **the subgrade has been properly prepared and approved by the Division** and prior to the stone in the areas of the entrance apron & access drive that is required to be temporary as described on the Drawing Plan Set. The fabric shall be removed and properly disposed of by the contractor at the completion of this project and shall be part of line item **"Filter Fabric."**

- D. Measurement: Measurement shall be determined in the field by the Chief's representative with no allowance for the overlap of 6-inch recommended above. Measurement shall be based on the length and height of the underdrain/stone drain as indicated on the Drawing Plan Set.
- E. Payment: Payment for all of the work specified above shall be made at the unit price per square yard for **"Filter Fabric"**.

12" PE/PVC CULVERT

- A. Description: This item covers the quality, material placement and requirements for the installation of the culvert for the temporary stream crossing. This item shall also include the removal of the pipe which shall become the property of the Contractor.
- B. Materials:
 - 1. Culvert Pipe: The culvert pipe shall be 12" corrugated N-12 HDPE smooth interior pipe or approved equal and shall meet the AASHTO M294 specification, except the average elongation shall not exceed 7.5 percent when tested as described in that specification. Manufacturer's certification shall be furnished to the Division.
 - 2. Backfill: Backfill material shall be placed around the pipe to as shown on the Drawing Plan Set. Backfill material shall be included in the unit price for **"No. 304 Stone"**.
- C. Installation: The Division shall verify locations prior to commencing installation. Installation shall be in compliance with all manufacturer's specifications.

The temporary culvert shall be removed at the completion of the project. **The culvert shall become the property of the Contractor at the completion of the project and shall be removed and reused or disposed of at the Contractor's expense.**

- D. Measurement: Measurement of 12" PE/PVC Culvert shall be by actual linear feet of pipe installed as measured in the field.
- F. Payment: The cost for work under this item, including HDPE pipe and installation, shall be at the unit price per linear foot for **"12" PE/PVC Culvert"**.

15" PE/PVC CULVERT

- A. Description: This item covers the quality, material placement and requirements for the installation of the culvert for the temporary stream crossing. This item shall also include the removal of the pipe which shall become the property of the Contractor.
- B. Materials:
 - 1. Culvert Pipe: The culvert pipe shall be 12" corrugated N-12 HDPE smooth interior pipe or

approved equal and shall meet the AASHTO M294 specification, except the average elongation shall not exceed 7.5 percent when tested as described in that specification. Manufacturer's certification shall be furnished to the Division.

2. Backfill: Backfill material shall be placed around the pipe to as shown on the Drawing Plan Set. Backfill material shall be included in the unit price for "**No. 304 Stone**".
- C. Installation: The Division shall verify locations prior to commencing installation. Installation shall be in compliance with all manufacturer's specifications.

The temporary culvert shall be removed at the completion of the project. **The culvert shall become the property of the Contractor at the completion of the project and shall be removed and reused or disposed of at the Contractor's expense.**
- D. Measurement: Measurement of 15" PE/PVC Culvert shall be by actual linear feet of pipe installed as measured in the field.
- G. Payment: The cost for work under this item, including HDPE pipe and installation, shall be at the unit price per linear foot for "**15" PE/PVC Culvert**".

GAS LINE ABANDONMENT

- A. Description: The work covers all labor, equipment, and material required for abandoning the existing gas lines associated with the orphan well.
- B. Execution: The flushing of the line shall be accomplished by an approved method submitted to the Division prior to the initiation of work. The Contractor shall submit a plan to the Division, which fully details the proposed method for flushing the line. This plan shall include the following:
 1. Flushing equipment;
 2. Pumping equipment (if necessary);
 3. Size and capacities of holding sumps;
 4. Method for cementing or grouting in the ends of the line;
 5. Method for permanently capping the ends of the line

The Contractor shall excavate and expose the gas line at each end as shown on the Drawing Plan Set or as determined in the field. If it is determined that holding sumps will be used upon excavation, the Contractor shall sever the line and temporarily line the entire excavated area(s). Liner materials shall be impervious and have supporting documentation of the permeability, chemical compatibility, and other applicable QA/QC standards, is acceptable. Use of a liner shall at a minimum be a 20-mil thickness.

The Contractor shall notify the Division 24 hours in advance of flushing the line.

Once the liners are in place, the Contractor shall begin flushing line toward the well with freshwater. Freshwater shall be continually flushed through the line until fluid discharge is observed at the outlet end and no residual oil/gas waste is observed. All generated residuals and fluids shall be properly removed and disposed of per line item "Fluid Disposal" and/or "Contaminated Material Disposal."

If after several attempts the Contractor is unsuccessful in achieving fluid at the outlet end, the Division may authorize the Contractor to cease operations and cement/grout the ends of the line.

The cement or grout shall be included in the unit price line items "**Approved Cement**" or "**Nine Sack Grout**". **All other costs for pumping shall be incidental to this line item.** Care shall be taken to ensure the line is not over filled as to cause cement or grout to fill beyond the line itself. Once the end is cemented the Contractor shall cap the line. This shall be solely at the discretion of the Division.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for this work, including equipment, labor, installation, and materials shall be made at the lump sum price for "**Gas Line Abandonment.**"

WELL HEAD CONTROL

- A. Description: This work consists of all labor, equipment, and material necessary to establish control of the well. This item shall include the installation of a wellhead control device/flow diverter on the most appropriate well casing as described in the plugging plans.
In the event Division UPC work has been completed on the well, resulting in surface equipment (swages, fittings, valves, gauges, etc.) being installed, the Contractor shall coordinate with the inspector in returning this equipment to the Division for future use. At no point shall the Contractor assume ownership of any surface equipment associated with the well.
- B. Execution: The Contractor is responsible for installing, according to best management practices, a wellhead control device/flow diverter on the well casing.

The casing shall be free from any damages or defects. If required, the casing shall be cut and cleaned of any dirt, oils, and debris prior to welding extensions and/or installation of the diverter.

The Contractor shall supply a cellar with a cement base around the wellhead. This cellar shall be set around the well and extended up to working elevation, as the depressed area around the well head will be modified to establish workable base. This cellar shall be made of steel, concrete, or polyethylene pipe. **The cellar shall be a minimum of 48 inches in diameter. This work shall include a six (6) inch minimum of Approved Cement as specified or Portland Cement in the cellar base with a three (3) inch minimum port near the well. The port shall extend up to within three (3) inches of the well at working height and be used to monitor and contain any gas/oil escaping around the back side of the casing.**

Once a well head control device is installed, all fluids, gases and solids generated by the plugging process shall be diverted into a tank. This tank shall be set a minimum of twenty (20) feet from the well. The Contractor shall also maintain an adequate supply of freshwater at the well for possible well control emergencies, which shall be paid under the line item "**Well Control Fluid.**" The Contractor will install a two (2) inch diameter (minimum) kill line on the well. The injection point for the kill line will be a minimum of twenty (20) feet from the well.

No plugging operations shall begin until a satisfactory inspection of the prepared well has been completed by the Division.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the well head control shall be made at the cost proposal lump sum price for **"Well Head Control."**

WELL CONTROL FLUID

- A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use water as a "kill" fluid for the drilling and plugging process of the well.
- B. Requirements: The Contractor shall receive prior approval from the Division before using any onsite waters for the plugging process (i.e. streams, lakes, or ponds). If approved, withdrawing waters of the state shall not exceed 100,000 gallons per day from an individual water source.

The Division will require a minimum of 100-200 barrels of freshwater well control fluid be maintained on the site during the plugging project.

A mud pump (or equivalent) of sufficient size/capacity shall be required to be onsite at all times during plugging operations as means to pump well control fluid when required.

- C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of barrels (bbls) of water used to successfully plug and/or drill the orphan as approval by the Division. The Division will at a minimum pay for the quantity required to be maintained on site.
- D. Payment: Payment for the above work shall be made at the unit price per barrel (bbls) for **"Well Control Fluid."**

SHOOTING

- A. Description: This work consists of all labor, equipment, and material necessary to sever/shoot a casing or tubing at a determined depth for the purpose of removing the casing or tubing string by the means of shooting.
- B. Execution: The Contractor shall complete the shooting of the casing or tubing at a depth approved by the Division. This work shall include logging the well with a standard logging suite at the discretion of the Division to locate free point of casing or tubing in the well.

The Contractor shall propose the material and method for shooting of the casing or tubing, which shall be approved by the Division.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the shooting the casing or tubing made at the unit price per each for **"Shooting"**.

PERFORATING

- A. Description: This work consists of all labor, equipment, and material necessary to perforate a casing or tubing at a determined depth for the purpose of squeezing cement outside the casing or tubing string.
- B. Execution: The Contractor shall complete the perforating of the casing or tubing at a depth approved by the Division. This work shall include logging the well with a standard logging suite at the discretion of the Division to identify perforation interval(s).

The Contractor shall propose the material and method for perforating the casing or tubing and shall be approved by the Division. **Each unit for perforating shall include two (2) shots with ten (10) perforations per shot, for a total of 20 perforations.**

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the perforating the casing or tubing made at the unit price per each for **"Perforating."**

SEVERING

- A. Description: This work consists of all labor, equipment, and material necessary to sever a casing at a determined depth for the purpose of removing the casing string from the wellbore.
- B. Execution: The Contractor shall complete the severing of the casing at a depth approved by the Division. The Contractor shall propose the material and method for severing of the casing, which shall be approved by the Division. This includes, but is not limited to, **locating free point, ripping, shooting, or cutting.**
- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the severing the casing made at the unit price per each for **"Severing"**.

WELL PREPARATION & PLUGGING

- A. Description: This work consists of all labor, equipment, and material necessary to prepare the well for plugging and complete all required plugs. This shall include cleanout, drillout, and washover of the well bore to the total depth of the well based on the well description(s) and plugging plan(s), circulating the well bore prior to each plug, setting all required plugs, and verification of each plug depth.
- B. Execution: The Contractor shall supply all equipment needed to complete the well preparation in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, drill pipe, collars, mud pump, circulating fluid, cementing equipment, mix water, and

associated equipment.

Cable tool/spudding rigs shall not be permitted for use unless otherwise authorized by the Division as described under the General Conditions, Part 13 "Substitution During the Project".

Once well head control has been established, the Contractor will cleanout, drillout and/or washover and then circulate the well bore prior to setting any casing or well plugs. The Contractor shall be responsible for having a minimum of two (2) hole volumes of fluid available for circulation.

The Contractor shall identify the diameter of the well bore below the surface casing and cleanout or drillout with a full-size bit to total depth. **In addition to the full-sized bit, the contractor shall also supply a bore brush and/or casing scraper at the appropriate size to fully clean out any casing remaining per the plugging plan.** In any case where an obstruction is encountered and total depth cannot be achieved, the Contractor shall immediately notify the Division. The Contractor shall propose a plan to assess the nature of the obstruction that shall be approved by the Division. Additional work associated with removal of the obstruction shall be described and paid for under the Contingency Specifications and as listed on the Quantity Sheet and agreed upon by the Division.

The Contractor shall trip out or up into the nearest competent cased string and secure all tools at the end of each workday or when work shall be paused for an extended time. Any tools left in the hole during such paused work time shall be at the Contractor's own risk. Any tools or tubing that are lost due to the Contractor's failure to complete the task of tripping out during paused work times shall be at their own expense as well as any work required to then prepare the hole to continue the plugging process (this shall include but not be limited to shooting, fishing, over drilling, lost or damaged tools, etc.). The tripping out of the tools during paused work times shall be incidental to this line item.

Formations within the well bore known to be producing H₂S gas will not be circulated prior to setting a plug.

Prior to setting any plugs the Contractor shall remove all free crude oil by **circulating the wellbore two-hole volumes or until the well is static; a minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formation at the discretion of the Division.** This work shall be considered incidental to this line item. No additional payment shall be made for circumstances where the Contractor does not have the appropriate material on location.

Lost Circulation Material (LCM) may be used to aid in obtaining circulation, as approved by the Division. **Lost Circulation Material (LCM) shall NOT be used when tubing smaller than 1.5 inch inside diameter will be utilized. Circulation must be established prior to conducting cementing procedures.** Use of LCM shall be per the "Lost Circulation Material" specification included in the Contingency Specification. LCM shall be available at the site during the completion of this line item "Well Preparation & Plugging." **The well shall be in a static condition prior to beginning any cementing activities.**

The Contractor shall set all plugs as described in the **Plugging Plan** to the depths described with the materials described. This shall include setting the bottom plug, intermediate plugs, and the surface plug. All plugs shall be allowed to set for the periods described in the **Plugging Plan**. The Contractor shall determine with the required tools if any plug has dropped. **If a plug has dropped or is determined to not be a competent plug, then drill out of the plug or additional staged**

plugs may be required at the discretion of the Division as a part of this line item. The Division reserves the right to adjust the Plugging Plan during the plugging process based on site conditions.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the well preparation and plugging shall be made at the lump sum price for **"Well Preparation & Plugging."**

TUBING

- A. Description: This item covers all labor, equipment, and material required to supply tubing at the site for the purposes of placement of cement and spacers.
- B. Materials: The Contractor shall supply a 1.5-inch inside diameter (ID) or larger tubing in a condition that will allow for the pumping of cement for the purposes of plugging the well.

For this project the Contractor shall supply up to 5,660 feet of 1.5-inch ID or larger tubing to all the project wells.

- C. Installation: The Contractor will install and remove the tubing as necessary in order to complete the **Plugging Plan**. The Contractor shall maintain ownership at the conclusion of the project of all tubing that was brought to the site for these purposes.
- D. Measurement: Measurement for payment of the above-described work shall be made by actual field measurements per linear foot of tubing delivered to the site.

Tubing shall be measured as one use for the duration of the project.

- E. Payment: Payment for this item shall be made at the lump sum price for **"Tubing."**

TUBING (1")

- A. Description: This item covers all labor, equipment, and material required to supply tubing at the site for the purposes of placement of cement and spacers.
- B. Materials: The Contractor shall supply a one (1) inch inside diameter (ID) tubing in a condition that will allow for the pumping of cement for the purposes of plugging the well. When using 1" tube the **cement slurry shall be mixed between 14.5 and 15.0 pounds per gallon.**

Upon analysis of excavation of the tubing and evaluation of the logging data, the Contractor shall supply up to 1434 feet of one (1) inch ID tubing as described in the plugging plan.

- C. Installation: The Contractor will install and remove the tubing as necessary in order to complete the **Plugging Plan**. The Contractor shall maintain ownership at the conclusion of the project of all tubing that was brought to the site for these purposes.
- D. Measurement: Measurement for payment of the above-described work shall be made by actual field measurements per linear foot of tubing delivered to the site.

Tubing shall be measured as one use for the duration of the project.

- E. Payment: Payment for this item shall be made at the lump sum price for "**Tubing (1)**".

HYDROGEN SULFIDE SCAVENGER

- A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use a hydrogen sulfide scavenger for the drilling and plugging process of the well.
- B. Materials: The Contractor shall provide Sulfa-Clear or an approved equal. The Sulfa-Clear shall be applied at a rate to eliminate the presence of Hydrogen Sulfide (H₂S) at the surface and shall not be less than seven (7) percent concentration with the applicable well bore fluid.
- C. Execution: The Contractor shall be prepared to apply the hydrogen sulfide scavenger at any time during the drilling and plugging operation. When Hydrogen Sulfide (H₂S) is encountered the Contractor shall apply the hydrogen sulfide scavenger. If the hydrogen sulfide scavenger is applied during drilling operations the Contractor shall continue to monitor the presence of H₂S and apply additional hydrogen sulfide scavenger as needed in order to complete the plugging.

Once total depth has been reached an additional batch of hydrogen sulfide scavenger will be applied to the total depth of the well bore prior to setting of any plugs. Once this total depth application has been applied the Contractor shall wait a minimum of 24 hours to commence work on the well bore.

- D. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of gallons of hydrogen sulfide scavenger used to successfully plug and/or drill the orphan well.
- E. Payment: Payment for the above work shall be made at the unit price per gallons for "**Hydrogen Sulfide Scavenger**".

WELL CASING TAP

- A. Description: This work consists of all labor, equipment, and material necessary to establish pressure relief control of the well. This item shall include the installation of a tap and valve onto the existing well casing as defined in the **Plugging Plan**.
- B. Execution: The contractor is responsible for tapping the well casing, installing a new valve and "relieving" the well of any pressure according to best management practices.

All components associated with the tapping process shall be of size to properly fit the steel casing of interest and be able to withstand a minimum gas pressure of 1000 psi.

The Division shall make the determination for the overall exposed depth of casing. The casing shall be free from any damages or defects. If required, the casing shall be cleaned of any dirt, oils, and debris prior to the installation of the saddle. At the discretion of the Division, further investigation of the well may be required in order to determine the adequacy of casing. This shall be paid for under line item "**Logging**".

After the well casing is cleaned and the saddle is installed, the Contractor will then install the valve and all associated appurtenances. Upon approval from the Division, the Contractor may tap the casing. After tapping, the Contractor shall remove the tap along with the generated "coupon" and close the installed valve.

Once the valve is operational, the Contractor shall attach a 2-inch diameter (minimum) line to the valve which will be placed into a tank. This tank will be set a minimum of twenty (20) feet from the well. The Contractor will then slowly open the valve to relieve the pressure in the well. All fluids, gases and solids generated during this process will be diverted into the tank.

No plugging operations shall begin until the well pressure has ceased, and a satisfactory inspection of the well has been completed by the Division.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the well tap, valve and "relieving" process shall be made at the unit price per each for "**Well Casing Tap**".

AIRBRIDGE W/ ABUTMENTS

- A. Description: This item shall consist of the transportation, delivery, installation, and removal of airbridge w/ abutments as described. The placement of airbridge w/ abutments within the limits of construction shall be at the discretion of the Division. This item shall be utilized to protect the existing stream that will be traversed within the construction work limits. This item shall include all work that require airbridge w/ abutments as shown on the Drawing Plan Set.
- B. Material: Air bridge and abutments shall be composed of dense hardwood, shall be a minimum of eight (8) inches thick, four (4) feet wide, and sixteen (16) feet long, (see site plans for required lengths) and shall have a minimum of 1-1/4-inch diameter lift bolts installed at each end and through the width of the mat. Strapping material shall be a minimum of 1/4" thick x 2" wide hot rolled steel per ASTM A36 and lag bolts shall be minimum of 1/2" x 5" long.

All materials delivered to the site must be in a shape to be able to cover the area properly and still have the strength and integrity to complete the required work. The Division may reject any mats determined to be damaged beyond useful life. The following grade descriptions for used mats shall be used by the Division to determine if the materials are acceptable.

1. **GRADE A** - Visually, Grade A mats look like new mats. The timbers are still square and in excellent condition and all the mat bolts are in place and fully intact. Mats must have all bolts and timbers fully intact. Mats are less than 9 months old. Very minimal wear, no chunks out of timbers missing.
2. **GRADE B** - Essentially, Grade B mats are less pretty versions of Grade A mats. They have no structural faults; they just look a bit worn. Edges of timbers are still square, and timbers are also sound and free of rot. If one or two of the bolts are bent, they qualify as Grade B mats. These mats might also be stained, but the discoloration is not enough to affect the durability of the mat. Typically, 10-18 months of age/usage makes the mat fall into a B grade. **(All mats used to bridge over anything shall be Grade B or better.)**

3. **GRADE C** - Grade C mats are not quite up to the challenges that Grade A and B mats can handle, but they still have life left in them. Grade C Mats can have a missing or pulled rod on one end of the mat. The mat still has structural integrity inside 2' from each end though. Timbers may be broken within 2' of either end but no timbers are broken inside of the 2' of each end. No hanging timbers allowed in C grade mats. As you can imagine, these are not going to be the picture-perfect image of timber mats. They might be missing numerous bolts, incurred excessive repairs, or be slightly varied in shape. Grade C mats are less expensive, but they also have a shorter life expectancy. **Any mat meeting the Grade C rating shall be measured for square footage of acceptable usable area.**
- C. **Execution:** Air bridge shall be kept clean throughout the project. If it is determined by the Division the bridge surface does not meet this requirement the Contractor shall have any sediment or mud removed immediately. Contractor shall take care not to deposit sediment or mud in the existing stream.
- D. **Measurement:** Measurement for the air bridge w/ abutments, which includes all materials, labor, and equipment necessary to provide the required air bridge w/ abutments will be considered and measured as a unit satisfactorily completed and accepted by the Division. Air bridge w/ abutments shall not be considered complete until the airbridge and abutments have been removed from the site at the completion of the project.
- E. **Payment:** The cost of this work shall include all material, labor, and equipment necessary to complete the work and be made at the lump sum price for "**Airbridge w/ Abutments.**"

WASHOVER PIPE

- A. **Description:** This item covers all labor, equipment, and material required to supply the washover pipe to the project site. The washover pipe will be used for the removal of the surrounding material outside of the tubing for the purposes of plugging the orphan well.
- B. **Materials:** The washover pipe shall be 4.5-inch OD casing equipped with a sawtooth collar bit to clear the tubing to open-hole annulus to the top of the packer or cement. The Contractor shall supply the proper range pipe to complete the length required during installation.
- C. **Installation and Execution:** The Contractor will be required to cap the existing 2.375-inch well tubing at the surface prior to cleaning out the annulus, this work shall be considered incidental to this line item. The Contractor will use a 4.5-inch diameter casing to "wash over" the tubing annulus in order to free the tubing to the depth listed in the **Plugging Plan**; for this process, rig rates, equipment costs and additional material costs shall be included in line item "**Well Preparation & Plugging**".
- The quantity provided on the Quantity Sheet is for estimating purposes only. Actual quantity of washover pipe will be determined in the field upon the evaluation/excavation of the existing well casing. No payment will be made for material brought to the project site without Division approval.**
- D. **Measurement:** Measurement for payment for the washover pipe work shall be made by actual field measurements of quantities satisfactorily utilized per linear foot.
- E. **Payment:** Payment for this item shall be made at the unit price per linear foot of "**Washover Pipe**".

APPROVED CEMENT

- A. Description: This item shall cover all labor, materials, and equipment necessary to plug the well as specified in the **Plugging Plan**.
- B. Materials: Cement materials shall be approved prior to placement. The cement must conform to the following options:
- API Class "A"
 - API Class "L"
 - ASTM C150 Type 1
 - ASTM C595 Type 1L
- (Note: These are the only material options that will be approved, any other materials may be submitted to the Division for review but will **not** be approved for this project)

The cement shall contain 2% Calcium Chloride, properly blended, **only if directed** by the Division in advance of placing the cement. **Coordinate with the Division prior to ordering cement.**

The cement shall not contain bentonite or extenders which delay set time or decrease the overall compressive strength unless otherwise noted.

Water used for cementing shall be free of any impurities that will adversely affect set time and compressive strength.

- C. Installation: **The Contractor shall notify the Division at least 24 hours in advance of placing the cement, including notification of the type of cement being used for approval.**

Additional wait times may be required for the type of cement used. This wait time shall be incidental to this line item. Upon approval of the type of cement the Division shall inform the Contractor of the required wait times for each staged plug.

Preparation of the well bore, including the running of gel flush ahead, shall be completed per line item **"Well Preparation & Plugging"** prior to placement of the cement.

The cement slurry shall be mixed at the API recommendation, between 15.4 and 15.8 pounds per gallon. **For the Hiesler Ca #1 and Danford #1 wells, the bottom plug cement slurry shall be mixed between 14.5 and 15.0 pounds per gallon.**

The Cement shall be placed to the depths and intervals described in **Plugging Plan**. It is the Contractor's responsibility to provide a mud scale for weighing the cement slurry.

When using API Class "L" cement or ASTM C595 Type 1L cement, all the following conditions apply:

- Mill test information must be provided to the applicable Division inspector prior to utilization of API Class L cement or ASTM C595 Type 1L cement. The mill test information must be of a representative sample of the mixture of cement proposed to be used to plug the well. A person is not required to provide the mill test information if the Division already has the mill test information of the mixture of cement for a batch.
- Performance data shall be provided in compliance with Ohio Administrative Code

1501:9-11-07 prior to usage. To determine if Ohio Administrative Code 1501:9-11-07 is met, test results shall include at a minimum slurry density, composition, compressive strength, free fluids, thickening time, curing pressure, and curing temperature. The data also shall include percent limestone and percent pozzolan material.

- For blended cement containing limestone and pozzolanic material, the combination of the materials shall not exceed fifty per cent by volume.

- A sample of at least 20lbs representative of the of cement mixture proposed to be used in a well must be provided to the Division at the request of the Division.

- A person using API Class L cement or ASTM C595 Type 1L cement shall leave the plugged well in a manner that will allow for further inspection past the contract requirement of three days after the completion of the uppermost plug unless the applicable Division inspector determines that the contract requirement of three days is sufficient.

- D. Setting: Setting times shall be completed as described in the **Plugging Plan**. For the surface plug any void space between the top of the cement and the top of the casing shall be filled to achieve a level cement line with the top of the casing. This shall be done at no additional cost to the Division.

The cement must develop a minimum compressive strength of 500 PSI after 24 hours at well bore temperatures. The Division reserves the right to collect test cylinders throughout the duration of the cementing process.

- E. Measurement: Measurement for payment shall be based on the actual quantity of sacks of cement acceptably placed and shall be verified with delivery tickets. A sack shall be considered to be 94 pounds prior to mixing.

- F. Payment: The above-described work shall be paid for at the unit price per sack for "**Approved Cement.**"

CEMENT MIXING & PUMPING

- A. Description: This item shall cover all labor, materials, and equipment necessary to mix and pump cement as specified in the **Plugging Plan**.
- B. Execution: Cementing equipment required on site to mix and pump casing cement and cement plugs shall be provided until each individual casing cementing or plug cementing is completed. This shall include but not be limited to pump truck, mud pump, and associated equipment.
- C. Measurement: Measurement for payment shall be for each trip to the project site in order to complete the plug(s) as described in the **Plugging Plan**. Payment for staged plugs shall be measured as one unit.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the mixing & pumping of cement into the well shall be made at the unit price per each for "**Cement Mixing & Pumping.**"

FLUID DISPOSAL

- A. Description: This item shall consist of removing and disposing of the fluid generated from the well plugging process. Fluids to be removed shall be at the discretion of the Division and shall be injected

at an approved Class II disposal well as provided by the Contractor prior to removal from the site.

- B. Material: Materials will be defined below as described for the purposes of this scope of work.

Contaminated Fluids: Contaminated fluid will be considered as all fluids used in the circulation of the well bore, fluids utilized as a “kill” substance and/or fluids generated from the well. The Division reserves the right to deem a fluid “contaminated” at its discretion.

Contaminated fluids are further defined as water that contains quantifiable concentrations of oil, natural gas(es), condensate, brine, plugging products, or other oil field waste substances.

Freshwaters: Water that has not been classified as a contaminated fluid and has been stored in an uncontaminated container shall be visually inspected for oil sheen, and field tested for pH and chlorides. The chloride concentration shall be less than 250 mg/L and the pH shall be within a range of 6.5-8.5 standard units (SU). If a water is deemed as freshwater based on these inspections and tests, the Contractor may discharge freshwater into or onto the land in an appropriate manner. Freshwater disposal shall not be paid for under this line item **"Fluid Disposal."**

- C. Off-Site Disposal: Fluids designated as “contaminated” shall be hauled to an appropriate Class II disposal well. Proof of disposal from the disposal well shall be furnished within three (3) days of acceptance to the Division.

No additional compensation shall be made for onsite fluid storage. If contaminated fluids remain onsite, proper containment shall be established meeting all requirements as described in line item **"Secondary Containment"** at no additional cost to the Division. Onsite storage time shall not exceed 72 hours after plugging activities have been completed.

- D. Measurement: Measurement for payment shall be verified based on documentation proof of a quantity of disposal from the disposal well utilized. Documentation required shall include driver's haul tickets, fluid disposal tickets and a copy of the paid invoice from the Class II disposal well (dollar amounts may be redacted from the invoice copy).

- E. Payment: Payment shall be made at the unit price per barrel for **"Fluid Disposal."**

CONTAMINATED MATERIAL DISPOSAL

- A. Description: This item shall consist of removing contaminated soils and cuttings from the site for off-site disposal. Soils and cuttings to be removed shall be at the discretion of the Division and shall be disposed of at an approved EPA licensed landfill as provided by the Contractor prior to removal from the site.

- B. Material:

Contaminated Soils/Cuttings: Contaminated soils and cuttings are defined as soils or cuttings in which oil, gas, condensate, brine, plugging products, or oil field waste substances have been released in or on the land.

The Contractor will excavate and properly dispose of all soils from the location that are visibly impacted with oilfield contaminants. The Contractor shall solidify any residual fluid associated with these soils with Portland Cement, prior to removal as a part of this line item. Prior to solidification of contaminated materials, the contractor shall use due diligence to remove fluids

from the contaminated materials. Fluids removed from the contaminated materials shall be disposed of per line item **"Fluid Disposal."**

Soils deemed "contaminated" as a result of Contractor negligence during the plugging process will be removed and disposed of at the Contractor's expense. Disposal procedures will conform to all requirements stated within this line item.

- C. Off-Site Disposal: Soils designated as "contaminated" shall be hauled to an appropriate licensed landfill. Copies of truck weight tickets from the landfills shall be furnished within 3 days of acceptance to the Division.

Contaminated soils shall be loaded and hauled away as they are excavated.

No additional compensation shall be made for onsite contaminated soil storage. If excavated soils remain onsite, proper containment shall be established meeting all requirements as described in line item **"Secondary Containment"** at no additional cost to the Division. Onsite storage time shall not exceed 72 hours after plugging activities have been completed.

- D. Measurement: Measurement for payment shall be verified based on quantities disposed at the approved EPA licensed landfill. Documentation required shall include driver's haul tickets, certified scale tickets and a copy of the paid invoice from the landfill/waste facility (dollar amounts may be redacted from the invoice copy).
- E. Payment: Payment shall be made at the unit price per ton for **"Contaminated Material Disposal."**

SALVAGE MATERIAL DISPOSAL

- A. Description: This item shall consist of preparing, removing, and salvaging all materials from the site that have a salvage value as shown on the Drawing Plan Set or as required by the Division. All items to be salvaged shall include all surface equipment, well casing, and production equipment. Salvage items shall also include any hydrocarbon materials (oil, condensate, etc.) that have a marketable value. Salvage items shall be stored onsite within the construction project limits until removed for salvage.
- B. Off-Site Disposal: Prior to removal from the site the Contractor shall supply in writing to the Division an inventory of all materials to be salvaged. On the behalf of the Division the Contractor shall salvage materials inventoried. Once materials have been salvaged the contractor shall reimburse the Division for the salvage value per the line item **"Salvage Material Reimbursement."**

At the request of the Division, surface equipment deemed as reusable shall be forfeited directly to the Division's onsite representative. This shall include but not be limited to swages, wellheads, fittings, appurtenances, etc. At no time shall salvageable material become property of the Contractor.

Prior to disposal of any salvage materials from the project site, the Division will complete a radiological assessment of salvage materials that have been provided on an inventory to the Division. **The Division shall be given a minimum of two (2) working days notice to complete the assessment.** Salvage materials staged on the project site shall be staged on a pipe rack where determined applicable by the Division. Salvage materials shall be on an impervious liner that will collect any residual fluids or scale.

Prior to disposal of any salvage materials the Contractor shall prepare, including cleaning, the salvage materials for lawful salvage.

All salvageable material shall be cleaned onsite. The final product shall be non-hazardous and, in a condition, to not cause offsite pollution/contamination during transport and/or disposal.

- C. Execution: The Contractor shall include in this line item any expense incurred with the removal and the salvaging.
- D. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- E. Payment: Payment shall be made at the lump sum price for **"Salvage Material Disposal."**

APPROVED RESOIL

- A. Description: This work shall consist of furnishing all labor, material, and equipment necessary for the hauling, spreading, and grading of the resoil material for the replacement of the removed contaminated soils. This work shall also include shaping for positive drainage and matching the surrounding contours.
- B. Material: Material shall be a good quality resoil and **not** include rocks, stones, and objectionable material over three (3) inches in any one dimension. All resoil that will compose the top eighteen (18) inches of resoil at the ground surface shall be topsoil. Topsoil shall be defined as during excavation having a brown matrix color, less than 50% clay content, and enough organic materials to be generally suitable for vegetative growth.
- C. Installation: Care shall be taken to keep heavy equipment off the surface material after it has been spread. If the resoiling material becomes compacted, the Contractor shall disc the material to a depth of four (4) inches at the Contractor's expense.
- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.2 ton per cubic yard of resoil shall be used if necessary.

- E. Payment: Payment for this work shall be made at the unit price per ton for **"Approved Resoil."**

SITE RESTORATION

- A. Description: This work shall cover all operations incidental to the establishment of grasses within the areas disturbed by the Contractor, including the furnishing and sowing of seed; and furnishing and applying of mulch materials, all in accordance with these specifications. Additionally, this work shall include, but not be limited to, repair of grounds and vegetation, including landscaping amenities, ornamental shrubs and trees damaged in any manner during the work operations. All areas shall be properly graded to a smooth final grade with topsoil and blended into adjoining areas at the most moderate slope possible. Seedbed preparation through the use of scarifying equipment is also required. All site restoration

work is to be completed within **fourteen (14) days** of the completion of the construction activities. The Contractor may request in writing to the Division an extension for site restoration. Requests shall only be granted based on season or weather conditions.

B. Materials: The materials to be used for restoration shall conform to the applicable requirements of these specifications.

1. Lime: Pelletized lime shall be applied at a maximum rate of 400 pounds per acre. Rates may be adjusted by the Division at the time of application.
2. Fertilizer: Fertilizer shall be commercial grade (19-19-19) and shall be applied at a rate up to a maximum of 20-lbs/1000 sq. ft. Rates may be adjusted by the Division at the time of application.
3. Seed: The varieties of grass seed to be furnished to the project shall bear a tag on each bag of each species showing the lot number, grower's name, percent of purity, percent of germination, and weed content. Tags shall be provided to the Division.

All seeds shall be free from noxious weeds and under no condition shall the total weed content of any lot of seed or seed mixture exceed one-half of one percent by weight.

For the Ohio Power-Nichols #1 site Whitetail Institute Imperial Whitetail Extreme plot mix shall be used in specified area or an approved equal to the satisfaction of the division.

No seed shall be utilized which has a mix date older than one year. The Division reserves the right to test, reject, or approve all seed after delivery to the project.

Species Composition:

Yard seed shall be applied at a rate of 10 lbs/1000 sq. ft. and shall conform to the following seed mixture ratio:

98/85 Kentucky Bluegrass	50%
Perennial Ryegrass	50%

All areas not designated as yard, farm field, or wetland shall use the following seed mix, and shall be sown at the indicated rate. This mixture is listed by recommended planting season and for existing site conditions, and/or intended use. Further information may be found in the Agronomy Guide, Bulletin 472, Cooperative Extension Service, The Ohio State University.

<u>GENERAL SEED MIX</u>	<u>lbs/acre</u>
Orchardgrass (<i>Dactylis glomerata</i>)	15.0
98/85 Kentucky Bluegrass	12.0
Timothy (<i>Phleum pratense</i>)	12.0
Birdsfoot Trefoil (<i>Lotus sp.</i>)	9.0
Red Clover (<i>Trifolium pratense</i>)	8.0
White Clover (<i>Trifolium repens</i>)	7.0
Annual Ryegrass (<i>Lolium multiflorum</i>)	8.5
<u>Perennial Ryegrass (<i>Lolium perenne</i>)</u>	<u>3.5</u>
Total lbs/acre	75

Other types of seed may be substituted if requested by the property owner(s). If such substitutions are made, they are to be made at no additional cost to the Division.

4. Mulching Material: All mulch material shall be free from mature seed-bearing stalks or roots or prohibited or noxious weeds. Any type of hay is not acceptable. Mulch shall include baled wheat straw or oat straw. It shall be dry and reasonably free of weeds, stalks, or other foreign material.

For all required materials listed above, the Division reserves the right to request receipts, material specifications and/or weight tickets for verification.

C. Installation:

1. Start of Work: Site restoration work shall begin as soon as possible after the completion of construction. Final site restoration operations shall be completed within fourteen (14) working days of the final construction activities. The Contractor may request in writing to the Division an extension for site restoration. Requests shall only be granted based on **season or weather conditions**.
2. Area Preparation of Soil: Spread and grade available topsoil uniformly over all disturbed areas. All areas to be seeded shall be loosened by discing, harrowing, or other approved methods immediately prior to seeding. The soil shall be loosened to a depth of approximately three inches.

Hand raking shall be required in all areas where machines do not obtain the results desired by the Division.

Following tilling of the soil, the seedbed shall be allowed to firm up.

Final prepared surface shall have a smooth final grade and be appropriate for a residential yard, free from rocks, large dirt clumps and any other foreign debris.

Immediately following area preparation for seeding, materials shall be applied in the following order:

- Lime, as applicable
- Fertilizer, as applicable
- Seed, after broadcasting or otherwise applying the seed, the surface of the seedbed shall be loosely disturbed by hand raking, dragging, and/or cultipacking.

Lime, fertilizer and/or seed shall be sown by approved methods that provide for uniform distribution of the mixes as specified above.

3. Mulching: Apply the equivalent of 100 pounds per 1,000 square feet of clean straw mulch.

Apply mulch to the sown area within 24 hours of seeding at the rate per square feet as specified above and spread to a uniform depth.

The straw shall be placed in a moist condition or shall be moistened immediately after placement.

4. Maintenance and Repairs: The Contractor shall, during construction and prior to acceptance, properly care for all areas mulched and perform all mulching operations necessary to provide protection and establish growth of the seeded areas. Mulch that becomes displaced shall be reapplied at once, together with any necessary reseeding, all at no expense to the Division.

No additional payment shall be made for acts of God, i.e. fire, flood, drought, etc.

- D. Maintenance Period: The permanent planting of trees, shrubs, perennials, annuals, grasses and legumes, etc. shall be deemed to be acceptable if the species that were planted in accordance with the approved plans are established and maintained for one (1) “growing season” as defined below and meeting the following standards:

1. Growing Season: All landscaping shall be guaranteed for a period of one (1) summer growing season after planting. Planting material installed in the Fall shall be in full count and thrifty condition on the next succeeding September 15 at which time replacement shall be determined and scheduled for installation during the planting period of October 15 - December 1 of that same season. Planting material installed in the Spring shall be in full count and thrifty condition on the next succeeding May 15 at which time replacements shall be determined and scheduled for installation prior to June 1 of the same season. All plants installed in the summer shall be guaranteed for one (1) full summer and shall be in full count and thrifty condition the next succeeding September 15.
2. Acceptable Lawn/Turf Areas: A series of four (4) random line transects are to be laid out within the project boundaries. A string one hundred (100) feet long having one (1) foot graduation, shall be placed along the transect line. The person conducting the transect will then walk along the line counting only the markers which are in actual contact with the vegetation. The number of count points are to be recorded as subtotals. When the four transects are completed, the average of the four transects subtotals is then equal to the percent of vegetative cover for the project.
 - a) Residential Lawns: At least one hundred percent (100%) of the land affected shall be judged to be of good quality, and “good” is defined as an area that has at least ninety percent (90%) cover.
 - i. All land affected and having less than ninety percent (90%) cover shall be judged poor and deemed unacceptable; and
 - ii. All areas judged to be good must have species diversity requirements of those recommended for planting.
 - b) Farm & Field Turf: At least ninety percent (90%) of the land affected shall be judged to be of good quality, and “good” is defined as an area that has at least seventy-five percent (75%) cover.
 - i. The remaining ten percent (10%) of the land affected shall be judged to be of fair quality, and “fair” is defined as an area that has at least fifty percent (50%) cover but less than seventy-five percent (75%) cover;
 - ii. All land affected and having less than fifty percent (50%) cover shall be judged poor and deemed unacceptable; and
 - iii. All areas judged to be good or fair must have species diversity requirements of those recommended for planting.
 - c) Severe Decline of a Tree or Shrub: Shall be defined as the death of a major leader or 50 percent of the crown of a tree or shrub or dieback of a plant to the ground, even if that plant is still alive.

- E. Measurement: Measurement for payment of site restoration, which includes seedbed preparation, lime, fertilizer as applicable, seeding, mulching, and replacement of landscape amenities (i.e. shrubs, trees, etc.) shall be considered and measured as a unit satisfactorily completed and accepted by the Division.
- F. Payment: Payment for this work, which includes seedbed preparation, liming, fertilizing, seeding, mulching, required replacement of all shrubs, trees and landscaping amenities, etc., and general cleanup shall be made at the lump sum price for "**Site Restoration.**"

DEMOBILIZATION

- A. Description: This work shall consist of the demobilization of all personnel, plugging related equipment and materials as well as the cleanup of all areas upon completing all other work required under the scope of work for the well site.
- B. Execution: Any damage to the road, drives, and/or culverts caused by the demobilization shall be repaired by the Contractor at the Contractor's expense. All repairs shall be done equal to or better to that which existed prior to construction activities.

This item shall also include the continued and proper use of any maintenance of traffic required within the road right-of-way per Part 7 of the General Specifications.

Also, the Contractor shall be responsible for cleaning mud and dirt associated with construction from all roadway surfaces (public and private) as per Part 7.1 of the General Specification for the duration of the Project and as directed by the Division.

- C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. **Demobilization of equipment between wells shall be considered incidental to this line item for wells using a common entrance.**

If any portion of the item is non-performed (i.e., the mud and dirt are not cleaned from the roadway, damaged items not restored to the satisfaction of the Division, etc.) this is considered unsatisfactory and shall be cause for the rejection of payment of this item.

- D. Payment: The cost of this work shall be included in the lump sum price for "**Demobilization.**"

DETAILED SPECIFICATIONS

FIXED PRICE ITEMS

(Values set by the Division.)

SALVAGE MATERIAL REIMBURSEMENT

- A. Description: This item shall consist of reimbursing the Division for all materials removed from the site for salvage including all surface equipment, well casing, tubing, production equipment, and marketable hydrocarbons.
- B. Reimbursement: The Contractor shall supply salvage receipts to the Division for materials inventoried and removed from the site for salvage. The Division shall use these receipts as deduction of payment that will be represented on the Offer for this line item for this project.

- C. Measurement: Measurement shall be made by salvage receipts amounts.
- D. Payment: Deduction shall be entered as an amount for **"Salvage Material Reimbursement."**

CONTINGENCY SPECIFICATIONS

CONTINGENCY SPECIFICATIONS WILL ONLY BE DIRECTED VIA A FIELD ORDER FROM THE DIVISION. THE FIELD ORDER WILL DEFINE THE QUANTITY APPROVED. CONTINGENCY SPECIFICATION USE WILL BE DETERMINED BASED ON-SITE CONDITIONS THAT ARE DETERMINED BY THE DIVISION.

ALTERNATIVE WELL CONTROL FLUID

- A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use a weighted brine as a "kill" fluid for the plugging process of the well.
- B. Materials: The Contractor shall provide a ten (10) pound per gallon brine solution.

The Division will require a minimum of 200 of alternative well control fluid be maintained at required sites during the plugging project, as defined in the plugging plan.

A mud pump (or equivalent) of sufficient size/capacity shall be required to be onsite at all times during plugging operations as means to pump well control fluid when required.

- C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of barrels (bbls) of kill fluid used to successfully plug and/or drill the orphan well. The Division will at a minimum pay for the quantity required to be maintained on site.
- D. Payment: Payment for the above work shall be made at the unit price per barrel (bbls) for **"Alternative Well Control Fluid."**

FISHING

- A. Description: This work consists of all labor, equipment, and material necessary to remove and/or clear the well bore as needed in order to reach total depth by the means of fishing the obstruction in the well bore.
- B. Execution: The Contractor shall supply the equipment needed to complete the fishing in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, impression blocks, and associated equipment. **This shall not include the fishing tools required to complete this work. The Division will develop a negotiated change order to deliver and use the appropriate fishing tools required based on the unforeseen conditions.** Appropriate fishing tools shall be provided for the circumstances encountered.

- C. Measurement: Measurement for payment shall be made by field inspection of the actual quantity of hours in which the drilling rig and other fishing equipment were diligently operating in a manner to remove the obstruction.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the obstruction removal shall be made at the unit price per hour for **"Fishing"**.

MAGNET

- A. Description: This work consists of all labor, equipment, and material necessary to supply a magnet and the required subs as the fishing tool.
- B. Execution: The Contractor shall supply all equipment needed for a magnet fishing tool to be used for fishing out the well bore to the depth of the current obstruction and extracting it. This shall include but not be limited to the rig, subs, and associated equipment. Appropriate tools shall be provided for the circumstances encountered. The work to complete the fishing shall be per line item **"Fishing"**.
- C. Measurement: Measurement for payment shall be made by the delivery of the magnet to extract the obstruction as satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary to supply the magnet to extract the obstruction shall be made at the per unit price per each for **"Magnet"**.

