SCOPE OF WORK
LORAIN #21F PROJECT
Multiple Orphan Well Sites
Lorain County, Columbia Township

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 Lorain 21 Project shall include the following wells:

Wells to be plugged per the individual plugging plan.

Well Name	API Number	County	Township	Ingress/Egress Latitude, Longitude	Wellhead Latitude, Longitude
Jason Friscone #1	34-093-6-0723-00-00	Lorain	Columbia	41.283187, -81.913739	41.283507, -81.912293
Jason Friscone #2	34-093-6-0724-00-00	Lorain	Columbia	41.283187, -81.913739	41.284594, -81.911094
J&E Greenwald #1	34-093-6-0227-00-00	Lorain	Columbia	41.283187, -81.913739	41.284602, -81.908254
John Kelly #1	34-093-6-0727-00-00	Lorain	Columbia	41.294879, -81.954060	41.295041, -81.958942
C Mills #1	34-093-6-0158-00-00	Lorain	Columbia	41.292210, -81.957705	41.292628, -81.958195
Stephen Bonds #1	34-093-6-0647-00-00	Lorain	Columbia	41.349383, -81.933211	41.349679, -81.933654

PROJECT SCOPE OF WORK:

This project includes mobilization, access and well site development, drilling or cleaning out of and plugging of six (6) Orphan Wells, storage and disposal of all materials generated during the plugging of the well, 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.

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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. Appendix III – Davis-Bacon Wage Determination
13. Quantity Sheet;
14. & Drawing Plan Set.

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.

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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.

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GENERAL CONDITIONS

PART 1: OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS

This Lorain 21 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 a Contractor's representative must attend the pre-site meeting. A contractor representative may only be a representative for one DAS pre-qualified contractor on a project.

Failure to attend the pre-site meeting is grounds for the Division to reject the Contractor's Offer. A Contractor or Contractor's representative must be present for the entire pre-site meeting to be considered in attendance.

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 or contractors' representatives present. Only those contractors or contractors' representatives 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 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 be considered 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 the Contractor's 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, 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 be considered 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. The 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 DAS pre-qualified Contractor shall not submit offers on a project in which the contractor has committed as a subcontractor, who will perform more that 50 percent of the project as a subcontractor, to another DAS pre-qualified Contractor submitting an offer on the same project. Any DAS pre-qualified Contractor who submits an offer and will not self-perform more than 50 percent of the work shall self-report to the Project Engineer in writing prior to award the project's subcontractors and each subcontractor's percent award of the project. Any DAS pre-qualified Contractor who submits an offer shall supply upon request to the Project Engineer the project's subcontractors and each subcontractor's percent award of the project. Substitution of subcontractors after award shall be per the DAS contract. A DAS pre-qualified Contractor who will perform more than 50 percent of the work on a project as a subcontractor will have this project considered when reviewing whether the Contractor is behind schedule for awarding work. Additionally, when the Division is considering if a Contractor is behind schedule, all Orphan Well Program work and deadlines will be considered (Construction Manager at Risk subconsultant work and Landowner Pass-through Payment Program).

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 offer has been successfully imported into OhioBuys for all items before submitting. Incomplete offers and/or attachments will not be evaluated.
6. The most recent offer submitted in OhioBuys will be the offer that is evaluated, all prior offers submitted in the same solicitation will not be evaluated.
7. **The Contractor or Contractor's representative must attend the pre-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;
- Is not able to schedule this project within the contract due dates.
- Is committed to perform more than 50 percent of the work on this project as a subcontractor to another DAS pre-qualified Contractor on the project;
- Is a prime Contractor who has more than 50 percent of the work committed by a subcontractor who also submitted an offer as prime Contractor; or
- Failed to identify prior to award project subcontractors and their percent award upon request.

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 six (6) 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 **one (1) year 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.

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, which includes acknowledgment and signature of issued Field Order documents.

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.

Fishing/milling tools and associated appurtenances submitted as Change Order items shall be at cost. No markup on these items will be accepted by the Division.

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 Contactor 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 invoice, 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 percentage of work completed for all offer items prior to submittal of each invoice. No invoice 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.

All Field Orders and/or Change Orders issued prior to an invoice must be signed/acknowledge by the Contractor for the Division to consider an invoice for approval.

The Contractor's payment must be submitted to the division via the Orphan Well Project Management Contractor Portal (https://dnr-ow-prod.powerappsportals.us/). The invoice must include back up documentation. The Division will confirm the invoice is accurate.

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

Invoices received by the Division containing errors or requesting amounts that cannot be approved will be returned to the Contractor. The Contractor may resubmit an invoice after correcting errors.