MILLING/DRILLOUT

- A. Description: This work consists of all labor, equipment, and material necessary to remove an obstruction from inside the wellbore or casing as needed in order to reach a required depth by means of milling/drilling.

This work may include removing metal, cement, grout, wood plugs, failed cement plugs and/or other materials in which typical cleanout operations failed to remove.

- B. Execution: The Contractor shall supply the equipment needed to complete the work in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, a mud pump, power swivel/power sub, drill string (including collars and casing or tubing) and associated equipment.

This shall not include the bits required to complete this work. The Division will develop a negotiated change order to deliver and use the appropriate bit(s) required based on the unforeseen conditions. Bit types shall be based on the type of material encountered. Bits shall be factory made unless otherwise approved in writing by the Division.

- C. Measurement: Measurement for payment shall be made by field inspection of the actual quantity of hours in which the drilling rig and equipment were diligently operating in a manner to remove the obstruction.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the obstruction removal shall be made at the unit price per hour for

"Milling/Drillout".

LOGGING

- A. Description: This work consists of all labor, equipment, and material necessary to determine the total depth of the well and the casing, if a packer is present (along with its depth and thickness), determine bond quality behind the casing and the free point of the casing. The Log should also confirm zones of gas production and formation tops for cementing purposes. All cement plug depth and thicknesses will be based on log data of the first well plugged on the site.
- B. Execution: The contractor shall complete the logging of the well bore, casing, tubing, packer, and/or cement to the depth of the existing well bore, casing, tubing, packer, and/or cement. The methods of logging to be used shall be as indicated on the individual plugging plan and may include but not be limited to **gamma ray (GR), casing collar locator (CCL), temperature, bond, and caliper log as well as perforating, shooting etc..** Prior to use, the Contractor shall propose the method of logging and shall be approved by the Division.

The Contractor shall complete the perforating of the tubing at a depth approved by the Division. The Contractor shall propose the material and method for perforating the casing or tubing and shall be approved by the Division. **Perforating shall include two (2) shots with ten (10) perforations per shot, for a total of 20 perforations.**

A copy of the completed Log must be submitted to the Division via email at OrphanWellProgram@dnr.state.oh.us.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the investigation of the well shall be included at the per unit price per each for **"Logging."**

SHOOTING

- A. Description: This work consists of all labor, equipment, and material necessary to sever/shoot a casing or tubing at a determined depth for the purpose of removing the casing or tubing string by the means of shooting.
- B. Execution: The Contractor shall complete the shooting of the casing or tubing at a depth approved by the Division. This work shall include logging the well with a standard logging suite at the discretion of the Division to locate free point of casing or tubing in the well.

The Contractor shall propose the material and method for shooting of the casing or tubing, which shall be approved by the Division.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment

necessary for the shooting the casing or tubing made at the unit price per each for **"Shooting"**.

PERFORATING

- A. Description: This work consists of all labor, equipment, and material necessary to perforate a casing or tubing at a determined depth for the purpose of squeezing cement outside the casing or tubing string.
- B. Execution: The Contractor shall complete the perforating of the casing or tubing at a depth approved by the Division. This work shall include logging the well with a standard logging suite at the discretion of the Division to identify perforation interval(s).

The Contractor shall propose the material and method for perforating the casing or tubing and shall be approved by the Division. **Each unit for perforating shall include two (2) shots with ten (10) perforations per shot, for a total of 20 perforations.**

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the perforating the casing or tubing made at the unit price per each for **"Perforating."**

SEVERING

- A. Description: This work consists of all labor, equipment, and material necessary to sever a casing at a determined depth for the purpose of removing the casing string from the wellbore.
- B. Execution: The Contractor shall complete the severing of the casing at a depth approved by the Division. The Contractor shall propose the material and method for severing of the casing, which shall be approved by the Division. This includes, but is not limited to, locating free point, ripping, shooting, or cutting.
- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the severing the casing made at the unit price per each for **"Severing"**.

LOST CIRCULATION MATERIALS

- A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary to expose portions of the well bore to lost circulation materials (LCM) as determined necessary. Lost circulation materials shall be implemented to aid in obtaining well bore circulation prior to any cementing operations.
- B. Materials: Lost circulation materials shall be selected by the Contractor based on site conditions encountered and proposed to the Division for approval.

- C. Measurement: Measurement for payment shall be based on the actual quantity of sacks of lost circulation materials satisfactorily placed and shall be verified with delivery tickets. For estimating purposes, it has been assumed that one (1) sack is equal to fifty (50) pounds.
- D. Payment: Payment for all the above-described work shall be made at the unit price per sack for **"Lost Circulation Materials"**.

DRILLING MUD

- A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use a water-based drilling mud for the drilling and plugging process of the well.
- B. Materials: Based on the onsite conditions the Contractor shall propose a water-based drilling mud for approval from the Division. Once a material is approved the Division will require a minimum quantity be maintained at the site during the plugging project based on circumstances encountered.
- C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of sacks (50 lbs) of additives for the water-based drilling mud used to successfully plug the orphan well.
- D. Payment: Payment for the above work shall be made at the unit price per sack for "Drilling Mud."

HYDROGEN SULFIDE SCAVENGER

- D. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use a hydrogen sulfide scavenger for the drilling and plugging process of the well.
- E. Materials: The Contractor shall provide Sulfa-Clear or an approved equal. The Sulfa-Clear shall be applied at a rate to eliminate the presence of Hydrogen Sulfide (H₂S) at the surface and shall not be less than seven (7) percent concentration with the applicable well bore fluid.
- F. Execution: The Contractor shall be prepared to apply the hydrogen sulfide scavenger at any time during the drilling and plugging operation. When Hydrogen Sulfide (H₂S) is encountered the Contractor shall apply the hydrogen sulfide scavenger. If the hydrogen sulfide scavenger is applied during drilling operations the Contractor shall continue to monitor the presence of H₂S and apply additional hydrogen sulfide scavenger as needed in order to complete the plugging.

Once total depth has been reached an additional batch of hydrogen sulfide scavenger will be applied to the total depth of the well bore prior to setting of any plugs. Once this total depth application has been applied the Contractor shall wait a minimum of 24 hours to commence work on the well bore.

- D. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of gallons of hydrogen sulfide scavenger used to successfully plug and/or drill the orphan well.
- E. Payment: Payment for the above work shall be made at the unit price per gallons for **"Hydrogen Sulfide Scavenger"**.

NINE SACK GROUT

A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary to plug the well as specified in the **Plugging Plan**.

B. Materials: Nine Sack Grout shall consist of the following materials and requirements:

Constituent	SSD Weight (lbs.)	Volume (ft. ³)
Cement Type I-II	846.00	4.30
Sand	2550.00	15.54
Water	417.00	6.68

(SSD means saturated surface dry)

1. Cement Type I-II: Cement shall conform to ODOT CMS Item 701.02 and 701.04.

2. Sand: Sand shall be in accordance with ASTM C150.

3. Water: Water shall be in accordance with ASTM C1602.

The grout shall contain a maximum of 1% entrapped air.

Grout shall have a water to cement ratio (W/C) equal to 0.50 and an overall unit weight of 142.30 pounds per cubic foot.

Slump tests may be done at the discretion of the Division. Slump requirements shall be determined in the field at the time of construction.

The Division has accounted for excess materials due to loss in the wellbore in the quantities on the **Quantity Sheet**.

C. Installation: **The Contractor shall notify the Division at least 24 hours in advance of placing grout.** The surface plug shall be grouted to the depth described in the **Plugging Plan**.

Well preparation and circulation shall be achieved as detailed in the "**Well Preparation & Plugging**" line item and the **Plugging Plan**.

D. Setting: Setting times shall be completed as described in the **Plugging Plan**. For the casing any void space between the top of the grout and the top of the casing shall be filled to achieve a level grout line with the top of the casing. This shall be done at no additional cost to the Division.

E. Measurement: Measurement for payment for the above-described work shall be based upon material quantities satisfactorily installed as well as delivery tickets furnished to the Division.

F. Payment: Payment for all the above-described work shall be made at the unit price per cubic yard for "**Nine Sack Grout**."

DOWNHOLE VIDEOGRAPHY

A. Description: This work consists of all labor, equipment, and material necessary to video record the well bore in order to assess a well bore obstruction.

B. Execution: The Contractor shall supply all equipment needed and complete the videography recording of the well bore to the depth of the current obstruction. The Contractor shall supply the

Division with an electronic copy of the videography recorded in a format viewable in readily available current software.

- C. Measurement: Measurement for payment shall be made by the delivery of an acceptable video and photos to the Division of the current obstruction. Measurement shall be per obstruction, not per video or photo.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the video recording of the current obstruction made at the per unit price per each for "**Downhole Videography**".

H2S SAFETY TEAM

- A. Description: The work will include the installation and implementation of safety procedures for the plugging of the orphan well as described herein that that wells in the area have been known to produce bacterial H₂S. **Per 29 CFR 1910.1000, Air Contaminants, Table Z-2 the permissible exposure limits (PEL) ceiling standard for H₂S is 20 ppm.** This shall also include any labor, equipment, materials, and time needed to implement these safety procedures. The H₂S safety team shall be qualified employees of the Contractor or subcontractors including no less than two employees available for 24/7 coverage of the monitoring equipment. The personnel shall be available for no more than 12-hour shifts (Shifts include active and on call service) and shall be on site while work is being completed.
- B. Execution: The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H₂S emitted from the well. All personnel on location must have and wear H₂S monitor and/or 4-gas monitor. If permissible exposure limits (PEL) are exceeded, the Contractor will be required to have an H₂S safety team on site until the geological zone of interest is covered with cement and no further H₂S issues are at the surface while the well is vented for a minimum of 8 hours. The H₂S safety team may be released at this point, but personal monitors and the rig monitor are still required. The safety team shall be called back as needed.

Once the contractor is on site and well is ready to be opened or detection of permissible exposure limits (PEL) are exceeded, the Contractor will not continue plugging operations until the safety team has developed and implemented a H₂S safety plan that is compliant with Occupational Safety and Health Administration (OSHA) and The National Institute for Occupational Safety and Health (NIOSH) regulations. The plan shall be approved by the Division.

Along with any other measures required to be compliant with regulations and to implement the approved H₂S safety plan, the Safety Team at minimum shall supply, train, and utilize the following:

1. Supply & use exhaust and ventilation systems,
2. Train and educate workers about hazards and controls,
3. Test (monitor) the air 24/7 with the ability to receive real-time notifications of site conditions through email, website, and phone/text alerts to receive real-time alerting of events and alarms,
4. Establish, train, and use proper rescue and first aid procedures,
5. Supply, train, and use respiratory and other personal protective equipment, &
6. Establish, train, and implement an H₂S Emergency Response Plan for the site including Emergency Medical Technicians (EMTs) ready to respond to the 24/7 monitoring unless otherwise contacted by the Safety Team.

For days that the site is idle for weekends, holidays, or any other day that the Division agrees work cannot take place, the H2S Safety Team shall be on standby and the cost associated with those days shall be paid at the unit price per day for **"H2S Safety Team Standby"**. Any days that work could have been completed and was not due to the Contractor shall be at the Contractor's expense.

- C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division.
- D. Payment: Payment for this work, including labor, equipment, materials, and time shall be made at the unit price per day for **"H2S Safety Team" or "H2S Safety Team Standby"**.

CONCRETE WALK

- A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary construct, pour, and cure the proposed walk as required per division inspection once all equipment has been removed from the site during the final site restoration. This work shall also include furnishing all labor, materials, equipment, and supplies necessary to remove the existing concrete walk and unsuitable base material. All removed material shall be properly disposed of offsite. **All removal and disposal shall be considered incidental to this line item.**

This work shall only include walk that is in the limits approved by the Division to complete the project as shown on the Drawing Plan Set. Any damage caused by the Contractor by working outside of the limits set shall be repaired at the Contractor's expense and conform to this line item.

- B. Materials:
 - 1. Concrete: Concrete materials shall conform to ODOT Class "C" Concrete and shall be a minimum of four (4) inches thick.
 - 2. Base: Dependent upon the condition of the encountered subgrade, a minimum of two (2) inches thick No. 304 of Aggregate Base shall be installed prior to the placement of concrete at the discretion of the Division. All No. 304 Aggregate base placed shall be compacted by a minimum of three (3) passes of a vibratory plate compactor capable of exerting a minimum of 2,000 pounds of centrifugal force. **This work and material shall be considered incidental to this line item.**
 - 3. False Work / Forms: False work and forms shall be in accordance with the details shown on the Construction Plan Set and/or per ODOT Item 508.
 - 4. Reinforcement: Concrete mix fill shall be reinforced with 6"x6" W1.4xW1.4 wire mesh and shall be 2" above the aggregate base or with approved fiber reinforced concrete.
- C. Installation: The Division shall be notified at least 24 hours in advance of placing concrete.
 - 1. Excavation: Upon removal of the existing walk, the Division will inspect the existing subgrade. If unsatisfactory, the Contractor shall excavate a minimum of 2" below the existing grade of the walk designated by the Division for removal. Protect the sides of all excavations from caving by providing suitable sheeting, shoring and/or bracing. **All existing concrete shall be removed by means of saw cutting and/or to the nearest joint of undisturbed sidewalk, based on Division inspection.**

2. Stone Base: The No. 304 Aggregate Base shall be placed within the limits of the excavation and compacted at the discretion on the division.
3. Form Work: Construct substantial, unyielding, and mortar tight forms, designed to produce a finished concrete conforming to the proper dimensions and contours. The planned formwork design shall meet the dimensions and elevations of the existing sidewalk at the edges of what has been removed.
4. Reinforcement:
 - a. Wire Mesh: If wire mesh is used it shall be placed in the lower third (2" above gravel base) of the concrete mix and wire tied to chairs. Chairs shall be set level on the gravel base with a maximum of 24 inches of spacing between chairs.
 - b. Fiber Reinforcement: If fiber reinforced concrete is used the mix shall be approved by the Division. The fiber reinforcement shall be residential grade.
5. Concrete: The formwork and sub-base shall be inspected and approved by the Division prior to commencing with the formed concrete.

Before placing the concrete, all forms and surfaces which will be in contact with the concrete shall be thoroughly cleaned and the space occupied by the concrete shall be free from all silt, dirt, shavings, rust, and other debris.

Concrete shall not be deposited in water. Concrete shall not be dropped a distance of more than five (5) feet. Drop chutes shall be used to limit free fall to under five (5) feet.

Concrete shall be placed within 1 1/2 hours of batching as indicated on the delivery ticket. Any concrete batched over 1 1/2 hours will be rejected.

Upon completion of the pour, the contractor shall **"broom finish"** the surface of the concrete.

The Division reserves the right to require relief cuts on the concrete. The concrete shall cure a minimum of 18 hours prior to relief cutting. All relief cuts shall match relief cuts in the existing concrete to remain.

Concrete shall be formed and placed in a manner to allow for positive drainage off the proposed concrete away from structures.

5. Curing:

As necessary, spade along surfaces and in corners to ensure smooth surfaces and dense concrete.

The concrete shall be cured by maintaining the surface temperature between 50°F AND 100°F for a period of five (5) days.

All concrete shall be cured by Method (a) Water Curing or by Method (b) Membrane curing. Concrete shall be cured continuously until the concrete has attained the required 28-day strength as determined by compressive strength test, but in no case shall the elapsed time between placing the concrete and working or loading the concrete be less than 72 hours.

Method (a) Water Curing: All surfaces not covered by forms shall be protected with two (2) thicknesses of wet burlap, as soon after placing the concrete as it can be done without marring the surface. The wet burlap shall be covered with white polyethylene sheeting or plastic-coated burlap blankets conforming to AASHTO M 171. They shall be placed wet with the burlap side against the concrete. Adjoining plastic-coated blankets or polyethylene sheets used to cover wet burlap shall be lapped sufficiently and held securely in place at laps and edges so that positive moisture seal is provided. White polyethylene sheeting or plastic-coated blankets containing holes or tears shall be covered with an additional covering of sheeting or blankets as directed by the Division.

Method (b) Membrane Curing: Immediately after the free water has disappeared on surfaces not protected by forms and immediately after the removal of forms, if such are removed before the end of the curing period, the concrete shall be sealed by spraying as a fine mist to provide a uniform application of curing material that conforms to ASTM C 309, in such manner as to provide continuous, uniform, water impermeable film without marring the surface of the concrete. Acrylic Concrete Cure & Seal, as manufactured by Quikrete or approved equal shall be used. In conjunction with these requirements, materials shall be installed per the manufacturer's requirements.

The membrane curing shall be applied in one or more separate coats at the rate of at least one (1) gallon per 200 square feet of surface. To assure that the proper amount of the curing material is applied, the number of gallons of curing material in the spray container shall be noted, and the correct area for that volume laid off so that the area of concrete surface to be covered will be such that the approved application rate will be secured. Curing material shall be thoroughly agitated immediately prior to use. If the film is broken or damaged at any time during the specified curing period, the area or areas affected shall be given a complete duplicate treatment of the curing material applied at the same rate as the first treatment.

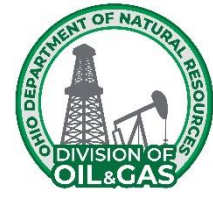
Unless adequate precautions are taken to protect the surface of the membrane; workers, materials, and equipment shall be kept off the membrane for the duration of the curing period.

Chemical admixtures may be used for curing with prior approval from the Division.

- D Measurement: Measurement for payment for the concrete walk shall be made by actual field measurements of quantities satisfactorily installed at the site. The walk shall be measured for a square foot installed.
- E Payment: Payment for all the above-described work shall be made at the contract unit price bid per square foot for "**Concrete Walk**".



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
 Noble County, Olive, Brookfield, Enoch, Noble Townships



APPENDIX I – OHIO ONE-CALL

THE FOLLOWING ARE REPORTABLE INCIDENTS: (OAC 1501:9-8-02)

TYPE OF INCIDENT (All Incident types associated with production operation or other activity regulated under Chapter 1509)	QUANTITY (GAL, BBL,PPM) NOTE: 1 Barrel = 42 US Gallons	ADDITIONAL FACTORS
Release of Gas	<u>Any</u> amount	Resulting from a Blow out; OR Uncontrolled Pop-off Valve (in Urban Area); OR Any gas release that is a threat to public safety
Release of Hydrogen Sulfide(H₂S) Gas (within the Working Area)	Exceeding 20 ppm (Sustained airborne concentration); For duration > 10 min	OR any H ₂ S release resulting in injury or death of person
Fire / Explosion	N/A	In which a reporting person has called an emergency responder (9-1-1 or Fire Dept)
Release of Oil, Condensate, or Materials Saturated with Oil or Condensate	> 210 US gallons in any 24-hr period (Estimated)	AND the release is OUTSIDE secondary containment & into the environment
Release of Oil, Condensate, or Materials Saturated with Oil or Condensate	> 25 US gallons in any 24-hr period (Estimated); AND the release is outside secondary containment and into the environment	In an urban area; OR In an Emergency Management Zone of a surface water public drinking supply; OR In a 5-year time of travel with a groundwater-based public drinking supply; OR In a 100-year flood hazard area as delineated on the federal emergency management agency's (FEMA) national flood insurance rate map
Release of Refined Oil Products (EX: oil-based drilling fluid, petroleum distillate, spent or unused paraffin solvent, gasoline, fuel oil, diesel fuel, or lubricants)	> 25 US gallons in any 24-hr period	AND the release is OUTSIDE secondary containment & into the environment
Release of Oil, Condensate, or Materials Saturated with Oil or Condensate; <u>OR</u> Refined Oil Products	<u>Any</u> amount	That enters waters of the state in an amount that causes a film or sheen on the surface of the water
Release of Brine or Semi-Solid Waste (EX: drilling mud, sludge, or tank bottom sediments)	> 42 US gallons in any 24-hr period	AND the release is OUTSIDE secondary containment & into the environment
Release of Brine from a Vehicle, Vessel, Railcar, or Container	> 42 US gallons	AND is operated by a person to whom a registration certificate has been issued (ORC 1509.222), or to whom a resolution has been issued (ORC 1509.226) AND enters the environment

Release of Hazardous Substance (HS)/ Extremely Hazardous Substance (EHS); OR Mixture or Solution including a HS or EHS	An amount Equal to or > than applicable reportable quantities listed in 40CFR tables; in any 24-hr period If the amount of one or more HS or EHS released is in an unknown mixture or solution, notify when the total amount of the mixture or solution released is <u>equal to or > than</u> the reportable quantity for the HS or EHS with the lowest reportable quantity	List available at: http://oilandgas.ohiodnr.gov/portals/oilgas/pdf/emergency/list_of_lists.pdf <i>Code of Federal Regulations (C.F.R.) References:</i> HS- Appendix A 40 CFR Part 302.4 EHS- Appendix A 40 CFR Part 355
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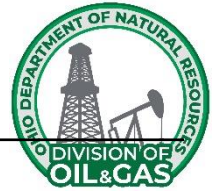
THE FOLLOWING ARE NOT REPORTABLE INCIDENTS:
(OAC 1501:9-8-02 (A)(7))

- Controlled flaring or controlled burns authorized under Chapter 1509. of the Revised Code or under 1501:9 of the Administrative Code or authorized by the terms and conditions of a permit issued under Chapter 1509. of the Revised Code;
- Properly functioning emission control devices authorized pursuant to Revised Code Section 3704.03;
- Subsurface detonation of perforation-guns;
- Seismic shots;
- Controlled blasting for well site construction

Date Last Edited & Printed: 9/27/2018



SCOPE OF WORK
Noble 16F PROJECT
Multiple Orphan Well Sites
Noble County, Multiple Townships



**APPENDIX II: Photos
& Well Records**

Teters #1
34-121-2-1377-00-00
Noble Co, Brookfield Twp



Allegh. GR. Cem. Q.

Ohio Division Of Geological Survey

21377

Permit No. 1377

Permit Issued 11-26-69

Quadrangle Caldwell No.

County Noble Township Brookfield

SE $\frac{1}{4}$ Section 34 Lot Tract

Twp. Quarter

Measured 750' NL & 372' EL of SE $\frac{1}{4}$ of Sec. 34

86 Acres

Sal-Pool-R.T.

Land Owner Ohio Power (Te TERS)

Well No. 1

Date Commenced 12-6-69

Operator Liberty Petroleum Corp.

Well No.

Date Completed 2-22-70

Elevation Bar 1066 Topo S.L. 1072 KB

Total Depth 5640

Plugged Back

Formation Drl'd. To.

Prod. Form.

Prod. Nat.

Frac. 4000 BW, 60M# Sd.--Perf. Cl. & Medina 5401-5536', 18shots I.P.A.F. 1600 CFG

Init. Rock Press.

Casing Record 8-5/8"-585'; 4 $\frac{1}{2}$ "-5593'

Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
X= 2,246,800				Sand	5398	5466	Grimsby, sh.
Y= 641,200							gas-Cl.Sd.
COMPLETION				Shale	5466	5520	Manatoulin
Clay, Sd., Shale	0	1750	Surface	Sand	5520	5538	Medina, sh.
Berea	1750	1790					gas
Devonian Sh.	1790	3912		Shale	5538	5600	Queen.-TD
Im. & Dolomite	3912	5142	Onondaga-B.Lm.				
Shale	5142	5288	Rochester				
Dolomite	5288	5300	Dayton				
Shale	5300	5338	Sodus				
Dolomite	5338	5367	Reynales-Pkr. Sh.				
Shly. Sand	5367	5398	Neagha				

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
				NSR 2-26-70			
				Start 12-6-69, comp. 12-22-69			
				Csg. 8-5/8"-685', 240sks.; 4 $\frac{1}{2}$ "-5620', 120sks.			
				Perf. 5401-5535, 18 hls.			
				1,600 MCFG, op. 2 hrs.			
				Be.	1770	1792	
				B.Lm.	3914	5230	
				Orisk.	4200	4243	
				L.Lm.	5326	5340	
				Cl.	5380	5472	
				T.D. 5660, L.TD-5558'			

Hedge #1

34-121-2-1503-00-00
Noble Co, Brookfield Twp



Alleg. GRN
Piper-GRN, D, Cal; CR, Gd.

21503

Ohio Division Of Geological Survey

Permit No. 1503
Permit Issued 11-18-71
Quadrangle Cumberland
Twp. Quarter

County Noble Township Brookfield
Section 28 Lot Tract
Measured 560' SL & 100' WL of SE 1/4 of Sec. 28
80 Acres

Land Owner John Hedge-Ohio Power Co. Well No. 1 Date Commenced 11-17-71
Operator Liberty Petroleum Corp. Well No. Date Completed 11-23-71
Elevation Bar 862 G. S.L. 870 DF, 871 KB Total Depth 5290 Plugged Back
Formation Dtd. To Queen. Prod. Form. Prod. Nat. 100 MCFG
F/W 3453 BW, 58,800# Sd.--Perf. 5102-5230' 20hls. I.P.
Init. Rock Press.
Casing Record 8-5/8"-1628' 450sks. 4 1/2"- 100sks. Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
X= 2,239,310 Y= 645,390				Clinton	5098	5156	Gas
COMPLETION				Cabot Head	5156	5216	
Surf., Clay, Shale	0	24	Res. & Pa.	Medina	5216	5232	Gas
Shale & Sand	24	1540	Pa.-Miss.	Queen.	5232	5290	TD
Berea	1540	1580	S. Wtr.				
Devonian	1580	3633					
B.Lime	3633	4860	v.sm.sh.gas-S.Wtr. 4725'				
Sh.W/Lm. strks.	4860	5039	Oriak. 3740-3754'				
Cl.Grp.							
Pkr. Shell	5039	5054					
Stray Cl.	5054	5098	Dry				

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
				NSR 1-13-72			
				Start 11-18-71, comp. 11-23-71			
				Csg. 8-5/8"-1629' 425sks. 4 1/2"-5276' 100sks.			
				F/W 3157 BW, 51.8M# Sd.			
				Perf. 5101-5529, 20 hls.			
				A.F. 1,154 MCFG			
				Be.	1540	1580	
				B.Lm.	3633	4858	
				L.Lm.	5038	5054	
				Cl.	5067	5155	
				R. Med.	5216	5232	
				TD 5290-LTD 5275'			

Ohio Power-Fred Zinn #1

34-121-2-1583-00-00
Noble Co, Brookfield Twp



Alleg. Nuc. : GRN, D. Cal; GR, Cem.		21583		Permit No.	1583		
Ohio Division Of Geological Survey				Permit Issued	11-15-72		
County	Noble	Township	Brookfield	Quadrangle	Cumberland		
NE $\frac{1}{4}$	Section 19	Lot	Tract	Twp. Quarter			
Measured	85' SL & 635' EL of NE $\frac{1}{4}$ of Sec. 19						
193 Acres		"Clinton"-Pool-R.T.					
Land Owner	(Fred Zinn et al)Ohio Power Co.	Well No.	1	Date Commenced	2-16-73		
Operator	Liberty Pet. Corp.	Well No.		Date Completed	2-27-73		
Elevation Bar	1022' T. S.L.	Total Depth	5350	Plugged Back			
Formation Drd. To	CL.	Prod. Form.		Prod. Nat.			
F/W	3000 BW, 35M# Sd.	I.P.	5 BO, 400 MCFG (NSR)				
Init. Rock Press.							
Casing Record	8-5/8"-526'200sks.; 4 1/2"-5343'100sks. Abandoned						
Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
X= 2,230,690 Y= 653,140							
COMPLETION							
Soil & Shale	0	1688					
Berea	1688	1731	Wtr.				
Ohio Sh.	1731	3712					
B. Lm.	3712	4924					
Sh.	4924	5094					
Pkr. Sh.	5094	5108					
Shale							
Clinton	5150	5202					
Shale	5202	5271					
Medina	5271	5278	TD 5342				

Miller #2

34-121-2-1966-00-00
Noble Co, Brookfield Twp



PSI:GRN,D		OHIO DIVISION OF GEOLOGICAL SURVEY		21966	Permit No. 1966
County NOBLE	Township BROOKFIELD	Permit Issued 3-30-77		Quadrangle Caldwell No.	
Section 23	Lot	Tract		Twp. Quarter	
Measured 520' NL & 710' EL of SE 1/4 Sec. 23				40 Acres	
Land Owner D. Miller				Well No. 2	
Operator Chief Petroleum Inc.				Date Commenced 6-24-77	
Elevation Bar 1020' G 1028' DF 1030' KB				Total Depth 5558'	
Formation Drld. To Medina				Prod. Form. Clinton	
F/W 1438 bbls. wtr, 30M# sand; Pf. (20) 5428-54				I.P. A.F. 824MCFG & 1080	
Init. Rock Press.				Plugged Back	
Casing Record 8 5/8" 720' 250sks, 4 1/2" 5557' 100sks				Abandoned	

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Date:COMPLETION 6-21-78				X= 2,251,875			
Surface	0	80		Y= 652,100			
Sand & shale	80	1631		Medina	5542	5558	no shows
Berea sand	1631	1670	wet				
Shale	1670	3908					
Big Lime	3908	5177	no shows				
Shale & Lime	5177	5360					
Packer shell	5360	5378	no shows				
Shale & sand	5378	5426					
Clinton red	5426	5438	free gas				
Shale	5438	5446					
Clinton white	5446	5488	little s/gas				
Shale	5488	5542					

Miller #1

34-121-2-1969-00-00
Noble Co, Brookfield Twp



PSI: GRN, D, Cal.		21969		Permit No. 1969	
OHIO DIVISION OF GEOLOGICAL SURVEY				Permit Issued 4-6-77	
County NOBLE	Township BROOKFIELD		Quadrangle Caldwell No.		
SE 1/4 Section 23	Lot	Tract	Twp. Quarter		
Measured 520' SL & 520' EL of SE 1/4 Sec. 23			"Clinton" - Pool - R.T.		
40 Acres			Date Commenced 5-11-77		
Land Owner D. Miller		Well No. 1	Date Completed 6-6-77		
Operator Chief Petroleum, Inc.		Well No.	Plugged Back		
Elevation Bar 980' G	988' DF	Total Depth 5455	Prod. Nat.		
Formation Drld. To C1		Prod. Form. C1	I.P. A.F. 470MCFG		
F/W 1370 BW & 35M# sand - Pf. (20) 5384-5410'					
Init. Rock Press.					
Casing Record 8 5/8" 663', 110sks; 4 1/2" 5455', 150sks; 1 1/2" 5370 Abandoned					

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Date: COMPLETION 8-5-77				X= 2,252,020			
surface	0	80		Y= 650,480			
sand & shale	80	1582		SR 6-23-77			
Berea	1592	1628	ss/g				
shale	1628	3862					
B. Lime	3862	5128	no shows				
shale & lime	5128	5314					
P. Shell	5314	5331	no shows				
shale & sand	5331	5380					
Clinton	5380	5438	free gas				
shale	5438	5455	TD				

Hedge, L #1

34-121-2-2003-00-00
Noble Co, Brookfield Twp



P.S. 1: GRN, D, Cat, [redacted]		Rev. Loc. 9-28-77		Permit No. 2003	
OHIO DIVISION OF GEOLOGICAL SURVEY 22003				Permit Issued 6-29-77	
County NOBLE		Township BROOKFIELD		Quadrangle Caldwell No.	
NE 1/4 Section 23		Lot [redacted] Tract [redacted]		Twp. Quarter [redacted]	
Measured (545' SL & 185' WL of NE 1/4 Sec. 23) 720' SL & 0' WL of NE 1/4 Sec. 23				Sec. 23	
40 Acres				"Clinton" - Pool - R.T.	
Land Owner L. E. Hedge		Well No. 1		Date Commenced 10-3-77	
Operator Chief Petroleum, Inc.		Well No. [redacted]		Date Completed 11-1-77	
Elevation Bar (1020) G 1030' 1038' DF		1048' KB		Total Depth 5565'	
Formation Drld. To Medina		Prod. Form. Clinton		Prod. Nat. [redacted]	
F/W/26M# sand; 400 gal. acid		Pf. (20) 5428-70		I.P. A.F. 600MCEG	
Init. Rock Press. [redacted]				Plugged Back [redacted]	
Casing Record 8 5/8" 724' 4 1/2" 5557' 100sks				Abandoned [redacted]	

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Date: COMPLETION 4-5-78				X=(2,250,100) 2,249,950			
Surface	0	80		Y= (653,250) 653,450			
Sand & shale	80	1672		Medina	5546	5565	Wet gas shows
Berea sand	1672	1712	Wet gas shows			5565	TD
Shale	1712	3924					
Big Lime	3924	5186	Little Oriskany gas				
Shale	5186	5367					
Packer shell	5367	5384					
Shale & sand	5384	5429	Little shows				
Clinton red	5429	5444	Gas shows				
Clinton white	5444	5480	Free gas				
Shale	5480	5546					

Itol, Reed #2

34-121-2-2107-00-00
Noble Co, Brookfield Twp



PSI:GRN, Cal, D		22107		Permit No.	2107	
OHIO DIVISION OF GEOLOGICAL SURVEY				Permit Issued	10-4-78	
County	NOBLE		Township	BROOKFIELD		
Section	31	Lot	Tract		Quadrangle	Cumberland
Measured	525' NL & 2150' WL of NW $\frac{1}{4}$ Sec. 31			Twp. Quarter		
40 acres			"Clinton" - Pool - R.T.			
Land Owner	Itol Reed		Well No.	2		Date Commenced
Operator	Green Gas Co.		Well No.			Date Completed
Elevation Bar	1007'T	1013'DF	1015'KB	Total Depth	5220'	
Formation Drld. To	Queenston		Prod. Form.	Clinton		Prod. Nat.
F/W 1770 BW, 30M# sand; Pf. 5155-5195			I.P.		A.F. 450MCFG & 5B0	
Init. Rock Press.						
Casing Record	8 5/8" 644', 4 $\frac{1}{2}$ " 5212' 100sks			Abandoned		

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
COMPLETION 3-20-79				X= 2,227,850			
Sand & shale	0	1683		Y= 644,600			
Berea	1683	1723		Shale	5196	5252	
Ohio shale	1723	3692		Medina	5252	5264	
Col. Del.	3692	3808		Shale	5264		
Bass Islands	3808	3990					
Salina	3990	4620					
Lockport	4620	4808					
Clinton	4808	5075					
Packer shell	5075	5087					
Shale	5087	5136					
Clinton red	5136	5152					
Clinton white	5152	5196					

Itol, Reed #3
34-121-2-2169-00-00

Noble Co, Brookfield Twp



PSI: GRN, Cal, D		22169		Permit No.	2169
OHIO DIVISION OF GEOLOGICAL SURVEY				Permit Issued	6-6-79
County	NOBLE	Township	BROOKFIELD	Quadrangle	Cumberland
Section	31	Lot		Twp. Quarter	
Measured 550' SL & 550' WL of NW $\frac{1}{4}$ Sec. 31					
40 acres					
Land Owner	Ito Reed	Well No.	3	Date Commenced	7-16-79
Operator	Green Gas Co.	Well No.		Date Completed	7-23-79
Elevation Bar	1040'T	1046'DF	1048'KB	Total Depth	5299*
Formation Drld. To	Queenston	Prod. Form.	Clinton	Plugged Back	
F/W	11,445# 's sand & 2M BW;	Pf	5131,32,33,42,44,46,48,50*	Prod. Nat.	
Init. Rock Press.	I.P. A.F. 150 MCFG				
Casing Record	8 5/8" 670', 4 1/2" 5286', 100 sks.				
Abandoned					

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
*52,54,56,58,60,75,77				X= 2,226,200			
				Y= 643,100			
COMPLETION 7-8-83				Clinton	5123	5192	
Shale & sand	0	1700		Cabot head	5192	5246	
Sand Berea	1700	1748		Medina	5246	5258	
Ohio shale	1748	3696		Queenston	5258		
Del. Col.-Bass						5299	TD
Islands	3696	4003					
Salina	4003	4618					
Lockport	4618	4843					
Clinton	4843	5070					
Pkr. sh.	5070	5083					
Clinton	5083	5128					

Dudley #2
34-121-2-3691-00-00

Noble Co, Brookfield Twp



DNR 4808		PSI:GRN,Ca1,D,CCL,CB		RI 12-14-91 23691		Permit no. 3691	
County NOBLE		Township BROOKFIELD		Permit issued 9-9-89		Quadrangle Caldwell N.	
Section 2		Lot		Tract		Twp. quarter	
Measured 545' NL & 180' EL of NW 1/4 Sec. 2		40.000 acres		Clinton - Pool - Air/Fluid RT			
Land owner Dudley		Well no. 2		Date commenced 12-7-92			
Operator Green Gas Co.		Well no.		Date completed 12-12-92			
Elevation bar 935' 945'DF 947'KB		Total depth 5454'		Plugged back			
Formation drld. to Medina		Prod. form. Clinton		Prod. nat.			
F/W water and sand; Pf. 5246-5310;				I.P.A.F. 25MCFG			
Init. rock press.							
Casing record 8 5/8" 1108' 330sks, 4 1/2" 5448' 150sks				Abandoned			

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
COMPLETION 6-21-91				X= 2,250,050			
Permit expired.				Y= 670,800			
COMPLETION 12-30-93							
Berea sand	1424	1466					
Ohio shale	1466	3724					
Big lime	3724	5012					
Packer shell	5183	5198					
Clinton	5206	5316					
Medina	5366	5374					
Queenston	5374						
		5454	DTD; 5461' LTD				

Hedge, John #2
34-121-2-3695-00-00

Noble Co, Brookfield Twp



DNR 4808		PSI: GRN, Cal, D.D. DIVISION OF GEOLOGICAL SURVEY		RT 12-1-90		23695		Permit no. 3695	
County NOBLE		Township BROOKFIELD		Quadrangle Cumberland		Twp. quarter		Permit issued 9-16-89	
Section 28		Lot		Tract		Measured 750' NL & 575' EL of SW 1/4 Sec. 28		40.000 acres	
Land owner John Hedge		Well no. 2		Date commenced 10-1-91		Operator Green Gas Co.		Well no. 5470	
Elevation bar 1020'		1028'DF		1030'KB		Total depth 5470'		Plugged back	
Formation drid. to Queenston		Prod. form. Clinton		Prod. nat. s/gas		F/W 98,140 gal wtr, 1700# avg treat press, 28M# 20/40 sand,*		I.P. A.F. 60MCEG	
Init. rock press.		8 5/8" 1314' 265sks, 4 1/2" 5430' 150sks		5 bbl brine		Casing record		Abandoned	

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
COMPLETION 6-24-91				X= 2,238,650			
Permit expired.				Y= 646,865			
COMPLETION 10-7-92				Queenston	5370	5470	DTD; 5459'LTD
*34 bpm, 340# shut in press; Pt. (20) 5240-56							
Berea sand	1674	1722					
Ohio shale	1722	3768					
Big lime	3768	4995					
Packer shell	5176	5192					
Clinton stray	5208	5226					
Clinton white	5236	5286					
Medina	5354	5370					

DIVISION OF OIL AND GAS, ODNR
ATTN: FIELD ENFORCEMENT SECTION
FOUNTAIN SQUARE
COLUMBUS, OHIO 43224
FORM 52: REVISED 2/1/85

(To be submitted with Activity Report)

API WELL NUMBER

3 4 1 2 1 2

3 6 9 5

Permit No.

RZ *dmw*

1 4

S

RECORD OF CASING, CEMENTING AND MUDDING

Well Owner: GREEN GAS

Lease Name: CHP HEAGE Well No. 2

County: NOBLE Twp. BROOKFIELD

Contractor: MATT MARK

Type of Tools: ☒ ROTARY ☐ CABLE

Service Company: UNIVERSAL

Procedure: ☒ PRESSURE ☐ GRAVITY

Plugging of: _____

Mouse hole ☐ YES ☐ NO _____ SACKS

Rat hole ☐ YES ☐ NO _____ SACKS

CASING RECORD

SIZE SET REMARKS

13 120' CONDUCTOR

Formations: (if available) ☐ DL ☐ EL ☐ KB ☐ RF ☐ GL
NAME TOP BOTTOM

Date Issued: 11-26-91 Expiration Date: 11-26-92

Spud Date: Month 10 Day 2 Year 91

Type of Job: ☒ SURFACE ☐ PRODUCTION ☐ OTHER

Type of Cement: COMMON Sacks: 400+20

Amount of Mud: _____

Size of Hole: 11 DEPTH 1360 FT

Casing: SIZE 8 7/8 DEPTH 1307 FT

Float Equipment: ☐ SHOE ☐ COLLAR ☐ OTHER

Special Equipment: BASKET 90'

Cement/Mud Circulated to Surface: ☐ YES ☒ NO

Notification Received: ☒ YES ☐ NO

Job Witnessed by Inspector: ☒ YES ☐ NO

Annular Disposal indicated on permit: ☐ YES ☒ NO

Meets construction requirements for A.D. (Explain below if no or if remedial action is required). ☒ YES ☐ NO

DATE JOB COMPLETED 10/3/91

Remarks:
(attach cement/mud tickets if available)

NO RETURNS TAPPED OFF WITH
20 SKS

RECEIVED

Teters #2
34-121-2-3710-00-00
Noble Co, Brookfield Twp



DNR 4808		PSI: GRN, C&M DIVISION OF GEOLOGICAL SURVEY RI 9-7-91		23710		Permit no. 3710	
County NOBLE		Township BROOKFIELD		Permit issued 10-28-89		Quadrangle Caldwell N	
Measured 550' SL & 1050' EL of Sec. 34		Section 34 Lot Tract		Twp. quarter			
40 acres		"Clinton"-Pool-Air RT/fl rt					
Land owner Teters, Doyle		Well no. 2		Date commenced 9-24-91			
Operator Green Gas Co.		Well no.		Date completed 9-28-91			
Elevation bar 1045'		1053' DF 1055' KB		Total depth 5628'		Plugged back	
Formation drld. to Queenston		Prod. form. Clinton		Prod. nat. s/gas			
F/W 93,270 gal wtr, 970# avg treat press 50#, 30M# 20/40 sand* I.P. A.F. 50MCEG							
Init. rock press.							
Casing record 8 5/8" 1355' 265sks, 4 1/2" 5616' 150sks Abandoned							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
COMPLETION 6-24-91				X=2,246,030			
Permit expired.				Y= 639,900			
COMPLETION 10-7-92							
*34 bpm injection rate; Pf. (20)			5388-5412;				
Berea sand	1744	1773					
Ohio shale	1773	3894					
Big lime	3894	5142					
Packer shell	5330	5350					
Clinton stray	5360	5382					
Clinton white	5388	5450					
Medina	5508	5528					
Queenston	5528						
		5628	TD				

King Unit (Ohio Power-Franklin) #1
34-121-2-3889-00-00
Noble Co, Brookfield Twp



OHIO DIVISION OF GEOLOGICAL SURVEY			
PSI:GRN,Ca1,D		23889	Permit No. 3889
		Permit Issued 09/22/94	
County NOBLE	Township BROOKFIELD	Quad. CUMBERLAND	
Section 34	Lot	Tract	Twp. Qtr.
Measured 150' SL & 350' EL OF SW QTR, SEC. 34			
Acres 40		Proposed TD 5800	Class POOL Tool RTAF
Landowner KING UNIT(OHIO POWER-FRANKLIN)		Well No. 1	Date Commenced 11-15-94
Operator GREEN GAS CO		Well No.	Date Completed 11-20-94
GL 1050	DF 1058	KB 1060	LTD 5607 DTD 5605
TD Formation Medina		Prod. Formation Clinton	
Perforations (20) 5415-60;		IP Natural S/gas	IP AT 100MCFG
Stimulation 1854 BW, 18M# 20/40 sand;		Initial Rock Pressure	
Casing Record		Date Abandoned	

FORMATION	TOP	BOTTOM	REMARKS
COMPLETION 9-29-95			
Berea sand	1762	1810	
Ohio shale	1810	3908	
Big lime	3908	5160	
Oriskany	4012	4036	
Packer shell	5338	5366	
Clinton stray	5380	5400	
Clinton white	5412	5460	
Medina	5520	5542	
Queenston	5542		
		5605	DTD; 5607' LTD

DNR 4808 (Rev. 5-92)

Hohman, E #1

34-121-2-2824-00-00
Noble Co, Enoch Twp



Shel: GRN, Cal, D, I		22824		Permit no.	2824
OHIO DIVISION OF GEOLOGICAL SURVEY					
County	NOBLE	Township	ENOCH	Permit issued	5-14-82
Section	7	Lot		Quadrangle	Macksburg
Measured	425' SL & 1350' WL of Sec. 7			Twp. quarter	
Land owner	20 acres			Ohio shale - CT/RT	
Operator	F. Hohman (Frederick Pet. Corp.)*			Well no.	1
Elevation bar	795'	803' DF	805' KB	Date commenced	6-12-82
Formation drld. to	Devonian sh.	Prod. form.	Devonian sh.	Date completed	6-19-82
F/W 27M# 's	sand & 320 BW, 630 MSCF	N ₂ : Open Hole	Total depth	4044'	Plugged back
Init. rock press.				Prod. nat.	
Casing record	7" 2118', 4 1/2" 4144'			I.P.	A.F. 10 MCFG
			Abandoned		

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
COMPLETION 7-11-83				X= 2,290,700			
Cow run	292	320		Y= 627,850			
Cow run	375	404					
Maxton sand	733	766					
Keener sand	864	894					
Injun sand	902	1006					
	1425	1460					
Shale	1460						
		4044	LTD				
		4041	DTD				

Miznik, George & Helen #1
34-121-2-1530-00-00
Noble Co, Noble Twp



Bird.GRN		Ohio Division Of Geological Survey		21530	Permit No. 1530
County	Noble	Township	Noble	Permit Issued	3-23-72
SW $\frac{1}{4}$	Section 24	Lot	Tract	Quadrangle	Caldwell N.
Measured 1112' SL & 505' WL of SW $\frac{1}{4}$ of Sec. 24				Twp. Quarter	
100 Acres				Sal-Pool-R.T.	
Land Owner	George P. & Helen Mizik		Well No.	1	
Operator	Mid Atlantic Oil Co.		Well No.	Date Completed 7-5-72	
Elevation Bar	998' G	S.L. 1008 KB	Total Depth	5557	
Formation Drld. To	CL	Prod. Form.	Prod. Nat.	Plugged Back	
F/W 1230 BW, 20M# Sd.--Perf. 5398-5430'22 hls.			I.P.	2,806 MCFG	
Init. Rock Press.					
Casing Record 8-5/8"-565'200sks.; 4 $\frac{1}{2}$ "-5550'125sks.				Abandoned	

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
X= 2,253,020							
Y= 651,010							
COMPLETION							
Berea	1594	1630					
B. Lime	3882	5148					
Little Lm.	5336	5352					
Clinton	5398	5448	Gas				
Medina	5515	5530					

Davis, Lee #1
34-121-2-0293-00-00
Noble Co, Olive Twp



Ohio Division Of Geological Survey				20293	Permit No. <u>293</u>	
County <u>Noble</u>		Township <u>Olive</u>		Permit Issued _____		
Section <u>2</u> Lot _____ Tract _____		Quadrangle _____				
Measured <u>475' WL & 600' NL of SE of sec. 2.</u>		Twp. Quarter _____				
Land Owner <u>Lee Davis</u>		Well No. <u>1</u>	Date Commenced <u>Aug. 11, 1941</u>			
Operator <u>Salt Run Oil Co.</u>		Well No. _____	Date Completed <u>Oct. 20, 1941</u>			
Elevation Bar <u>715</u>	S.L. _____	Total Depth <u>264</u>	Plugged Back _____			
Formation Drld. To _____		Prod. Form. _____		Prod. Nat. _____		
Init. Rock Press. _____		I.P. _____				
Casing Record <u>4 7/8"-182' 6 1/2"-90'</u>		Abandoned _____				

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Gravel & Snale	0	18		Green Shale	121	155	
Lime	18	23		Black Shale	155	182	
Shale	23	26		Black Shale	182	197	
Pink	26	36		White Shale	197	240	
Cambridge Lime	36	46					
water at 42'				White sand	240	264	
Pink	46	50		TD		264	
140' shale	50	78					
Dark Shale	78	89					
Bottom marker	89	90					
Fire clay	90	113					
Brown Shale	113	121					

Danford, Garfield #1
34-121-2-0523-00-00
Noble Co, Olive Twp



C -0046-3-10 GEOLOGICAL SURVEY OF OHIO 20523 523

State Ohio OIL AND GAS WELL LOG
County Noble Township Olive Quadrangle Caldwell
Lot 2 Quarter 4 Tract 2 Section 2 NW NE SW
Measured 985 Feet From 4 Line And 700 Feet From N Line Of NW 1/4

Land Owner Garfield Danford Well No. 1 Date Started 4/1/46
Operator Permian O. & G. Co. Well No. 1 Date Completed 7-31-46
Elevation Bar 3934 S. L. Total Depth 1234 Plugged Back
Formation Drilled To bottom Producing Form. sand Init. Prod. Nat. 5%, dry
Shot or Acid Record 30 qts. Prod. A. S. or Acid same
Init. Rock Press Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
red rock	0	110		sand		770	
sl.		148	white	gray sl.		815	
sl.		160	black	broken sand		832	
sl.		172	white	gray sl.		915	
red rock		208		sand		1100	
sl.		287	white	break		1106	
red rock		311		sand		1160	
sl.		408	black	black sl.		1165	
sand		458		ls. shell		1175	
sh.		505		gray sl.		1250	
sand		545		ls. shell		1256	
sh.		672		gray sl.		1475	
ls.		680		ls. shell		1480	
gray sl.		734		black sl.		1544	

CASING RECORD

13 inch Casings Used	39 Ft.	Pulled
10 " " "	130'7"	Pulled
8 " " "	415'	Pulled
6-5/8" " "	1175'	Left In.

Submitted by _____ THE PERMIAN OIL & GAS COMPANY
By A. H. Schatzger Secretary

Morris, J&E #2

34-121-2-0548-00-00
Noble Co, Olive Twp



Ohio Division Of Geological Survey				20548			
County <u>Noble</u>		Township <u>Olive</u>		Permit No. <u>548</u>			
Section <u>2</u>		Lot <u></u>		Permit Issued <u></u>			
Measured <u>310' WL & 240' NL of SE of sec. 2.</u>		Tract <u></u>		Quadrangle <u></u>			
Land Owner <u>J. & E. Morris</u>		Well No. <u>2</u>		Date Commenced <u>Oct. 1, 1946</u>			
Operator <u>Walter C. Woodford</u>		Well No. <u></u>		Date Completed <u>April 19, 1947</u>			
Elevation Bar <u>S.I.</u>		Total Depth <u>248</u>		Plugged Back <u></u>			
Formation Dtd. To <u></u>		Prod. Form. <u></u>		Prod. Nat. <u>oil</u>			
Init. Rock Press. <u>6 1/2"-60'; 4 7/8"-169'</u>		I.P. <u></u>		Abandoned <u></u>			
Casing Record <u></u>							
Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Start 19' below fossil lime or pool.			10' from				
clay & shale	0	35		Light sandy shale	195	217	
Cambridge Lime	35	40		300' or Dunkard sand	217	230	show oil
Pink clay	40	45		Shale & Clay	230	237	
140' shale	45	65	freest wtr well at 52'	Sand	237	248	oil, approx. 1 bbl. TD
Buell Run Shale	65	81		water sand	248		
Coal marker	81	81					
Fire Clay	81	110					
shale	110	150					
Dark Shale	150	195					

Heisler, C #1
34-121-2-0904-00-00

Noble Co, Olive Twp



8151 20904 904

GEOLOGICAL SURVEY OF OHIO

OIL AND GAS WELL LOG

State Ohio County Noble Township Olive Quadrangle _____

Lot _____ Quarter _____ Tract _____ Section 4 NW NE 1 SW _____

Measured 308 Feet From N Line And 157.5 Feet From _____ Line Of _____

46 acres

Land Owner C. A. Heisler Well No. 1 Date Started 2-18-53

Operator C. A. Heisler Well No. _____ Date Completed 4-10-53

Elevation Bar. 830 S. L. _____ Total Depth 1434' Plugged Back _____

Formation Drilled To _____ Producing Form _____ Init. Prod. Nat. _____

Shot or Acid Record 4-1-53:1405-1415':100#-gel. Prod. A. S. or Acid. 24,000-G

Init. Rock Press. 500# Abandoned _____

Casing Record 8 1/2"-85': 6 5/8"-480': 5 3/16"-1020'

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Top soil	0	20		Sand		425	Soft
Sand		45	Soft	Shale		535	Gray-soft
Coal		47	Soft	Sand		550	Soft
Shale		85	Gray-soft	Shale		600	Gray-soft
Sand		90	Soft	Sand		680	Soft
Shale		165	Gray-soft	Shale		750	Gray-soft
Shale		175	Red-soft	Shale		775	Black-soft
Shale		205	Gray-soft	Sand		1007	Hard:W-800'
Shale		235	Black-soft	Shale		1012	Gray-soft
Shale		330	Gray-soft	Sand		1020	Soft
Sand		340	Soft	Shale		1405	Black-soft
Shale		375	Gray-soft	Sand		1420	Hard

McFarland, Wayne #2
34-121-2-1222-00-00

Noble Co, Olive Twp



Ohio Division Of Geological Survey 21222				Permit No. 1222			
County <u>Noble</u> Township <u>Olive</u>				Permit Issued <u>12-14-62</u>			
Section <u>9</u> Lot <u>Tract</u>				Quadrangle			
Measured <u>814' WL & 277' S of SW of sec. 9</u>				Twp. Quarter			
<u>51.86 acres</u>				Pa. <u>- C.T.</u>			
Land Owner <u>Wayne McFarland</u>				Well No. <u>1</u> Date Commenced <u>1-20-62</u>			
Operator <u>Wayne McFarland</u>				Well No. <u>751</u> Date Completed <u>5-10-62</u>			
Elevation Bar <u>S.L.</u> Total Depth <u>751</u>				Plugged Back			
Formation Drld. To. <u>Prod. Form.</u>				Prod. Nat.			
Init. Rock Press.				I.P. <u>DRY</u>			
Casing Record <u>6 1/4" - 220', 4 7/8" - 735'</u>				Abandoned			

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Clay, yellow	0	14		Blue Shale	406	481	
Limestone, wht.	14	34		Limestone, wht.	481	486	
Sandstone, wht.	34	61		Blue Shale	486	547	
Shale, red.	61	76		Sandstone, wht.	547	591	
Blue Shale	76	116		Blue Shale	591	642	
Sandstone, wht.	116	170		Sandstone, wht.	642	661	
Red Shale	170	271		Pink Shale	661	672	
Blue Shale	271	325		Sandstone, wht.	672	685	
Limestone, wht.	325	327		Blue Shale	685	617	
Blue Shale	327	337		Sandstone, wht.	617	680	
Pink Shale	337	363		Blue Shale	680	717	
Sandstone, wht.	363	406		Sandstone, wht.	717	724	
				Pink Shale	724	734	

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Sandstone, wht.	734	750	SW 735	NSR 11-7-63			
Blue Shale	750	751					
T.D.	751'						

Heppner, E #1
34-121-2-1224-00-00
Noble Co, Olive Twp



Ohio Division Of Geological Survey				21222		Permit No. 1222	
County <u>Noble</u>		Township <u>Olive</u>		Permit Issued <u>12-14-62</u>		Quadrangle	
Section <u>9</u>		Lot		Twp. Quarter		Pa. <u>222</u> - C.T.	
Measured <u>814' WL & 277' S of SW of sec. 9</u>		Tract		Total Depth <u>751</u>		Plugged Back	
Land Owner <u>Wayne McFarland</u>		Well No. <u>1</u>		Date Commenced <u>1-20-62</u>		Date Completed <u>5-10-62</u>	
Operator <u>Wayne McFarland</u>		Well No.		Prod. Nat.		I.P.	
Elevation Bar		S.L.		Prod. Form.		Prod. Nat.	
Formation Drl'd. To		Prod. Form.		Prod. Nat.		I.P.	
Init. Rock Press.		Prod. Nat.		I.P.		DRY	
Casing Record <u>6 1/2"-220', 4 7/8"-735'</u>		Prod. Nat.		I.P.		Abandoned	

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Clay, yellow	0	14		Blue Shale	406	481	
Limestone, wht.	14	34		Limestone, wht.	481	486	
Sandstone, wht.	34	61		Blue Shale	486	547	
Shale, red.	61	76		Sandstone, wht.	547	591	
Blue Shale	76	116		Blue Shale	591	642	
Sandstone, wht.	116	170		Sandstone, wht.	642	661	
Red Shale	170	271		Pink Shale	661	672	
Blue Shale	271	325		Sandstone, wht.	672	685	
Limestone, wht.	325	327		Blue Shale	685	617	
Blue Shale	327	337		Sandstone, wht.	617	680	
Pink Shale	337	363		Blue Shale	680	717	
Sandstone, wht.	363	406		Sandstone, wht.	717	724	
				Pink Shale	724	734	

Davis, Blake #1
 34-121-2-4123-00-00
 Noble Co, Olive Twp



Logging Co. _____ Core No _____ Sample No _____ API Well Number: **34-121-2-4123-00-00**
 Log Types _____ CD _____ CA _____ SD _____ SA _____ Permit Issued: **12/29/2004**
 County: **NOBLE** Township: **OLIVE** T. R: _____ Quadrangle: **CALDWELL SOUTH** Zone **S**
 Section: **17** Lot: _____ Tract: _____ Twp. Qtr. _____ Surface Coord X: **2266355** Y: **623276**
 Measured: **310'SL & 945'WL OF SE.QTR., SEC. 17** Bot Hole Coord X: _____ Y: _____
 Class **POOL** Tool **RTAF**
 Landowner: **DAVIS BLAKE** Acres **140** Well No. **3** Date Commenced: **04/12/2005**
 Owner: **GREEN GAS CO** Status **PR** Well No _____ Date Completed: **04/15/2005**
 GL **910** DF _____ KB _____ LTD **2210** DTD **2272** PB Depth _____ Date PB _____
 TD Formation **OHIO SHALE** Prod. Form. _____
 IP Natural **BO /** **MCEG** IP AT **6 BO / 5** **MCEG** Initial Rock Pressure _____ DST **#Errr** Date Abandoned _____
 Perforations **PI: 1981-2172, Date: 4/20/2005, S/Ft: 26, # Shots: 26, Cmmnt: GORDON; PI: 1828-1858, Date: 4/20/2005, S/Ft: 11, # Shots: 11, Cmmnt: THIRTY FOOT; PI: 1710-1784, Date: 4/20/2005, S/Ft: 14, # Shots: 14, Cmmnt: GANTZ; PI: 1620-1642, Date: 4/20/2005, S/Ft: 21, # Shots: 21, Cmmnt: BERE**
 Stimulations **SI: 1620-2172 Fmtn Cd: 337135 Stim In: CS Type: H2O Vol: 2880 Bbl #Prop: 45000 Acid%: 20 Cmmnt: 1500 GALLONS IC ACID...3 STAGE FRAC**

Formations

FORMATION	TOP	BOTTOM	S*	REMARKS
BIG INJUN SAND	990	1125	I	water@1080',converted to fluid@1225
BEREA SANDSTONE	1621	1642	L	Producing Formation
OHIO SHALE	1642		L	Producing Formation
RBDMS Rec				

Way #3
 34-121-6-6788-00-00
 Noble Co, Olive Twp



20548

Ohio Division Of Geological Survey

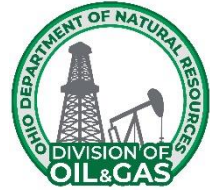
County Noble Township Olive Permit No. 548
 Section 2 Lot Tract Permit Issued
 Measured 310' WL & 240' NL of SE of sec. 2. Quadrangle
 Twp. Quarter

Land Owner J. & E. Morris Well No. 2 Date Commenced Oct. 1, 1946
 Operator Walter C. Woodford Well No. Date Completed April 19, 1947
 Elevation Bar S.L. Total Depth 248 Plugged Back
 Formation Drld. To. Prod. Form. Prod. Nat.
 I.P. oil
 Init. Rock Press.
 Casing Record 6 1/2" - 60'; 4 7/8" - 169' Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Start 19' below fossil lime or pool.			10' from				
clay & shale	0	35		Light sandy shale	195	217	
Cambridge Lime	35	40		300' or Dunkard			
Pink clay	40	45		sand	217	230	show oil
140' shale	45	65	first wtr well at 52'	Shale & Clay	230	237	
				Sand	237	248	oil, approx. 1 bbl. TD
Buell Run Shale	65	81					
Coal marker	81	81		water sand	248		
Fire Clay	81	110					
shale	110	150					
Dark Shale	150	195					



SCOPE OF WORK
NOBLE 16F PROJECT
Multiple Orphan Well Sites
Noble County, Multiple Townships



APPENDIX III: PERMITS & PERMIT CONDITIONS

IN ADDITION TO THE WORK REQUIRED UNDER THIS SCOPE OF WORK, ALL CONDITIONS DESCRIBED IN THE ASSOCIATED PERMITS SHALL BE MET BY THE CONTRACTOR DURING ALL PHASES OF THE PROJECT. ANY ADDITIONAL COSTS REQUIRED TO MEET THE PERMIT CONDITIONS SHALL BE DONE SO AT NO EXPENSE TO THE DIVISION.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HUNTINGTON DISTRICT
502 8TH STREET
HUNTINGTON, WV 25701-2018

July 31, 2025

Regulatory Division
Energy Resource Branch
LRH-2025-00547-OHR-Salt Run

NATIONWIDE PERMIT NO. 3 VERIFICATION

Mr. Joshua King
Ohio Department of Natural Resources (ODNR)
Division of Oil & Gas Resources Management
2045 Morse Road, Building F-2
Columbus, Ohio 43229

Dear Mr. King:

I refer to the pre-construction notification (PCN) requesting a Department of the Army (DA) authorization for the discharge of dredged and/or fill material into waters of the United States (U.S.) in association with the Noble #16F Way Site Orphan Well Plugging Project (Noble Project). The project is located near Caldwell in Noble County, Ohio at approximate center coordinates 39.741541° N, 81.496272° W. Your PCN has been assigned the following file number: LRH-2025-00547-OHR. Please reference this number on all future correspondence related to this project.

The United States Army Corps of Engineers' (Corps) authority to regulate waters of the U.S. is based on the definitions and limits of jurisdiction contained in 33 CFR Part 328 and 33 CFR Part 329. Section 404 of the Clean Water Act (Section 404) requires a DA permit be obtained prior to discharging dredged and/or fill material into waters of the U.S., including wetlands. Section 10 of the Rivers and Harbors Act of 1899 (Section 10) requires a DA permit be obtained for any work in, on, over or under a navigable water.

The proposed project, as described in the submitted DA permit application, has been reviewed in accordance with Section 404 and Section 10. Based on your description of the proposed work, and other information available to us, it has been determined that the pipeline replacement project would involve activities subject to the requirements of Section 404.

In the submitted PCN materials, you have requested a DA authorization for the temporary discharge of dredged and/or fill material into approximately 96 linear feet (lf) of one (1) perennial stream (Salt Run) in association with the Noble Project. The proposed project would involve the plugging of three (3) abandoned oil wells, one (1) of which is located within Salt Run (Way #3 Well). Work will include the temporary placement of matting in stream and the creation of a temporary wellhead containment cellar. All work will be conducted in accordance with the PCN received in this office on June 25, 2025.

Based on the provided information, it has been determined the proposed discharge of dredged and/or fill material into waters of the U.S. associated with the Noble #16F Way Site Orphan Well Plugging Project meets the criteria for Nationwide Permit (NWP) No. 3 (enclosed) under the December 27, 2021 Federal Register (FR), Issuance and Reissuance of NWPs (86 FR 73522) provided you comply with all terms and conditions of the enclosed material, the enclosed special conditions, and the 401 Water Quality Certification (401 WQC) issued by the Ohio Environmental Protection Agency (Ohio EPA) on October 13, 2021. A copy of this NWP can be found on our website at <http://www.lrh.usace.army.mil/Missions/Regulatory.aspx>.

This verification is valid until the expiration date of the NWPs, unless the NWP authorization is modified, suspended, or revoked. The verification will remain valid if the NWP authorization is reissued without modification or the activity complies with any subsequent modification of the NWP authorization. The 2021 NWPs are scheduled to be modified, reissued, or revoked on March 14, 2026. Prior to this date, it is not necessary to contact this office for re-verification of your project unless the plans for the proposed activity are modified. Furthermore, if you commence or under contract to commence this activity before March 14, 2026, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

Please be aware these NWP authorizations do not obviate the requirement to obtain other Federal, state or local authorizations required by law. A copy of this NWP and verification letter must be supplied to your project engineer responsible for construction activities. A copy of the verification letter must be kept at the site during construction.

Upon completion of the work, the enclosed certification must be signed and returned to this office. If you have any questions concerning the above, please contact Mrs. Michelle Doolin of the Energy Resource Branch at 304-399-5273, by mail at the above address, or by email at: michelle.m.doolin@usace.army.mil.

Sincerely,



Rachel McCarty
Regulatory Project Manager
Energy Resource Branch

Enclosures

**Nationwide Permit No. 3 Verification Special Conditions for the
ODNR Noble #16F Way Site Orphan Well Plugging Project
LRH-2025-00547-OHR-Salt Run**

1 of 1

1. Enclosed is a copy of Nationwide Permit (NWP) 3, which will be kept at the site during construction. A copy of the NWP verification, special conditions, and the enclosed construction plans must be kept at the site during construction. The permittee will supply a copy of these documents to their project engineer responsible for construction activities.
2. Upon completion of the activity authorized by this NWP verification, the enclosed certification must be signed and returned to this office.
3. Construction activities will be performed during low flow conditions to the maximum extent practicable. Additionally, appropriate site-specific best management practices (BMPs) for sediment and erosion control will be fully implemented during construction activities at the site. Upon completion of the proposed activities the stream receiving temporary fill will be restored to their pre-construction conditions.
4. No area for which grading has been completed will be unseeded or unmulched for longer than fourteen (14) days. All disturbed areas will be seeded and/or revegetated with native species and approved seed mixes (where practicable) after completion of construction activities for stabilization and to help preclude the establishment of non-native invasive species
5. Should new information regarding the scope and/or impacts of the project become available that was not submitted to this office during our review of the proposal, the permittee must submit written information concerning proposed modification(s) to this office for review and evaluation, as soon as practicable.
6. In the event any previously unknown historic or archaeological sites or human remains are uncovered while accomplishing the activity authorized by this nationwide permit authorization, the permittee must cease all work in waters of the U.S. immediately and contact local, state and county law enforcement offices (only contact law enforcement on findings of human remains), the Corps at 304-399-5610 and Ohio State Historic Preservation Office at 614-298-2000. The Corps will initiate the Federal, state and tribal coordination required to comply with the National Historic Preservation Act and applicable state and local laws and regulations. Federally recognized tribes are afforded a government-to-government status as sovereign nations and consultation is required under Executive Order 13175 and 36 CFR Part 800.
7. Section 7 obligations under the Endangered Species Act (Section 7) must be reconsidered if new information reveals impacts of the project that may affect Federally-listed species or critical habitat in a manner not previously considered, the proposed project is subsequently modified to include activities which were not considered during Section 7 consultation with the United States Fish and Wildlife Service, or new species are listed or critical habitat designated that might be affected by the subject project.

OFFICE OF THE
NOBLE COUNTY ENGINEER
46003 MARIETTA ROAD, CALDWELL, OHIO 43724
PHONE (740) 732-4400 FAX (740) 732-1059

PERMIT NO. 2025-02-05

DRIVEWAY ACCESS / RIGHT-OF-WAY APPLICATION

Permit to work within and/or install facilities within the right-of-way limits of County and Township Roads.

Name of Applicant: ODNR Oil and Gas

Company Name (if applicable): _____

Applicant Address: 12003 Natural Resources 4 Kimbolton Oh 43749

Applicant Phone Number: 220-465-2663 Email Address: Austin.Kemp@dnr.ohio.gov

Type of Work (check ALL that apply)

- ☐ Residential Driveway ☐ Commercial Driveway (plans REQUIRED) ☐ Utility Installation (plans REQUIRED)
- ☐ Address Required ☒ Temporary ☐ Permanent ☐ Overhead ☐ Underground
- ☐ Road Boring (Plans REQUIRED) ☐ Road Open Cut (Plans REQUIRED) ☐ Tree Removal/Trimming
- ☐ Other: _____

Description of work to be done: Temporary matted access to plug orphan wells (see plans) (Noble I&F)

Work Location: Lat, Long, or distance and lane orientation from nearest intersection TOWNSHIP: Brookfield / Olive
39.757277, -81.621650 / 39.722412, -81.544192

Road Name & Number: Parish Ridge Rd./Collins Rd

Nearest House Address: _____

Culvert Required: ☐ Yes ☒ No

Diameter: _____ Length: _____

Road Closure Required: ☐ Yes ☒ No

Requested Start Date: _____ Proposed Completion Date: _____

Applicant MUST notify the County Engineer at 740-732-4400 (and Township Trustee, if a Township Road), at least two (2) working days prior to starting work. **Township listing attached.**

I have read the attached specifications and I agree to comply. I understand that failure to do so may result in this permit being revoked and any construction removed from the public right-of-way at my expense.

Austin Kemp
Signature of Applicant

02/20/2025
Date

OFFICE OF THE
NOBLE COUNTY ENGINEER
46003 MARIETTA ROAD, CALDWELL, OHIO 43724
PHONE (740) 732-4400 FAX (740) 732-1059

PERMIT NO. 2025-02-05

-----OFFICE USE BELOW THIS LINE-----

Issuance of this permit does not relieve the applicant from the responsibility of obtaining a permit from the township or other agency having jurisdiction.

Plans must be submitted and approved before permit issuance.

☒ YES

☐ NO

Pre-Construction Meeting Required.

☐ YES

☒ NO

Permit Fee: (Check One)

- ☐ Residential Driveway/Tree Removal/Trimming \$25
☐ Utility Installation/Standard RUMA \$50
☐ Commercial Driveway \$150
☒ Other: State activities plugging wells

Nonrefundable permit fee shall accompany this permit application

Fee Waived

FOR OFFICE USE ONLY

RECEIPT OF FEES \$ _____ PAID ON _____

☐ INVOICED ☐ CASH ☐ CHECK # _____

Permission to do this work under the conditions stated herein is hereby recommended by:

James Fleeman
James Fleeman, PE, SI

2/24/2025
Date

Noble County Deputy Engineer, Permit Authority

Permit applications can be emailed (jfleeman@noblecountyohio.gov), faxed (740-732-1059) or mailed to Noble County Engineer's Office, ATTN: James Fleeman, 46003 Marietta Road, Caldwell, Ohio 43724-9277

OFFICE OF THE
NOBLE COUNTY ENGINEER
46003 MARIETTA ROAD, CALDWELL, OHIO 43724
PHONE (740) 732-4400 FAX (740) 732-1059

PERMIT NO. _____
(office use)

ADDRESS REQUEST

Applicant Name _____

Will you need an address for this driveway location? ☐ Yes ☐ No

If so, please provide the following information:

Phone Number: _____ Email Address: _____

The address closest to your driveway. _____
(i.e., 12345 Your Road Name)

What is the measurement from the above address and your driveway. _____
(i.e., how many feet or miles)

In which direction is the closest driveway from your driveway location. _____
(i.e., the closest address is north of my driveway)

On which side of the road is your driveway. _____
(i.e., the driveway is on the west side of the road)

If you have the coordinates, please provide them. _____

Your new address is: _____

Address Provided by: _____

Noble County Map Room

Date

OFFICE OF THE
NOBLE COUNTY ENGINEER
46003 MARIETTA ROAD, CALDWELL, OHIO 43724
PHONE (740) 732-4400 FAX (740) 732-1059

PERMIT NO. _____

Specifications for Work within Public Road Right-of-Way

General Specifications for all work types:

1. Applicant is responsible for all Traffic Control per Ohio Department of Transportation and the Ohio Manual or Uniform Traffic Control Devices (latest edition), and all safety precautions necessary to protect workers and the traveling public shall be taken in accordance with Ohio Laws.
2. Applicant is required to stake the exact location of the proposed drive-by placing stake on each side of the proposed drive.
3. Applicant is responsible to call Ohio Utilities Protection Services before digging at least two (2) days.
4. Bridge load limits shall be observed when encountered along route going to work location. Any overloads are required to obtain the proper (ODOT) and Noble County Overload permit.
5. One lane traffic shall be maintained at all times, unless prior permission to close the road is obtained from the County Engineer. All work shall be done to the satisfaction of the Noble County Engineer.
6. For any road closures, applicant is responsible for the following:
 - a. Coordination with affected School Districts to ensure no delay in bus route/travel
 - b. Notification to the Noble County Sheriff's Office at 740-732-5631
 - c. Notification to the Noble County Emergency Management Office at 740-732-7387
7. Noble County shall not be responsible for any damages to said service line due to relocation, construction, maintenance, or repair of said road. All such damages shall be at the cost of the owner.
8. This permit in no way affects any right, title, or interest which may be owned by any person, firm, or corporation, other than County and members of the general public using the county road.
9. Grantee agrees to hold Grantor harmless from any and all damages or injuries to persons or property arising from Grantee's construction and maintenance of such project.
10. All disturbed areas within the right of way shall at a minimum be re-seeded and covered with straw.
11. SUBJECT TO SECTION 5547.03 OF THE REVISED CODE OF OHIO
12. **If plans are required**, submit project plans including plan, profile, and section views with dimensions for roadway offset from centerline, existing right-of-way if pertinent, and depths.

Construction of Residential Driveways and Mailboxes:

1. The County Engineer's Office will perform site visit and size the driveway culvert pipe. Minimum driveway culvert size is 15" in diameter. The culvert pipe is to be purchased and installed by the landowner.
2. Driveway surfaces must be graded to slope which will prevent mud and water from being carried onto the public road surface. Gravel or Pavement must be suitable for intended use.
3. Culverts will be corrugated polyethylene drainage pipe as per O.D.O.T. Supplemental Specification 944 Type S.
4. All Culverts are to be installed with compacted backfill and with adequate cover, (usually 12") to protect the pipe from damage. Pipes shall be of sufficient length to provide end slopes to the ditch line no steeper than 3 to 1 slope ratio. Retaining walls are not permitted under any circumstances.
5. No Construction shall be permitted within the right-of-way limits which will create any objects considered to be massive or otherwise hazardous fixed objects. Mailboxes shall be of the break-a-way type construction and meet the following criteria:
 - a. Maximum 4"x4" or 4" rounded timber post.
 - b. Maximum LD. Nominal pipe size steel post.
 - c. Boxes shall be no larger or heavier than U.S. Postal Standards

OFFICE OF THE
NOBLE COUNTY ENGINEER
46003 MARIETTA ROAD, CALDWELL, OHIO 43724
PHONE (740) 732-4400 FAX (740) 732-1059

PERMIT NO. _____

6. The driveway opening shall be located on the property at a location maximize site distance when entering the public right-of-way. The County Engineer's Office will size the driveway culvert and review driveway location to determine appropriate site distance. When selecting the location of the driveway, the guideline for site distance is 350 feet minimum in both directions, and the preferred distance is 500' or more in both directions. The minimum driveway apron width at the roadway edge will be 30'
7. The applicant is responsible for maintenance of the driveway, which includes maintenance of the driveway culvert.
8. If you will be needing an address, complete the **ADDRESS REQUEST form** and return it with this permit.

Construction of Commercial Driveways (PLANS REQUIRED):

1. Applicant/Owner shall provide an appropriately sized culvert pipe and be responsible for the installation, maintenance, materials, and traffic control required during construction.
2. For Driveways adjacent to hard surface (i.e. paved or chip seal) public roads, driveways surfaces must be paved and graded to slope which will prevent mud and water from being carried onto the public surface. Pavement must be suitable for intended use.
3. For Driveways adjacent to gravel surface public roads, a gravel driveway surface is acceptable. Driveway must be graded to slope which will prevent mud and water from being carried onto the public road surface. For temporary access driveways, No. 2 or larger may be used so long as it does not cause unsafe or hazardous conditions on the public road/ road edge. For permanent access driveways, the top layer of stone must be no larger than No. 57 aggregate.
4. Culverts will be corrugated polyethylene drainage pipe as per O.D.O.T. Supplemental Specification 944 Type S.
5. All Culverts are to be installed with compacted backfill and with adequate cover, (typically 12") to protect the pipe from damage. Pipes shall be of sufficient length to provide end slopes to the ditch line no steeper than 3 to 1 slope ratio.
6. No Construction shall be permitted within the right-of-way limits which will create any objects considered to be massive or otherwise hazardous fixed objects.
7. The driveway opening shall be located on the property at a location to maximize site distance when entering the public right-of-way. The County Engineer's Office will size the driveway culvert and review driveway location to determine appropriate site distance. When selecting the location of the driveway, the guideline for site distances is 350 feet minimum in both directions, and the preferred distance is 500 feet or more in both directions. The minimum driveway apron width at the roadway edge will be 50 feet.
8. The applicant is responsible for maintenance of the driveway, which includes maintenance of the driveway culvert.
9. If you will be needing an address, complete the **ADDRESS REQUEST form** and return it with this permit.

OFFICE OF THE
NOBLE COUNTY ENGINEER
46003 MARIETTA ROAD, CALDWELL, OHIO 43724
PHONE (740) 732-4400 FAX (740) 732-1059

PERMIT NO. _____

Utility Installation/Road Open Cut/Road Bore Construction (PLANS REQUIRED):

1. Permit holder agrees to locate facility in accordance with Ohio Revised Code, Utility Protection Laws, and shall remove, relocate, expose, or otherwise protect their facilities located within the public rights of way of Noble County for highway maintenance or improvements at no cost to the county. The permit holder will contact the Ohio Utilities Protection Services at 1-800-362-2764 two (2) days prior to construction.
2. Utility owner must be a member of OUPS.
3. A final record set of as-built plans shall be provided to NCEO, at the cost of the permittee, contractor, or owner unless otherwise directed by Engineer.
4. All utility lines/pipelines installed parallel to the public roadway shall be laid a minimum of 4 feet from the edge of exiting traveled portion of roadway and at a depth of not less than 30" below the berm level or bottom of ditch of the road. The utility line shall not be placed closer than ten (10) feet from any part of a culvert, bridge, or wingwall, unless specific written permission is granted by NCEO.
5. All transmission pipelines carrying petroleum, natural gas or other volatile produce, crossing the highway shall be incased in a suitable conduit.
6. All aerial crossings must have a permit and a minimum clearance of 21' above the roadway. All utility attachments must have a minimum clearance of 18' above roadway.
7. Crossing an asphalt, chip seal, or concrete roadway shall be by boring at a minimum depth of 36 inches, beneath all existing drainage structures unless the NCEO approves an open cut request.
8. All open cut projects shall provide steel plates, when possible, to allow for Emergency Vehicle access.
9. All trenches shall be backfilled the same day they have been opened. No open trenches or pits within 5 feet of the edge of the road surface, shall be left open overnight or more than 12 hours. All backfill on hard surface roads (i.e. paved or chip seal) roads, shall be flowable fill concrete up to 6" of final grade, on gravel roads flowable fill preferred but optional to utilize compacted aggregates (ODOT 304 or #57 stone), final grade shall be achieved by topping fill with asphalt or aggregate matching existing surface. The contractor shall compact the material after it settles and gravel as needed. Where trenches cross driveways, walks, or mailbox approaches, same shall be replaced with material equivalent to that which has been removed.
10. After the backfilling is completed, the applicant or its agent shall immediately remove all surplus material and dirt from the road right-of-way.
11. Roadways ditches and berms shall be left clean and with proper drainage.
12. Should the road, structures, or any public property become damaged from this operation, the named permit holder is responsible for the cost of repair or replacement to the condition before the work began.
13. The permit holder agrees to relieve the County of Noble, Noble County Engineer, and all their agents and employees of all liability or damages and accidents claims arising as a result of the construction or future county maintenance.

Additional Specifications:

MR 509
Permit No. 10-24986

Office Use Only

State of Ohio
Department of Transportation
Permit

County or Jurisdiction NOB
Rte SR78
Log Pt 8.88-9.18
Acc Cat

[1] Subject to all terms, conditions, and restrictions printed, written below and on the reverse side hereof, or attached,

Name: Ohio Department of Natural Resources
Address: 2207 Reiser Ave SE New Philadelphia OH 44663
Company Phone: 220-465-2663

is hereby granted a permit under Section 5515.01 and 5515.02 of Ohio Revised Code, and permission to perform work necessary in the manner described and at the location indicated in the following or attached to this permit.

To plug an orphan well along SR 78 and use and maintain an existing 20 ft wide standard BP-4.1 field drive on SR 564 for access. The driveway shall slope down and away from the pavement edge and shall be constructed so that no water or debris will drain onto the state roadway. Any mud or debris tracked out onto the roadway must be removed immediately. A minimum 2:1 slope shall be maintained from the edge of the proposed access to the flow line of the ditch. Any and all costs for the construction and maintenance of this driveway shall be borne by the applicant or his successors in title. Work performed shall be as shown on plan submitted with application and approved by ODOT dated 6/18/2024. Upon completion, driveway must be returned to its original size and all disturbed areas within state right of way must be restored to original condition. There shall be no deviations in this permit without prior approval from ODOT.

Description of Work: ODNR is seeking to plug an orphan well off of SR 78 in Noble County that is located in ODOT ROW. . The proposed plugging effort would access the well from the southeast through a farm field (not via SR78). The distance from EOP to the well is 26' and from the EOP to the proposed CWL is 16'. We would not need to excavate the toe to conduct the plugging effort.

[2] This permit shall be in the possession of employees /agents of permittee on site at all times who are in charge of the work and shall be shown, upon request, to any employee of the Department of Transportation.

Contact ODOT Representative 3 days before work begins, also contact ODOT Representative when work is completed for final inspection.
Failure to notify the ODOT Representative could result in work stoppage!

[3] No work authorized by this permit shall begin until the permittee has contacted and received instructions from

ODOT Representative Brian Carter
Phone 740-568-4401
Email Address: Brian.carter@dot.ohio.gov

NOTE: Any work performed by the permittee may be stopped if this requirement is not met.

[4] Prior to any excavation in the highway right-of-way, the Ohio811, <https://www.oups.org/excavators>, must be contacted in accordance with ORC Section 3781.25 to 3781.32. Ohio811 can be reached at 1-800-362-2764 or 811.

[5] If your utility is above ground in any way, you must mark your utility with a fluorescent colored marker that corresponds with the universal OUPS color code. The marker must be no shorter than six feet in height and you must maintain the marker. Guide wires must be marked a fluorescent yellow. Failure to mark as described, will result in the Department of Transportation being held harmless and no reimbursement for damage to your property.

[6] All work requiring persons or vehicles within ODOT right of way shall comply with all applicable requirements of the Ohio Manual of Uniform Traffic Control Devices and Item 614 (Maintaining Traffic) of the Construction and Material Specifications, latest editions. Failure to comply with these requirements will be cause for immediate revocation or suspension of the permit until the proper traffic control devices have been provided.

[7] The permittee accepts the conditions, terms, and requirements printed, written on, or attached to this permit and understands that failure to comply fully with those conditions, terms, and requirements or any change in the use of the permit inconsistent with its terms and conditions will be considered a violation and cause for suspension, revocation, or annulment of the permit thereby rendering the permit illegal and subject to appropriate Department action, up to an including removal of the installation at the permittee's expense.

[8] Performance Bond Required? ☐ Yes ☐ No Company _____
Effective Date _____ Expiration Date _____ Amount \$ _____

[9] This permit shall be void if the work described herein does not comply with the conditions, terms, and requirements applicable to this permit, and if the work is not completed by 06/18/2025

Dated 12/16/2024

**General Provisions Applicable to All Permits
(Sections 5515.01 and 5515.02 of O.R.C.)**

[1] This permit is not a substitute for satisfying the rights or obligations of any other party who may have an interest in the underlying fee interest.

[2] The granting of this permit does not convey to the permittee or to the property served any rights, title, or interest in state highway rights of way or in the design or operation of the state highway; or in any way abridge the right of the Director of the Department of Transportation in his jurisdiction over state highways. If, in the process of any future work or for the benefit of the traveling public, it becomes necessary, in the opinion of the Director of Transportation to order the removal, reconstruction, relocation, or repair of any of the fixtures, or work performed under this permit, said removal, reconstruction, relocation, or repair shall be wholly at the expense of the owners thereof or the permittee and be made as directed by the Director of Transportation and within the time determined by the Director. Such changes in the state highway design or operation, necessary for improved safety and operation or for the benefit of the traveling public, shall not require a permit modification since the permit confers no private rights to the permittee over the control of the state highway.

[3] The District Deputy Director acts for and on behalf of the Director in issuing and carrying out the provisions of all permits. The District Deputy Director has full authority to ensure that all provisions of the permit are met and to reject any materials, design, and workmanship that do not meet applicable Department standards. The District Deputy Director, at his/her discretion, may require a performance bond or certified check as a prerequisite to the issuance of a permit.

[4] Failure on the part of the permittee to comply fully with the provisions and conditions of the permit will be cause for suspension, revocation, or annulment of the permit thereby rendering the permit illegal and subject to appropriate Departmental action. By accepting the permit, the permittee agrees to comply with all conditions, terms, and restrictions printed or written on or attached to the permit. If the permittee or its agent performs any work contrary to the conditions of the permit or to the instructions of the District Deputy Director and, after due notice, fails to correct the problem, the Department of Transportation may, with or without notice, correct or remove such work and the permittee shall reimburse the Department for the costs and shall hold the Department harmless for all results of such work.

[5] The permittee shall indemnify and hold harmless the State of Ohio, Department of Transportation, its officers, representatives and assigns, from any and all loss, liability, damages, litigation costs, and claims for injury or death to any person, property, or business caused by or resulting from any act, omission, event, consequence, or occurrence, negligent or otherwise of the permittee, its employees, agents, or assigns as a result of the issuance of this permit.

[6] All work authorized under the permit shall be performed to the Department's satisfaction, and the entire expense shall be borne by the permittee. No work shall be performed until the permittee has contacted the Department's appointed representative named on the permit and received instructions. The Department's representative may inspect all work covered by the permit, or the Department reserves the right, during the time any or all of the work is being performed, to appoint an inspector over the work who shall represent the interest of the State on the work and any compensation arranged for shall be paid wholly by the permit holder. Work not in compliance shall be halted and the District Deputy Director shall be notified of the

cause. The permittee shall be notified of the Department's determination and given an opportunity to correct the problem. If the problem is not corrected timely or to the satisfaction of the Department, this permit will be revoked.

[7] Failure to complete all work within the time specified on the permit shall void the permit, thereby making the permit illegal and subject to appropriate Departmental action. The permittee may request an extension in writing from the District Office, explaining why the extension is necessary and when the work is expected to be completed.

[8] All work infringing on the pavement or shoulders shall comply with applicable standards and requirements regarding traffic control devices. Failure to comply will be cause for revocation or suspension of the permit. Any closure of lanes or shoulders shall be described in terms of location, duration, time of day, etc. Such work shall not begin until all traffic control devices are in place.

[9] If any grading, sidewalk, or other work allowed by a permit interferes with the drainage of the highway in any way, such catch basins and outlets as necessary shall be constructed to take proper care of said drainage and any materials such as pipes and tiles damaged during any installation or repair by the permittee or its employees or agents shall be repaired immediately at the sole cost of the permittee. Permittee shall timely notify the Department of any such damage and repairs thereto. Failure of the permittee to immediately repair the damage after it is discovered shall result in the Department performing the repair and the permittee shall reimburse the Department for the costs and shall hold the Department harmless for all the results of such work which may include removal of the permittee's facilities.

[10] Any damage to ODOT or another's property caused by the work shall be repaired by the permittee or permittee's agent or contractor in a timely manner and at the sole cost of permittee. If any emergency repairs to ODOT property are needed that cannot be performed by the permittee or permittee's agent or contractor, ODOT shall cause the repairs to be performed at the sole cost of permittee.

[11] Upon completion of the work, the permittee shall leave the highway clean of all rubbish, excess materials, temporary structures and equipment, and all parts of the highway shall be left in a condition acceptable to the Department. Upon satisfactory completion of the work authorized by the permit, the Department's appointed representative shall complete the Permit Inspection Certificate, Form No. MR 678 certifying that the permittee has complied with the terms of the permit.

[12] Except as herein authorized, no excavation shall be made or obstacle placed within the limits of the highway so as to interfere with the travel over the road.

[13] All pole lines are to be built in accordance with Rule 4901:3-1-03 of Ohio Administrative Code promulgated and enforced by the Public Utilities Commission of Ohio.