19.3 Documents to be Submitted for Payment

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 invoices. 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 Invoices

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 RESTORATION

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 Restoration Inspection and determines that vegetation has reached final stabilization. "Final stabilization" means vegetation established in a uniform perennial vegetative cover and meets all requirements listed in the Detailed Specifications under "Site Restoration". "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.

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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 shall log into the Orphan Well Project Management System (OWPMS) no less than seven (7) working days prior to commencement of work. Notice will be sent using the system and may be sent for each well that work will be started on at that time. 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 (H_2S), 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

6.1 Public Safety Coordination Meeting

The Contractor shall hold a safety meeting with the County EMA, 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.

This meeting shall be led by the Contractor and is intended to be well specific. At the discretion of the Division, this requirement may be waived for the remaining wells should these wells be part of

the same lease\property.

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) Safety and Health Regulations for Construction 29 CFR 1926 and OSHA General Industry 29 CFR 1910 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.. SDS sheets will be stored onsite with the Emergency Response Plan (ERP). A copy of SDS sheets and the ERP will be stored at the project entrance in a container labeled “ERP/SDS”. A copy of all SDS will be supplied to the local Fire Department and/or to the Division when requested.

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 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 Contractor shall mitigate or remove as many ignition sources as possible from the working area. 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 (CH_4), Oxygen (O_2), Carbon Monoxide (CO) and Hydrogen Sulfide (H_2S).

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

- Methane - 1000 parts per million (ppm)/2% 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.

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 provided 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 (H_2S), the following considerations must be observed:

A. The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H_2S emitted from the well. If the Contractor does not have the appropriate equipment to properly detect and abate any H_2S 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. *A positive displacement mud pump with the capacity of pumping at least 3 barrels per minute and able to overcome hydrostatic head is required for this process.*

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. *A positive displacement mud pump with the capacity of pumping at least 3 barrels per minute and able to overcome hydrostatic head is required for this process.*

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. *A positive displacement mud pump with the capacity of pumping at least 3 barrels per minute and able to overcome hydrostatic head is required for this process.*

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. *A positive displacement mud pump with the capacity of pumping at least 3 barrels per minute and able to overcome hydrostatic head is required for this process.*

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 Final Restoration 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 Final RestorationInspection 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
LORAIN #21F PROJECT
Multiple Orphan Well Sites
Lorain County, Columbia Township

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. **Work ahead of service rig mobilization shall be at the discretion of the Division**. Work shall not be initiated prior to fourteen (14) days ahead of rig mobilization, **unless approved in writing by the Division**. Any work performed shall be done in accordance with all requirements listed in this Scope of Work.

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 resoil 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
LORAIN #21F PROJECT
Jason Frisone # 1 Orphan Well Site
Lorain County, Columbia Township

WELL DESCRIPTION

This Well Description is for:

The Jason Frisone # 1 orphan well API # 34-093-6-0723-00-00 located in Lorain County, Columbia Township

Background: The Jason Frisone # 1 orphan well is located approximately 3.2 miles south of Columbia Station. This well is situated approximately 320-feet east of East River Road, on a five (5)-acre residential parcel (Parcel # 1200032000025) owned by 18601 East River LLC with a statuary agent. The address is 18601 East River Road, Columbia Station, OH, 44028.

Division personnel were informed on 3/18/2023 by an Oil and Gas Contractor hired by the Landowner to evaluate the well for possible domestic gas supply of a possible Orphan well. After the Landowner decided not to utilize the well the Division was contacted for the well's inclusion into the Orphan Well Program. Being located on a newly constructed homesite the original contour of the ground was reconfigured leaving the well standing approximately 12-feet above present grade. Division personnel reported that the Contractor performed an Echometer and Open flow tests on the well for evaluation. The Contractor estimates that the well has approximately 2,800-feet of 1.9-inch O.D. tubing, has an unknown amount of eight (8)-inch casing, unknown amount of seven (7)-inch casing, an unknown amount of 3.5-inch casing and the approximately 2,800-feet of 1.9-inch O.D. tubing. A 3.5-inch X 1.9-inch wellhead was at the top of the 3.5-inch casing and supporting the 1.9-inch O.D. tubing. A closed Demco valve was located on top of the 1.9-inch O.D. tubing. All the casings and tubing are visible at the surface. The Oil and Gas Contractor performed some well tests for evaluation. The well was flowed through a Roots gas meter for a week resulting in a flow of 10 mcf per day. A pressure gauge was measuring the annular pressure in the 3.5-inch X 1.9-inch tubing and it indicated 120 psi. There appears to be a cement material in the annular spaces between the eight (8)-inch and seven (7)-inch and also between the seven (7)-inch and the 3.5-inch casing. There are holes visible in the 7-inch casing. There isn't any production equipment or transmission lines associated with this well.

The area was drilled predominately by Ohio Fuel Gas targeting the " Clinton sand". The Jason Frisone # 1 well is found on the historical well spot maps and designated as a plugged "Clinton" gas well. A search of the Division's data base did not reveal any drilling or plugging records for the Jason Frisone # 1 orphan well. The field was mainly developed in the mid- 1920's using the the cable tool method. Typical well construction has ten (10)-inch drive pipe usually set approximately 60-feet to 100-feet, eight (8)-inch casing from 260-feet to 320-feet deep, six (6)-inch casing set around 1,700-feet deep and five (5)-inch casing set from 2,650-feet to 2,750-feet deep.

The closest similar vintage well with drilling and casing records is the Leitner #3, API #34-093-6-0219-00-00, located 900-feet to the north of the Jason Frisone # 1 well. This well was completed on 9/30/1925 by Ohio Fuel Gas. These records show the following information:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Berea	100	160	
Ls.	1,345	2,630	w. 1,555 & 2,470, Salt 1,860-1,938, Nwbg – 2,455
Shell	2,640	2,651	
Stray	2,720	2,728	
"Clinton"	2,733	2,768	Gas @ 2,726 & 2,762, Nat. vol. - 3 mm
T.D. 2,771			

Casing data for the Leitner # 1, API # 34-093-6-0219-00-00 is as follows:

- 10-inch casing set to 83-feet
- 8-inch casing set to 264-feet
- 6-inch casing set to 1,680-feet
- 5-inch casing set to 2,641 feet

Plugging records for the Longbon # 1, API # 34-093-2-0644-00-00 located approximately 3,000-feet to the northeast show that the well was plugged on 5/14/1952 in the following manner:

- 10-inch casing set to 41-feet; left in hole
- 8-inch casing set to 248-feet; out
- 6-inch casing set to 1,788-feet; 1,746-feet out, when drilled
- 5-inch casing set to 2,751-feet; 2,026-feet out
- 3-inch tubing set to 2,898-feet; 2,800-feet out

Seasoned wood plug drove in tubing rip at 2,800-feet and filled with clay to 2,560-feet, tapered cement plug at 2,025-feet, clay to 1,925-feet, tapered cement plug at 1,746-feet, clay to 1,546-feet, Rock bridge 350-feet to 330-feet, seasoned wood plug 330-feet to 327-feet, clay 327-feet to 248-feet, tapered cement plug at 248-feet, clay to surface.

For the purposes of this Scope of Work it is assumed that the Jason Frisone # 1 orphan well was drilled to a total depth of approximately 2,800-feet in the "Clinton sand", has approximately 80-feet of ten (10)-inch drive pipe, eight (8)-inch casing set at approximately 240-feet, seven (7)-inch casing set at approximately 1,700-feet, three (3)-inch casing setting depth is unknown and 1.9-inch O.D. tubing set to approximately 2,800-feet. A gauge on the 3-inch tubing registered 120 psi.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, temporary storage, disposal of all fluids and materials removed from the wellsite and regrading / revegetation of all areas disturbed by the plugging operations.

Designated Route: The Contractor shall utilize East River Road to access the site during all stages of the plugging project. It is the Contractor's responsibility to contact all Township, County, State and Municipal officials having authority over the roads that are intended to be utilized for this project. The Contractor will provide written documentation to the Division, of all road use notifications / approvals prior to mobilizing to the site.

SCOPE OF WORK
LORAIN #21F PROJECT
Jason Frisone # 1 Orphan Well Site
Lorain County, Columbia Township

PLUGGING PLAN

This Plugging Plan is for:

The Jason Frisone # 1 orphan well API # 34-093-6-0723-00-00 located in Lorain County, Columbia Township

For the purposes of this Scope of Work it is assumed that the Jason Frisone # 1 orphan well was drilled to a total depth of approximately 2,800-feet into the "Clinton sand", has approximately 80-feet of ten (10)-inch drive pipe, approximately 240-feet of eight (8)-inch casing, seven (7)-inch casing originally set at 1,700-feet, three (3)-inch casing set at a unknown depth and 1.9-inch O.D. tubing set to approximately 2,800. A gauge on the well was reading 120 psi.

A review of the wells drilled to the "Clinton sand" offsetting the Jason Friscone # 1 well reported initial rock pressures from 750 psi to 1,000 psi. The lower value may not be indicative of true bottom hole pressures due to fluid loading. For the kill fluid density calculation, 1,100 psi for the initial formation pressure was used. The Contractor will supply and maintain a dedicated kill fluid consisting of 250 barrels of a weighted brine fluid with a minimum density of 9.0 pounds per gallon (ppg) with the sole purpose of killing the well to regain well control when required. The 9.0 ppg brine should generate a bottom hole hydrostatic pressure of 1,309 psi at the assumed total depth. A mud pump of sufficient size and capacity will be required to be onsite and connected to the diverter lines at all times during the plugging operations as a means to displace the well kill fluid as required.