[14] All underground utilities shall be installed at a depth and horizontal distance from the road surface and any appurtenances in accordance with state and national safety standards and as pre-approved by the Department. After installation, the exact location of the utility shall be provided to the Department. The Department shall be held harmless for any damage to utilities due to insufficient or inaccurate installation or identification and all repairs shall be at the sole cost of the permittee.

[15] The permittee shall comply with the Air Pollution requirements of Rule 3745-17-08 of the Ohio Administrative Code promulgated and enforced by the Ohio Environmental Protection Agency.

[16] The permittee certifies that he or she is fully authorized to sign this permit. This permit shall apply to and be binding upon the permittee and any successors in interest. No change in ownership of the underlying property or of the facility owned by permittee shall in any way alter the permittee's obligations under this permit.

[17] The permittee(s) for herself/himself/themselves/itself, her/his/their/its personal representatives, and her/his/their/its successors in interest and assigns, as a part of the consideration hereof, do/does hereby covenant and agree that:

- (1) No person on the grounds of race, color, or national origin, shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of the utility/facilities/ services of the permittee.
- (2) In the construction of any improvements on, over, or under the above described property and the furnishing of services thereon, no person on the grounds of race, color, national origin, sex, age, or disability shall be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination.
- (3) The above described property shall be used in a manner that at all times is in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. DOT, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. DOT — Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.
- (4) In the event that this instrument grants a lease, license, or permit and any of the above non-discrimination covenants is breached, then the State of Ohio, Department of Transportation, shall have the unfettered right to terminate the lease, license or permit and to re-enter and repossess the above-described property and hold the same as if said lease, license or permit had never been made or issued.

This permit is granted subject to the following attached conditions:

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District 10 Permit Specifications

The following requirements are valid for all permits issued by ODOT District 10:

1. Specific requirements that supersede the general requirements below will be described on the permit. If there is a conflict between the permit description and a general requirement, the permit description will always take precedence.
2. Any mud or debris that accumulates on the highway as a result of this project (tire tracks, equipment, etc.) is to be removed immediately.
3. There is to be NO parking of equipment, service vehicles, erecting of lights or placing of advertising devices within ODOT right of way and they are also not permitted to overhang the state highway.
4. All work requiring individuals or equipment on the pavement or shoulders shall comply fully with the Ohio Manual of Uniform Traffic Control Devices. Failure to comply with this requirement will be just cause for immediate suspension of this permit until such time as the proper traffic control is in place.
5. Work is not to be performed during inclement weather conditions (ice, snow, fog, heavy rainstorms, etc.). Additionally, work is not to start until one (1) hour after sunrise and is to cease one (1) hour before sunset.
6. The contractor must give property owners a minimum of 24 hours' notice before cutting any driveways and before trenching or cable plowing operations begin. Applicant must also contact OUPS prior to any excavation in state right-of-way.
7. It is the responsibility of the permittee to contact the ODOT Transportation Administrator or Transportation Manager 48 hours prior to starting any work and upon completion of work. Failure to comply with this requirement will be just cause for immediate suspension of this permit.
8. All areas where the vegetation has been disturbed by this installation will be restored within 30 days after completion of work.
9. Any environmental issues existing at this location are to be considered and addressed prior to performing any excavating within the state right-of-way.
10. All public and private property, including highway fence, that is disturbed by the contractor will be repaired to a condition equal to or better than the original condition, including sidewalks and driveways.
11. Permittee is required to call OUPS prior to any excavation within ODOT right of way.

Residential Driveway Specifications

- R-1 Driveway composition will be in accordance with the Location & Design Manual, Section 805.2
- R-2 Drive approaches shall slope down and away from the through pavement edge at the same rate of slope as the highway shoulder slope. The profile of the driveway must be a minimum of ½ inch per foot down and away from the pavement edge to the ditch line. Drive will be constructed so that no water will drain onto state roadway.
- R-3 A minimum 2:1 slope is to be maintained from the edge of the driveway to the flow line of the ditch. Construction of the drive must not interfere with the existing roadside drainage.
- R-4 Where curbing does not exist along the pavement, approach may be curbed at the option of the permittee and as per the Location & Design Manual. Where curbing does exist along the pavement, approach will be delineated by a similar curb through the arc of the radius.
- R-5 The top of the drive over the pipe will be a minimum 6 inches or more below the edge of the pavement. Sod will be removed from the bottom of the ditch to assure the new pipe is not above or below the existing flow line. The pipe will slope in such a manner that waters will flow freely through the tile and not be trapped inside.
 - Reinforced concrete pipe or corrugated metal pipe conforming to ODOT specification type D conduits may be used. These culvert pipes require a minimum of 6 inches bedding of aggregate type 304 and no less than 6 inches of aggregate cover over the pipe.
- R-6 All supports for rural mailboxes will be of breakaway type as specified in the Location and Design Manual, section 803.1.1
- R-7 The permittee is responsible for maintenance of the driveway, which includes maintenance of the drive pipe.

Field Driveway Specifications

- F-1 Driveway composition will be in accordance with the Location & Design Manual, Section 805.1
- F-2 Drive approaches shall slope down and away from the through pavement edge at the same rate of a slope as the highway shoulder slope. The profile of the driveway must be a minimum of ½ inch per foot down and away from the pavement edge to the ditch line. Drive will be constructed so that no water will drain onto the state roadway.
- F-3 A minimum 2:1 slope is to be maintained from the edge of the driveway to the flow line of the ditch. Construction of the drive must not interfere with the existing roadside drainage.
- F-4 The top of the driveway over the pipe will be a minimum 6 inches or more below the edge of pavement. Sod will be removed from the bottom of the ditch to assure the new pipe is not above or below the existing flow line. The pipe will slope in such a manner that water will flow freely and not be trapped inside.
 - Corrugated polyethylene pipe conforming to ODOT specification type D conduit may be used.
 - This type of culvert pipe requires a 6-inch bedding of aggregate type 304 and no less than 12 inches of cover over the pipe.
 - Reinforced concrete pipe or corrugated metal pipe conforming to ODOT specification type D conduits may also be used.
 - These culvert pipes require a minimum 6-inch bedding of aggregate type 304 and no less than 6 inches of cover over the pipe.
- F-5 The permittee and/or property owner is responsible and assumes all liability for maintenance of the driveway, which includes maintenance of the drive pipe and snow and ice removal.

Commercial Driveway Specifications

- C-1 Drive approaches shall slope down and away from the through pavement edge at the same rate of a slope as the highway shoulder slope. The profile of the driveway must be a minimum of ½ inch per foot down and away from the pavement edge to the ditch line. Drive will be constructed so that no water will drain onto the state roadway.
- C-2 A minimum 2:1 slope is to be maintained from the edge of the driveway to the flow line of the ditch. Construction of the drive must not interfere with the existing roadside drainage.
- C-3 The permittee and/or property owner is responsible and assumes all liability for maintenance of the driveway, which includes maintenance of the drive pipe; as well as snow and ice removal and the upkeep of any constructed sidewalks.
- C-4 Private drainage outlets, such as field tiles, disturbed by this operation shall be restored to working order to the satisfaction of the owner.
- C-5 Should the location and/or design and construction of the new access and turn lanes interfere with the safety of the traveling public, or drainage issues develop undermining the highway's foundation or cause neighboring properties to flood, ODOT reserves the right to require modification and/or realignment of these newly installed facilities.

Seismic Specifications

- GS-1 The maximum allowable caravan of vehicles to occupy the highway, in tandem, will not exceed 330 feet. Each vibrator shall have wooden planking approximately 3'x 8' to distribute and cushion impact on the pavement.
- GS-2 All cables shall be placed beyond the shoulder. No parking of vehicles on the pavement shall be permitted at any time other than the few seconds necessary for the vibrating sequences.
- GS-3 Hours of operation shall be limited to accommodate peak hour traffic volumes, as required by local conditions.
 - If necessary, operations shall be ceased periodically, and full flow of traffic restored to prevent excessive backup of motorists' vehicles.
 - Extreme caution is to be exercised during this project, so the travelling public is not inconvenienced or put in any danger due to this testing procedure.
 - The department reserves the right to prohibit or further restrict operations at any time due to unusual traffic conditions.
 - If required by ODOT, a uniformed police officer and car shall be provided by the permittee to accompany the operation and assist with the handling of traffic.
- GS-4 All work performed within corporation limits must be approved through the appropriate city, village, etc., as ODOT does not have jurisdiction within corporations.
- GS-5 Approval by the Ohio Department of Transportation for seismic exploration shall not relieve the permittee of the requirement to obtain necessary permission from the adjoining and/or underlying fee landowners.
- GS-6 Furthermore, the permittee shall save harmless the State of Ohio and all of its representatives from all suits, actions or claims brought on account of any injuries or damages sustained by any person or property in consequence of any neglect or an account of any act or omission as a result of the issuance of this permit.
- GS-7 The District Deputy Director shall have full authority to ensure the provisions of this permit are fully complied with. Failure on the part of the permittee to conform to the provisions of this permit will be cause for suspension, revocation or annulment of this permit as the District Deputy Director deems necessary.

Utility Specifications

- U-1 All underground and aerial facilities shall be placed as close to the right of way line as possible. It shall be the responsibility of the permittee to ensure the construction or placement of any poles will not obstruct the sight distance of any intersection or driveway.
- U-2 All aerial installations will have a minimum vertical clearance which is equal to or greater than that required by the National Electric Safety Code.
- U-3 All poles, anchors and guy wires shall be installed outside of the clear zone and will not be installed in the roadway ditch or the areas between the road and the ditch. Poles removed for replacement shall be removed in their entirety and holes backfilled.
- U-4 If installation is within 10ft of an existing strain pole, permanent or temporary anchoring may be required. The permittee shall notify the District 10 Traffic Department three working days prior to the installation within the area of the strain pole.
- U-5 If installation is within 10 feet of an existing strain pole, permanent or temporary anchoring may be required. The permittee shall notify the District 10
- U-6 Lines must either be bored / drilled / trenched, there will be no open cutting of pavement and they will not be permitted to be installed in culverts. The length of the bore shall be the width of the right-of-way on each side of the roadway, unless otherwise noted on the accepted permit.
- U-7 All lines shall be installed a minimum of 4 feet below any highway or ditch bottom.
- Lines are not to be installed in the areas between the road and the ditch or in the ditch lines.
 - Fire hydrants and valves are prohibited from being placed in the flow line of the ditch.
 - Tracer tape shall be installed and placed 1 foot above the proposed conduit and shall extend the full length of the work.
 - ODOT reserves the right to require casing.
 - Permanent location markers are to be placed on both sides of the roadway. Markers shall list contact information for the utility company, and they are to be located outside of the clear zone.
- U-8 Bore pits / excavation areas shall be located as close to the right of way line as possible and shall not be left open overnight or anytime work is not being performed.
- When the bore opening under the pavement exceeds by 2 inches the outside diameter of the pipe installed, the opening around the pipe shall be filled with grout in a manner suitable to the Ohio Department of Transportation.
 - All backfill shall be performed in accordance with the provisions set forth under Construction Specifications Item 602 and piling of earth over trench for future settlement will not be permitted. Backfilling shall follow completion of all work as closely as possible each day. ODOT reserves the right to request item 613 Low Strength Mortar Backfill.
- U-9 If equipment, vehicles, trench boxes, and material are stored or parked on highway right-of-way, locate them no less than 6 feet behind existing guardrail or no less than 30 feet from the edge of pavement. At night if any such material or equipment are stored within ODOT right of way (less than 30ft from the edge of pavement) they must have prior approval from the ODOT Design Engineer.
- U-10 **This requirement is for Gas Companies that are defined as a “public utility” by providing natural gas to the general public -**
A gas pipeline or any size or pressure and made of any material (steel, iron, plastic, etc.), generally, will not need to be cased but the company must certify it meets all rules, regulations and pipeline inspection criteria contained in 49CFR192 and / or 49CFR195. If the pipeline installation is a crossing under an interstate or an interstate look-alike and is less than 12 feet in depth, the company must provide certification that the pipe design meets the “Class 4” requirements of 49CFR192, which establishes the thickness of pipe. If the installation depth is 12 feet or more, the company must meet the “Class 3” design requirements. All other “Class Thickness” requirements associated with longitudinal and crossing installations will be based on the location description outlined in the Federal Code. If the District has concerns about the physical location of a crossing installation, the “Class Thickness” can be established which meets the District’s concerns. In addition, if the pipeline installation will be located within any fill material around Mechanically Stabilized Earth (MSE) Walls or within two feet of any structure foundation (i.e. bridges, culverts, etc.), the pipeline must be encased. All other installation requirements, as outlined on the Permit or defined in the Department’s Utility Manual, must be met.

Utility Specifications (cont'd)

- U-11 **This requirement is for Oil and Gas Companies or Interstate / Intrastate Companies** - This gas and/or petroleum pipeline installation must meet all rules, regulations and pipeline inspection criteria contained in 49 CFR 192 and/or 49 CFR 195. If the pipeline installation is a crossing under an interstate or interstate look-alike, the pipeline design must meet the "Class 4" requirements of 49 CFR 192. The company's design plans of the pipeline installation must be certified as meeting 49 CFR 192 and/or 49 CFR 195 regulations with a Registered Engineer's review stamp and signature. Those design calculations must then be reviewed, stamped and signed by a second Registered Engineer that is either employed by the pipeline owner or is from an independent engineering firm. In addition, if the pipeline installation will be located within any fill material around Mechanically Stabilized Earth (MSE) Walls or within two feet of any structure foundation (i.e. bridges, culverts, etc.), the pipeline must be encased. All other installation requirements, as outlined in the Department's Utility Manual, must be met.
- U-12 Private drainage outlets, such as field tiles, disturbed by this operation shall be restored to working order to the satisfaction of the owner.
- U-13 If installation is within 10ft of an existing strain pole, permanent or temporary anchoring may be required. The permittee shall notify the District 10 Traffic Department three working days prior to the installation within the area of the strain pole.
- U-14 Stop signs shall not be disturbed, and if it becomes necessary to remove a stop sign, a portable stop sign shall be erected before the permanent sign is removed. The permanent sign shall be re-erected immediately after the installation is completed. All ODOT guide signs shall be re-erected the same day as they were removed.
- U-15 When removing monitoring wells, all components must be removed and excavated materials are not to be piles on the pavement, along the berm / shoulder or in the ditch line. Upon removal of the well, the hole shall be filled level to the surrounding ground elevation.

Sanitary Discharge Specifications

- W-1 All pipe shall be installed a minimum of 4ft below any highway or ditch bottom. Bore pits / excavation areas shall be located as close to the right of way line as possible and shall be protected or closed overnight or anytime work is not being performed.
- The length of the bore shall be the width of the right of way on each side of the roadway, unless otherwise noted on the permit.
 - There will be no open cutting of any pavement.
 - ODOT reserves the right to require casing.
- W-2 When the bore opening under the pavement exceeds by 2 inches or more the outside diameter of the pipe installed, the opening around the pipe shall be filled with grout in a manner suitable to the Ohio Department of Transportation.
- All backfill shall be performed in accordance with the provisions set forth under Construction Specifications Item 602 and piling of earth over trench for future settlement will not be permitted.
- W-3 No sink drains, basement drains, septic tank drains, or any other manmade water will be allowed to directly enter the state highway drainage system or to be directly connected to an outlet pipe.
- W-4 Drainage, clear water only, which naturally flows to the state's right-of-way, will be accepted at the predevelopment rate.
- W-5 All private drives cut by the contractor and/or permittee will be replaced to the complete satisfaction of the owner. The contractor must give property owners a minimum of 24 hours' notice before cutting any driveways.
- W-6 This permit is subject to special conditions as set forth in a letter of approval dated from the County Health Department. The County Health Department must also state that they will perform yearly inspections of the system for the absence of odor, color and suspended solids.
- W-7 The issuance of this permit does not imply that the existing drainage structure or tile is in satisfactory condition, nor of sufficient capacity to provide an adequate outlet.

Landscape Specifications

- L-1 Plantings listed below shall be located at least 4 feet behind the ditch line.
- Low maintenance flowers, ground covers, and other plants 18 inches or less in height at maturity may be located within this area, as long as adequate sight distance is provided.
- L-2 Trees and other plants taller than 18 inches shall not be located within a ditch, located on foreslopes or on a backslope within 10 feet of the ditch flowline. Trees and large shrubs shall not be planted within 30 feet of the edge of the traveled way on clear zone graded sections.
- Trees should be sufficiently placed apart, and shrubs should be grouped and mulched in beds to avoid excessive mower maneuvering and the need for hand trimming.
 - Wildflower sites should be composed of Ohio native perennial forbs and grasses. Other mixtures should be approved by the District Deputy Director (or his / her designee). Wildflower areas should be designated as “No Mow”.
- L-3 Evergreen seedlings should be planted from March to May. They may be used to create living snow fences and screenings. Locations include but are not limited to slopes, erosion prone areas and interchanges.
- L-4 Ponds / pools and other landscape water features shall not be built within ODOT right of way.
- L-5 Maintenance of all plants shall begin upon installation. Maintenance shall include, but not limited to, watering, replacement, weeding, fertilization, litter pick-up, pruning, mulching, insect control (by a licensed application when required), and herbicides (by a licensed applicator).
- L-6 Landscaping shall not reduce safety for the travelling public or maintenance crews.
- Since operational safety can be affected by the landscape, a continuous length of the highway must be visible to the driver (for adequate sight distance) and a lateral run out area (clear zone) must be traversable and free of physical obstructions.
- L-7 Plants shall be maintained by the permit holder for at least five years. Highway landscaping should result in hardy, natural vegetative designs that do not require extensive maintenance. At the end of the five-year maintenance period described in Section 6.1, landscaped areas should not require any more maintenance than the natural roadside. Plant materials native to the area should be used whenever practical. Highway plantings should be able to withstand roadside conditions including salt sprays and air pollutants. Plantings and other landscape elements should also be considerate of local community preferences for specific colors, materials, etc...
- L-8 Trees and shrubs should be placed in locations and trimmed to a size that does not hinder snow and ice removal. Removal or thinning of trees that shade the pavement creating icy spots should be considered. Some sections of the roadside should be kept open to allow sunlight to aid new tree growth.

Effective: August 22, 2007

Appendix C

Page 1 of 1

MR-696, Rev. 6/95
(Supplement to M&R 505, Revised, 6/95)

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
Supplemental Specifications**

Spraying, Trimming, or Removal of Trees or Brush

Prior to starting any work, and on a monthly basis thereafter, the applicant shall notify the District Permits representative of the Ohio Department of Transportation, describe the extent of the area to be covered or treated, and the amount or intensity of work proposed. All work done under this permit shall be done to the satisfaction of authorized representatives of the Ohio Department of Transportation. (No unnecessary collateral damage will be permitted.)

The Applicant shall:

1. Save harmless the State of Ohio and all of its representatives from all suits, actions, or claims of any character, brought on account of any injuries or damages sustained by any person or property in consequence of any neglect or on account of any act of omission as a result of the issuance of this permit.
2. During the progress of the work, install and maintain all traffic control devices as required for the protection of the traveling public in accordance with the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways, current edition.
3. Make cuts in branch tissue as close as possible to the parent limb or trunk, without cutting into the branch, bark ridge, collar, or leaving a stub; remove dead wood 2 inch or over in diameter, all in accordance with Standard Practices for Trees, Shrubs, and Other Woody Plant Maintenance, ANSI A300.
4. All stumps and stubble shall be cut flush with the ground so as not to interfere with mowing. All logs, limbs, branches, and rubbish generated by the operation shall be removed as the work progresses.
5. No foliar spray shall be permitted on trees or brush over 4 FT in height. Growth over that height shall be cut flush with the ground and the stump treated with herbicide.
6. Treated brush and trees shall be removed from the right-of-way as previously agreed upon with the District Permits representative.
7. No herbicide treatment shall be permitted on highway landscape plantings, trees, shrubs, or ground covers.
8. No burning shall be permitted within the right-of-way.
9. All pesticide applicators and operators shall be licensed as required by the Revised Code of Ohio.
10. Comply with Federal, State, or Local requirements applicable to said activities.
11. For longitudinal occupancy of highways within the jurisdiction of the Ohio Department of Transportation, the work limits for utility installations shall be defined as follows: 1) No greater than 15 FT left and right of the proposed center line but shall not extend beyond the right-of-way line. 2) Prior approval for additional work limits will be required.
12. Any spraying, trimming, or removal of trees or brush outside the 30 FT clear zone requires prior written approval by the District Horticulturist.
13. The permit shall be in possession of the permittee at all times and shall be shown upon request to any employee of the Department of Transportation or the State Highway Patrol.

Village of Caldwell

215 West Street, Caldwell, Ohio 43724

PHONE (740)732-4645

PERMIT NO. _____

RIGHT-OF-WAY APPLICATION

Permit to work within and/or install facilities within the right-of-way limits of the Village of Caldwell.

Name of Applicant: Ohio Dept of Natural Resources

Company Name (if applicable): Division of Oil & Gas Resource Mgt. / Orphaned Well Program

Applicant Address: 2045 Morse Rd Columbus OH 43229

Applicant Phone Number: 740-274-4959

Email Address: peter.moran@dnr.ohio.gov

Type of Work: (Check ALL that apply)

☐ Residential Driveway ☐ Commercial Driveway (Plans Required) ☐ Road Open Cut (Plans Required)

☐ Utility Installation (Plans Required) ☐ Address (Required) ☐ Road Boring (Plans Required)

☐ Tree Removal/Trimming ☒ Other: ROW Access

Description of work to be done: Plugging of Orphaned Gas Well

Work Location: Lat, Long, or distance and lane orientation from nearest intersection: 121 Kennedy Dr
39.74921111 ~ 81.52733889

Street Name: Between 121 & 123 Kennedy Dr

Nearest House Address: 121 Kennedy Dr

Culvert Requirement: YES ☐ NO ☒

Diameter: _____ Length: _____

Road Closure: YES ☐ NO ☒

Requested start date: FY 2025 Completion date: FY 2025

Applicant must notify the Village Administrator at least two (2) days prior to starting work. I have read the application and I agree to comply. I understand that failure to do so may result in this permit being revoked and any completed construction may be required to be moved from the Village right-of-way at my expense. I further understand that the Village may, at any time reasonably necessary to preserve the health, safety, and well-being of the general area, access the above-described right-of-way and that the Village will be held harmless from any resulting damage to my property.

Peter Moran, P.E.

10/3/24

Signature of Applicant

Date

Village of Caldwell

215 West Street, Caldwell, Ohio 43724

PHONE (740)732-4645

PERMIT NO. _____

RIGHT-OF-WAY APPLICATION

Permit to work within and/or install facilities within the right-of-way limits of the Village of Caldwell.

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Applicant Address: 2045 Morse Rd Columbus OH 43229

Applicant Phone Number: 740-274-4959

Email Address: peter.moran@dnr.ohio.gov

Type of Work: (Check ALL that apply)

☐ Residential Driveway ☐ Commercial Driveway (Plans Required) ☐ Road Open Cut (Plans Required)

☐ Utility Installation (Plans Required) ☐ Address (Required) ☐ Road Boring (Plans Required)

☐ Tree Removal/Trimming ☒ Other: Alley / ROW Access

Description of work to be done: Equipment Access on Alley for Plugging Orphaned Well

Work Location: Lat, Long, or distance and lane orientation from nearest intersection: Work to be performed

ON Grum Property. Requesting access to Grant Alley from North

Street Name: St. Alley is between 1226 & 1302 North St.

Nearest House Address: 1302 North St

Culvert Requirement: YES ☐ NO ☒

Diameter: _____ Length: _____

Road Closure: YES ☐ NO ☒

Requested start date: FY 2025 Completion date: FY 2025

Applicant must notify the Village Administrator at least two (2) days prior to starting work. I have read the application and I agree to comply. I understand that failure to do so may result in this permit being revoked and any completed construction may be required to be moved from the Village right-of-way at my expense. I further understand that the Village may, at any time reasonably necessary to preserve the health, safety, and well-being of the general area, access the above-described right-of-way and that the Village will be held harmless from any resulting damage to my property.

Peter Moran, P.E.

10/3/24

Signature of Applicant

Date

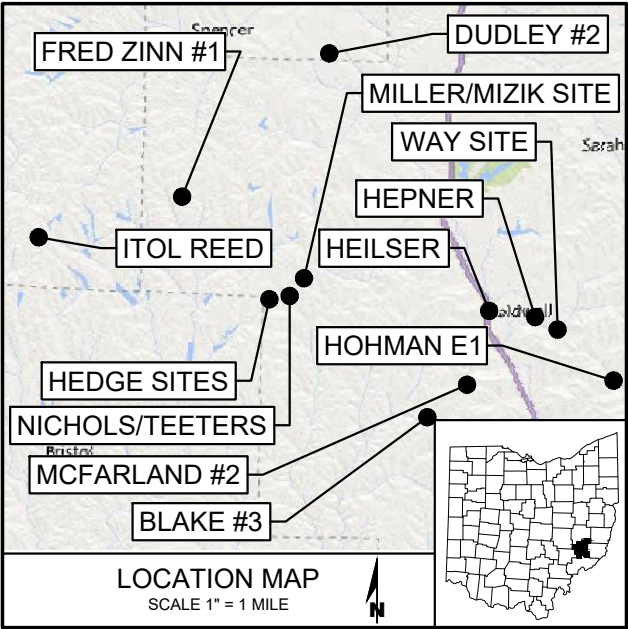
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SHEET INDEX	
TITLE SHEET	1
DUDLEY #2 SITE PLAN	2-4
L HEDGE #1/MILLER SITE PLAN	5-8
GEORGE&HELLEN MIZIK #1	9
JOHN HEDGE #2 SITE PLAN	10-11
HEDGE #1 SITE PLAN	12
OHIO POWER FRED ZINN #1 SITE PLAN	13
ITOL REED #2 SITE PLAN	14-17
ITOL REED #3 SITE PLAN	18-20
OHIO POWER NICHOLS #1 SITE PLAN	21-22
TEETERS SITE PLAN	23-24
DAVIS BLAKE #3 SITE PLAN	25
WAYNE MCFARLAND #2 SITE PLAN	26
HEISLER CA #1 SITE PLAN	27
HEPNER E#1 SITE PLAN	28
DANFORD GARFIELD #1 SITE PLAN	29
WAY SITE PLAN	30
E HOHMAN #1 SITE PLAN	31
DETAILS	32-35

CONTACT INFORMATION	
DIVISION OF OIL & GAS RESOURCES MANAGEMENT OHIO DEPARTMENT OF NATURAL RESOURCES 2207 REISER AVE. SE NEW PHILADELPHIA, OHIO 44663 PH: (330) 308-0007 FAX: (330) 308-0011	
REGIONAL PLUGGING MANAGER JAKE GLASCOCK PH: (740) 586-3274	
ORPHAN WELL INSPECTOR BRANDON MITCHELL PH: (740) 507-9006	
PROJECT ENGINEER PETER G. MORAN, P.E. PH: (614) 949-0168	

LEGEND			
PROPOSED WORK LIMITS		PROPOSED VAULT	
PROPOSED STONE		EXISTING ORPHAN WELL	
PROPOSED MATTING		EXISTING POWER POLE	
PROPOSED SILT FENCE		EXISTING HYDRANT	
PROPOSED VENT LINE		EXISTING WATER VALVE	
EXISTING GUTTER LINE		EXISTING GAS VALVE	
EXISTING CURB		EXISTING MONUMENT BOX	
EXISTING EDGE OF PVMT		EXISTING CURB INLET	
EXISTING EDGE OF DRIVE		EXISTING ELECTRIC METER	
EXISTING BUILDING		EXISTING LIGHT POLE	
EXISTING PROPERTY LINE		EXISTING IRON PIN FOUND	
EXISTING TOP OF BANK		EXISTING SANITARY MANHOLE	
EXISTING TOE OF SLOPE		FLOW DIRECTION ARROW	
EXISTING 1' CONTOUR		ABSORBENT BOOM	
EXISTING 5' CONTOUR		EXISTING SANITARY	
EXISTING BURIED ELECTRIC		EXISTING GAS	
EXISTING OVERHEAD ELEC.			
EXISTING STORM			

ORPHAN WELL INFORMATION					
WELL NAME	API NUMBER	COUNTY	TOWNSHIP	LATITUDE	LONGITUDE
DUDLEY #2	34-121-2-3691-00-00	NOBLE	BROOKFIELD	39.838431°	-81.609123°
L HEDGE #1	34-121-2-2003-00-00	NOBLE	BROOKFIELD	39.790657°	-81.610229°
MILLER #2	34-121-2-1966-00-00	NOBLE	BROOKFIELD	39.786731°	-81.604033°
MILLER #1	34-121-2-1969-00-00	NOBLE	BROOKFIELD	39.782813°	-81.603126°
GEORGE P&HELEN MIZIK #1	34-121-2-1530-00-00	NOBLE	BROOKFIELD	39.783957°	-81.599675°
JOHN HEDGE #2	34-121-2-3695-00-00	NOBLE	BROOKFIELD	39.772941°	-81.650808°
HEDGE #1	34-121-2-1503-00-00	NOBLE	BROOKFIELD	39.768949°	-81.648779°
OHIO POWER-FRED ZINN #1	34-121-2-1583-00-00	NOBLE	BROOKFIELD	39.790652°	-81.679110°
ITOL REED #2	34-121-2-2107-00-00	NOBLE	BROOKFIELD	39.767199°	-81.689303°
ITOL REED #3	34-121-2-2169-00-00	NOBLE	BROOKFIELD	39.762936°	-81.695222°
OHIO POWER-NICHOLS #1	34-121-2-3889-00-00	NOBLE	BROOKFIELD	39.752813°	-81.631899°
TEETERS #1	34-121-2-1377-00-00	NOBLE	BROOKFIELD	39.757446°	-81.6222080°
TEETERS #2	34-121-2-3710-00-00	NOBLE	BROOKFIELD	39.753745°	-81.624864°
DAVIS BLAKE #3	34-121-2-4123-00-00	NOBLE	BROOKFIELD	39.707484°	-81.553070°
MCFARLAND WAYNE #2	34-121-2-1222-00-00	NOBLE	OLIVE	39.722316°	-81.543757°
HEISLER CA #1	34-121-2-0904-00-00	NOBLE	OLIVE	39.749208°	-81.527343°
HEPNER E#1	34-121-2-1224-00-00	NOBLE	OLIVE	39.743294°	-81.507555°
DANFORD GARFIELD #1	34-121-2-0523-00-00	NOBLE	OLIVE	39.747570°	-81.501800°
DAVIS LEE #1	34-121-2-0293-00-00	NOBLE	OLIVE	39.740371°	-81.496943°
WAY #3	34-121-6-6788-00-00	NOBLE	OLIVE	39.741541°	-81.496272°
MORRIS J&E #2	34-121-2-0548-00-00	NOBLE	OLIVE	39.741159°	-81.497414°
E HOHMAN #1	34-121-2-2824-00-00	NOBLE	ENOCH	39.719441°	-81.466520°



Call Before You Dig
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN APPROXIMATELY, BASED EITHER ON REPORTING BY RESPECTIVE OWNERS AND/OR BY FIELD LOCATION. HOWEVER, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ALL DAMAGES THAT MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN A CURRENT 10 DAY OUPS/OGUPS TICKET DURING THE ENTIRE PROJECT BY CONTACTING OUPS EVERY 10 DAYS. BOTH OUPS AND OGUPS CAN BE COMPLETED USING THE OHIO 811 ONE CALL SERVICE BY PHONE OR ON THE WEB.

THIS DOCUMENT WAS ORIGINALLY
ISSUED BY PETER G. MORAN, P.E.
**THIS DOCUMENT IS NOT CONSIDERED A
SEALED DOCUMENT & IS FOR
OFFER SUBMITTAL PURPOSES ONLY**

PETER G. MORAN, PE
OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS RESOURCES MGMT

74661
NO. DATE

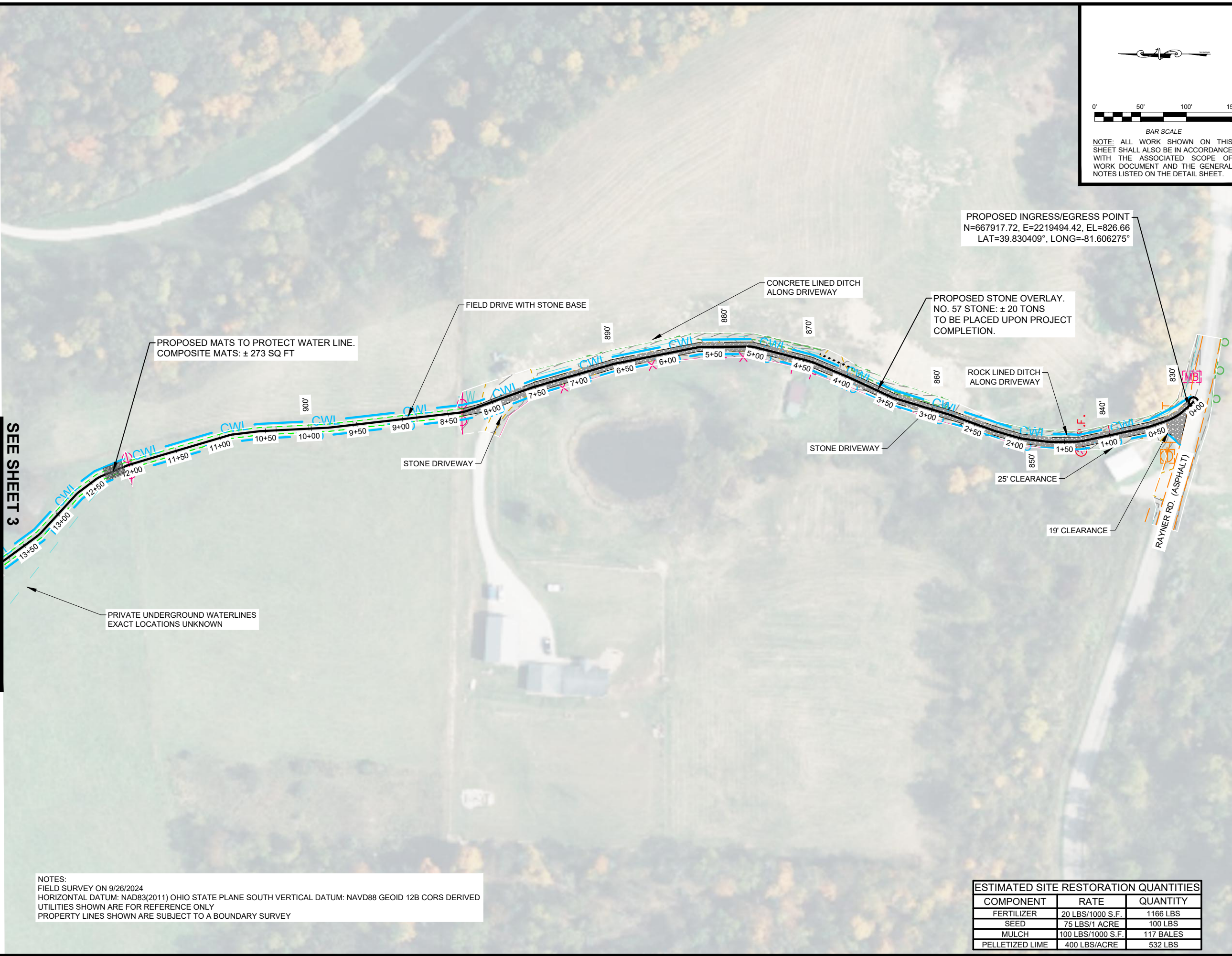
DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>

TITLE SHEET

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	
DESIGN UNIT	O&G ENGINEERING
DRAWN BY:	A.D.K.
CHECKED BY:	P.G.M.
DATE:	01/14/2025
SHEET NO.	1 OF 35

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BAR SCALE
NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.

SEE SHEET 3

NOTES:
FIELD SURVEY ON 9/26/2024
HORIZONTAL DATUM: NAD83(2011) OHIO STATE PLANE SOUTH VERTICAL DATUM: NAVD88 GEOID 12B CORS DERIVED
UTILITIES SHOWN ARE FOR REFERENCE ONLY
PROPERTY LINES SHOWN ARE SUBJECT TO A BOUNDARY SURVEY

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	1166 LBS
SEED	75 LBS/1 ACRE	100 LBS
MULCH	100 LBS/1000 S.F.	117 BALES
PELLETIZED LIME	400 LBS/ACRE	532 LBS


DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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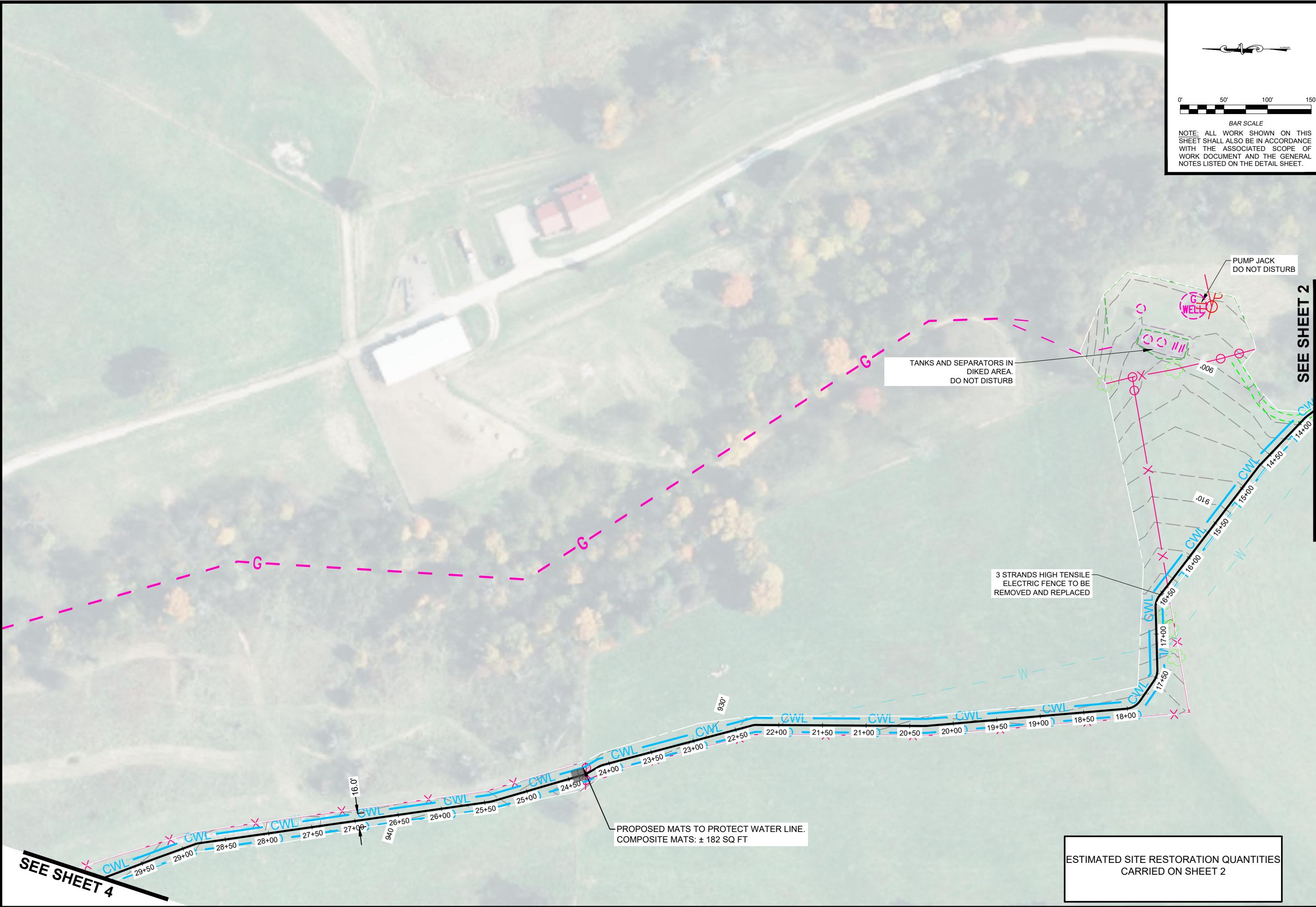

DUDLEY #2
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

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2 OF 35

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DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>



DUDLEY #2
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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DATE: 01/14/2025

SHEET NO.
3 OF 35

ESTIMATED SITE RESTORATION QUANTITIES
CARRIED ON SHEET 2

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REMOVE ALL COLLECTOR LINES AND SHACKLE LINES ON PROPERTY WITH MINIMAL DISTURBANCE OUTSIDE OF CONSTRUCTION WORK LIMITS. FOR LINES THE DIVISION HAS DETERMINED IMPRACTICAL TO REMOVE, THE CONTRACTOR SHALL FIRST FLUSH THE LINE TO REMOVE ANY WELL BYPRODUCTS IN THE PIPE. THE CONTRACTOR SHALL THEN CEMENT THE LINE. THE CONTRACTOR SHALL FINALLY CAP THE END OF THE LINE AND ABANDON IN PLACE. WORK TO ABANDON LINES IN PLACE SHALL BE COMPLETED PER SPECIFICATION "GAS LINE ABANDONMENT" (NOTE: NOT ALL LINES ARE SHOWN AND LINES SHOWN MAY NOT BE COMPLETE, THE CONTRACTOR SHALL VERIFY THAT ALL LINES HAVE BEEN LOCATED ON THE PROPERTY TO THE SATISFACTION OF THE DIVISION). (±1980 L.F.)

PRIVATE UNDERGROUND WATERLINES
EXACT LOCATIONS UNKNOWN COORDINATE
WITH DIVISION AND LANDOWNER TO MARK AND
NOT DISTURB WATER LINE.

PROPOSED MATS TO PROTECT WATER LINE.
COMPOSITE MATS: ± 546 SQ FT

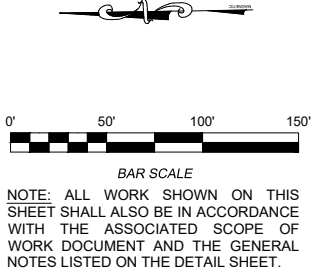
DUDLEY #2 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-3691-00-00
N= 670831.90, E= 2218665.87, EL= 946.79
LAT=39.838431°, LONG=-81.609123°

3 STRANDS HIGH TENSILE
ELECTRIC FENCE

PUMP JACK
TO BE REMOVED

PROPOSED SILT FENCE: ± 145 L.F.

SEE SHEET 3



BAR SCALE
NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.

ESTIMATED SITE RESTORATION QUANTITIES
CARRIED ON SHEET 2



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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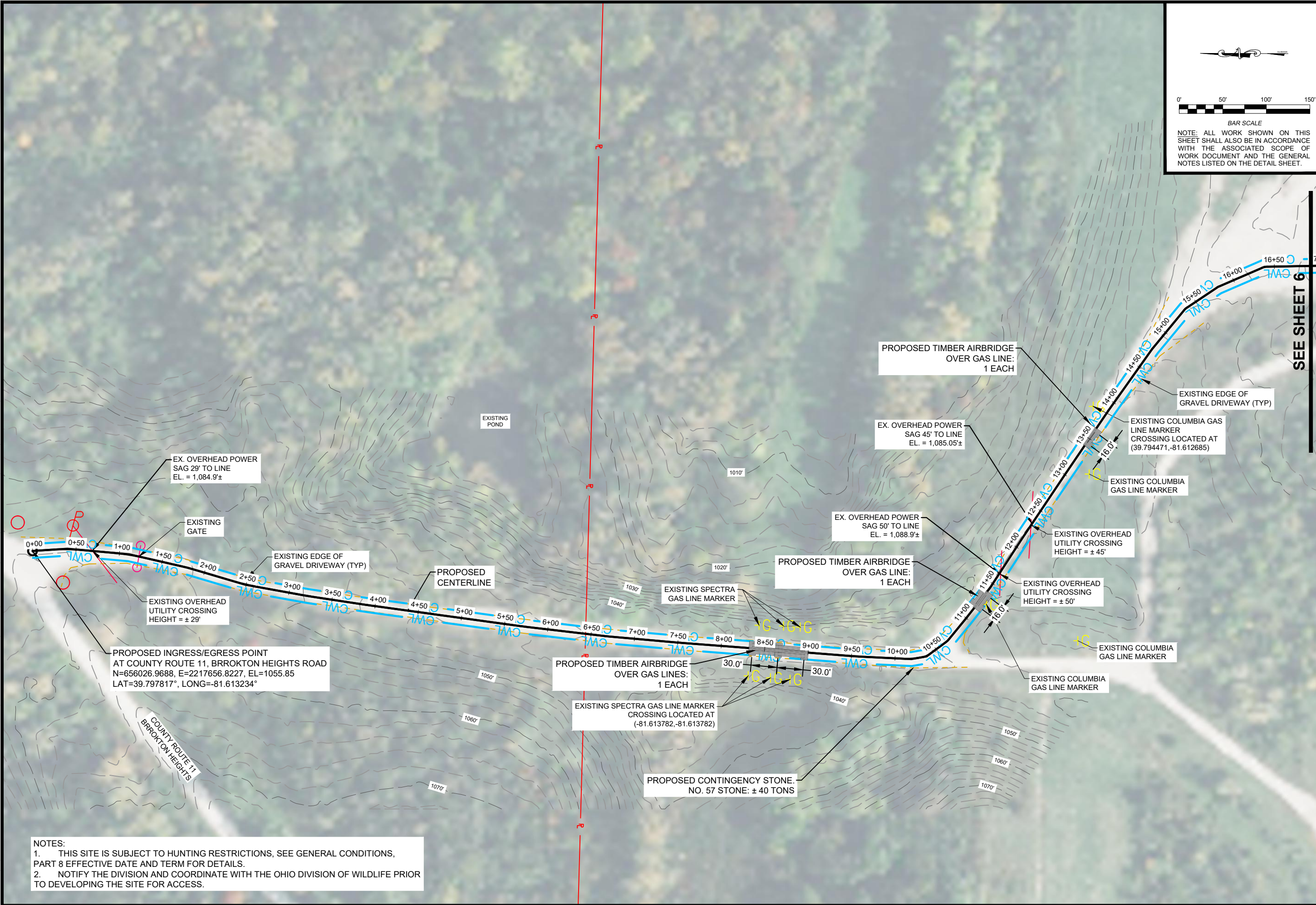


DUDLEY #2
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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NOTES:
1. THIS SITE IS SUBJECT TO HUNTING RESTRICTIONS, SEE GENERAL CONDITIONS, PART 8 EFFECTIVE DATE AND TERM FOR DETAILS.
2. NOTIFY THE DIVISION AND COORDINATE WITH THE OHIO DIVISION OF WILDLIFE PRIOR TO DEVELOPING THE SITE FOR ACCESS.



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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L. HEDGE #1/MILLER
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION

DESIGN UNIT

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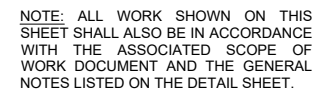
DRAWN BY: A.D.K.

CHECKED BY: P.G.M.

DATE: 01/14/2025

SHEET NO.

5 OF 35



SEE SHEET 7

L HEDGE 1 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-2003-00-00
N= 653427.2110, E= 2218526.6500, EL= 1068.15
LAT=39.790657°, LONG=-81.610229°

EXISTING EXPOSED
2" STEEL GAS LINE.
TO BE REMOVED

EXISTING TANK
TO BE REMOVED

EXISTING STEEL TANK
WITH STEEL STEPS
HEIGHT = 15'
DIAMETER = 8'
TO BE REMOVED
FLUID DISPOSAL: ±5BBL

EXISTING TOP OF
BANK (TYP)

EXISTING TOE OF
SLOPE (TYP)

—PROPOSED SILT FENCE: 130 L.F.

RE GRADE TANK DIKE TO
PROVIDE POSITIVE DRAINAGE

SED LINE

EXISTING EDGE OF
DIRT DRIVEWAY (TYP)

PROPOSED
CENTERLINE

SEE SHEET 5



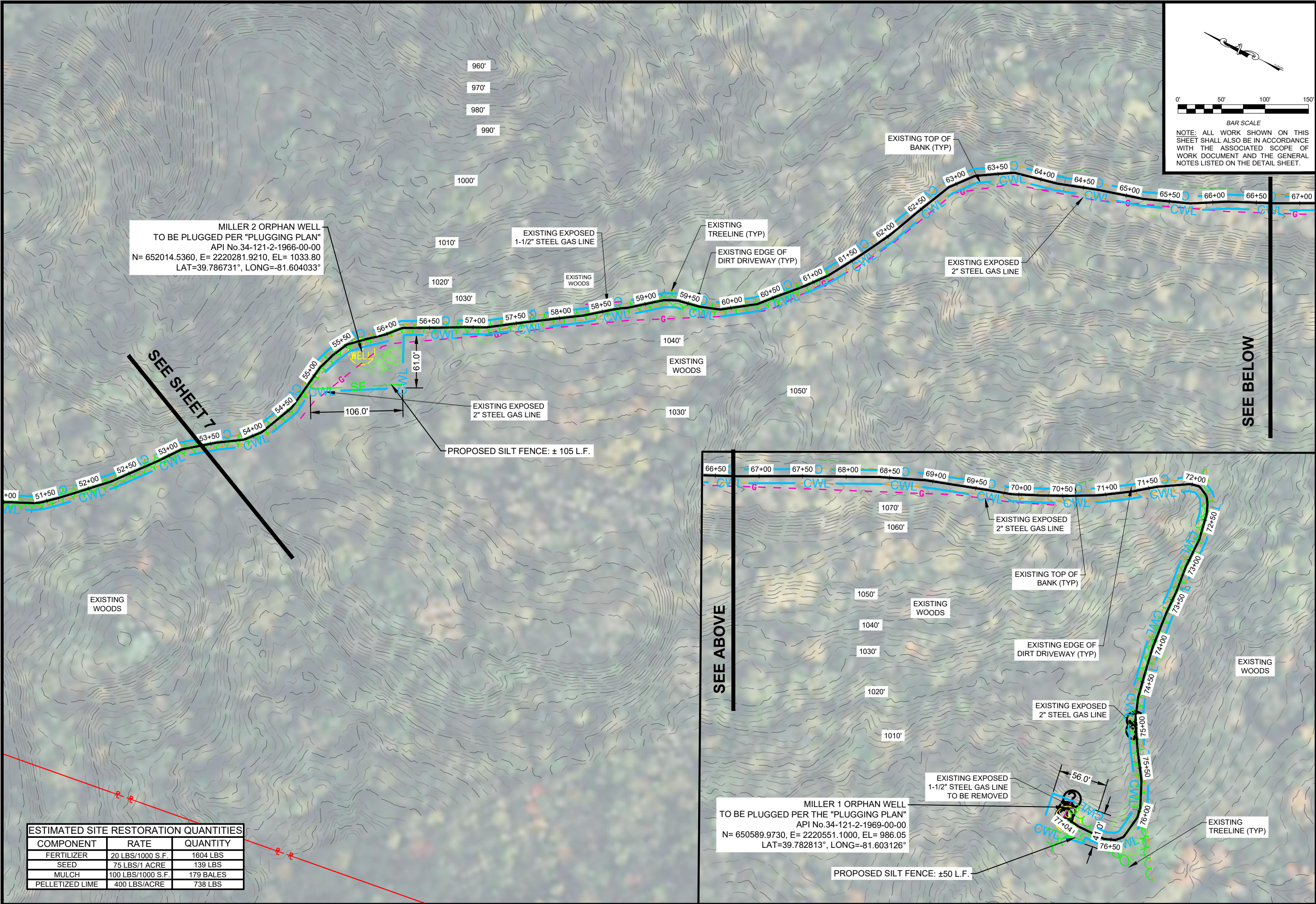
**DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>**

SITE PLAN

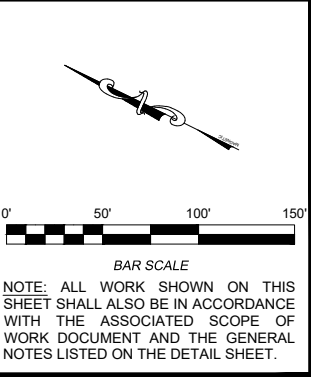
**NOBLE #16F
MULTIPLE
ORPHAN WELL SITES**

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DATE: 01/14/2025	
SHEET NO.	
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ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	1604 LBS
SEED	75 LBS/1 ACRE	139 LBS
MULCH	100 LBS/1000 S.F.	179 BALES
PELLETIZED LIME	400 LBS/ACRE	738 LBS





DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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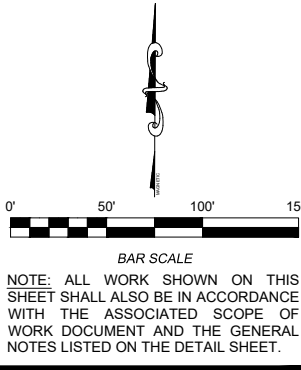
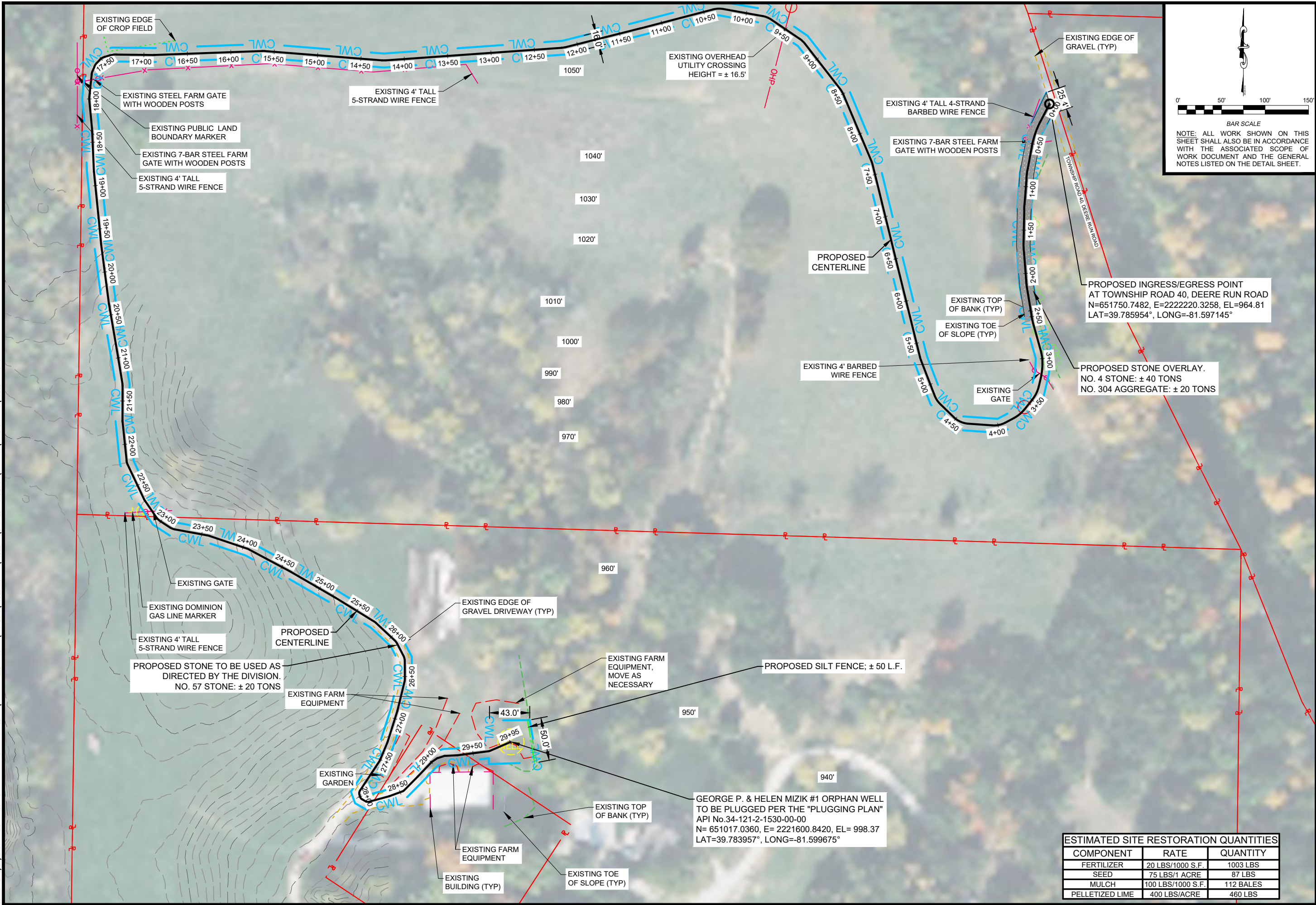
SITE PLAN

NOBLE #16F
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ORPHAN WELL SITES

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8 OF 35

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BAR SCALE
NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	1003 LBS
SEED	75 LBS/1 ACRE	87 LBS
MULCH	100 LBS/1000 S.F.	112 BALES
PELLETIZED LIME	400 LBS/ACRE	460 LBS

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>

GEORGE P. & HELEN MIZIK #1
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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DESIGN UNIT
O&G ENGINEERING

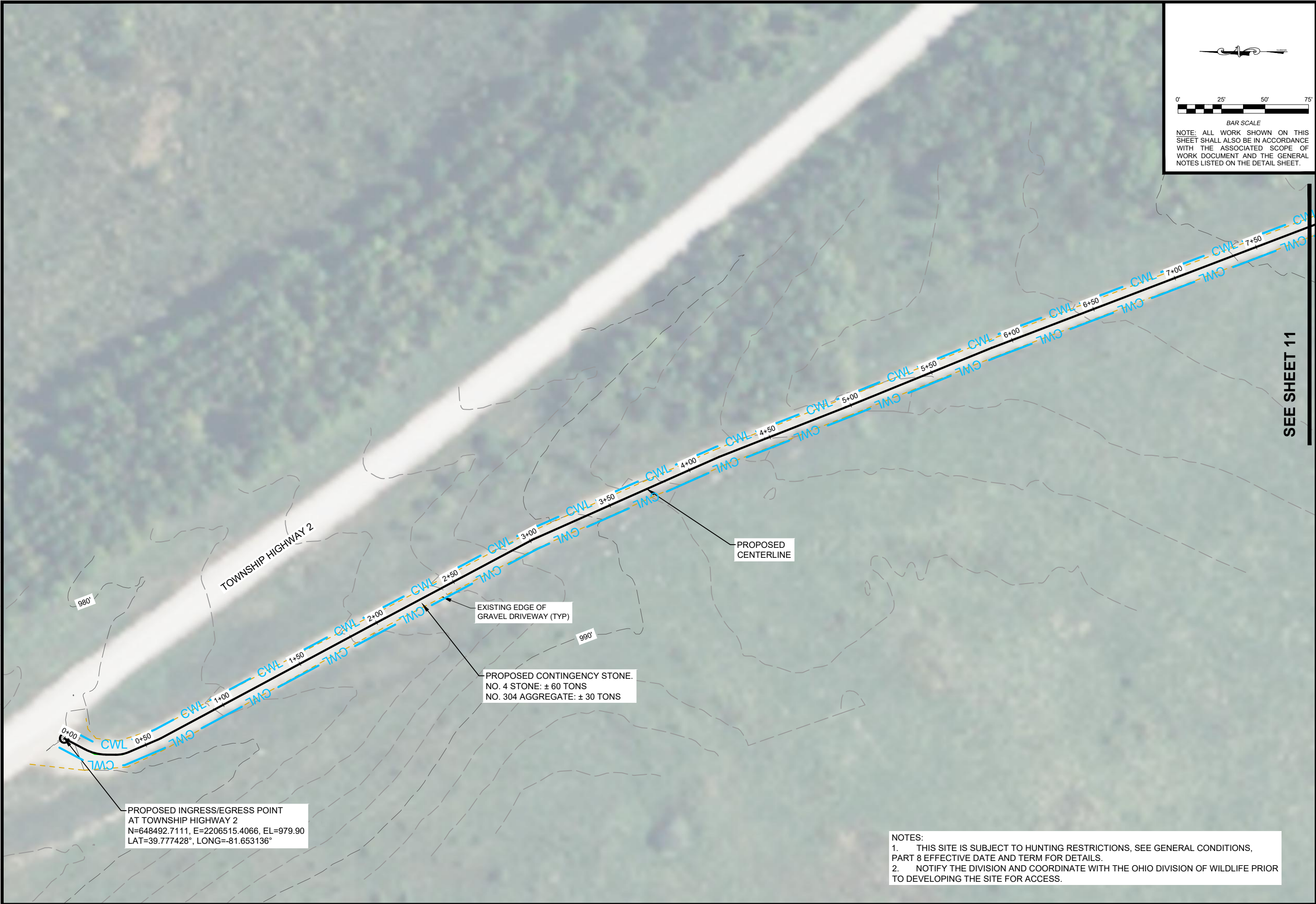
DRAWN BY: A.D.K.

CHECKED BY: P.G.M.

DATE: 01/14/2025

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9 OF 35

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0' 25' 50' 75'
BAR SCALE
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SEE SHEET 11

NOTES:
1. THIS SITE IS SUBJECT TO HUNTING RESTRICTIONS, SEE GENERAL CONDITIONS, PART 8 EFFECTIVE DATE AND TERM FOR DETAILS.
2. NOTIFY THE DIVISION AND COORDINATE WITH THE OHIO DIVISION OF WILDLIFE PRIOR TO DEVELOPING THE SITE FOR ACCESS.



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>



JOHN HEDGE #2
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

DESIGN UNIT
O&G ENGINEERING

DRAWN BY: A.D.K.

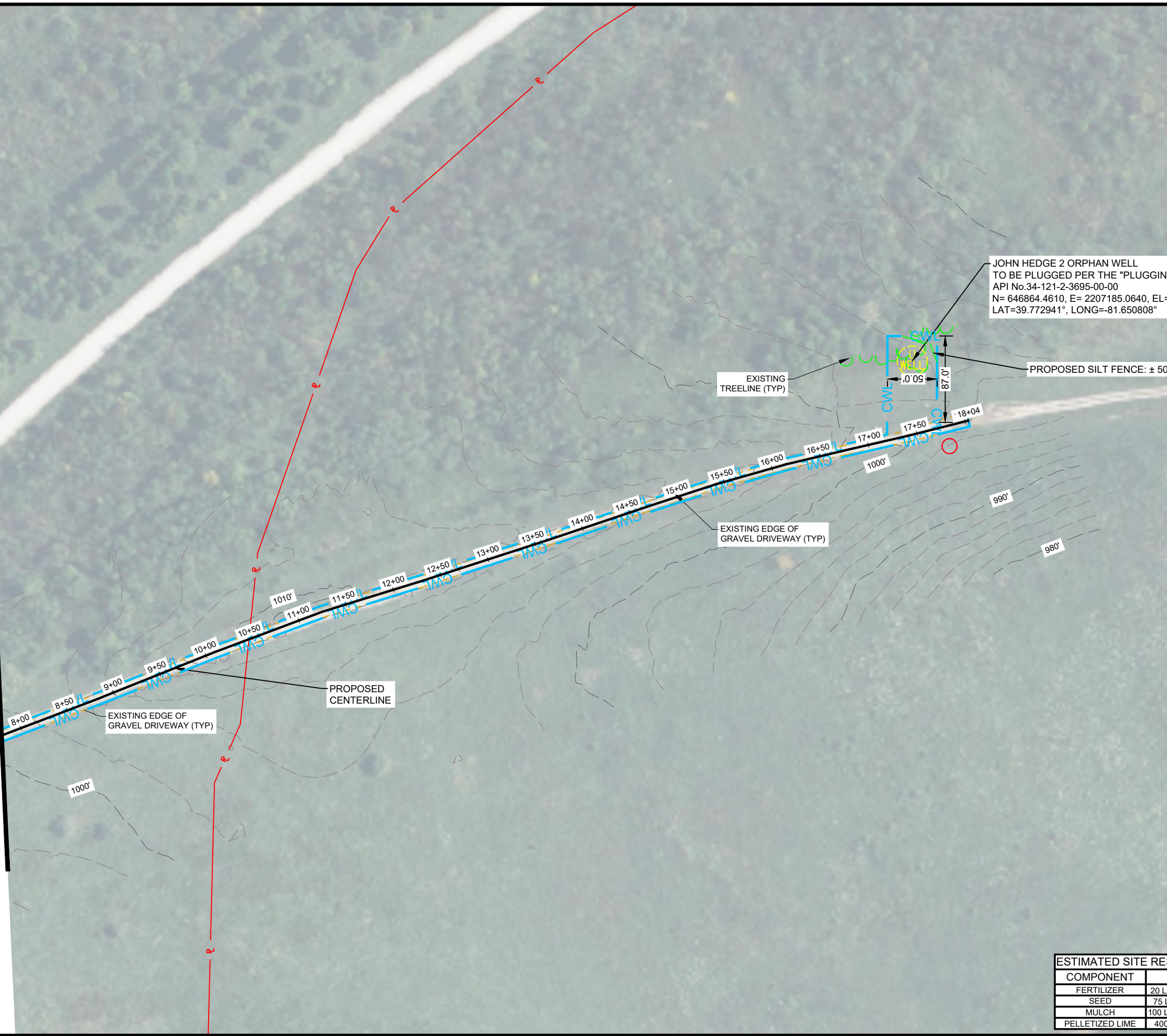
CHECKED BY: P.G.M.

DATE: 01/14/2025

SHEET NO.
10 OF 35

EDIT DATE: 2/20/2025 11:22 AM EDIT BY: 10167999 DRAWING FILE: \\A:\ORPHAN WELL PROGRAM\PROJECTS\NOBLE COUNTY\NOBLE16F\ENGINEERING DESIGN\DRAWINGS\FINAL DRAWING\NOBLE_16F.DWG

SEE SHEET 10



JOHN HEDGE 2 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-3695-00-00
N= 646864.4610, E= 2207185.0640, EL= 996.25
LAT=39.772941°, LONG=-81.650808°

EXISTING
TREELINE (TYP)

PROPOSED SILT FENCE: ± 50 L.F.

EXISTING EDGE OF
GRAVEL DRIVEWAY (TYP)

PROPOSED
CENTERLINE

EXISTING EDGE OF
GRAVEL DRIVEWAY (TYP)

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	93 LBS
SEED	75 LBS/1 ACRE	8 LBS
MULCH	100 LBS/1000 S.F.	10 BALES
PELLETIZED LIME	400 LBS/ACRE	40 LBS



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>

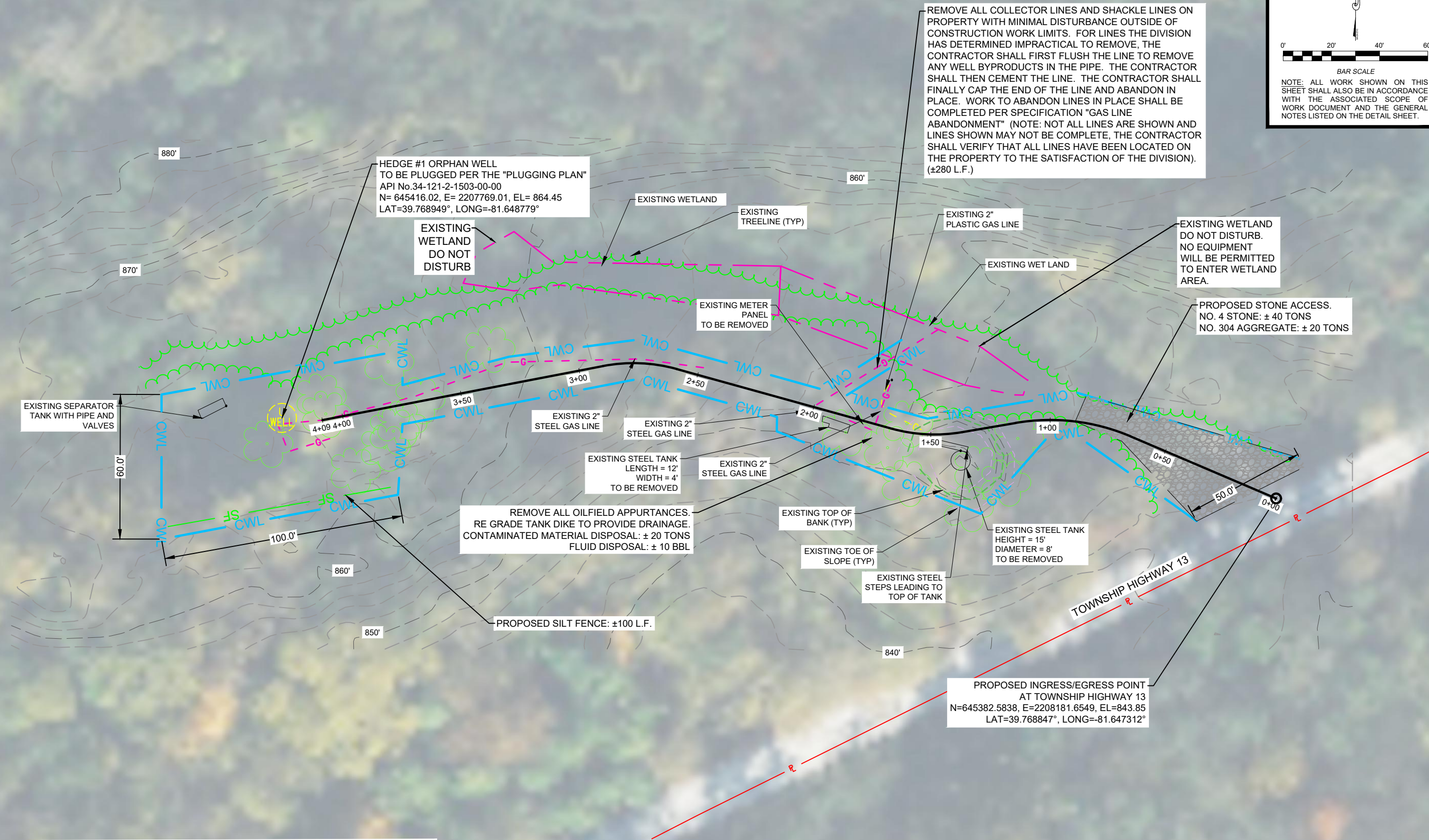


JOHN HEDGE #2
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

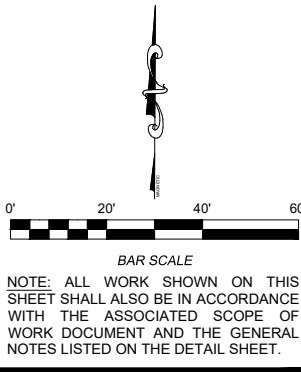
REVISION	
DESIGN UNIT	O&G ENGINEERING
DRAWN BY:	A.D.K.
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DATE:	01/14/2025
SHEET NO.	11 OF 35

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NOTES:
1. THIS SITE IS SUBJECT TO HUNTING RESTRICTIONS, SEE GENERAL CONDITIONS, PART 8 EFFECTIVE DATE AND TERM FOR DETAILS.
2. NOTIFY THE DIVISION AND COORDINATE WITH THE OHIO DIVISION OF WILDLIFE PRIOR TO DEVELOPING THE SITE FOR ACCESS.

REMOVE ALL COLLECTOR LINES AND SHACKLE LINES ON PROPERTY WITH MINIMAL DISTURBANCE OUTSIDE OF CONSTRUCTION WORK LIMITS. FOR LINES THE DIVISION HAS DETERMINED IMPRACTICAL TO REMOVE, THE CONTRACTOR SHALL FIRST FLUSH THE LINE TO REMOVE ANY WELL BYPRODUCTS IN THE PIPE. THE CONTRACTOR SHALL THEN CEMENT THE LINE. THE CONTRACTOR SHALL FINALLY CAP THE END OF THE LINE AND ABANDON IN PLACE. WORK TO ABANDON LINES IN PLACE SHALL BE COMPLETED PER SPECIFICATION "GAS LINE ABANDONMENT" (NOTE: NOT ALL LINES ARE SHOWN AND LINES SHOWN MAY NOT BE COMPLETE, THE CONTRACTOR SHALL VERIFY THAT ALL LINES HAVE BEEN LOCATED ON THE PROPERTY TO THE SATISFACTION OF THE DIVISION). (±280 L.F.)



ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	293 LBS
SEED	75 LBS/1 ACRE	25 LBS
MULCH	100 LBS/1000 S.F.	30 BALES
PELLETIZED LIME	400 LBS/ACRE	132 LBS



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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HEDGE #1
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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NOTES:
FIELD SURVEY ON 9/16/2024
HORIZONTAL DATUM: NAD83(2011) OHIO STATE PLANE SOUTH
VERTICAL DATUM: NAVD88 GEOID 12B CORS DERIVED
UTILITIES SHOWN ARE FOR REFERENCE ONLY
PROPERTY LINES SHOWN ARE SUBJECT TO A BOUNDARY SURVEY

CHAIN LINK FENCE AROUND WELL
TO BE REMOVED

PROPOSED SILT FENCE: ±280 L.F.

OHIO POWER-FRED ZINN #1 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-1583-00-00
N= 653242.24, E= 2199171.50, EL= 1037.18
LAT=39.790652°, LONG=-81.679110°

REMOVE ALL COLLECTOR LINES AND SHACKLE LINES ON
PROPERTY WITH MINIMAL DISTURBANCE OUTSIDE OF
CONSTRUCTION WORK LIMITS. FOR LINES THE DIVISION
HAS DETERMINED IMPRACTICAL TO REMOVE, THE
CONTRACTOR SHALL FIRST FLUSH THE LINE TO REMOVE
ANY WELL BYPRODUCTS IN THE PIPE. THE CONTRACTOR
SHALL THEN CEMENT THE LINE. THE CONTRACTOR SHALL
FINALLY CAP THE END OF THE LINE AND ABANDON IN
PLACE. WORK TO ABANDON LINES IN PLACE SHALL BE
COMPLETED PER SPECIFICATION "GAS LINE
ABANDONMENT" (NOTE: NOT ALL LINES ARE SHOWN AND
LINES SHOWN MAY NOT BE COMPLETE, THE CONTRACTOR
SHALL VERIFY THAT ALL LINES HAVE BEEN LOCATED ON
THE PROPERTY TO THE SATISFACTION OF THE DIVISION).
(±1000 L.F.)

STEEL PIPE

EARTHWORK REQUIRED TO ESTABLISH ACCESS.
EARTHWORK LS

REWORK STONE TO ALLOW LOW WATER
CROSSING.
NO. 304 AGGREGATE: ±20 TONS

EXISTING STONE DRIVE

PROPOSED STONE OVERLAY
NO. 57 STONE: ± 20 TONS

EXISTING STONE DRIVE

METER RUN

PROPOSED INGRESS/EGRESS POINT
N=653121.37, E=2199964.36, EL=995.47
LAT=39.790301°, LONG=-81.676293°

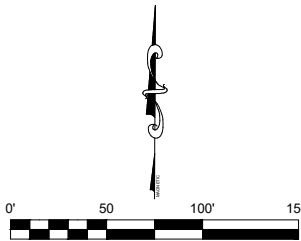
(1) 50 BBL STEEL TANK, (2) 100 BBL STEEL TANKS
TO BE REMOVED.
FLUID DISPOSAL: ± 50 BBL
CONTAMINATED MATERIAL DISPOSAL: ± 10 TONS

STEEL PIPELINES

CHAIN LINK FENCE AROUND SEPARATOR
REMOVE FENCE AND SEPARATOR.

STEEL PIPE
REMOVE ALL OILFIELD DEBRIS

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	1276 LBS
SEED	75 LBS/1 ACRE	110 LBS
MULCH	100 LBS/1000 S.F.	142 BALES
PELLETIZED LIME	400 LBS/ACRE	584 LBS



BAR SCALE
NOTE: ALL WORK SHOWN ON THIS
SHEET SHALL ALSO BE IN ACCORDANCE
WITH THE ASSOCIATED SCOPE OF
WORK DOCUMENT AND THE GENERAL
NOTES LISTED ON THE DETAIL SHEET.



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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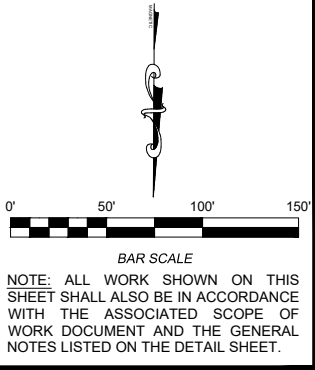
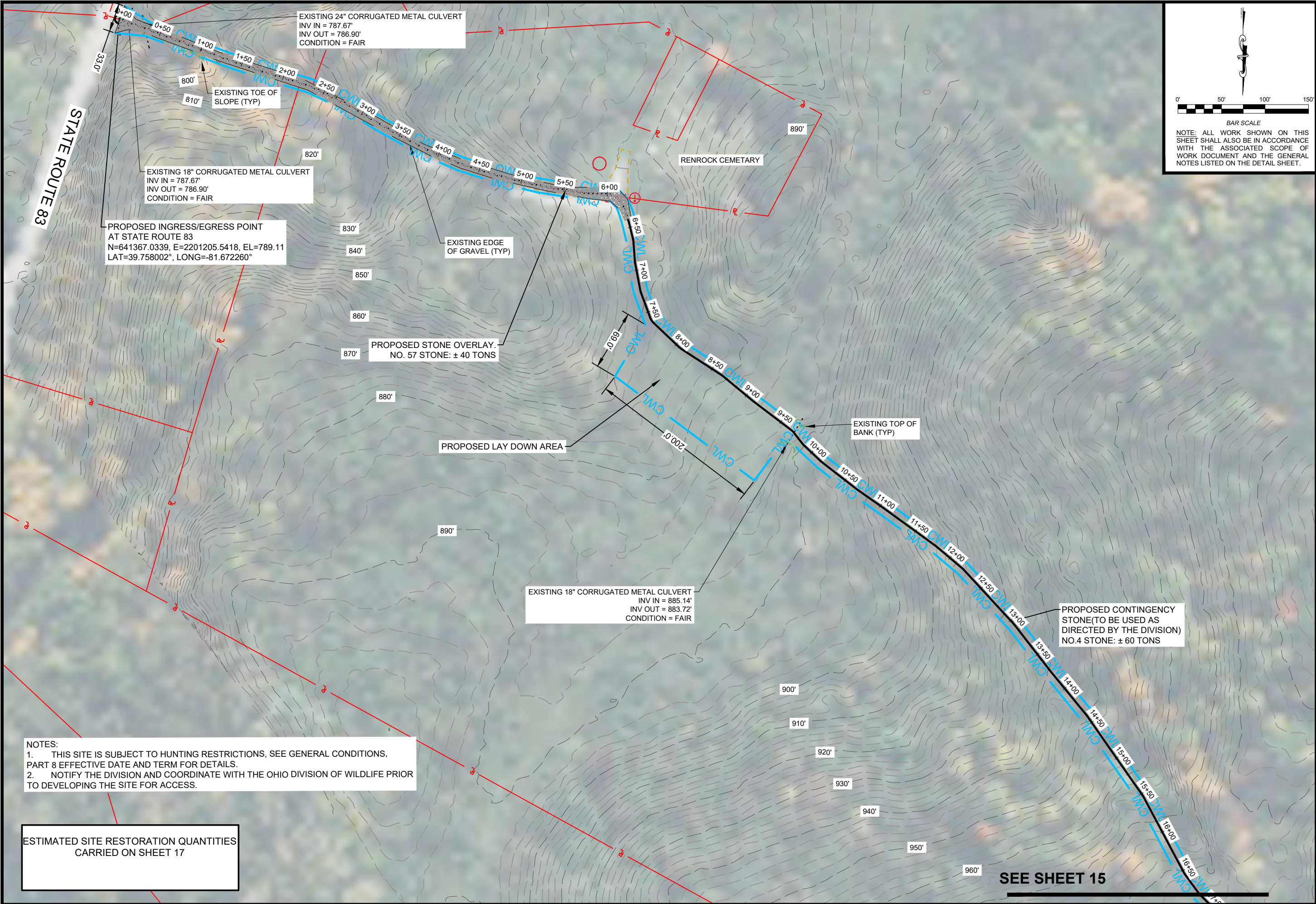
OHIO POWER-FRED ZINN #1 SITE PLAN

NOBLE #16F MULTIPLE ORPHAN WELL SITES

REVISION

DESIGN UNIT
O&G ENGINEERING
DRAWN BY: A.D.K.
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DATE: 01/14/2025
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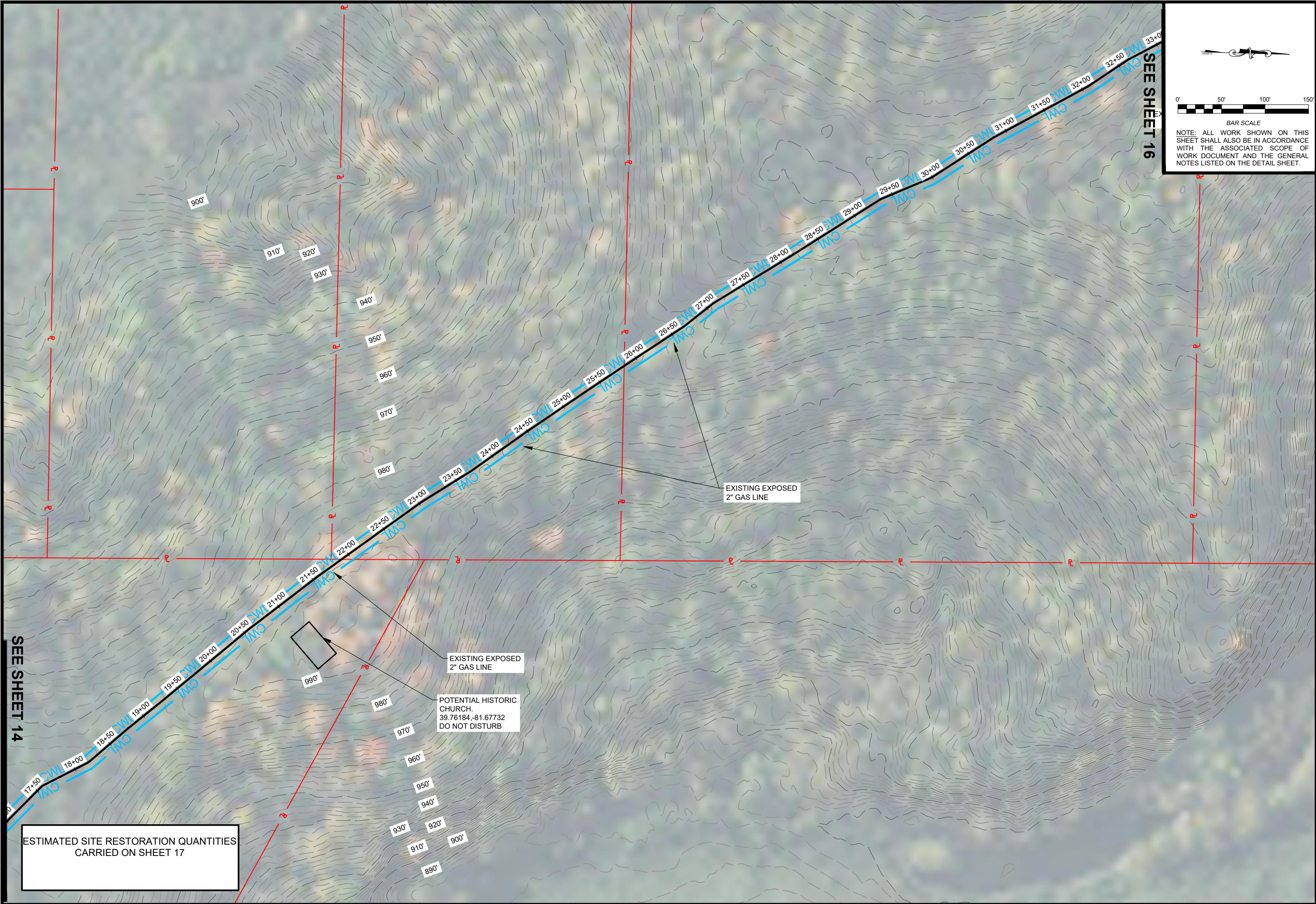
DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>

ITOL REED #2
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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0' 50' 100' 150'

BAR SCALE

NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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ITOL REED #2
SITE PLAN

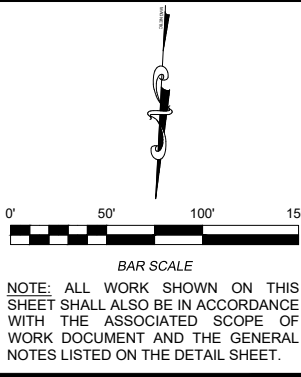
NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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15 OF 35

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SEE SHEET 15



NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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ITOL REED #2
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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CHECKED BY: P.G.M.
DATE: 01/14/2025
SHEET NO.

ESTIMATED SITE RESTORATION QUANTITIES
CARRIED ON SHEET 17

REMOVE ALL COLLECTOR LINES AND SHACKLE LINES ON PROPERTY WITH MINIMAL DISTURBANCE OUTSIDE OF CONSTRUCTION WORK LIMITS. FOR LINES THE DIVISION HAS DETERMINED IMPRACTICAL TO REMOVE, THE CONTRACTOR SHALL FIRST FLUSH THE LINE TO REMOVE ANY WELL BYPRODUCTS IN THE PIPE. THE CONTRACTOR SHALL THEN CEMENT THE LINE. THE CONTRACTOR SHALL FINALLY CAP THE END OF THE LINE AND ABANDON IN PLACE. WORK TO ABANDON LINES IN PLACE SHALL BE COMPLETED PER SPECIFICATION "GAS LINE ABANDONMENT" (NOTE: NOT ALL LINES ARE SHOWN AND LINES SHOWN MAY NOT BE COMPLETE, THE CONTRACTOR SHALL VERIFY THAT ALL LINES HAVE BEEN LOCATED ON THE PROPERTY TO THE SATISFACTION OF THE DIVISION). (±7500 L.F.)

SEE SHEET 17

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	2851 LBS
SEED	75 LBS/1 ACRE	246 LBS
MULCH	100 LBS/1000 S.F.	317 BALES
PELLETIZED LIME	400 LBS/ACRE	1310 LBS

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NOTES:
1. THIS SITE IS SUBJECT TO HUNTING RESTRICTIONS, SEE GENERAL CONDITIONS, PART 8 EFFECTIVE DATE AND TERM FOR DETAILS.
2. NOTIFY THE DIVISION AND COORDINATE WITH THE OHIO DIVISION OF WILDLIFE PRIOR TO DEVELOPING THE SITE FOR ACCESS.

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	1604 LBS
SEED	75 LBS/1 ACRE	139 LBS
MULCH	100 LBS/1000 S.F.	179 BALES
PELLETIZED LIME	400 LBS/ACRE	737 LBS

DIVISION OF OIL & GAS
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ITOL REED #3
SITE PLAN

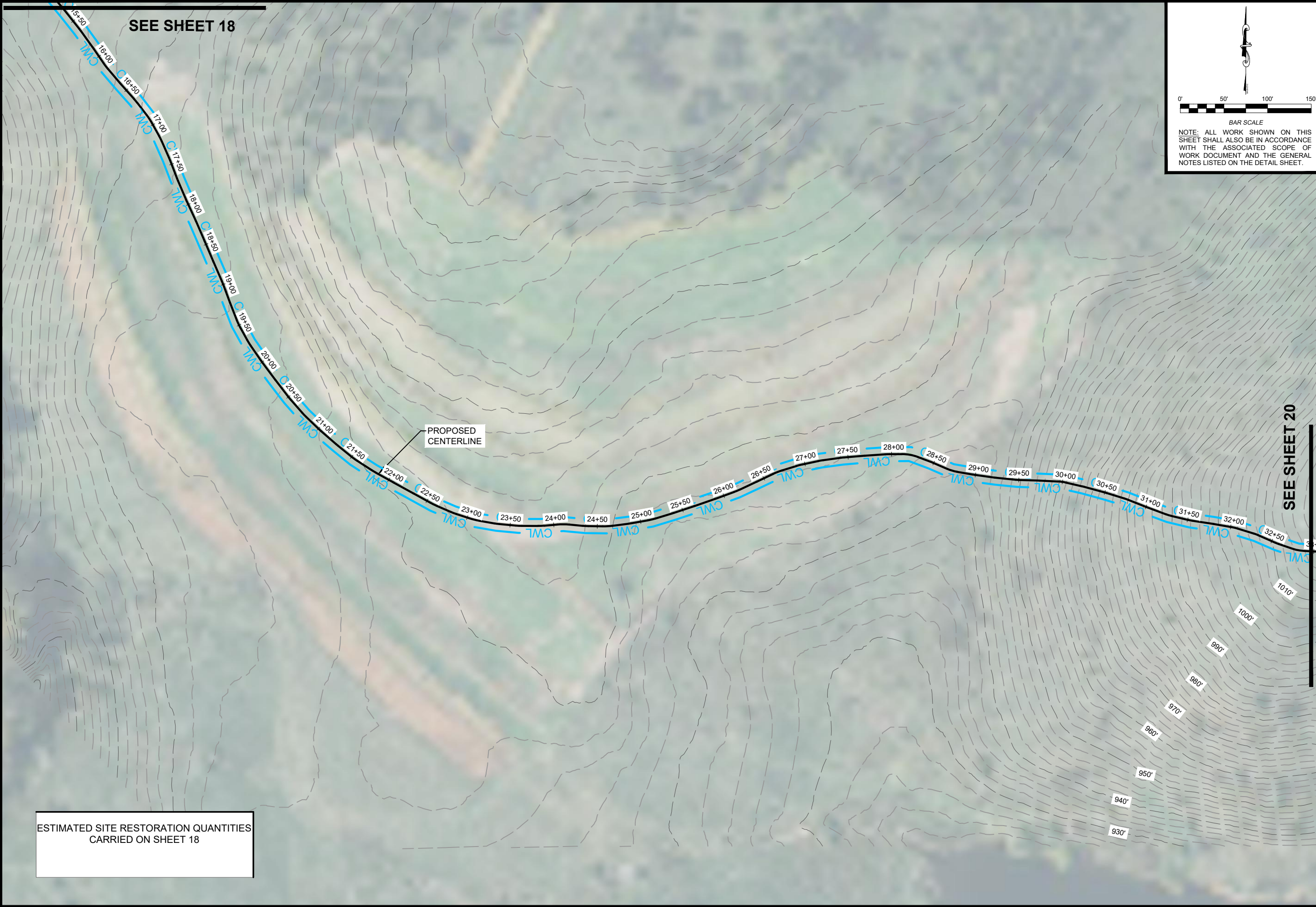
NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

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18 OF 35

SEE SHEET 19

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0' 50' 100' 150'

BAR SCALE

NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.