1) The Contractor will give the Landowner and the local Safety Forces a twenty-four (24)-hours' notice prior to commencing plugging operations and relieving any well pressure.

2) The Contractor will excavate and visually examine the existing casings, to evaluate their condition and suitability immediately below grade. If the casing(s) 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 casings 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. **The design and build requirements for the temporary cellar can be found in the Detailed Specifications.**

4) The Contractor will "blow down" any well pressure and maintain static well conditions by loading the well with fluid to create a hydrostatic pressure greater than the anticipated bottom hole pressure. Once a static condition is established the Contractor will run their tools inside the 1.9-inch O.D. tubing to verify its' setting depth and if any obstructions are present. The Contractor will remove the tubing string from the well and place the tubing on a bermed liner for further evaluation. The Contractor will accurately tally the tubing for the Division. The Contractor will install an appropriate wellhead and an approved method of well control on the most appropriately sized casing to ensure there is control of gas and / or fluids generated from the well. **The Contractor shall establish and maintain well control**

throughout the entire plugging process and maintain 250 barrels of brine (9.0 ppg) and sufficient pumping equipment on location for well control.

5) The Contractor will run a logging suite consisting of Gamma Ray, Caliper, CCl and VDL Bond Logs to determine the lithology, borehole diameter, setting depth of the three (3)-inch casing and the cement quality behind the three (3)-inch casing.

6) **For any cleanout or drill-out operation, the Division may require the Contractor to "Mud Up" at the start of the operation. Mud-up operations must be performed under the supervision of a certified Mud Engineer, who shall mix the drilling mud and conduct all required mud and fluid checks.**

7) The Contractor will sever the three (3)-inch casing above its lowest "free point" and place any casing removed on a bermed liner for further review by the Division. The three (3)-inch casing removal may require the use of mills and washover equipment as defined in the **General Specifications**. The Contractor will accurately tally the casing for the Division. The Contractor will then clean out / drill out the hole to its total depth (TD) of approximately 2,800-feet or a depth approved by the Division.

8) Once total depth has been reached or a depth approved by the Division, the Contractor will load the hole with a compatible fluid and run a Gamma Ray / CCL / Caliper / VDL Bond logs to verify lithology, casing depth, borehole diameter and the cement quality behind casing. All cement plug depths and thicknesses will be based on log data.

9) 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.** At the discretion of the Division, a minimum of 10 barrels of AquaGel**, cement scavenger and/or an equal approved by the Division shall be pumped immediately ahead of any cement plugs for well conditioning purposes. In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **(a mix ratio of one (1) fifty (50) pound bag of gel per five (5) barrels of the approved fluids).

10) **The Contractor will circulate two (2) borehole volumes of a compatible fluid to condition the borehole prior to setting the bottom hole plug.** The Contractor will then set a 400-foot cement plug from 2,800-feet to 2,400-feet to cover or isolate the " Clinton sand" and Newburg Dolomite. The Contractor will wait on cement a minimum of eight (8)-hours to obtain sufficient compressive strength 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 then set a 400-foot cement plug from 1,500-feet to 1,100-feet to cover or isolate the top of the "Big lime". The Contractor will wait on the cement a minimum of eight (8)-hours to obtain sufficient compressive strength and then run their tools into the wellbore to verify the top of the plug. If the plug has dropped or it is determined that a competent plug was not achieved, additional plugs may be required at the discretion of the Division.

12) The Contractor will then set a 400-foot cement plug from 800-feet to 400-feet to cover or isolate the "Cinnamon shale". The Contractor will wait on the cement a minimum of eight (8)-hours to obtain sufficient compressive strength and then run their tools into the wellbore to verify the top of the plug. If the plug has dropped or it is determined that that a competent plug was not achieved, additional plugs may be required, at the discretion of the Division.

13) **Prior to pumping the surface plug the Contractor will attempt to remove the eight (8)-inch casing by pulling it. Once the eight (8)-inch casing or a portion there of is removed the Contractor will tally it and place it on a bermed liner for further evaluation. If the eight (8)-inch casing isn't able to be pulled the Contractor may perforate the casing and squeeze a cement slurry into any void areas behind the pipe as indicated by the log data. The Contractor will wait on the squeeze cement to set for a minimum of eight hours.** Then the Contractor will then set a 400-foot cement plug from 400-feet to surface to cover the eight (8)-inch casing seat and the "Ohio shale". The Contractor will wait a minimum of eight (8)-hours to obtain sufficient compressive strength and top off at surface if the plug level has dropped, if necessary.