ESTIMATED SITE RESTORATION QUANTITIES
CARRIED ON SHEET 18



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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ITOL REED #3
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

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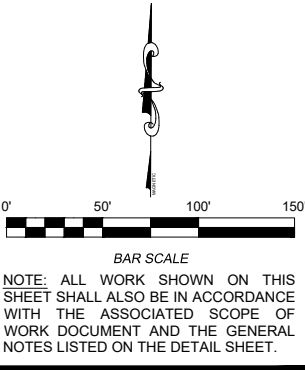
DATE: 01/14/2025

SHEET NO.
19 OF 35

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ESTIMATED SITE RESTORATION QUANTITIES
CARRIED ON SHEET 18

SEE SHEET 19



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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ITOL REED #3
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

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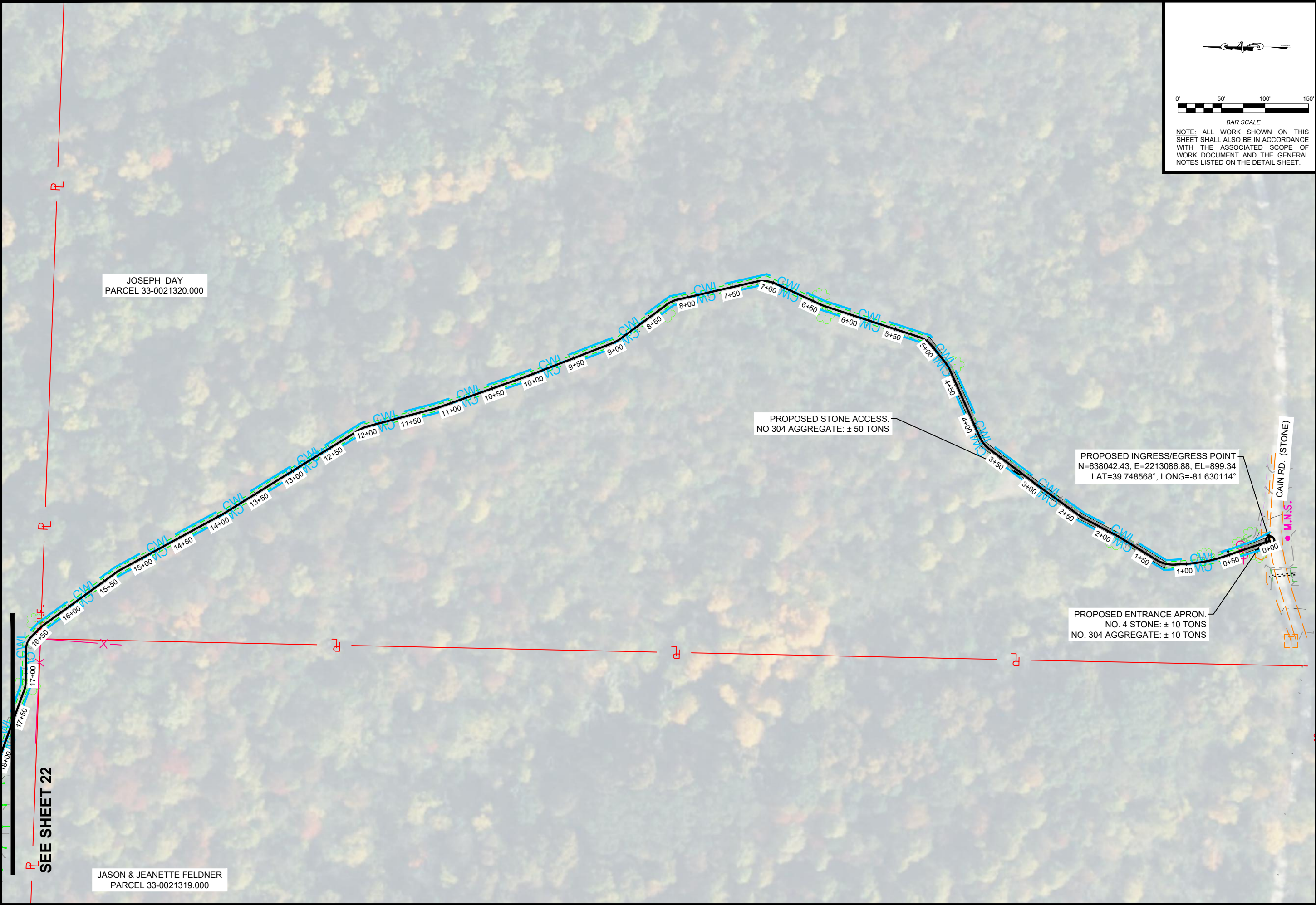
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20 OF 35

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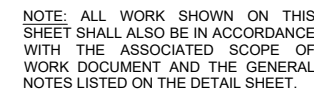
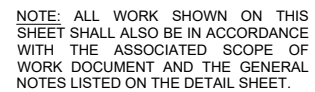
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RESOURCES MANAGEMENT
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OHIO POWER NICHOLS #1
SITE PLAN

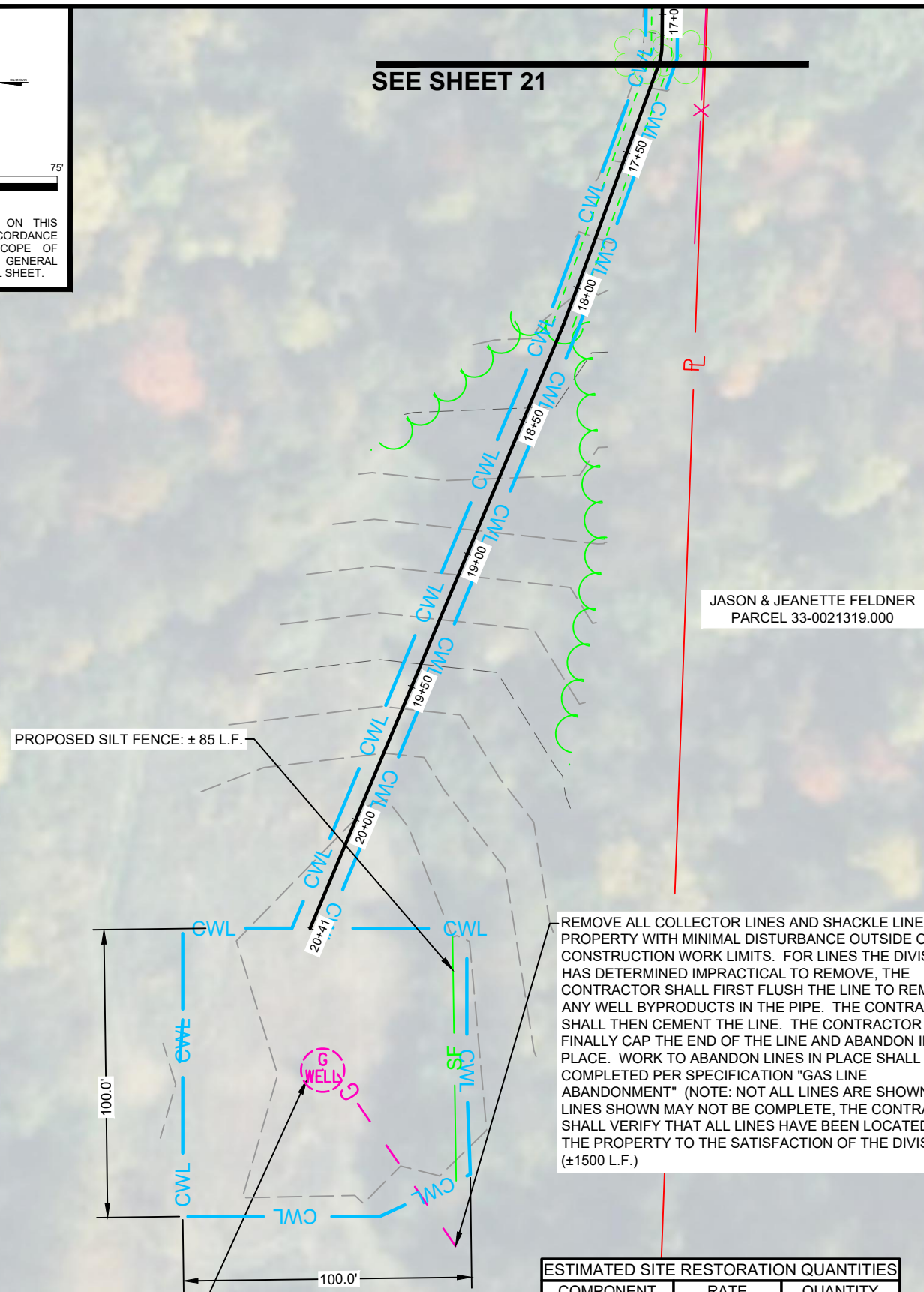
NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

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DATE: 01/14/2025
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21 OF 35



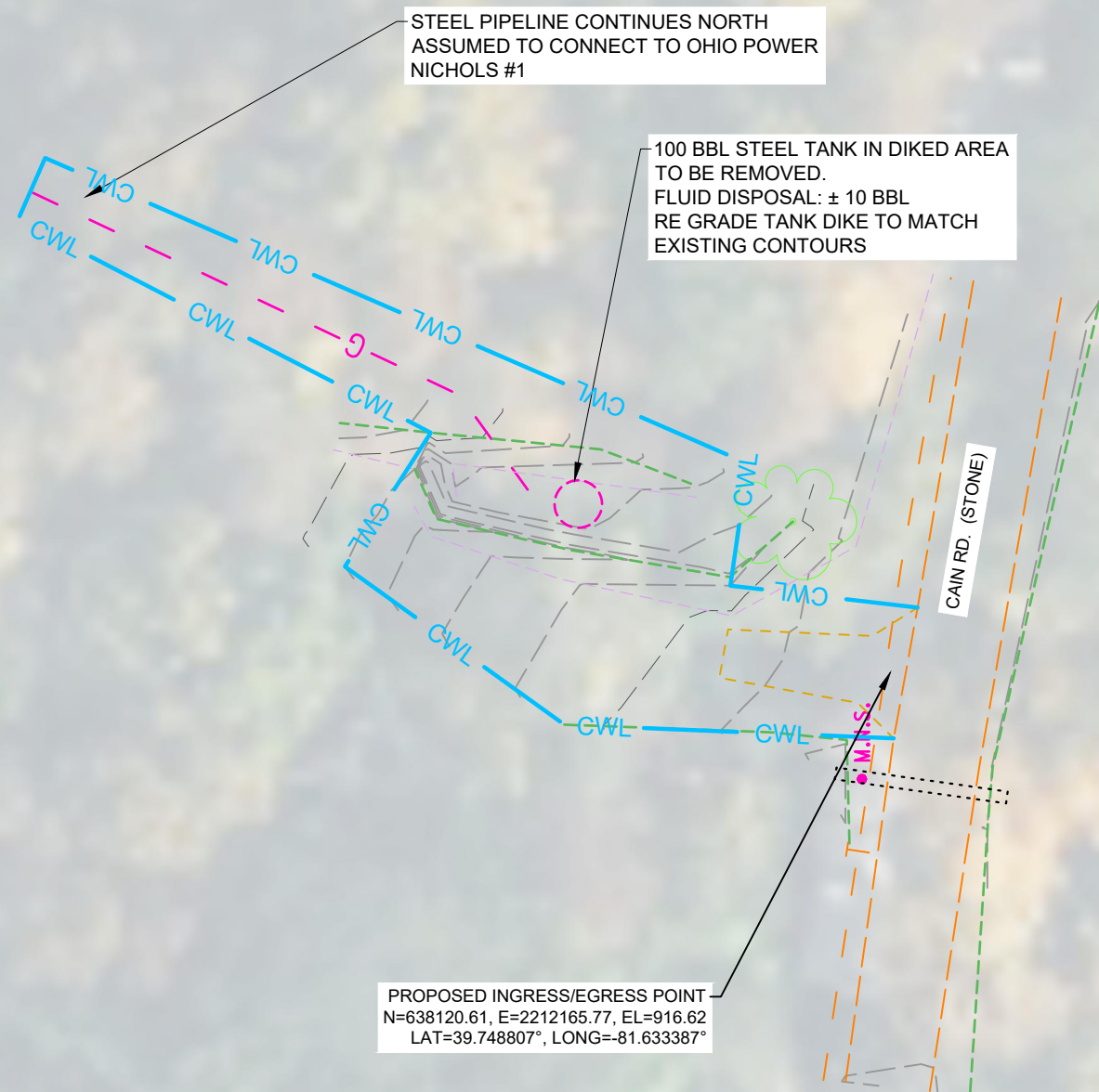
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OHIO POWER NICHOLS #1 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-3889-00-00
N= 639583.79, E= 2212570.08, EL= 1046.88
LAT=39.752813°, LONG=-81.631899°

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FOOD PLOT SEED	150 LBS/1 ACRE	33 LBS

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	452 LBS
SEED	75 LBS/1 ACRE	38 LBS
MULCH	100 LBS/1000 S.F.	46 BALES
PELLETIZED LIME	400 LBS/ACRE	200 LBS



ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	92 LBS
SEED	75 LBS/1 ACRE	8 LBS
MULCH	100 LBS/1000 S.F.	10 BALES
PELLETIZED LIME	400 LBS/ACRE	40 LBS



DIVISION OF OIL & GAS
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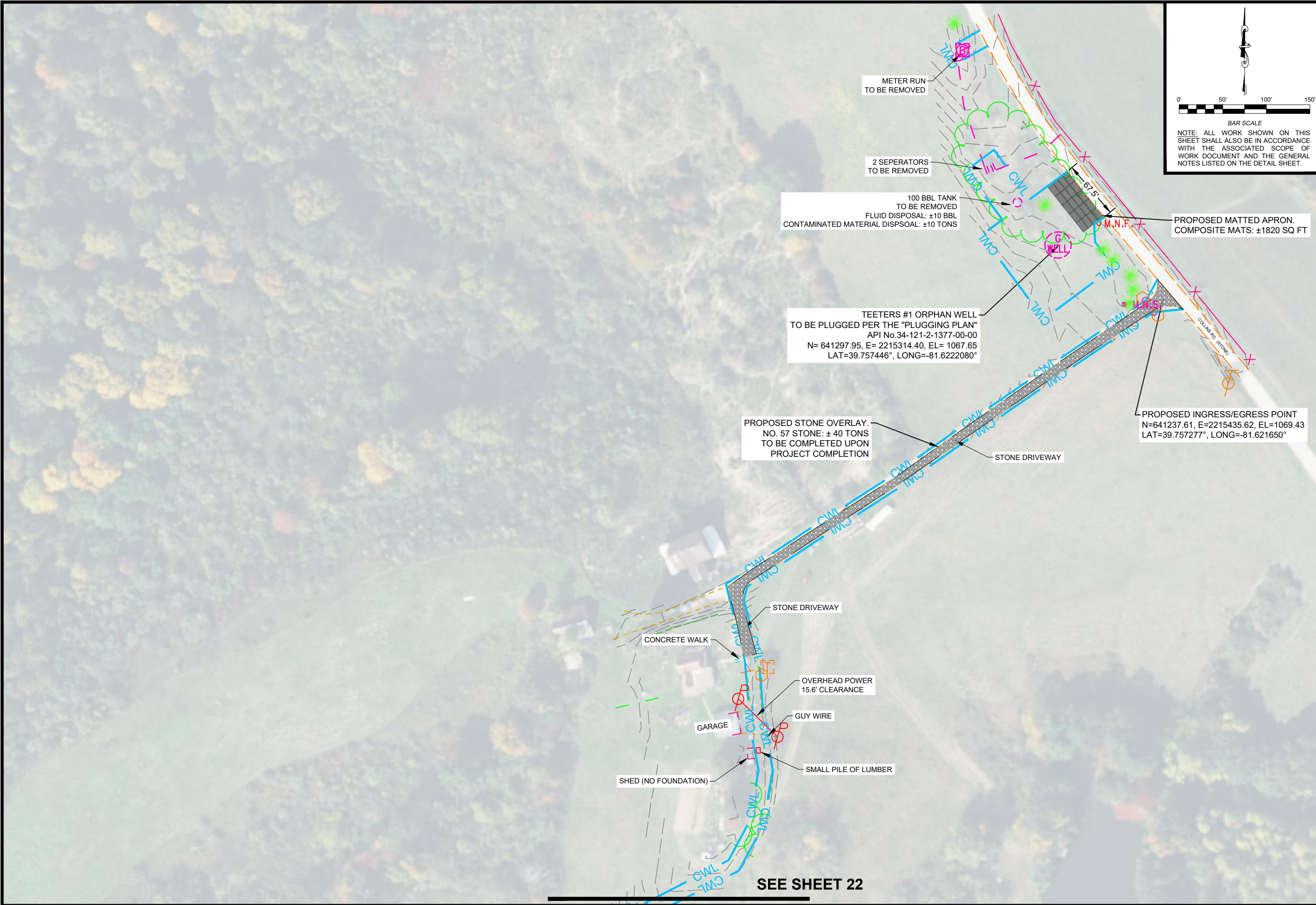


OHIO POWER NICHOLS #1 SITE PLAN

**NOBLE #16F
MULTIPLE
ORPHAN WELL SITES**

REVISION	
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O&G ENGINEERING	
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DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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TEETERS
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

DESIGN UNIT
O&G ENGINEERING

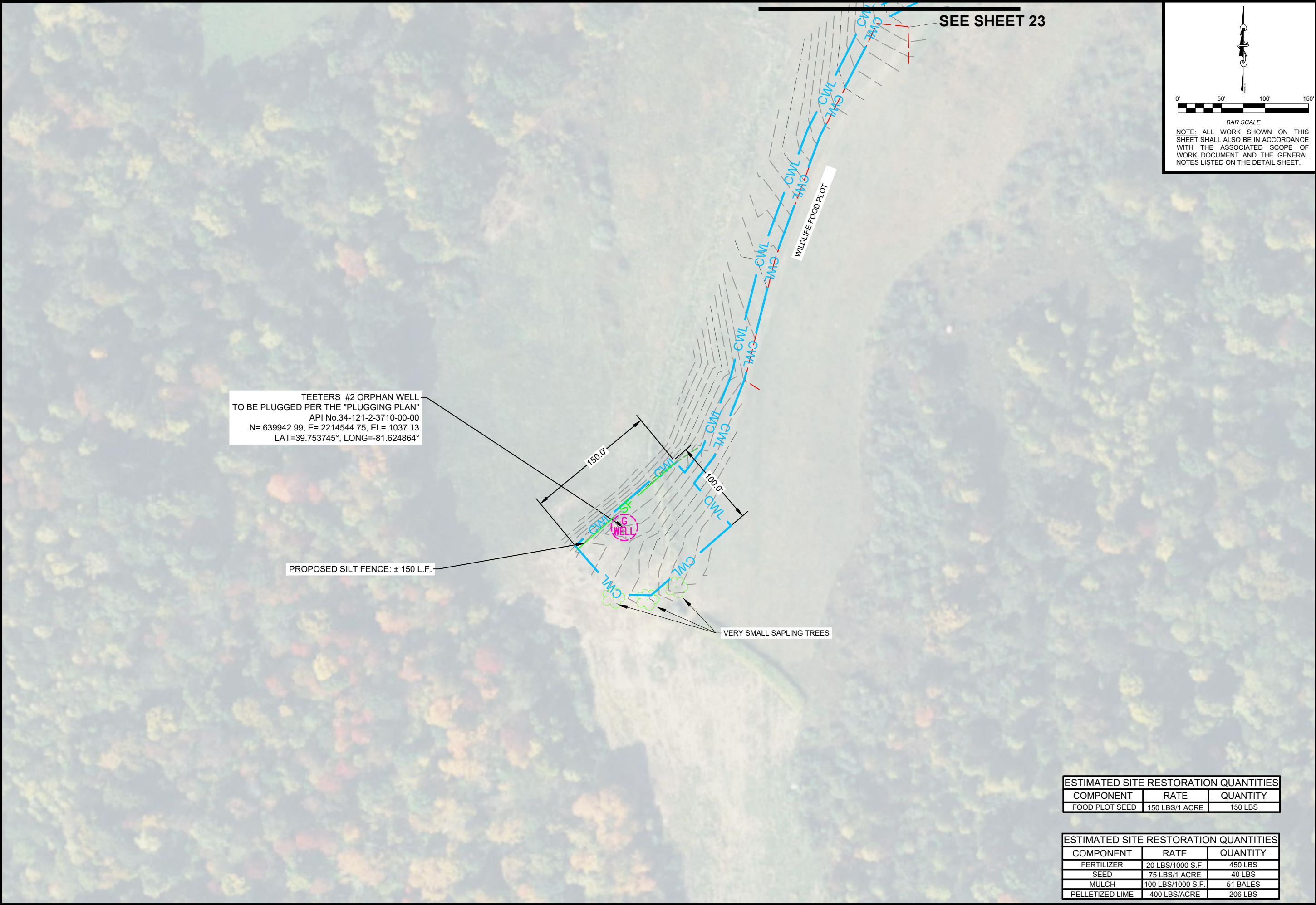
DRAWN BY: A.D.K.

CHECKED BY: P.G.M.

DATE: 01/14/2025

SHEET NO.
23 OF 35

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TEETERS #2 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-3710-00-00
N= 639942.99, E= 2214544.75, EL= 1037.13
LAT=39.753745°, LONG=-81.624864°

PROPOSED SILT FENCE: ± 150 L.F.

WILDLIFE FOOD PLOT

VERY SMALL SAPLING TREES

SEE SHEET 23

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FOOD PLOT SEED	150 LBS/1 ACRE	150 LBS

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	450 LBS
SEED	75 LBS/1 ACRE	40 LBS
MULCH	100 LBS/1000 S.F.	51 BALES
PELLETIZED LIME	400 LBS/ACRE	206 LBS



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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TEETERS
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	
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DRAWN BY: A.D.K.	
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SHEET NO.	
24 OF 35	

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REMOVE ALL COLLECTOR LINES AND SHACKLE LINES ON PROPERTY WITH MINIMAL DISTURBANCE OUTSIDE OF CONSTRUCTION WORK LIMITS. FOR LINES THE DIVISION HAS DETERMINED IMPRACTICAL TO REMOVE, THE CONTRACTOR SHALL FIRST FLUSH THE LINE TO REMOVE ANY WELL BYPRODUCTS IN THE PIPE. THE CONTRACTOR SHALL THEN CEMENT THE LINE. THE CONTRACTOR SHALL FINALLY CAP THE END OF THE LINE AND ABANDON IN PLACE. WORK TO ABANDON LINES IN PLACE SHALL BE COMPLETED PER SPECIFICATION "GAS LINE ABANDONMENT" (NOTE: NOT ALL LINES ARE SHOWN AND LINES SHOWN MAY NOT BE COMPLETE, THE CONTRACTOR SHALL VERIFY THAT ALL LINES HAVE BEEN LOCATED ON THE PROPERTY TO THE SATISFACTION OF THE DIVISION). (±100 L.F.)

DAVIS BLAKE #3 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-4123-00-00
N= 623296.06, E= 2234905.44, EL= 908.21
LAT=39.707484°, LONG=-81.553070°

UNUSED POWER POLE
TO BE REMOVED

3 - 100 BBL TANKS & 3 SEPERATORS IN DIKED AREA
NOT ALL ASSOCIATED WITH ORPHAN WELL

METER RUN
DO NOT DISTURB

50 BBL TANK
DO NOT DISTURB

THIS SEPARATOR AND PIPE ARE ASSOCIATED WITH THE ORPHAN WELL,
ALL OTHER TANKS AND SEPARATORS ARE BEING USED FOR PRODUCTION WELLS,
AS PER "NGM NOBLE LTD" REPRESENTATIVE

PROPOSED TEMPORARY STONE APRON AND DRIVE PIPE.
NO. 4 STONE: ± 40 TONS
NO. 304 AGGREGATE: ± 40 TONS
N-12 CULVERT PIPE: 40 L.F.
FILTER FABRIC: 110 SQ YD
MINOR GRADING NECESSARY INCIDENTAL TO "MOBILIZATION"

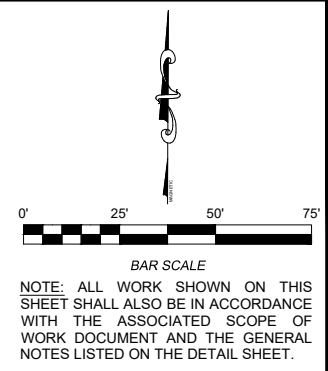
PROPOSED SILT FENCE: ± 120 L.F.

PROPOSED STONE FOR OVERLAY.
NO. 57 STONE: ± 40 TONS

PROPOSED INGRESS/EGRESS POINT
N=622999.53, E=2234818.36, EL=882.20
LAT=39.706672°, LONG=-81.553391°

BELLS CHURCH LN (STONE)

NOTES:
FIELD SURVEY ON 7/31/2024
HORIZONTAL DATUM: NAD83(2011) OHIO STATE PLANE SOUTH
VERTICAL DATUM: NAVD88 GEOID 12B CORS DERIVED
UTILITIES SHOWN ARE FOR REFERENCE ONLY
PROPERTY LINES SHOWN ARE SUBJECT TO A BOUNDARY SURVEY



BAR SCALE
NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	507 LBS
SEED	75 LBS/1 ACRE	44 LBS
MULCH	100 LBS/1000 S.F.	57 BALES
PELLETIZED LIME	400 LBS/ACRE	233 LBS



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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DAVIS BLAKE #3
SITE PLAN

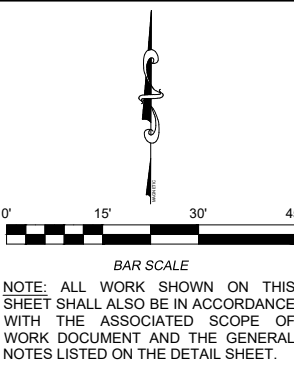
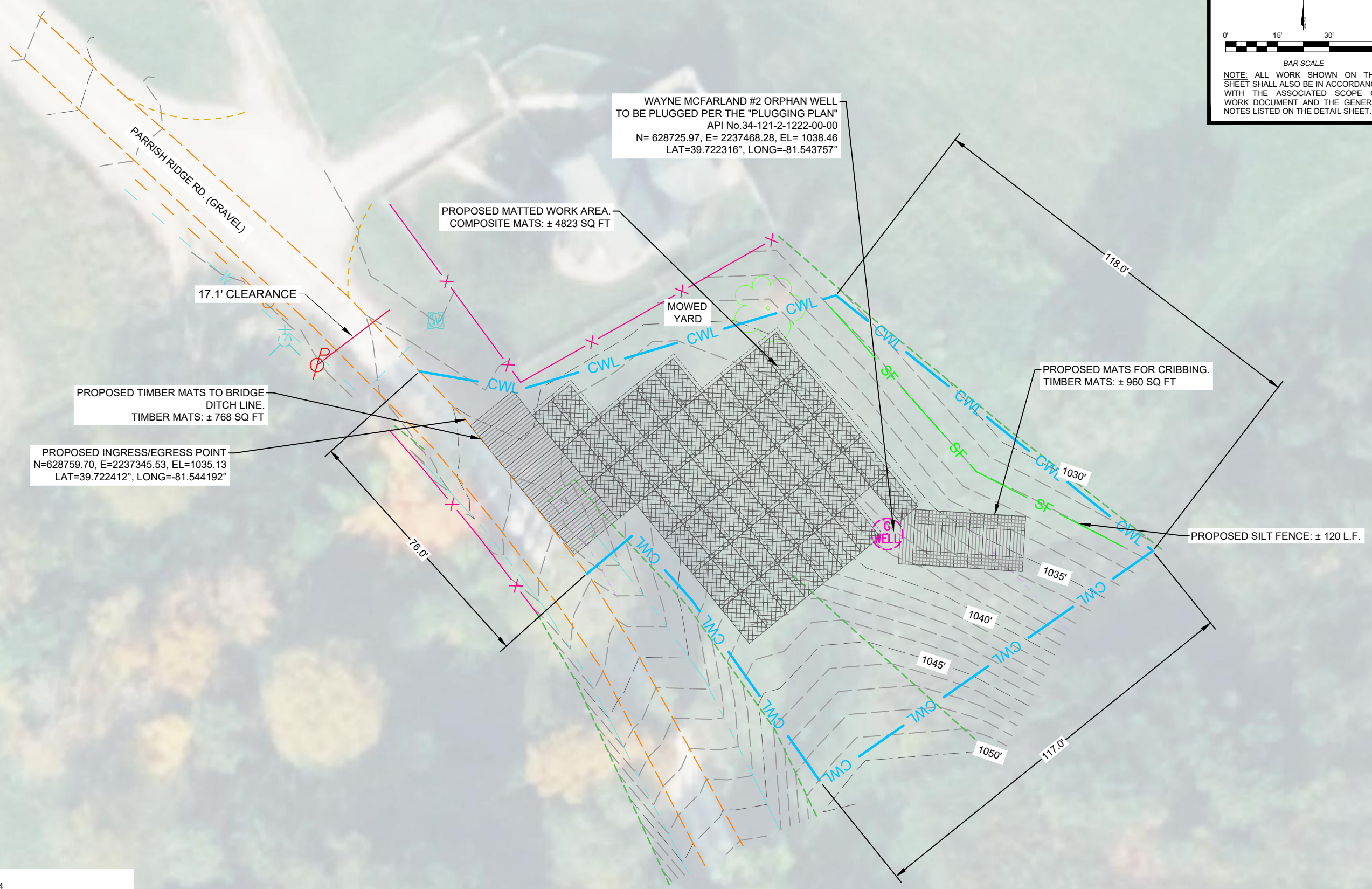
NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

DESIGN UNIT
O&G ENGINEERING
DRAWN BY: A.D.K.
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DATE: 01/14/2025
SHEET NO.
25 OF 35

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NOTES:
FIELD SURVEY ON 8/13/2024
HORIZONTAL DATUM: NAD83(2011) OHIO STATE PLANE
SOUTH
VERTICAL DATUM: NAVD88 GEOID 12B CORS DERIVED
UTILITIES SHOWN ARE FOR REFERENCE ONLY
PROPERTY LINES SHOWN ARE SUBJECT TO A
BOUNDARY SURVEY



ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	283 LBS
SEED	75 LBS/1 ACRE	25 LBS
MULCH	100 LBS/1000 S.F.	32 BALES
PELLETIZED LIME	400 LBS/ACRE	130 LBS

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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WAYNE MCFARLAND #2
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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26 OF **35**

HEPNER E1
SITE PLAN

**NOBLE #16F
MULTIPLE
ORPHAN WELL SITES**

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28	OF 35

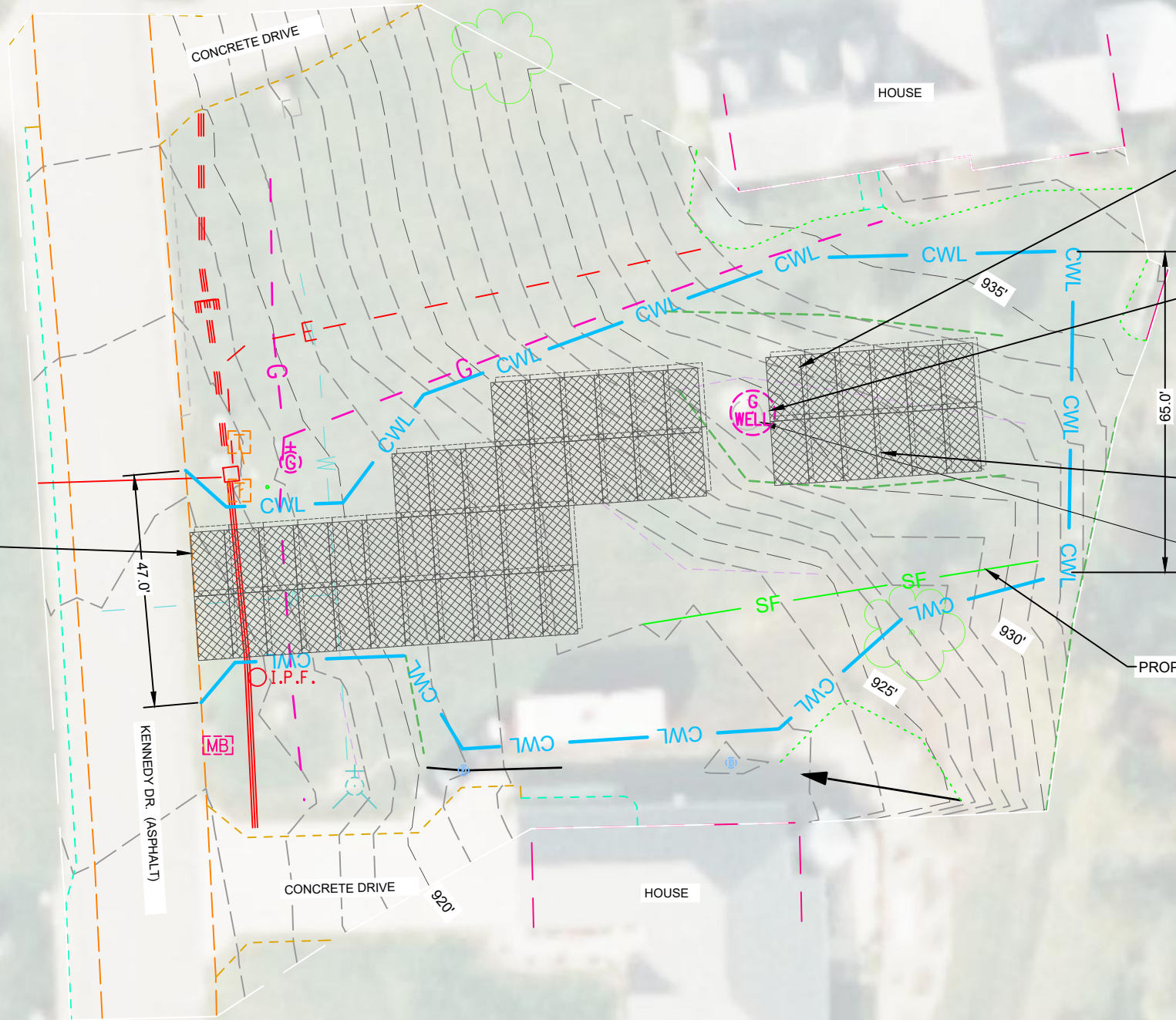
NOTES:
FIELD SURVEY ON 9/18/2024
HORIZONTAL DATUM: NAD83(2011) OHIO STATE PLANE
SOUTH
VERTICAL DATUM: NAVD88 GEOID 12B CORS DERIVED
UTILITIES SHOWN ARE FOR REFERENCE ONLY
PROPERTY LINES SHOWN ARE SUBJECT TO A
BOUNDARY SURVEY

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	410 LBS
SEED	75 LBS/1 ACRE	36 LBS
MULCH	100 LBS/1000 S.F.	46 BALES
PELLETIZED LIME	400 LBS/ACRE	189 LBS

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NOTES:
FIELD SURVEY ON 9/10/2024
HORIZONTAL DATUM: NAD83(2011) OHIO STATE PLANE SOUTH
VERTICAL DATUM: NAVD88 GEOID 12B CORS DERIVED
UTILITIES SHOWN ARE FOR REFERENCE ONLY
PROPERTY LINES SHOWN ARE SUBJECT TO A BOUNDARY SURVEY

PROPOSED INGRESS/EGRESS POINT
N=638016.86, E=2249058.79, EL=916.74
LAT=39.747477°, LONG=-81.502189°



PROPOSED CONTINGENCY TIMBER MATS.
TO BE USED AS NECESSARY TO LEVEL
THE WORK AREA.
TIMBER MATS: ± 1280

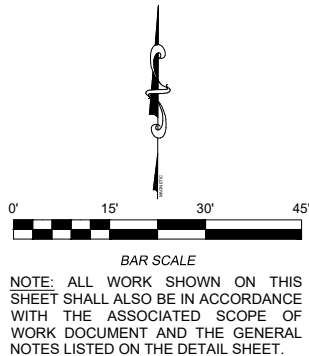
DANFORD GARFIELD #1 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-0523-00-00
N= 638052.03, E= 2249167.66, EL= 927.81
LAT=39.747570°, LONG=-81.501800°

PROPOSED MATTED ACCESS.
COMPOSITE MATS: 4459 SQ FT

CONCRETE VAULT AROUND WELL
TO BE REMOVED AND DISPOSED OF
DEBRIS REMOVAL AND DISPOSAL: ± 10 TONS
APPROVED RESOIL: ± 10 TONS

PROPOSED SILT FENCE: ± 85 L.F.

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	245 LBS
SEED	75 LBS/1 ACRE	21 LBS
MULCH	100 LBS/1000 S.F.	27 BALES
PELLETIZED LIME	400 LBS/ACRE	112 LBS



BAR SCALE
NOTE: ALL WORK SHOWN ON THIS
SHEET SHALL ALSO BE IN ACCORDANCE
WITH THE ASSOCIATED SCOPE OF
WORK DOCUMENT AND THE GENERAL
NOTES LISTED ON THE DETAIL SHEET.



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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DANFORD GARFIELD #1
SITE PLAN

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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CHECKED BY: P.G.M.

DATE: 01/14/2025

SHEET NO.

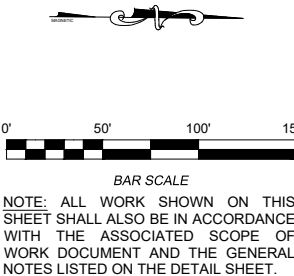
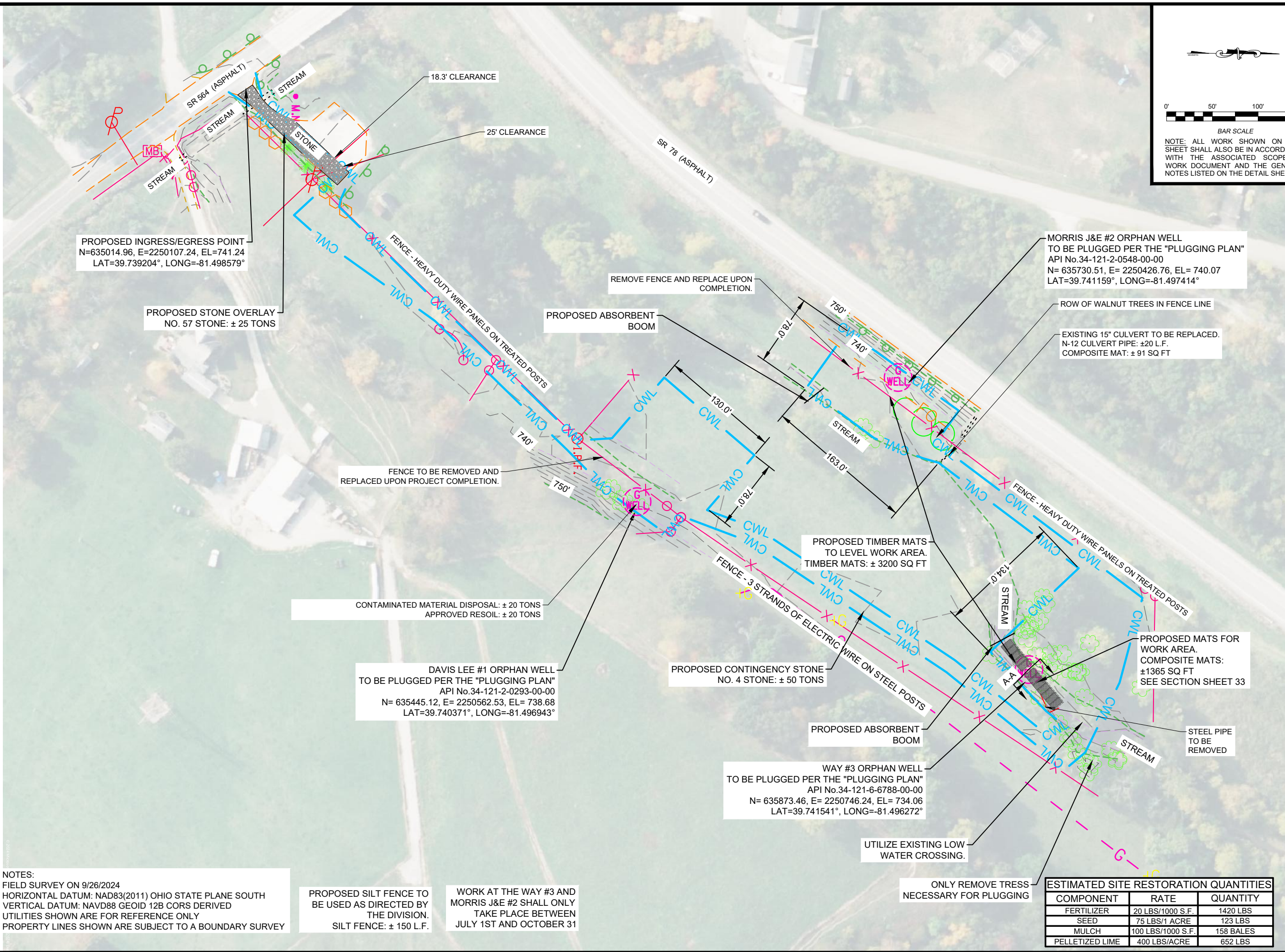
29 OF 35

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NOTES:
FIELD SURVEY ON 9/26/2024
HORIZONTAL DATUM: NAD83(2011) OHIO STATE PLANE SOUTH
VERTICAL DATUM: NAVD88 GEOID 12B CORS DERIVED
UTILITIES SHOWN ARE FOR REFERENCE ONLY
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PROPOSED SILT FENCE TO
BE USED AS DIRECTED BY
THE DIVISION.
SILT FENCE: ± 150 L.F.

WORK AT THE WAY #3 AND
MORRIS J&E #2 SHALL ONLY
TAKE PLACE BETWEEN
JULY 1ST AND OCTOBER 31



NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.

MORRIS J&E #2 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-2-0548-00-00
N= 635730.51, E= 2250426.76, EL= 740.07
LAT=39.741159°, LONG=-81.497414°

EXISTING 15" CULVERT TO BE REPLACED.
N-12 CULVERT PIPE: ±20 L.F.
COMPOSITE MAT: ± 91 SQ FT

PROPOSED TIMBER MATS
TO LEVEL WORK AREA.
TIMBER MATS: ± 3200 SQ FT

PROPOSED CONTINGENCY STONE
NO. 4 STONE: ± 50 TONS

WAY #3 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-121-6-6788-00-00
N= 635873.46, E= 2250746.24, EL= 734.06
LAT=39.741541°, LONG=-81.496272°

UTILIZE EXISTING LOW
WATER CROSSING.

ONLY REMOVE TRESS
NECESSARY FOR PLUGGING

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
FERTILIZER	20 LBS/1000 S.F.	1420 LBS
SEED	75 LBS/1 ACRE	123 LBS
MULCH	100 LBS/1000 S.F.	158 BALES
PELLETIZED LIME	400 LBS/ACRE	652 LBS

**DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM**
<http://oilandgas.ohiodnr.gov>

**WAY
SITE PLAN**

**NOBLE #16F
MULTIPLE
ORPHAN WELL SITES**

REVISION	

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DRAWN BY: A.D.K.

CHECKED BY: P.G.M.

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30 OF 35

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RESOURCES MANAGEMENT
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E HOHMAN #1
SITE PLAN

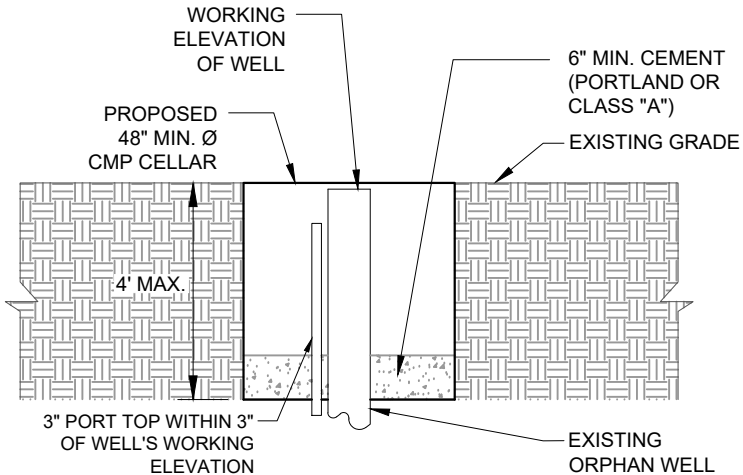
NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	

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CHECKED BY: P.G.M.
DATE: 01/14/2025
SHEET NO.
31 OF 35

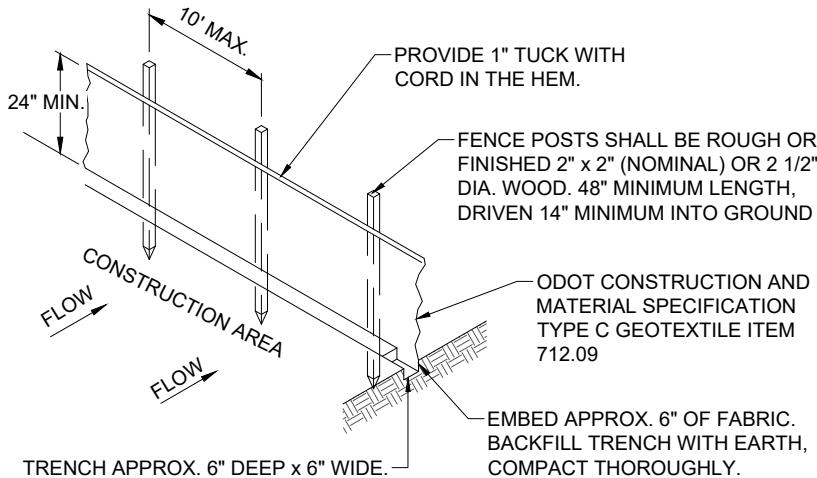
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- GENERAL NOTES:
- UTILITY LINES AND APPURTENANCES ARE SHOWN AS LOCATED IN THE FIELD AND/OR AS REPORTED BY THE RESPECTIVE OWNERS. NEITHER THE NUMBER, TYPE, SIZE, OR LOCATION CAN BE GUARANTEED, AND IT IS THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY PROTECTING THE EXISTING BURIED UTILITIES AND CURB & GUTTER DURING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "MOBILIZATION".**
 - THE HORIZONTAL DATUM IS BASED ON NAD83 (2011) OHIO STATE PLANE SOUTH 3402, AND THE VERTICAL DATUM IS BASED ON NAVD88 GEOID 12A CORS DERIVED.
 - PHOTO IMAGE DATE OBTAINED FROM OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGrip) FROM THE OHIO STATEWIDE IMAGERY PROGRAM (OSIP III).
 - THE CONTRACTOR SHALL WORK WITHIN THE WORK LIMITS AT ALL TIMES DURING CONSTRUCTION.
 - A FLAGGER IN EACH DIRECTION SHALL BE USED WHEN MATERIALS ARE BEING UNLOADED WITHIN THE ROAD RIGHT OF WAY.
 - TREE AND OVERHANGING LIMB REMOVAL SHALL BE AS DESIGNATED BY THE DIVISION. REMOVALS SHALL PROVIDE THE CONTRACTOR WITH ADEQUATE SPACE REQUIRED TO COMPLETE THE PROJECT. TRIMMING OF TREES SHALL BE CONSIDERED INCIDENTAL TO LINE ITEMS AS SPECIFIED.
 - THE DIVISION MUST BE PRESENT DURING ALL CLEARING OPERATIONS. NO TREES ARE TO BE REMOVED UNLESS DESIGNATED BY THE DIVISION.
 - ANY REMOVED TREES AND VEGETATION SHALL BE PLACED INTO BRUSH PILES AT THE DISCRETION OF THE DIVISION.
 - ALL STONE PLACED USING SIX (6) INCH MAXIMUM LIFTS, SHALL BE COMPACTED WITH A MINIMUM OF THREE (3) PASSES PER LIFT USING ONSITE EQUIPMENT.
 - AT THE DISCRETION OF THE DIVISION, ALL STONE, FABRIC AND/OR GEOGRID SHOWN ON THE SITE PLAN SHEET(S) AS TEMPORARY SHALL BE REMOVED UPON COMPLETION OF THE PROJECT AND RESTORED PER LINE ITEM "SITE RESTORATION".
 - TIMBER MATS SHALL BE USED FOR TEMPORARY CONSTRUCTION ACCESS TO TRAVERSE WET AREAS AND/OR DRAINAGE COURSES.
 - ALL COMPOSITE MATTING INSTALLED SHALL BE INTERLOCKED PER THE MANUFACTURER'S REQUIREMENTS. IN AREAS WHERE POOR SUBGRADE IS ENCOUNTERED MATS CAN BE STACKED OVER TOP OF ONE ANOTHER AT THE DISCRETION OF THE DIVISION.
 - THE WORK LIMITS AND CORRESPONDING SEDIMENT CONTROLS ALONG THE CREEK WILL BE DETERMINED IN THE FIELD BY THE DIVISION THROUGHOUT CONSTRUCTION.
 - SEDIMENT CONTROLS SHALL BE PLACED AT THE DISCRETION OF THE DIVISION.
 - NO WORK INSIDE THE BOUNDS OF THE ORDINARY HIGH WATER MARK SHALL TAKE PLACE BETWEEN MARCH 15TH AND JUNE 30TH UNLESS OTHERWISE SPECIFIED BY THE DIVISION. (NOTE: THIS IS TO MINIMIZE IMPACT ON SPAWNING/MIGRATING FISH SPECIES)
 - INSTREAM REQUIREMENTS SHALL BE CONSTRUCTED IN SUCH A TIMEFRAME WHERE THE CONTRACTOR IS PREPARED TO BEGIN PLUGGING OPERATIONS IMMEDIATELY FOLLOWING THE STREAM CONSTRUCTION WORK.
 - ALL DISTURBED AREAS ALONG THE STREAM CHANNEL SHALL BE IMMEDIATELY STABILIZED.
 - THE STREAM BANK SHALL BE RESTORED TO ITS' ORIGINAL ALIGNMENT AND GRADE. RESTORATION SHALL NOT RESULT IN A NARROWER CHANNEL OR FLOW RESTRICTION.
 - PUBLICLY OWNED SITES ARE SUBJECT TO HUNTING SEASON RESTRICTIONS, SEE GENERAL CONDITIONS, PART 8-EFFECTIVE DATE AND TERM.NOTIFY THE DIVISION AND COORDINATE WITH THE OHIO DIVISION OF WILDLIFE PRIOR TO DEVELOPING THE SITE FOR ACCESS.



- NOTES:
- ALL WORK & MATERIAL ASSOCIATED WITH THE INSTALLATION & REMOVAL OF THE CELLAR SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "WELL HEAD CONTROL".

TEMPORARY CELLAR NOT TO SCALE



- NOTES:
- FABRIC TO BE FASTENED SECURELY TO FENCE POST AS PER MANUFACTURER'S RECOMMENDATIONS.
 - ENDS OF INDIVIDUAL ROLLS OF FABRIC SHALL BE SECURELY FASTENED TO A COMMON POST OR OVERLAPPED 3" MIN.

SILT FENCE DETAIL NOT TO SCALE



W21-1
(500' FROM W20-7,
BOTH SIDES OF THE
ENTRANCE)

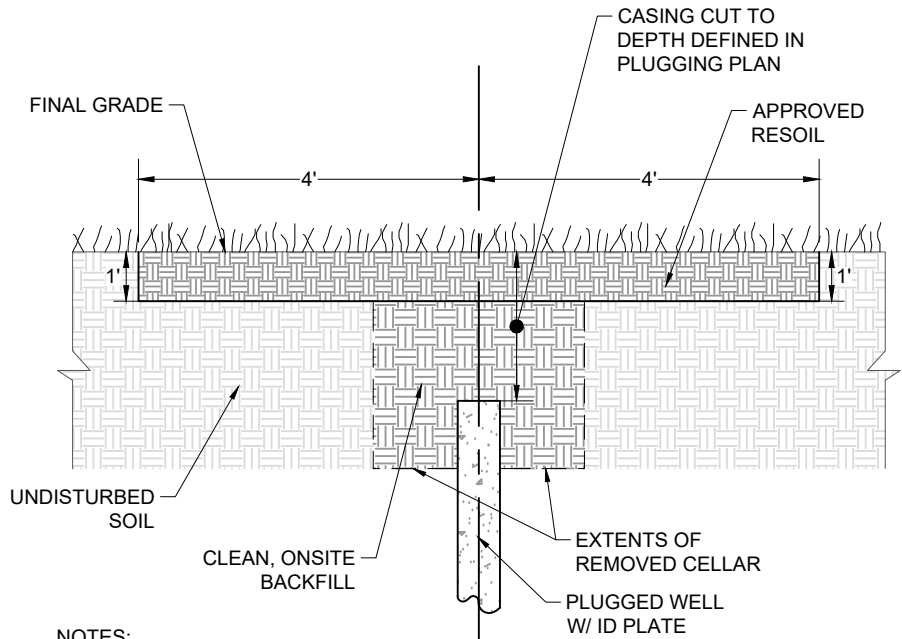


W20-7
COVER OR TURN DURING EVENINGS
OR WHEN BOTH LANES ARE OPEN
(500' FROM FLAGGER, BOTH SIDES OF
ENTRANCE)

NOTES:

- THIS WORK SHALL BE PER THE GENERAL SPECIFICATIONS, PART 7: MAINTENANCE OF TRAFFIC AND SHALL BE INCIDENTAL TO LINE ITEM "MOBILIZATION" FOR EACH SITE, UNLESS OTHERWISE NOTED. **THIS WORK SHALL INCLUDE ALL REQUIRED PERMITS FROM THE LOCAL ROAD AUTHORITIES.**
- ALL SIGNS MAY BE MOUNTED PORTABLE MOUNTS.
- CONTRACTOR SHALL FOLLOW THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FIGURE 6H-1, IN BOTH DIRECTIONS ALONG THE ROADWAY. W21-1 SHALL BE IN PLACE AS SOON AS THE CONTRACTOR ARRIVES TO THE SITE EACH DAY.
- CONTRACTOR SHALL FOLLOW THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FIGURE 6H-13, LANE CLOSURE ON A TWO-LANE ROAD USING FLAGGERS (TA-13).
- FLAGGERS SHALL HAVE PROPER COMMUNICATION DEVICES AND SHALL BE POSITIONED 20' FROM EACH EDGE OF THE CONSTRUCTION WORK LIMITS. ANY VARIATION MUST BE APPROVED PER LOCATION. **TEMPORARY CLOSURES SHALL NOT BE COMPLETED WITHOUT A FLAGGER.**
- TEMPORARY CLOSURES SHALL BE MINIMIZED TO LESS THAN 20 MINUTES AND THEN THE ROAD SHALL BE FULLY REOPENED TO TRAFFIC.
- ANY WORK IN THE ROADWAY THAT IS REQUIRING MORE THAN 20 MINUTES SHALL BE COMPLETED PER GENERAL SPECIFICATIONS, PART 7: MAINTENANCE OF TRAFFIC WITH THE PROPER PERMITS FROM THE LOCAL ROAD AUTHORITIES AND APPROVAL FROM THE DIVISION.

FLAGGER & CONSTRUCTION SIGNAGE NOTES NOT TO SCALE



NOTES:

- ANY REMOVED MATERIAL FROM AROUND THE WELL HEAD SHALL BE SEGREGATED TO PREVENT ADDITIONAL CONTAMINATION.
- ONCE THE WELL IS CUT BELOW GRADE, AN EIGHT (8) FOOT BY EIGHT (8) FOOT AREA, ONE (1) FOOT DEEP SHALL BE EXCAVATED AROUND THE WELL HEAD & REPLACED WITH "APPROVED RESOIL".
- REMOVED MATERIAL SHALL BE DISPOSED OF PER LINE ITEM "CONTAMINATED MATERIAL DISPOSAL".
- PRIOR TO DELIVERY TO THE SITE OF "APPROVED RESOIL", ON SITE TOPSOIL MAY BE UTILIZED AT THE APPROVAL OF THE DIVISION
- ALL WORK NOT INCLUDED IN "APPROVED RESOIL" OF "CONTAMINATED MATERIAL DISPOSAL" SHALL BE INCIDENTAL TO LINE ITEM 'SITE RESTORATION'.

WELL RESTORATION SECTION NOT TO SCALE



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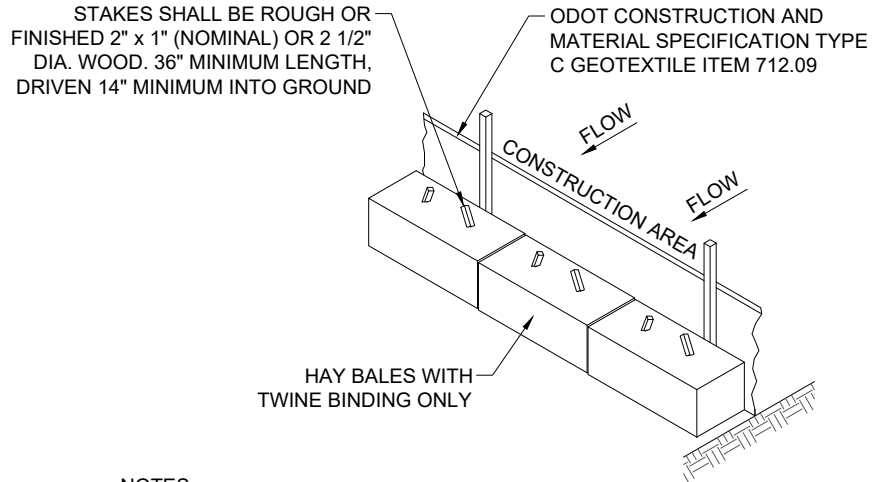


DETAILS

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

REVISION	
DESIGN UNIT	O&G ENGINEERING
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SHEET NO.	32 OF 35

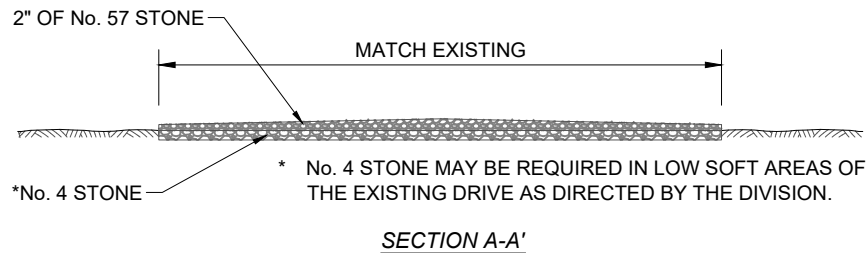
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NOTES:

1. THE SILT FENCE SHALL BE REINFORCED WITH STAKED HAY BALES AT POINTS OF HEAVY SILT BUILDUP, HIGH WATER VELOCITIES, AND OTHER CONDITIONS DEEMED NECESSARY BY THE CHIEF. SILT FENCE AND HAY BALES SHALL BE INSTALLED ACCORDING TO THEIR RESPECTIVE DETAILS.
2. WHERE BALE DIKES ARE USED ONLY, STAKE AS DETAILED WITHOUT THE SILT FENCE.

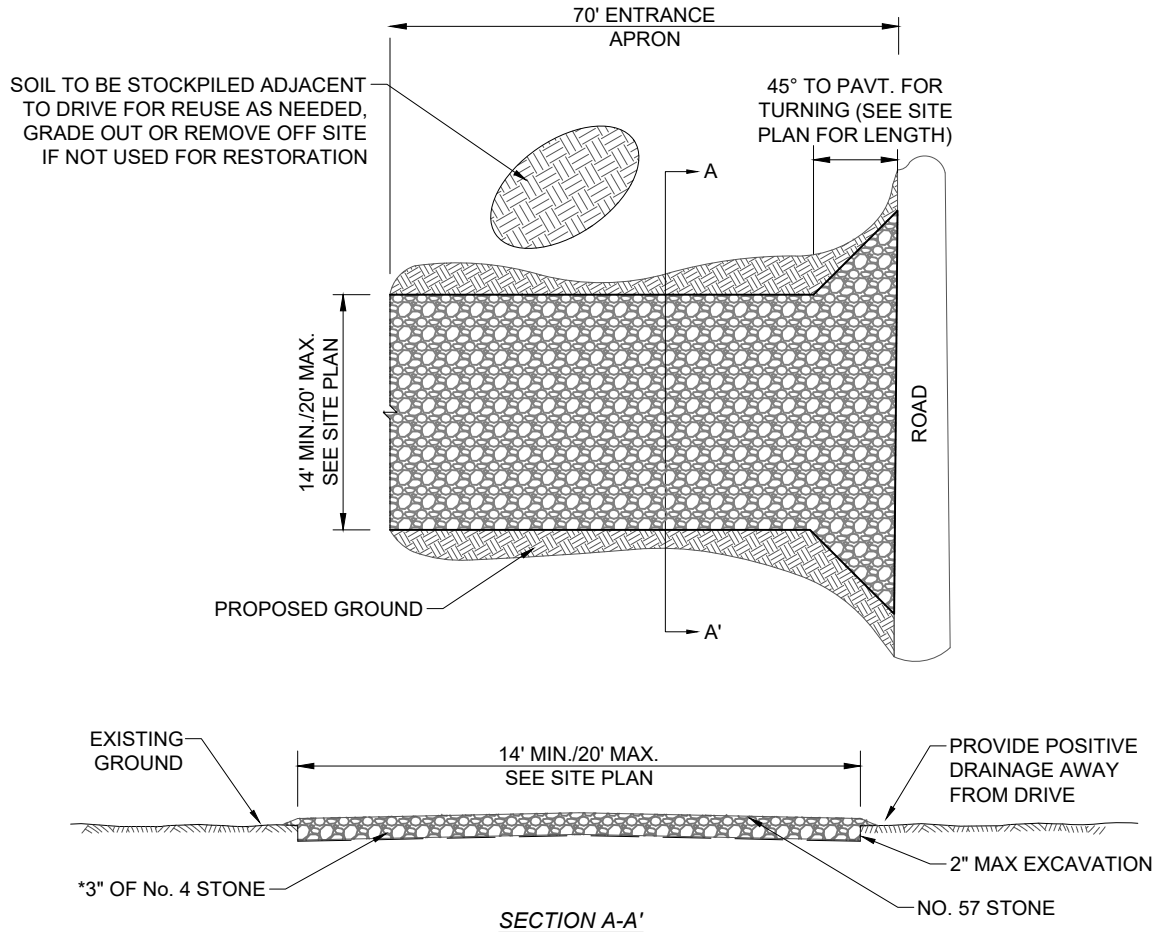
SILT FENCE WITH BALE BACKUP DETAIL
NOT TO SCALE



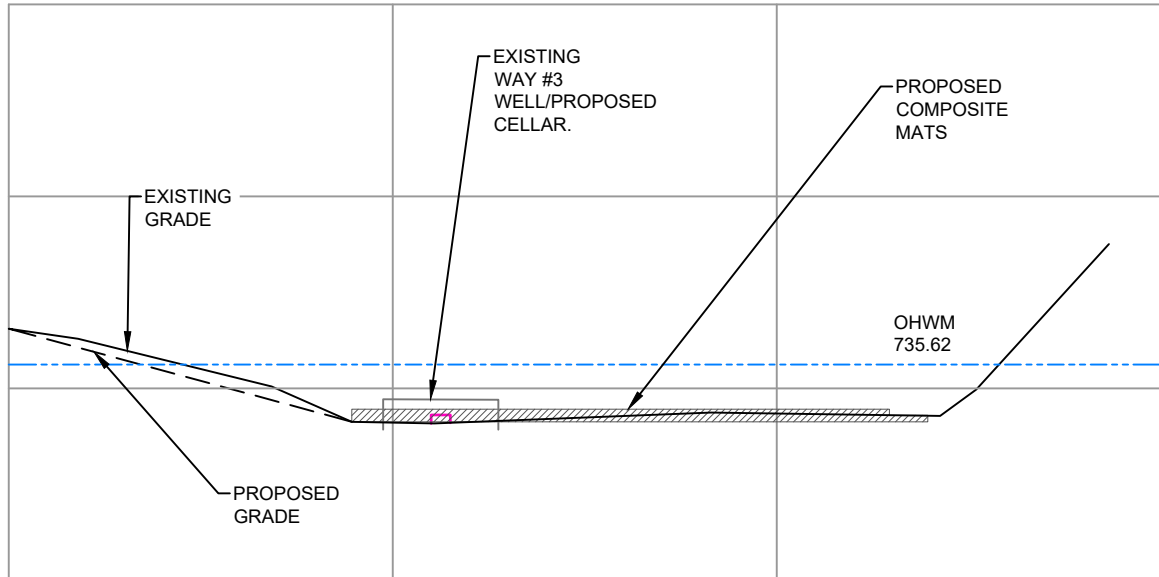
NOTE:

THE EXISTING DRIVE WILL BE THE ONLY ACCESS TO THE PROJECT SITE(S). ACCESS FOR THE LANDOWNER SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. AT THE DISCRETION OF THE DIVISION, No. 57 STONE SHALL BE PLACED ON THE EXISTING DRIVE UPON COMPLETION OF THE PROJECT. ALL OTHER ACCESS AREAS SHALL BE RESTORED PER LINE ITEM "SITE RESTORATION".

DRIVE ACCESS OVERLAY
NOT TO SCALE



ENTRANCE APRON & ACCESS DRIVE
NOT TO SCALE



WAY #3 CROSS SECTION A-A



DIVISION OF OIL & GAS
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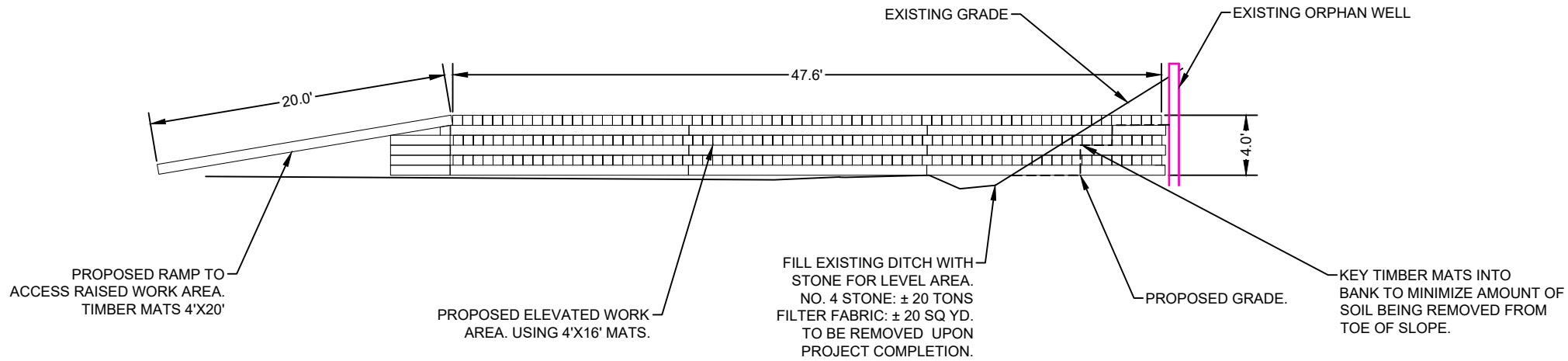


DETAILS

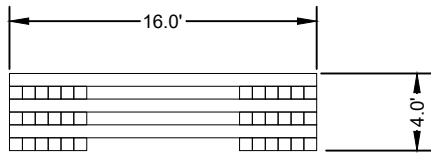
NOBLE #16F
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SECTION A-A



SECTION B-B



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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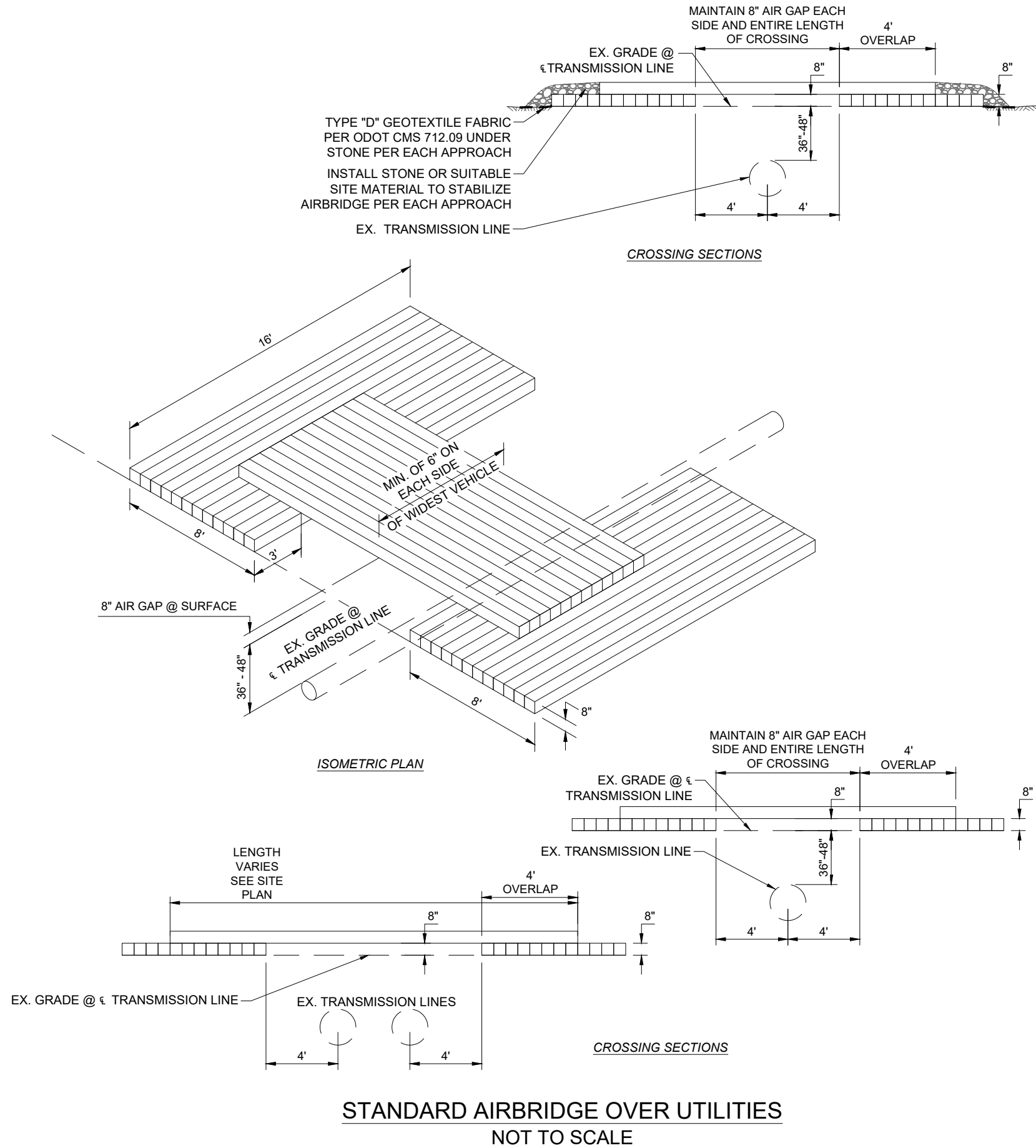


HEPNER E1
DETAILS

NOBLE #16F
MULTIPLE
ORPHAN WELL SITES

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34 OF 35	

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DIVISION OF OIL & GAS
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DETAILS

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DATE:	01/14/2025
SHEET NO.	35 OF 35

"General Decision Number: OH20250001 07/25/2025

Superseded General Decision Number: OH20240001

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	02/07/2025
2	02/14/2025

3	02/28/2025
4	03/07/2025
5	03/14/2025
6	04/25/2025
7	05/02/2025
8	05/09/2025
9	05/16/2025
10	05/30/2025
11	06/06/2025
12	06/27/2025
13	07/11/2025
14	07/18/2025
15	07/25/2025

BROH0001-001 06/01/2024

DEFIANCE, FULTON (Excluding Fulton, Amboy & Swan Creek Townships), HENRY (Excluding Monroe, Bartlow, Liberty, Washington, Richfield, Marion, Damascus & Townships & that part of Harrison Township outside corporate limits of city of Napoleon), PAULDING, PUTNAM and WILLIAMS COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

BROH0001-004 06/01/2023

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 32.40	19.30

BROH0003-002 06/01/2024

FULTON (Townships of Amboy, Swan Creek & Fulton), HENRY (Townships of Washington, Damascus, Richfield, Bartlow, Liberty, Harrison, Monroe, & Marion), LUCAS and WOOD (Townships of Perrysburg, Ross, Lake, Troy, Freedom, Montgomery, Webster, Center, Portage, Middleton, Plain, Liberty, Henry, Washington, Weston, Milton, Jackson & Grand Rapids) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

BROH0005-003 06/01/2020

CUYAHOGA, LORAIN & MEDINA (Hinckley, Granger, Brunswick, Liverpool, Montville, York, Homer, Harrisville, Chatham, Litchfield & Spencer Townships and the city of Medina)

	Rates	Fringes
BRICKLAYER		
BRICKLAYERS; CAULKERS;		
CLEANERS; POINTERS; &		
STONEMASONS.....	\$ 36.64	17.13
SANDBLASTERS.....	\$ 36.39	17.13
SEWER BRICKLAYERS & STACK		
BUILDERS.....	\$ 36.64	17.13
SWING SCAFFOLDS.....	\$ 37.14	17.13

BROH0006-005 06/01/2024

CARROLL, COLUMBIANA (Knox, Butler, West & Hanover Townships),
STARK & TUSCARAWAS

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

BROH0007-002 06/01/2024

LAWRENCE

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

BROH0007-005 06/01/2023

PORTAGE & SUMMIT

	Rates	Fringes
BRICKLAYER.....	\$ 32.40	19.30

BROH0007-010 06/01/2024

PORTAGE & SUMMIT

	Rates	Fringes
MASON - STONE.....	\$ 33.39	20.06

BROH0008-001 06/01/2024

COLUMBIANA (Salem, Perry, Fairfield, Center, Elk Run,
Middleton, & Unity Townships and the city of New Waterford),
MAHONING & TRUMBULL

	Rates	Fringes
BRICKLAYER.....	\$ 33.39	20.06

BROH0009-002 06/01/2024

BELMONT & MONROE COUNTIES and the Townships of Warren & Mt.
Pleasant and the Village of Dillonvale in JEFFERSON COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06
Refractory.....	\$ 31.45	19.01

BROH0010-002 06/01/2024

COLUMBIANA (St. Clair, Madison, Wayne, Franklin, Washington,
Yellow Creek & Liverpool Townships) & JEFFERSON (Brush Creek &
Saline Townships)

	Rates	Fringes
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Bricklayer, Stonemason.....\$ 33.39	20.06
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 BROH0014-002 06/01/2024

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek,
 Saline & Salineville Townships & the Village of Dillonvale)

Rates	Fringes
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Bricklayer, Stonemason.....\$ 33.39	20.06
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 BROH0016-002 06/01/2023

ASHTABULA, GEAUGA, and LAKE COUNTIES

Rates	Fringes
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Bricklayer, Stonemason.....\$ 32.40	19.30
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 BROH0018-002 06/01/2024

BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (Gasper, Dixon,
 Israel, Lanier, Somers & Gratis Townships) & WARREN COUNTIES:

Rates	Fringes
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Bricklayer, Stonemason.....\$ 33.39	20.06
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 BROH0022-004 06/01/2024

CHAMPAIGN, CLARK, CLINTON, DARKE, GREENE, HIGHLAND, LOGAN,
 MIAMI, MONTGOMERY, PREBLE (Jackson, Monroe, Harrison, Twin,
 Jefferson & Washington Townships) and SHELBY COUNTIES

Rates	Fringes
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Bricklayer, Stonemason.....\$ 33.39	20.06
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 BROH0032-001 06/01/2024

GALLIA & MEIGS

Rates	Fringes
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Bricklayer, Stonemason.....\$ 33.39	20.06
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 BROH0035-002 06/01/2024

ALLEN, AUGLAIZE, MERCER and VAN WERT COUNTIES

Rates	Fringes
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Bricklayer, Stonemason.....\$ 33.39	20.06
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 BROH0039-002 06/01/2024

ADAMS & SCIOTO

Rates	Fringes
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Bricklayer, Stonemason.....\$ 33.39	20.06
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BROH0040-003 06/01/2024

ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND, WAYNE and WYANDOT (Except Crawford, Ridge, Richland & Tymochtee Townships) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above journeyman rate.
Free standing stack work ground level to top of stack;
Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.
""Hot"" work: \$2.50 above journeyman rate.

BROH0044-002 06/01/2024

	Rates	Fringes
Bricklayer, Stonemason COSHOCOTON, FAIRFIELD, GUERNSEY, HOCKING, KNOX, KICKING, MORGAN, MUSKINGUM, NOBLE (Beaver, Buffalo, Seneca & Wayne Townships) & PERRY COUNTIES:.....	\$ 33.39	20.06

BROH0045-002 06/01/2023

FAYETTE, JACKSON, PIKE, ROSS and VINTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 35.39	17.47

BROH0046-002 06/01/2024

ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (Perry & Bloom Townships) and WYANDOT (Tymochtee, Crawford, Ridge & Richland Townships) COUNTIES & the Islands of Lake Erie north of Sandusky

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above journeyman rate.
Free standing stack work ground level to top of stack;
Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.
""Hot"" work: \$2.50 above journeyman rate.

BROH0052-001 06/01/2024

ATHENS COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

BROH0052-003 06/01/2024		

NOBLE (Brookfield, Noble, Center, Sharon, Olive, Enoch, Stock, Jackson, Jefferson & Elk Townships) and WASHINGTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

BROH0055-003 06/01/2024		

DELAWARE, FRANKLIN, MADISON, PICKAWAY and UNION COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.39	20.06

* CARP0002-024 05/01/2025		

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 35.94	23.59
Diver.....	\$ 40.58	9.69

CARP0171-001 05/01/2025		

MAHONING & TRUMBULL

	Rates	Fringes
CARPENTER.....	\$ 33.19	25.02

CARP0171-002 05/01/2025		

BELMONT, COLUMBIANA, HARRISON, JEFFERSON & MONROE

	Rates	Fringes
CARPENTER.....	\$ 32.50	26.19

* CARP0200-002 05/01/2025		

ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON and WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 35.94	23.59
Diver.....	\$ 39.41	10.40
PILEDRIVERMAN.....	\$ 35.94	23.59

CARP0285-001 05/01/2025

CARROLL, STARK, TUSCARAWAS and WAYNE

	Rates	Fringes
CARPENTER.....	\$ 34.07	24.28

CARP0285-002 05/01/2025

COSHOCOTON, HOLMES, KNOX & MORROW

	Rates	Fringes
CARPENTER.....	\$ 33.38	24.69

CARP0285-008 05/01/2025

MEDINA, PORTAGE & SUMMIT

	Rates	Fringes
CARPENTER.....	\$ 37.18	25.07

CARP0351-005 05/01/2025

LUCAS & WOOD

	Rates	Fringes
CARPENTER.....	\$ 35.44	27.56

CARP0351-006 05/01/2025

	Rates	Fringes
CARPENTER DEFIANCE, FULTON, HANCOCK, HENRY, PAULDING & WILLIAMS COUNTIES.....	\$ 32.05	26.13

CARP0372-002 05/01/2025

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM & VAN WERT

	Rates	Fringes
CARPENTER.....	\$ 31.80	26.33

CARP0435-005 05/01/2025

ASHTABULA, CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
CARPENTER.....	\$ 38.57	24.64

CARP0735-001 05/01/2025

ASHLAND, HURON & RICHLAND

	Rates	Fringes
CARPENTER.....	\$ 34.67	23.57

 CARP0735-002 05/01/2025

LORAIN

	Rates	Fringes
CARPENTER.....	\$ 38.42	24.01

CARP0735-004 05/01/2025

ERIE

	Rates	Fringes
CARPENTER.....	\$ 36.71	24.14

CARP0744-001 05/01/2025

CRAWFORD, OTTAWA, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
CARPENTER.....	\$ 33.74	27.05

* CARP1090-002 05/01/2025

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM, VAN WERT & WYANDOT

	Rates	Fringes
Piledrivermen & Diver's Tender...	\$ 35.82	28.51

DIVERS - \$250.00 per day

CARP1090-003 05/01/2025

BELMONT, HARRISON, & MONROE

	Rates	Fringes
Diver, Wet.....	\$ 58.52	24.91
Piledrivermen; Diver, Dry.....	\$ 39.01	24.91

CARP1090-004 05/01/2025

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
Diver, Wet.....	\$ 49.82	25.40
Piledrivermen; Diver, Dry.....	\$ 33.21	25.40

CARP1090-005 05/01/2025

ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE,
 LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT

	Rates	Fringes
Diver, Wet.....	\$ 54.51	27.50
Piledrivermen; Diver, Dry.....	\$ 36.34	27.50

CARP1090-006 05/01/2025

COSHOCKTON, HOLMES, KNOX & MORROW

	Rates	Fringes
Diver, Wet.....	\$ 54.36	22.54
Piledrivermen; Diver, Dry.....	\$ 36.24	22.54

CARP1090-007 05/01/2025

MAHONING & TRUMBULL

	Rates	Fringes
Diver, Wet.....	\$ 50.85	24.82
Piledrivermen; Diver, Dry.....	\$ 33.90	24.82

CARP1090-008 05/01/2025

COLUMBIANA & JEFFERSON

	Rates	Fringes
PILEDRIVERMAN.....	\$ 39.01	24.91

CARP1090-009 05/01/2025CRAWFORD, DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA,
PAULDING, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Piledrivermen & Diver's Tender...	\$ 37.98	28.63

DIVERS - \$250.00 per day

ELEC0008-002 05/27/2024

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,
PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
CABLE SPLICER.....	\$ 38.98	18.96
ELECTRICIAN.....	\$ 48.40	4.5%+23.06

ELEC0032-003 06/01/2025ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY, VAN WERT &
WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Ridgeland,
Ridge & Salem Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 39.17	23.60

ELEC0038-002 04/28/2025CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &
LORAIN (Columbia Township)

	Rates	Fringes
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ELECTRICIAN

Excluding Sound & Communications Work.....	\$ 46.63	24.92
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FOOTNOTES;

- a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day
- b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

ELEC0038-008 04/28/2025

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) & LORAIN (Columbia Township)

	Rates	Fringes
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Sound & Communication Technician

Communications Technician...	\$ 34.30	14.95
Installer Technician.....	\$ 33.05	14.91

FOOTNOTES;

- a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day
- b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

ELEC0064-003 11/25/2024COLUMBIANA (Butler, Fairfield, Perry, Salem & Unity Townships)
MAHONING (Austintown, Beaver, Berlin, Boardman, Canfield, Ellsworth, Coitsville, Goshen, Green, Jackson, Poland, Springfield & Youngstown Townships), & TRUMBULL (Hubbard & Liberty Townships)

	Rates	Fringes
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ELECTRICIAN.....	\$ 39.80	21.03
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ELEC0071-005 01/06/2025

ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN

	Rates	Fringes
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LINE CONSTRUCTION: Equipment Operator

DOT/Traffic Signal & Highway Lighting Projects...	\$ 39.97	27%+8.00
Municipal Power/Transit Projects.....	\$ 49.46	27%+8.25

LINE CONSTRUCTION: Groundman

DOT/Traffic Signal & Highway Lighting Projects...	\$ 31.10	27%+8.00
Municipal Power/Transit Projects.....	\$ 38.47	27%+8.25

LINE CONSTRUCTION:

Linemen/Cable Splicer

DOT/Traffic Signal & Highway Lighting Projects...	\$ 43.89	27%+8.00
Municipal Power/Transit Projects.....	\$ 54.96	27%+8.25

ELEC0071-010 01/06/2025

Statewide

	Rates	Fringes
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Line Construction

Equipment Operator.....	\$ 40.44	4%+16.09
Groundman.....	\$ 29.07	4%+13.81
Lineman & Cable Splicers....	\$ 46.02	4%+17.20

ELEC0082-002 12/02/2024CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN
(Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
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ELECTRICIAN.....	\$ 38.00	22.49
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* ELEC0082-006 11/25/2024CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN
(Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
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Sound & Communication
Technician

Cable Puller.....	\$ 13.85 **	5.30
Installer/Technician.....	\$ 27.70	15.71

ELEC0129-003 02/24/2025LORAIN (Except Columbia Township) & MEDINA (Litchfield &
Liverpool Townships)

	Rates	Fringes
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ELECTRICIAN.....	\$ 42.95	18.81
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ELEC0129-004 02/24/2025ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman,
Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich,
Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
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ELECTRICIAN.....	\$ 42.95	18.81
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ELEC0141-003 06/02/2024

BELMONT COUNTY

	Rates	Fringes
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CABLE SPLICER.....	\$ 42.94	27.74
ELECTRICIAN.....	\$ 39.04	27.62

 ELEC0212-003 11/26/2018

BROWN, CLERMONT & HAMILTON

	Rates	Fringes
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Sound & Communication Technician.....	\$ 24.35	10.99
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 ELEC0212-005 06/02/2025

BROWN, CLERMONT, and HAMILTON COUNTIES

	Rates	Fringes
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ELECTRICIAN.....	\$ 38.05	22.97
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 ELEC0245-001 08/26/2024

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Richland, Ridge & Salem Townships)

	Rates	Fringes
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Line Construction		
Equipment Operator.....	\$ 32.95	28%+7.85
Groundman Truck Driver.....	\$ 20.59	28%+7.85
Lineman.....	\$ 47.07	28%+7.85

FOOTNOTE: a. Half day's Paid Holiday: The last 4 hours of the workday prior to Christmas or New Year's Day

 ELEC0245-003 01/01/2025

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

	Rates	Fringes
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Line Construction		
Cable Splicer.....	\$ 53.90	8.10+28%
Groundman/Truck Driver.....	\$ 20.51	8.10+28%
Heli-arc Welding.....	\$ 47.17	8.10+28%
Lineman.....	\$ 46.87	8.10+28%
Operator - Class 1.....	\$ 37.50	8.10+28%
Operator - Class 2.....	\$ 32.81	8.10+28%
Traffic Signal & Lighting Technician.....	\$ 42.18	8.10+28%

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

 ELEC0245-004 01/01/2025

ERIE COUNTY

	Rates	Fringes
Line Construction		
Cable Splicer.....	\$ 53.90	28%+8.10
Groundman/Truck Driver.....	\$ 20.51	28%+8.10
Lineman.....	\$ 46.87	28%+8.10
Operator - Class 1.....	\$ 37.50	28%+8.10
Operator - Class 2.....	\$ 32.81	28%+8.10

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0246-001 10/28/2024

Carroll, Columbiana, Harrison and Jefferson Counties in Ohio;
Brooke and Hancock Counties in West Virginia.

	Rates	Fringes
ELECTRICIAN.....	\$ 44.00	30.38%+24.31

FOOTNOTE: a. 1 1/2 Paid Holidays: The last scheduled workday prior to Christmas & 4 hours on Good Friday.