14) 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 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
LORAIN #21F PROJECT
Jason Frisone # 2 Orphan Well Site
Lorain County, Columbia Township

WELL DESCRIPTION

This Well Description is for:

The Jason Frisone # 2 orphan well, API # 34-093-6-0724-00-00, located in Lorain County, Columbia Township

Background: The Jason Frisone # 2 is located approximately 3.2 miles south of Columbia Station, Ohio. This well is situated approximately 630-feet east of East River Road on a 6.1-acre residential parcel (Parcel # 1200032000032) owned by J18601 East River LLC with a statuary agent. The street address is 18601 East River Road, Columbia Station, OH, 44028

The Division was notified on 3/18/2023 by a Oil and Gas Contractor hired by the Landowner for an well assessment. The idle well was located in an open agricultural field. The Contractor informed the Division that the Jason Frisone # 2 well was equipped, at the surface, with ten (10)-inch drive pipe with a one (1)-inch pipe and valve cemented in the center of the ten (10)-inch drive pipe. A natural gas odor was noted. There were no tubing or rods visible at the surface in this well. There is no production, transmission or storage equipment associated with this well. The Division's database doesn't have any drilling or plugging records for the well. A review of the Ohio Fuel Gas historical map shows a plugged "Clinton"gas well located in the area of the Jason Frisone # 2 well location. The area was drilled predominantly by Ohio Fuel Gas during the 1920's targeting the "Clinton sand" utilizing the cable tool method of drilling. Typical vintage well construction of the offset wells consisted of an average of 61-feet of ten (10)-inch drive pipe, 303-feet of eight (8)-inch surface casing, 1,700-feet of six (6)-inch intermediate casing and 2,700-feet of five (5)-inch production casing set on a packer. A portion of the intermediate casing string was usually recovered upon reaching the total depth of the well with various amounts of the surface and production casings recovered during abandonment.

The closest similar vintage well with drilling and casing records is the Longbon # 1, API #34-093-2-0644-00-00, located approximately .5 mile to the northeast of the Jason Frisone # 2. This well was drilled in 1923 and was plugged in 1952. These records show the following information:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Berea	155	255	
Niagara	1,430	2,712	
shell	2,785	2,805	
Stray ss	2,822	2,834	
Clinton	2,864	2,873	gas
Total Depth		2,874	

Casing data for the Longbon # 1 API # 34-093-2-0644-00-00 is as follows:

- 10-inch casing set to 41-feet, all in

- 8.-inch casing set to 248-feet, all recovered
- 7-inch casing set to 1,788-feet; out 1,746-feet when drilled
- 5-inch casing set to 2,751-feet, out 2,025-feet

Plugging records for the Longbon # 1, API # 34-093-2-0644-00-00, show that well was plugged on 6/10/1952 in the following manner:

- Seasoned wood plug drove in tubing rip at 2,800-feet, and filled with clay to 2,560-feet
- Tapered cement plug at 2,025-feet, clay to 1,925-feet
- Tapered cement plug at 1,746-feet, clay to 1,546-feet
- Rock bridge 350-feet to 330-feet
- Seasoned wood plug at 330-feet to 327-feet, clay 327-feet to surface

For the purposes of this Scope of Work it is assumed that the Jason Frisone # 2 orphan well was drilled to a total depth of 2,850-feet, that it was a shot hole in the "Clinton" sand, that it was equipped with approximately 60-feet of ten (10)-inch casing, approximately 300-feet of eight (8)-inch casing, approximately 1,700-feet of six (6)-inch diameter casing and 2,700-feet of five (5)-inch casing. The well was assumed plugged with fire clay, a stone bridge and tapered cement plugs on various casing seats. The well was reportedly leaking gas.

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

Designated Route: The Contractor shall utilize East River Road to access the site during all stages of the plugging project. It is the Contractor's responsibility to contact all Township, County, Municipal and State officials having authority over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of road use notifications / approvals prior to mobilizing equipment to the site.

SCOPE OF WORK
LORAIN #21F PROJECT
Jason Frisone # 2 Orphan Well Site
Lorain County, Columbia Township

PLUGGING PLAN

This Plugging Plan is for:

The Jason Frisone #2 , API #34-093-6-0724-00-00, located in Lorain County, Columbia Township

For the purposes of this Scope of Work it is assumed that the Jason Frisone # 2 orphan well was originally drilled to a total depth of 2,850-feet, that it was a shot hole completed open hole in the "Clinton sand", that it was equipped with approximately 60-feet of ten (10)-inch drive pipe, approximately 300-feet of eight (8)-inch casing, approximately 1,700-feet of six (6)-inch casing and 2,700-feet of five (5)-inch casing. It is assumed the well was plugged with fire clay, a stone bridge and tapered cement plugs on various casing seats. The well was reportedly leaking natural gas from a one (1)-inch piece of tubing in the cement.

A review of the wells drilled to the "Clinton sand" which offset the Jason Frisone # 2, indicated the initial formation pressures ranged from 750 psi to 1,000 psi. The lower value may not be indicative of the true bottom hole pressures due to fluid loading. For the kill fluid density calculation, 1,100 psi for the initial formation pressure was used. The Contractor will supply and maintain a dedicated kill fluid consisting of 300 barrels of a weighted brine fluid with a minimum density of 9.0 pounds per gallon (ppg) with the sole purpose of killing the well to regain well control when required. The 9.0 ppg brine should generate a bottom hole hydrostatic pressure of 1,332 psi at the assumed total depth. A mud pump of sufficient size and capacity will be required to be onsite and connected to the diverter lines at all time during the plugging operations as a means to displace the well kill fluid as required.

1) The Contractor will give the Landowner and local Safety Forces a twenty-four (24)-hours' notice prior to commencing plugging operations and relieving any well pressure.

2) The Contractor will excavate and visually examine the existing ten (10)-inch drive pipe 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 will then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process. **The design and build requirements for the temporary cellar can be found in the Detailed Specifications.**

4) The Contractor will install an appropriate wellhead and an approved method of well control on the ten (10)-inch drive pipe to ensure there is control of gas and / or fluids generated from the well. **The Contractor will establish and maintain well control throughout the entire plugging process** and **maintain 300 barrels of 9.0 ppg brine on location for well control purposes. The Contractor will maintain, on location, sufficient pumping equipment for well control at all times.** The Contractor should be cognizant of the numerous "Red beds" possibly encountered in the wellbore and take all due precautions necessary.

5) **For any cleanout or drill-out operation, the Division may require the Contractor to "Mud Up" at the start of the operation. Mud-up operations must be performed under the supervision of a certified Mud Engineer, who shall mix the drilling mud and conduct all required mud and fluid checks.**

6) The Contractor will remove the one (1)-inch tubing by washing over the tubing and place the tubing on a bermed liner for further review. The Contractor will provide the Division will an accurate tally of all tubulars removed from the wellbore. The Contractor will then run their tools into the wellbore to check for any obstructions and to verify the total depth of the wellbore. If the Contractor encounters deeper obstructions and cannot reach the anticipated total depth, the Contractor will clean out / mill out any obstructions to the total depth 2,850-feet or a depth approved by the Division.

7) Once total depth has been reached, the Contractor will load the hole with an appropriate fluid and run a logging suite consisting of Gamma Ray / CCL / VDL Bond & Caliper log to verify the lithology, casing setting depth, cement quality behind any casing and wellbore diameter. All cement plug depths and thicknesses will be based on log data.

8) If a string of eight (8)-inch casing is found in the borehole the Contractor will attempt to remove said casing. But if the Contractor cannot "pull" the casing, then based on log data, the Contractor will perforate any zones of poor or no bond in the annulus of the eight (8)-inch casing if present. The Contractor will be cognizant of the **Frac Gradient** of the zones to be perforated and not exceed those pressures during any remedial squeeze jobs. The Contractor will set a 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 (WOC) a minimum of eight (8)-hours and then run their tools into the well to verify the depth to the top of the squeeze plug. If the plug has dropped or it is determined that a competent squeeze plug has not been achieved, additional squeeze plugs may be required at the discretion of the Division. The Division may require additional VDL / Bond logs to confirm satisfactory squeeze cement placement.

9) 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.** At the discretion of the Division, a minimum of 10 barrels of AquaGel**, cement scavenger and/or an equal approved by the Division shall be pumped immediately ahead of any cement plugs for well conditioning purposes. In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **(a mix ratio of one (1) fifty (50) pound bag of gel per five (5) barrels of the approved fluids).

10) **The Contractor will circulate two (2) borehole volume of a compatible fluid to condition the borehole prior to setting the bottom hole plug.** The Contractor will set a 400-foot cement plug from 2,850-feet to 2,450-feet to cover / isolate the "Clinton sand" and Newburg Dolomite. The Contractor will wait for the cement to reach sufficient compressive strength, a minimum of eight (8)-hours and then run their tools into the wellbore to verify the depth to the top of the bottom plug. If the plug has dropped or it is determined that a competent plug was not achieved, additional plugs may be required, at the discretion of the Division.

11) The Contractor will then set a 400-foot cement plug from 1,600-feet to 1,200-feet to cover / isolate the "Big Lime" and lower "Ohio shale" zones. The Contractor will wait a minimum of eight (8)-hours for the cement to obtain sufficient compressive strength. After the wait on cement period has expired, the Contractor will lower their tools into the wellbore to verify proper plug placement. If the plug has

dropped or a competent plug wasn't achieved, additional cement plugs may be required, at the discretion of the Division.