ELEC0306-005 05/27/2024

MEDINA (Brunswick, Chatham, Granger, Guilford, Harrisville, Hinckley, Homer, Lafayette, Medina, Montville, Sharon, Spencer, Wadsworth, Westfield & York Townships), PORTAGE (Atwater, Aurora, Brimfield, Deerfield, Franklin, Mantua, Randolph, Ravenna, Rootstown, Shalersville, Streetsboro & Suffield Townships), SUMMIT & WAYNE (Baughman, Canaan, Chester, Chippewa, Congress, Green, Milton, & Wayne Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 46.81	20.95
ELECTRICIAN.....	\$ 42.55	20.95

ELEC0317-002 05/29/2023

GALLIA & LAWRENCE

	Rates	Fringes
CABLE SPLICER.....	\$ 32.68	18.13
ELECTRICIAN.....	\$ 37.15	28.48

ELEC0540-005 12/30/2024

CARROLL (Northern half, including Fox, Harrison, Rose & Washington Townships), COLUMBIANA (Knox Township), HOLMES, MAHONING (Smith Township), STARK, TUSCARAWAS (North of Auburn, Clay, Rush & York Townships), and WAYNE (South of Baughman, Chester, Green & Wayne Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 38.87	28.87

ELEC0573-003 06/01/2025		

ASHTABULA (Colebrook, Wayne, Williamsfield, Orwell & Windsor Townships), GEAUGA (Auburn, Middlefield, Parkman & Troy Townships), MAHONING (Milton Township), PORTAGE (Charlestown, Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris & Windham Townships), and TRUMBULL (Except Liberty & Hubbard Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 42.20	23.37

ELEC0575-001 05/29/2023		

ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (Bloomfield, Franklin, Hamilton, Jefferson, Lick, Madison, Scioto, Coal, Jackson, Liberty, Milton & Washington Townships), PICKAWAY (Deer Creek, Perry, Pickaway, Salt Creek & Wayne Townships), PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, PeePee, Perry, Seal, Camp Creek, Newton, Scioto, Sunfish, Union & Marion Townships), ROSS, SCIOTO & VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 37.00	22.26

ELEC0648-001 08/26/2024		

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 30.50	18.23
ELECTRICIAN.....	\$ 36.00	23.06

ELEC0673-004 12/30/2024		

ASHTABULA (Excluding Orwell, Colebrook, Williamsfield, Wayne & Windsor Townships), GEAUGA (Burton, Chardon, Claridon, Hambden, Huntsburg, Montville, Munson, Newbury & Thompson Townships) and LAKE COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 33.81	21.47
ELECTRICIAN.....	\$ 39.47	24.02

ELEC0683-002 05/27/2024		

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON, PICKAWAY (Circleville, Darby, Harrison, Jackson, Madison, Monroe, Muhlenberg, Scioto, Walnut & Washington Townships), and UNION COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 41.50	24.19
ELECTRICIAN.....	\$ 40.50	25.20

ELEC0688-003 05/30/2022		

ASHLAND, CRAWFORD, HURON (Richmond, New Haven, Ripley & Greenwich Townships), KNOX (Liberty, Clinton, Union, Howard, Monroe, Middleberry, Morris, Wayne, Berlin, Pike, Brown & Jefferson Townships), MARION, MORROW, RICHLAND and WYANDOT (Sycamore, Crane, Eden, Pitt, Antrim & Tymochtee Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 32.30	21.83

ELEC0972-002 06/01/2024		

ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships), and WASHINGTON COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 40.25	33.33
ELECTRICIAN.....	\$ 40.00	33.32

ELEC1105-001 05/27/2024		

COSHOCTON, GUERNSEY, KNOX (Jackson, Clay, Morgan, Miller, Milford, Hilliar, Butler, Harrison, Pleasant & College Townships), LICKING, MUSKINGUM, PERRY, and TUSCARAWAS (Auburn, York, Clay, Jefferson, Rush, Oxford, Washington, Salem, Perry & Bucks Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 39.60	24.41

ENGI0018-003 05/01/2024		

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, and SUMMIT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 45.63	16.41
GROUP 2.....	\$ 45.53	16.41
GROUP 3.....	\$ 44.49	16.41
GROUP 4.....	\$ 43.27	16.41
GROUP 5.....	\$ 37.98	16.41
GROUP 6.....	\$ 46.63	16.41
GROUP 7.....	\$ 46.63	16.41

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving

Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; Wheel Excavator; and Asphalt Plant Engineer (Cleveland District Only).

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Horizontal Directional Drill (Over 50,000 ft lbs thrust); Hydro Milling Machine; Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); Vermeer type Concrete Saw; and Maintenance Operators (Portage and Summit Counties Only).

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer (Portage and Summit Counties Only); Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); Welding Machines; and Railroad Tie Insert/Remover; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Forklift; Form Trencher; Hydro Hammer except masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power

Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

ENGI0018-004 05/01/2024

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, and YANDOT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 44.14	16.41
GROUP 2.....	\$ 44.02	16.41
GROUP 3.....	\$ 42.98	16.41
GROUP 4.....	\$ 41.80	16.41
GROUP 5.....	\$ 36.34	16.41
GROUP 6.....	\$ 45.14	16.41
GROUP 7.....	\$ 45.14	16.41

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper;

Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; and Wheel Excavator.

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 50,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); and Vermeer type Concrete Saw.

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Railroad Tie Inserter/Remover; Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); and Welding Machines; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift; Form Trencher; Hydro Hammer expect masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonary Forklift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signaller; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

ENGI0066-023 06/01/2023

COLUMBIANA, MAHONING & TRUMBULL COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - A & B.....\$ 44.63		24.30
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - A & B.....\$ 44.30		24.30
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - A & B.....\$ 38.47		24.30
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - A & B.....\$ 34.52		24.30
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - A & B.....\$ 31.13		24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - C & D.....\$ 40.91		24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - C & D.....\$ 40.61		24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - C & D.....\$ 35.27		24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - C & D.....\$ 31.65		24.30
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - C & D.....\$ 28.53		24.30
ALL OTHER WORK		
GROUP 1.....\$ 37.19		24.30
ALL OTHER WORK		
GROUP 2.....\$ 36.92		24.30
ALL OTHER WORK		
GROUP 3.....\$ 32.06		24.30
ALL OTHER WORK		
GROUP 4.....\$ 28.77		24.30
ALL OTHER WORK		
GROUP 5.....\$ 25.94		24.30

GROUP 1 - Rig, Pile Driver or Caisson Type; & Rig, Pile Hydraulic Unit Attached

GROUP 2 - Asphalt Heater Planer; Backfiller with Drag Attachment; Backhoe; Backhoe with Shear attached; Backhoe-Rear Pivotal Swing; Batch Plant-Central Mix Concrete; Batch Plant, Portable concrete; Berm Builder-Automatic; Boat Derrick; Boat-Tug; Boring Machine Attached to Tractor; Bullclam; Bulldozer; C.M.I. Road Builder & Similar Type; Cable Placer & Layer; Carrier-Straddle; Carryall-Scraper or Scoop; Chicago Boom; Compactor with Blade Attached; Concrete Saw (Vermeer or similar type); Concrete Spreader Finisher; Combination, Bidwell Machine; Crane; Crane-Electric Overhead; Crane-Rough Terrain; Crane-Side Boom; Crane-Truck; Crane-Tower; Derrick-Boom; Derrick-Car; Digger-Wheel (Not

trencher or road widener); Double Nine; Drag Line; Dredge; Drill-Kenny or Similar Type; Easy Pour Median Barrier Machine (or similar type); Electromatic; Frankie Pile; Gradall; Grader; Gurry; Self-Propelled; Heavy Equipment Robotics Operator/Mechanic; Hoist-Monorail; Hoist-Stationary & Mobile Tractor; Hoist, 2 or 3 drum; Horizontal Directional Drill Operator; Jackall; Jumbo Machine; Kocal & Kuhlman; Land-Seagoing Vehicle; Loader, Elevating; Loader, Front End; Loader, Skid Steer; Locomotive; Mechanic/Welder; Metro Chip Harvester with Boom; Mucking Machine; Paver-Asphalt Finishing Machine; Paver-Road Concrete; Paver-Slip Form (C.M.I. or similar); Place Crete Machine with Boom; Post Driver (Carrier mounted); Power Driven Hydraulic Pump & Jack (When used in Slip Form or Lift Slab Construction); Pump Crete Machine; Regulator-Ballast; Hydraulic Power Unit not attached to Rig for Pile Drillings; Rigs-Drilling; Roto Mill or similar Full Lane (8' Wide & Over); Roto Mill or similar type (Under 8'); Shovel; Slip Form Curb Machine; Speedwing; Spikemaster; Stonecrusher; Tie Puller & Loader; Tie Tamper; Tractor-Double Boom; Tractor with Attachments; Truck-Boom; Truck-Tire; Trench Machine; Tunnel Machine (Mark 21 Java or similar); & Whirley (or similar type)

GROUP 3 - Asphalt Plant; Bending Machine (Pipeline or similar type); Boring machine, Motor Driven; Chip Harvester without Boom; Cleaning Machine, Pipeline Type; Coating Machine, Pipeline Type; Compactor; Concrete Belt Placer; Concrete Finisher; Concrete Planer or Asphalt; Concrete Spreader; Elevator; Fork Lift (Home building only); Fork lift & Lulls; Fork Lift Walk Behind (Hoisting over 1 buck high); Form Line Machine; Grease Truck operator; Grout Pump; Gunnite Machine; Horizontal Directional Drill Locator; Single Drum Hoist with or without Tower; Huck Bolting Machine; Hydraulic Scaffold (Hoisting building materials); Paving Breaker (Self-propelled or Ridden); Pipe Dream; Pot Fireperson (Power Agitated); Refrigeration Plant; Road Widener; Roller; Sasgen Derrick; Seeding Machine; Soil Stabilizer (Pump type); Spray Cure Machine, Self-Propelled; Straw Blower Machine; Sub-Grader; Tube Finisher or Broom C.M.I. or similar type; & Tugger Hoist

GROUP 4 - Air Curtain Destructor & Similar Type; Batch Plant-Job Related; Boiler Operator; Compressor; Conveyor; Curb Builder, self-propelled; Drill Wagon; Generator Set; Generator-Steam; Heater-Portable Power; Hydraulic Manipulator Crane; Jack-Hydraulic Power driven; Jack-Hydraulic (Railroad); Ladavator; Minor Machine Operator; Mixer-Concrete; Mulching Machine; Pin Puller; Power Broom; Pulverizer; Pump; Road Finishing Machine (Pull Type); Saw-Concrete-Self-Propelled (Highway Work); Signal Person; Spray Cure Machine-Motor Powered; Stump Cutter; Tractor; Trencher Form; Water Blaster; Steam Jenny; Syphon; Vibrator-Gasoline; & Welding Machine

GROUP 5 - Brakeperson; Fireperson; & Oiler

IRON0017-002 05/01/2024

ASHTABULA (North of Route 6, starting at the Geauga County Line, proceeding east to State Route 45), CUYAHOGA, ERIE (Eastern 2/3), GEAUGA, HURON (East of a line drawn from the north border through Monroeville & Willard), LAKE, LORAIN, MEDINA (North of Old Rte. #224), PORTAGE (West of a line from

Middlefield to Shalersville to Deerfield), and SUMMIT (North of Old Rte. #224, including city limits of Barberton) COUNTIES

	Rates	Fringes
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IRONWORKER

Ornamental, Reinforcing, & Structural.....	\$ 36.83	29.01
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IRON0017-010 05/01/2024

ASHTABULA (Eastern part from Lake Erie on the north to route #322 on the south to include Conneaut, Kingsville, Sheffield, Denmark, Dorset, Cherry Valley, Wayne, Monroe, Pierpont, Richmond, Andover & Williamsfield Townships)

	Rates	Fringes
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IRONWORKER

Structural, including metal building erection & Reinforcing.....	\$ 36.83	29.01
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IRON0044-001 06/01/2025

ADAMS (Western Part), BROWN, BUTLER (Southern Part), CLERMONT, CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) and WARREN (South of a line drawn from Blanchester through Morrow to the west county line) COUNTIES

	Rates	Fringes
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IRONWORKER, REINFORCING.....	\$ 38.27	23.90
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IRON0044-002 06/01/2025

CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) & WARREN (South of a line drawn from Blanchester through Morrow to the west county line)

	Rates	Fringes
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IRONWORKER

Fence Erector.....	\$ 33.60	23.90
Ornamental; Structural.....	\$ 38.27	23.90

IRON0055-003 07/01/2024

CRAWFORD (Area Between lines drawn from where Hwy #598 & #30 meet through N. Liberty to the northern border & from said Hwy junction point due west to the border), DEFIANCE (S. of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), ERIE (Western 1/3), FULTON, HANCOCK, HARDIN (North of a line drawn from Maysville to a point 4 miles south of the northern line on the eastern

line), HENRY, HURON (West of a line drawn from the northern border through Monroeville & Willard), LUCAS, OTTAWA, PUTNAM (East of a line drawn from the northern border down through Miller City to where #696 meets the southern border), SANDUSKY, SENECA, WILLIAMS (East of a line drawn from Pioneer through Stryker to the southern border), WOOD & WYANDOT (North of Rte. #30)

	Rates	Fringes
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IRONWORKER

Fence Erector.....	\$ 26.40	24.62
Flat Road Mesh.....	\$ 29.77	21.30
Tunnels & Caissons Under Pressure.....	\$ 29.77	21.30
All Other Work.....	\$ 35.50	29.20

IRON0147-002 06/01/2024

ALLEN (Northern half), DEFIANCE (Northern part, excluding south of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), MERCER (Northern half), PAULDING, PUTNAM (Western part, excluding east of a line drawn from the northern border down through Miller City to where #696 meets the southern border), VAN WERT, and WILLIAMS (Western part, excluding east of a line drawn from Pioneer through Stryker to the southern border) COUNTIES

	Rates	Fringes
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IRONWORKER.....	\$ 34.20	26.39
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IRON0172-002 06/01/2025

CHAMPAIGN (Eastern one-third), CLARK (Eastern one-fourth), COSHOCTON (West of a line beginning at the northwestern county line going through Walhonding & Tunnel Hill to the southern county line), CRAWFORD (South of Rte. #30), DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (Excluding a line drawn from Roundhead to Maysville), HIGHLAND (Eastern one-fifth), HOCKING, JACKSON (Northern half), KNOX, LICKING, LOGAN (Eastern one-third), MADISON, MARION, MORROW, MUSKINGUM (West of a line starting at Adams Mill going to Adamsville & going from Adamsville through Blue Rock to the southern border), PERRY, PICKAWAY, PIKE (Northern half), ROSS, UNION, VINTON and WYANDOT (South of Rte. #30) COUNTIES

	Rates	Fringes
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IRONWORKER.....	\$ 40.87	23.17
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IRON0207-004 06/01/2025

ASHTABULA (Southern part starting at the Geauga County line), COLUMBIANA (E. of a line from Damascus to Highlandtown), MAHONING (N. of Old Route #224), PORTAGE (E. of a line from Middlefield to Shalersville to Deerfield) & TRUMBULL

	Rates	Fringes
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IRONWORKER

Layout; Sheeter.....	\$ 37.26	28.16
Ornamental; Reinforcing;		
Structural.....	\$ 36.26	28.16

IRON0290-002 06/01/2024

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford, Darrrtown & Woodsdale), CHAMPAIGN (Excluding east of a line drawn from Catawla to the point where #68 intersects the northern county line), CLARK (Western two-thirds), CLINTON (Excluding south of a line drawn from Blanchester to Lynchburg), DARKE, GREENE, HIGHLAND (Inside lines drawn from Marshall to Lynchburg & from the northern county line through East Monroe to Marshall), LOGAN (West of a line drawn from West Liberty to where the northern county line meets the western county line of Hardin), MERCER (Southern half), MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN (Excluding south of a line drawn from Blanchester through Morrow to the western county line) COUNTIES

Rates	Fringes
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IRONWORKER.....	\$ 35.39	24.35
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IRON0549-003 12/01/2022

BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM (Excluding portion west of a line starting at Adams Mill going to Adamsville and going from Adamsville through Blue Rock to the south border)

Rates	Fringes
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IRONWORKER.....	\$ 35.19	25.66
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IRON0550-004 05/01/2024

ASHLAND, CARROLL, COLUMBIANA (W. of a line from Damascus to Highlandtown), COSHOCTON (E. of a line beginning at NW Co. line going through Walhonding & Tunnel Hill to the South Co. line), HOLMES, HURON (S. of Old Rte. #224), MAHONING (S. of Old Rte. #224), MEDINA (S. of Old Rte. #224), PORTAGE (S. of Old Rte. #224), RICHLAND, STARK, SUMMIT (S. of Old Rte. #224, Excluding city limits of Barberton), TUSCARAWAS, & WAYNE

Rates	Fringes
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Ironworkers:Structural, Ornamental and Reinforcing.....	\$ 34.70	22.88
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IRON0769-004 06/01/2024

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

Rates	Fringes
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IRONWORKER.....	\$ 37.66	29.24
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IRON0787-003 06/01/2024

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 33.00	24.25

LAB00265-008 05/01/2024		

	Rates	Fringes
LABORER		
ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES		
GROUP 1.....	\$ 35.95	14.45
GROUP 2.....	\$ 36.12	14.45
GROUP 3.....	\$ 36.45	14.45
GROUP 4.....	\$ 36.90	14.45
CUYAHOGA AND GEAUGA COUNTIES ONLY: SEWAGE PLANTS, WASTE PLANTS, WATER TREATMENT FACILITIES, PUMPING STATIONS, & ETHANOL PLANTS		
CONSTRUCTION.....	\$ 38.56	14.45
CUYAHOGA, GEAUGA & LAKE COUNTIES		
GROUP 1.....	\$ 37.18	14.45
GROUP 2.....	\$ 37.35	14.45
GROUP 3.....	\$ 37.68	14.45
GROUP 4.....	\$ 38.13	14.45
REMAINING COUNTIES OF OHIO		
GROUP 1.....	\$ 35.52	14.45
GROUP 2.....	\$ 35.69	14.45
GROUP 3.....	\$ 36.02	14.45
GROUP 4.....	\$ 36.47	14.45

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Asphalt Raker; Concrete Puddler; Kettle Man Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Paint Striper; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in

Sewer and Waterline, Cleaning, Repairing & Reconditioning);
Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander;
Wrencher (Mechanical Joints & Utility Pipeline); Yarnier;
Hazardous Waste (level A); Concrete Specialist; Concrete
Crew in Tunnels (With Air-pressurized - \$1.00 premium);
Curb Setter & Cutter; Grade Checker; Utility Pipeline
Tapper; Waterline; and Caulker

GROUP 4 - Miner (With Air-pressurized - \$1.00 premium); &
Gunitite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD \$1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID
THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0006-002 05/01/2023

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. of the
East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)

	Rates	Fringes
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PAINTER

COMMERCIAL NEW WORK;

REMODELING; & RENOVATIONS

GROUP 1.....	\$ 30.75	18.95
GROUP 2.....	\$ 31.15	18.95
GROUP 3.....	\$ 31.45	18.95
GROUP 4.....	\$ 37.01	18.95

COMMERCIAL REPAINT

GROUP 1.....	\$ 29.25	18.95
GROUP 2.....	\$ 29.65	18.95
GROUP 3.....	\$ 29.95	18.95

PAINTER CLASSIFICATIONS - COMMERCIAL NEW WORK; REMODELING; &
RENOVATIONS

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting; Closed Steel Above 55 feet; Bridges
& Open Structural Steel; Tanks - Water Towers; Bridge
Painters; Bridge Riggers; Containment Builders

GROUP 4 - Bridge Blaster

PAINTER CLASSIFICATIONS - COMMERCIAL REPAINT

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting

PAIN0007-002 07/01/2024

FULTON, HENRY, LUCAS, OTTAWA (Excluding Allen, Bay, Bono,
Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach,

Elliston, Elmore, Erie, Fishback, Gem Beach & Genova) & WOOD

Rates Fringes

PAINTER

NEW COMMERCIAL WORK

GROUP 1.....	\$ 31.84	20.79
GROUP 2.....	\$ 32.84	20.79
GROUP 3.....	\$ 32.84	20.79
GROUP 4.....	\$ 32.84	20.79
GROUP 5.....	\$ 32.84	20.79
GROUP 6.....	\$ 32.84	20.79
GROUP 7.....	\$ 32.84	20.79
GROUP 8.....	\$ 32.84	20.79
GROUP 9.....	\$ 32.84	20.79

REPAINT IS 90% OF JR

PAINTER CLASSIFICATIONS

GROUP 1 - Brush; Spray & Sandblasting Pot Tender

GROUP 2 - Refineries & Refinery Tanks; Surfaces 30 ft. or over where material is applied to or labor performed on above ground level (exterior), floor level (interior)

GROUP 3 - Swing Stage & Chair

GROUP 4 - Lead Abatement

GROUP 5 - All Methods of Spray

GROUP 6 - Solvent-Based Catalized Epoxy Materials of 2 or More Component Materials, to include Solvent-Based Conversion Varnish (excluding water based)

GROUP 7 - Spray Solvent Based Material; Sand & Abrasive Blasting

GROUP 8 - Towers; Tanks; Bridges; Stacks Over 30 Feet

GROUP 9 - Epoxy Spray (excluding water based)

PAIN0012-008 05/01/2019

BUTLER COUNTY

Rates Fringes

PAINTER

GROUP 1.....	\$ 21.95	10.20
GROUP 2.....	\$ 25.30	10.20
GROUP 3.....	\$ 25.80	10.20
GROUP 4.....	\$ 26.05	10.20
GROUP 5.....	\$ 26.30	10.20

PAINTER CLASSIFICATIONS

GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder

GROUP 2: Brush & Roller

GROUP 3: Spray

GROUP 4: Sandblasting; & Waterblasting

GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead
Abatement-----
PAIN0012-010 05/01/2019

BROWN, CLERMONT, CLINTON, HAMILTON & WARREN

	Rates	Fringes
PAINTER		
HEAVY & HIGHWAY BRIDGES- GUARDRAILS-LIGHTPOLES- STRIPING		
Bridge Equipment Tender and Containment Builder....	\$ 21.95	10.20
Bridges when highest point of clearance is 60 feet or more; & Lead Abatement Projects.....	\$ 26.30	10.20
Brush & Roller.....	\$ 25.30	10.20
Sandblasting & Hopper Tender; Water Blasting.....	\$ 26.05	10.20
Spray.....	\$ 25.80	10.20

PAIN0093-001 12/01/2024ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE and
WASHINGTON COUNTIES

	Rates	Fringes
PAINTER		
Bridges; Locks; Dams; Tension Towers; & Energized Substations.....	\$ 36.44	24.46
Power Generating Facilities..	\$ 33.29	24.46

PAIN0249-002 05/01/2025

CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
PAINTER		
GROUP 1 - Brush & Roller....	\$ 29.15	13.97
GROUP 2 - Swing, Scaffold Bridges; Structural Steel; Open Acid Tank; High Tension Electrical Equipment; & Hot Pipes.....	\$ 33.09	13.97
GROUP 3 - Spray; Sandblast; Steamclean; Lead Abatement.....	\$ 29.90	13.97
GROUP 4 - Steeplejack Work..	\$ 30.10	13.97
GROUP 5 - Coal Tar.....	\$ 30.65	13.97
GROUP 6 - Bridge Equipment Tender & or Containment Builder.....	\$ 37.86	13.97
GROUP 7 - Tanks, Stacks &		

Towers.....	\$ 33.86	13.97
GROUP 8 - Bridge Blaster, Rigger.....	\$ 40.86	13.97

PAIN0356-002 09/01/2009

KNOX, LICKING, MUSKINGUM, and PERRY

	Rates	Fringes
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PAINTER

Bridge Equipment Tenders and Containment Builders....	\$ 27.93	7.25
Bridges; Blasters; and Riggers.....	\$ 34.60	7.25
Brush and Roller.....	\$ 20.93	7.25
Sandblasting; Steam Cleaning; Waterblasting; and Hazardous Work.....	\$ 25.82	7.25
Spray.....	\$ 21.40	7.25
Structural Steel and Swing Stage.....	\$ 25.42	7.25
Tanks; Stacks; and Towers...	\$ 28.63	7.25

PAIN0438-002 12/01/2023

BELMONT, HARRISON and JEFFERSON COUNTIES

	Rates	Fringes
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PAINTER

Bridges, Locks, Dams, Tension Towers & Energized Substations.....	\$ 36.09	19.49
Power Generating Facilities.	\$ 32.94	19.49

* PAIN0476-001 06/01/2025

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
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PAINTER

GROUP 1.....	\$ 30.64	18.36
GROUP 2.....	\$ 40.27	18.36
GROUP 3.....	\$ 40.27	18.36
GROUP 4.....	\$ 31.14	18.36
GROUP 5.....	\$ 31.29	18.36
GROUP 6.....	\$ 35.27	18.36
GROUP 7.....	\$ 32.64	18.36

PAINTER CLASSIFICATIONS:

GROUP 1: Painters, Brush & Roller

GROUP 2: Bridges

GROUP 3: Structural Steel

GROUP 4: Spray, Except Bar Joist/Deck

GROUP 5: Epoxy/Mastic; Spray- Bar Joist/Deck; Working Above
50 Feet; and Swingstages

GROUP 6: Tanks; Sandblasting

GROUP 7: Towers; Stacks

 * PAIN0555-002 01/01/2025

ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 33.32	21.54
GROUP 2.....	\$ 35.02	21.54
GROUP 3.....	\$ 36.72	21.54
GROUP 4.....	\$ 40.03	21.54

PAINTER CLASSIFICATIONS

GROUP 1 - Containment Builder

GROUP 2 - Brush; Roller; Power Tools, Under 40 feet

GROUP 3 - Sand Blasting; Spray; Steam Cleaning; Pressure Washing; Epoxy & Two Component Materials; Lead Abatement; Hazardous Waste; Toxic Materials; Bulk & Storage Tanks of 25,000 Gallon Capacity or More; Elevated Tanks

GROUP 4 - Stacks; Bridges

 PAIN0639-001 05/01/2011

	Rates	Fringes
Sign Painter & Erector.....	\$ 20.61	3.50+a+b+c

FOOTNOTES: a. 7 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1 Floating Day

b. Vacation Pay: After 1 year's service - 5 days' paid vacation; After 2, but less than 10 years' service - 10 days' paid vacation; After 10, but less than 20 years' service - 15 days' paid vacation; After 20 years' service - 20 days' paid vacation

c. Funeral leave up to 3 days maximum paid leave for death of mother, father, brother, sister, spouse, child, mother-in-law, father-in-law, grandparent and inlaw provided employee attends funeral

 PAIN0788-002 06/01/2024

ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA (Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genoa), RICHLAND, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 29.13	17.52
Structural Steel.....	\$ 30.73	17.52

WINTER REPAINT: Between December 1 to March 31 - 90%JR

\$.50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

While working swingstage, boatswain chair, needle beam and horizontal cable. While operating sprayguns, sandblasting, cobblasting and high pressure waterblasting (4000psi).

\$1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

For the application of catalized epoxy, including latex epoxy that is deemed hazardous, lead abatement, or for work or material where special precautions beyond normal work duties must be taken. For working on stacks, tanks, and towers over 40 feet in height.

PAIN0813-005 12/01/2008

GALLIA, LAWRENCE, MEIGS & VINTON

	Rates	Fringes
PAINTER		
Base Rate.....	\$ 24.83	10.00
Bridges, Locks, Dams & Tension Towers.....	\$ 27.83	10.00

PAIN0841-001 06/01/2023

MEDINA, PORTAGE (South of and including Ohio Turnpike), and SUMMIT (South of and including Ohio Turnpike) COUNTIES

	Rates	Fringes
Painters:		
GROUP 1.....	\$ 30.18	15.50
GROUP 2.....	\$ 30.83	15.50
GROUP 3.....	\$ 30.93	15.50
GROUP 4.....	\$ 31.03	15.50
GROUP 5.....	\$ 31.43	15.50
GROUP 6.....	\$ 39.20	11.75
GROUP 7.....	\$ 31.68	15.50

PAINTER CLASSIFICATIONS:

GROUP 1 - Brush, Roller & Paperhanger

GROUP 2 - Epoxy Application

GROUP 3 - Swing Scaffold, Bosum Chair, & Window Jack

GROUP 4 - Spray Gun Operator of Any & All Coatings

GROUP 5 - Sandblast, Painting of Standpipes, etc. from Scaffolds, Bridge Work and/or Open Structural Steel, Standpipes and/or Water Towers

GROUP 6 - Public & Commerce Transportation, Steel or Galvanized, Bridges, Tunnels & Related Support Items (concrete)

GROUP 7 - Synthetic Exterior, Drywall Finisher and/or Taper,

Drywall Finisher and Follow-up Man Using Automatic Tools

PAIN0841-002 06/01/2023

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
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PAINTER

Bridges; Towers, Poles & Stacks; Sandblasting Steel; Structural Steel & Metalizing.....	\$ 31.43	15.50
Brush & Roller.....	\$ 30.18	15.50
Spray; Tank Interior & Exterior.....	\$ 31.03	15.50

PAIN1020-002 07/01/2024

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

	Rates	Fringes
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PAINTER

Brush & Roller.....	\$ 26.54	17.66
Drywall Finishing & Taping..	\$ 27.29	17.66
Lead Abatement.....	\$ 28.29	17.66
Spray, Sandblasting Pressure Cleaning, & Refinery.....	\$ 27.29	17.66
Swing Stage, Chair, Spiders, & Cherry Pickers...	\$ 26.79	17.66
Wallcoverings.....	\$ 27.29	17.66

All surfaces 40 ft. or over where material is applied to or labor performed on, above ground level (exterior), floor level (interior) - \$.50 premium

Applying Coal Tar Products - \$1.00 premium

PAIN1275-002 05/01/2025

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION

	Rates	Fringes
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PAINTER

Bridges.....	\$ 37.26	15.16
Brush; Roller.....	\$ 30.20	15.16
Sandblasting; Steamcleaning; Waterblasting (3500 PSI or Over)& Hazardous Work.....	\$ 32.35	15.16
Spray.....	\$ 32.15	15.16
Stacks; Tanks; & Towers.....	\$ 34.46	15.16
Structural Steel & Swing Stage.....	\$ 30.50	15.16

PLAS0109-001 06/01/2024

MEDINA, PORTAGE, STARK, and SUMMIT COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 31.70	23.63

PLAS0109-003 06/01/2024		

CARROLL, HOLMES, TUSCARAWAS, and WAYNE COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 31.70	23.63

PLAS0132-002 07/01/2025		

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 31.35	17.65

PLAS0404-002 05/01/2018		

ASHTABULA, CUYAHOGA, GEAUGA, AND LAKE COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 29.63	17.11

PLAS0404-003 05/01/2018		

LORAIN COUNTY

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

PLAS0526-022 05/01/2018		

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

PLAS0526-023 05/01/2018		

BELMONT, HARRISON, and JEFFERSON COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11

PLAS0886-001 07/01/2024		

FULTON, HANCOCK, HENRY, LUCAS, PUTNAM, and WOOD COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 33.73	23.25

PLAS0886-003 07/01/2024		

DEFIANCE, ERIE, HURON, OTTAWA, PAULDING, SANDUSKY, and SENECA

	Rates	Fringes
PLASTERER.....	\$ 33.73	23.25

PLAS0886-004 07/01/2024		

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, and VAN WERT

	Rates	Fringes
PLASTERER.....	\$ 33.73	23.25

PLUM0042-002 07/01/2025		

ASHLAND, CRAWFORD, ERIE, HURON, KNOX, LORAIN, MORROW, RICHLAND
& WYANDOT

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 43.02	26.45

PLUM0050-002 06/30/2025		

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,
PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 51.00	32.56

PLUM0055-003 05/05/2025		

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, MEDINA (N. of Rte. #18 &
Smith Road) & SUMMIT (N. of Rte. #303, including the corporate
limits of the city of Hudson)

	Rates	Fringes
PLUMBER.....	\$ 44.86	30.03

PLUM0083-001 07/01/2023		

BELMONT & MONROE (North of Rte. #78)

	Rates	Fringes
Plumber and Steamfitter.....	\$ 35.94	37.35

PLUM0094-002 05/01/2025		

CARROLL (Nortnen Half), STARK, and WAYNE COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 47.48	27.14

PLUM0120-002 05/01/2025		

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN (the C.E.I. Power House in Avon Lake), MEDINA (N. of Rte. #18) & SUMMIT (N. of #303)

	Rates	Fringes
PIPEFITTER.....	\$ 49.17	28.55

PLUM0162-002 06/01/2024

CHAMPAIGN, CLARK, CLINTON, DARKE, FAYETTE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 43.05	27.18

PLUM0168-002 06/01/2025

MEIGS, MONROE (South of Rte. #78), MORGAN (South of Rte. #78) & WASHINGTON

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 40.92	37.20

PLUM0189-002 06/01/2024

DELAWARE, FAIRFIELD, FRANKLIN, HOCKING, LICKING, MADISON, MARION, PERRY, PICKAWAY, ROSS & UNION

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 43.25	26.94

PLUM0219-002 06/01/2025

MEDINA (Rte. #18 from eastern edge of Medina Co., west to eastern corporate limits of the city of Medina, & on the county road from the west corporate limits of Medina running due west to and through community of Risley to the western edge of Medina County - All territory south of this line), PORTAGE, and SUMMIT (S. of Rte. #303) COUNTIES

	Rates	Fringes
Plumber and Steamfitter.....	\$ 46.87	28.39

PLUM0392-002 06/01/2025

BROWN, BUTLER, CLERMONT, HAMILTON & WARREN

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 43.30	27.40

PLUM0396-001 06/01/2024

COLUMBIANA (Excluding Washington & Yellow Creek Townships & Liverpool Twp. - Secs. 35 & 36 - West of County Road #427), MAHONING and TRUMBULL COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 38.45	28.96

PLUM0495-002 06/01/2025

CARROLL (Rose, Monroe, Union, Lee, Orange, Perry & Loudon Townships), COLUMBIANA (Washington & Yellow Creek Townships & Liverpool Township, Secs. 35 & 36, West of County Rd. #427), COSHOCTON, GUERNSEY, HARRISON, HOLMES, JEFFERSON, MORGAN (South to State Rte. #78 & from McConnelsville west on State Rte. #37 to the Perry County line), MUSKINGUM, NOBLE, and TUSCARAWAS COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 39.32	37.60

PLUM0577-002 06/01/2025

ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE, SCIOTO & VINTON

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 42.65	28.56

PLUM0776-002 07/01/2025

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY and VAN WERT COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 42.76	30.81

TEAM0377-003 05/01/2024

STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 32.54	16.80
GROUP 2.....	\$ 32.96	16.80

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Asphalt Distributor; Batch; 4- Wheel Service; 4-Wheel Dump; Oil Distributor & Tandem

GROUP 2 - Tractor-Trailer Combination: Fuel; Pole Trailer; Ready Mix; Semi-Tractor; & Asphalt Oil Spraybar Man When Operated From Cab; 5 Axles & Over; Belly Dump; End Dump;

Articulated Dump; Heavy Duty Equipment; Low Boy; & Truck
Mechanic

TEAM0436-002 05/01/2024

CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 32.25	18.95
GROUP 2.....	\$ 33.75	18.95

GROUP 1: Straight & Dump, Straight Fuel

GROUP 2: Semi Fuel, Semi Tractor, Euclids, Darts, Tank, Asphalt Spreaders, Low Boys, Carry-All, Tourna-Rockers, Hi-Lifts, Extra Long Trailers, Semi-Pole Trailers, Double Hook-Up Tractor Trailers including Team Track & Railroad Siding, Semi-Tractor & Tri-Axle Trailer, Tandem Tractor & Tandem Trailer, Tag Along Trailer, Expandable Trailer or Towing Requiring Road Permits, Ready-Mix (Agitator or Non-Agitator), Bulk Concrete Driver, Dry Batch Truck, Articulated End Dump

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.75) or 13658 (\$13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date

for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

----- WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

SCOPE OF WORK



Quantity Sheet

Noble 16F Project

Noble County, Multiple Townships

Multiple Wells - See SOW Project Description Page

Well Names

APIs

Line	Item	Description	Unit	Type	Cost	Qty	Estimate Total
Phase 1: Mobilization and Access							
1	1100	Mobilization	Each	Material		17.00	
2	1110	Demobilization	Each	Material		17.00	
3	1140	Clearing & Grubbing (Hedge/Miller) (EA -I	Each	Material		1.00	
4	1140	Clearing & Grubbing (Hedge #1) (EA -Lum	Each	Material		1.00	
5	1140	Clearing & Grubbing (Ohio Power #1) (EA	Each	Material		1.00	
6	1140	Clearing & Grubbing (Itol Reed #2) (EA -L	Each	Material		1.00	
7	1140	Clearing & Grubbing (Itol Reed #1) (EA -L	Each	Material		1.00	
8	1140	Clearing & Grubbing (Ohio Power Nichols	Each	Material		1.00	
9	1140	Clearing & Grubbing (Davis Blake #3) (EA	Each	Material		1.00	
10	1140	Clearing & Grubbing (Way Site) (EA -Lum	Each	Material		1.00	
11	1150	Filter Fabric	Sq. Yd.	Material		110.00	
12	1160	Silt Fence	Linear Ft.	Material		2260.00	
13	1230	No. 4 Stone	Ton	Material		390.00	
14	1250	No. 57 Stone	Ton	Material		165.00	
15	1260	No. 304 Aggregate Base	Ton	Material		230.00	
16	1410	(12") PE/PVC Culvert	Linear Ft.	Material		40.00	
17	1410	(15") PE/PVC Culvert	Linear Ft.	Material		20.00	
18	1510	Road Mats	Sq. Ft.	Material		19565.00	
19	1570	Timber Mats	Sq. Ft.	Material		8896.00	
20	1620	Airbridge w/Abutments	Each	Material		3.00	
21	1650	Earthwork	Each	Material		1.00	
Phase 2: Well Site Safety							
22	2100	Site Safety	Each	Material		22.00	
23	2130	Secondary Containment	Each	Material		22.00	
24	2160	Well Head Control	Each	Material		22.00	
25	2170	Well Control Fluid	BBL	Material		4230.00	
26	2180	Alternative Well Control Fluid	BBL	Material		200.00	
27	2220	Well Casing Tap	Each	Material		1.00	
Phase 3: Plugging							
28	3100	Well Preparation & Plugging (Dudley #2)	Each	Material		1.00	
29	3100	Well Preparation & Plugging (L Hedge #1)	Each	Material		1.00	
30	3100	Well Preparation & Plugging (Miller #2) (I	Each	Material		1.00	
31	3100	Well Preparation & Plugging (Miller #1) (I	Each	Material		1.00	
32	3100	Well Preparation & Plugging (George & H	Each	Material		1.00	
33	3100	Well Preparation & Plugging (John Hedge	Each	Material		1.00	
34	3100	Well Preparation & Plugging (Hedge #1) (	Each	Material		1.00	
35	3100	Well Preparation & Plugging (Ohio Power	Each	Material		1.00	
36	3100	Well Preparation & Plugging (Itol Reed #	Each	Material		1.00	
37	3100	Well Preparation & Plugging (Itol Reed #	Each	Material		1.00	
38	3100	Well Preparation & Plugging (Ohio Power	Each	Material		1.00	
39	3100	Well Preparation & Plugging (Teeters #1)	Each	Material		1.00	
40	3100	Well Preparation & Plugging (Teeters #2)	Each	Material		1.00	
41	3100	Well Preparation & Plugging (Davis Blake	Each	Material		1.00	
42	3100	Well Preparation & Plugging (McFarland	Each	Material		1.00	
43	3100	Well Preparation & Plugging (Heisler Ca #	Each	Material		1.00	
44	3100	Well Preparation & Plugging (Hepner E#1	Each	Material		1.00	
45	3100	Well Preparation & Plugging (Danford Ga	Each	Material		1.00	
46	3100	Well Preparation & Plugging (Davis Lee #	Each	Material		1.00	
47	3100	Well Preparation & Plugging (Way #3) (E	Each	Material		1.00	
48	3100	Well Preparation & Plugging (Morris J&E	Each	Material		1.00	
49	3100	Well Preparation & Plugging (E Hohman	Each	Material		1.00	
50	3250	Shooting	Each	Material		1.00	
51	3280	Perforating (per Shot)	Each	Material		9.00	
52	3290	Severing	Each	Material		18.00	
53	3310	Tubing	Each	Material		1.00	
54	3310	Tubing- 1"	Each	Material		1.00	
55	3340	Approved Cement (Sack)	Each	Material		9352.00	
56	3350	Cement Mixing & Pumping	Each	Material		113.00	
57	3480	Hydrogen Sulfide Scavenger	Gallons	Material		50.00	
58	3500	Washover Pipe (4.5")	Linear Ft.	Material		500.00	
Phase 4: Site Clean-up and Restoration							

59	4100	Site Restoration (Dudley #2)	Each	Material	1.00		
60	4100	Site Restoration(Hedge/Miller Site)	Each	Material	1.00		
61	4100	Site Restoration(George P. & Helen Mizik	Each	Material	1.00		
62	4100	Site Restoration(John Hedge #2)	Each	Material	1.00		
63	4100	Site Restoration(Hedge #1)	Each	Material	1.00		
64	4100	Site Restoration(Ohio Power-Fred Zinn #1	Each	Material	1.00		
65	4100	Site Restoration(Itol Reed #2)	Each	Material	1.00		
66	4100	Site Restoration(Itol Reed #1)	Each	Material	1.00		
67	4100	Site Restoration(Ohio Power Nichols #1)	Each	Material	1.00		
68	4100	Site Restoration(Teeters)	Each	Material	1.00		
69	4100	Site Restoration(Davis Blake #3)	Each	Material	1.00		
70	4100	Site Restoration(Wayne Mcfarland #2)	Each	Material	1.00		
71	4100	Site Restoration(Heisler Ca #1)	Each	Material	1.00		
72	4100	Site Restoration(Hepner E1)	Each	Material	1.00		
73	4100	Site Restoration(Danford Garfield #1)	Each	Material	1.00		
74	4100	Site Restoration(Way site)	Each	Material	1.00		
75	4100	Site Restoration(E Hohman #1)	Each	Material	1.00		
76	4160	Approved Resoil	Ton	Material	110.00		
77	4420	Contaminated Material Disposal	Ton	Material	180.00		
78	4440	Salvage Material Disposal	Each	Material	1.00		
79	4460	Fluid Disposal	BBL	Material	3625.00		
80	4470	Debris Removal and Disposal	Ton	Material	20.00		
81	4520	Gas Line Abandonment	Each	Material	6.00		
Fixed Costs							
82	0800	Salvage Material Reimbursement	Each	Material	\$0.00	1.00	\$0.00
Contingency							
83	1230	No. 4 Stone	Ton	Material	140.00		
84	1250	No. 57 Stone	Ton	Material	40.00		
85	2140	H2S Safety Team	Day	Material	10.00		
86	2150	H2S Safety Team Standby	Day	Material	10.00		
87	2180	Alternative Well Control Fluid	BBL	Material	200.00		
88	2360	Downhole Videography	Each	Material	3.00		
89	3140	Fishing	Hour	Material	5.00		
90	3160	Milling/Drillout	Hour	Material	5.00		
91	3170	Magnet	Each	Material	5.00		
92	3240	Logging (GR/CCL/Temp/Bond/Caliper)	Each	Material	5.00		
93	3250	Shooting	Each	Material	5.00		
94	3280	Perforating (per Shot)	Each	Material	5.00		
95	3290	Severing	Each	Material	5.00		
96	3380	Nine Sack Grout	Cubic Yd.	Material	10.00		
97	3450	Lost Circulation Materials (Sack)	Each	Material	50.00		
98	3460	Drilling Mud (Sack)	Each	Material	50.00		
99	3480	Hydrogen Sulfide Scavenger	Gallons	Material	50.00		
100	4220	Concrete Walk	Sq. Ft.	Material	100.00		

Note: This quantity sheet is provided for reference only. The Contractor's Offer must be submitted online through OhioBuys (<https://procure.ohio.gov/bidders-and-suppliers>). Quantities are only an estimate. Payment shall be based on quantities satisfactorily completed.

Each contractor is responsible for logging into OhioBuys and submitting an offer that is responsive to all amendments issued. All offers submitted prior to an amendment being issued shall become null/void and not considered in the opening. All amendments shall become part of the Scope of Work.

Offers must be fully submitted online through OhioBuys (<https://procure.ohio.gov/bidders-and-suppliers>) not later than, " " on " "