12) The Contractor will then set a 400-foot cement plug from 800-feet to 400-feet to cover or isolate the "Cinnamon shale". The Contractor will wait a minimum of eight (8)-hours for the cement to obtain sufficient compressive strength. After the wait on cement period has expired, the Contractor will run their tools into the wellbore to verify proper cement plug placement. If the plug has dropped or a competent plug was not achieved, additional cement plugs may be required at the discretion of the Division.

13) The Contractor will then set a 400-foot cement plug from 400-feet to surface to cover the eight (8)-inch casing seat (if present) and gas zones in the "Ohio shale". The Contractor will wait a minimum of eight (8)-hours to obtain sufficient compressive strength and top off at surface if the plug level has dropped, if necessary.

14) 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 off 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
LORAIN #21F Project
J&E Greenwald #1 Orphan Well Site
Lorain County, Columbia Township

WELL DESCRIPTION

This Well Description is for:

J&E Greenwald #1, API# 34-093-6-0227-00-00

Background: The J&E Greenwald #1 is located approximately 1,800 feet south of Emmons Road and 1,150 feet east of East River Road/SR252, on a 21.55-acre agricultural/wooded parcel (1200032000033) owned by 19090 East River LLC with Corporate Creations Network LLC with Corporate Creations Network LLC listed as the statutory agent. The property address is 19090 East River Road, Columbia Station 44028. The J&E Greenwald #1 is situated on the north edge of a corn field. There is a tree line approximately 75 feet north of the well and the dirt access lane is immediately south of this tree line. The nearest neighboring occupied dwelling is located approximately 700 feet south of this well. Access to the well is east, directly off East River Road/SR252 onto the landowner's private gravel drive and following this drive east approximately 2,250 feet, then turning left onto a gravel service lane and following it north for 800 feet and then turning left (west) onto a dirt service road for 550 feet to the well. Depending on weather and soil conditions and due to the length of the access drive to the well, matting may be needed to protect and minimize damage to the access roads and plugging equipment. There are overhead utilities that need to be considered for access to the property.

The J&E Greenwald #1 was brought to the attention of the Division in March 2023 and subsequent Division inspections, the latest in June 2024, found approximately 1 foot of exposed well casing on the north edge of the farm field, just south of the tree line. The outside diameter of this casing was gauged with a caliper at 10.75 inches. The inside of this casing was filled with cement with a short section of 1-inch diameter steel tubing, fitted with an open valve, protruding up through the cement. The valve was removed, and a weighted line was run to a depth of 287 feet where an obstruction was encountered. Fluid appeared to be encountered at a depth of approximately 60 feet. While retrieving the weighted line it appeared to hang up about 18 inches below the top of the casing, a possible indication of the length of the 1-inch diameter tubing and the cement thickness. The retrieved line was covered with crude oil and there was a slight petroleum odor in the well area. The valve was replaced upon completion of the inspection. There is no production, transmission or storage equipment known to be associated with this well. Columbia Township is not shown to be a Hydrogen Sulfide (H2S) Township as per Division records.

Division records show that the J&E Greenwald #1 was drilled in 1925 by Ohio Fuel Gas to a depth of 2,847 feet in the Clinton sandstone. Records show natural production after drilling was 1,152,000 cubic feet of gas with an initial rock pressure of 975 pounds per square inch. The formation information for this well is as follows:

FORMATION	TOP (FT)	BOTTOM (FT)	REMARKS
BEREA			NOT PRESENT
LIMESTONE	1,387	2,675	WATER AT 1,465' AND 2,505'
SHELL	2,683	2,703	
CLINTON	2,789	2,802	1,152 M BLOWN DOWN TO 680 M
TOTAL DEPTH		2,847	

Division records show the following was set in the J&E Greenwald #1:

- 10-inch diameter casing set to 65 feet.

- 8-inch diameter casing set to 317 feet.
- 6-inch diameter casing set to 1,700 feet.
- 5-inch diameter casing set to 2,723 feet.

The completion record for the J&E Greenwald #1 shows that it was shot with 20 quarts of Nitroglycerin from 2,789 feet to 2,797 feet. Production after shot is shown as 2,694,000 cubic feet natural gas.

There are no plugging records for the J&E Greenwald #1 in the Division database. The nearest similar era well with plugging data is API# 34-093-2-0644-00-00, located 1,850 feet northeast of the J&E Greenwald #1. This well was drilled circa 1923, also by Ohio Fuel Gas, to a depth of 2,874 in the Clinton sandstone. Division records show the Berea Sandstone was encountered from 155 feet to 255 feet, the top of the Big Lime at 1,430 feet, and the Clinton sandstone from 2,864 feet to 2,873 feet. There was a show of gas in the Clinton sandstone.

Casing records for API# 34-093-2-0644-00-00 are as follows:

- 10-inch diameter casing set to 41 feet (left in well).
- 8-inch diameter casing set to 246 feet (Pulled out when plugged).
- 6.63-inch diameter casing set to 1,746 feet (1,746 feet out when drilled).
- 5.18-inch diameter casing set to 2,761 feet (2,025 feet out when plugged)
- 3-inch diameter tubing set to 2,898 feet (2,800 out when plugged).

Division records show that API# 34-093-2-0644-00-00 was plugged in 1952 by Ohio Fuel Gas as follows:

- Season wood plug drove in tubing rip at 2,800 feet and filled, with clay to 2,560 feet.
- Tapered cement plug set at 2,025 feet, with clay to 1,925.
- Tapered cement plug set at 1,746 feet, with clay to 1,546.
- Rock Bridge set from 350 feet to 330 feet.
- Seasoned wood plug set at 330 feet to 327.
- Clay set from 327 feet to 248 feet.
- Tapered cement plug set at 246 feet, with clay to surface.

For the purposes of this Scope of Work it is assumed that the J&E Greenwald #1 was drilled to a depth of 2,847 feet in the Clinton sandstone, that it is equipped with 65 feet of 10.75-inch outside diameter drive pipe, that the cement visible in the top of this casing is approximately 1 foot thick, that the 1-inch diameter tubing cemented in the casing is only 18 inches long, that there is an obstruction in the well at an approximate depth of 287 feet, that it was previously plugged by Ohio Fuel Gas and that oil is present in the well. It is also assumed that:

- **that all the surface casing was removed,**
- **that the intermediate casing, production casing and production tubing (if used) were parted at approximately 1,655 feet, 2,000 feet, 2,770 feet, respectively,**
- **that all the parted tubulars were removed from the well and tapered cement or seasoned wood plugs were placed at these tubing/casing rip points and topped with clay,**
- **that a rock bridge topped with clay and a seasoned wood plug was set at a depth of approximately 400 feet,**
- **that a tapered cement plug was set at the surface casing seat at 317 feet and topped with clay to surface.**

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, temporary storage, removal and disposal of all fluid and materials generated from the plugging process, regrading and revegetating all areas disturbed by the plugging process, and the installation of a vault and vent system.

Designated Route: The Contractor shall utilize East River Road/SR252 and other authorized routes to access the site during all stages of the plugging project.

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
LORAIN #21F Project
J&E Greenwald #1 Orphan Well Site
Lorain County, Columbia Township

PLUGGING PLAN

This Plugging Plan is for:

J&E Greenwald #1, API# 34-093-6-0227-00-00

For the purposes of this Scope of Work it is assumed that the J&E Greenwald #1 was drilled to a depth of 2,847 feet in the Clinton sandstone, that it is equipped with 65 feet of 10.75-inch outside diameter drive pipe, that the cement visible in the top of this casing is approximately 1 foot thick, that the 1-inch diameter tubing visible in the cement is 18 inches long, that there is an obstruction in the well at an approximate depth of 287 feet, that all of the surface casing was removed, that all or most of the intermediate and production casing and production tubing, if installed, was removed from the well, that wood, cement, prepared clay and/or stone bridge plugs may have been utilized to plug this well to surface and that oil is present in the well.

Completion information for the Greenwald #1 reported an initial rock pressure 975 psi. The Contractor will supply and maintain a dedicated kill fluid consisting of 200 barrels of 8.5 pounds per gallon (ppg) weighted brine with the sole purpose of killing the well to regain well control when required. This brine weight should generate a hydrostatic bottom hole pressure of 1,257 pounds per square inch. A mud pump of sufficient size and capacity will be required onsite and always connected to the divertor lines during the plugging operations as means to pump the well kill fluid as required.

1) The Contractor will excavate around the well to expose and visually examine the existing 10.75-inch OD casing to evaluate its condition immediately below grade. The Contractor will remove the visibly damaged casing and install enough new casing, of similar diameter, to bring it to a suitable working height.

2) The Contractor will install an appropriately sized, lined, and liquid tight cellar around the well to capture all fluids generated during the plugging process outlined in the **Detailed Specifications**.

3) The Contractor will install an appropriate wellhead and utilize an approved method of well control on the 10.75-inch OD casing to insure there is complete control of gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process**.

4) The Contractor will clean out the 10.75-inch OD casing and wellbore to a depth of 325 feet, including the obstruction at 287 feet. Drilling, milling and/or fishing equipment, as outlined in the **Detailed Specifications**, may also be required to reach the required depth.

5) **For any cleanout or drill-out operation, the Division may require the Contractor to "Mud Up" at the start of the operation. Mud-up operations must be performed under the supervision of a certified Mud Engineer, who shall mix the drilling mud and conduct all required mud and fluid checks.**

6) The Contractor will install 315 feet of 7-inch diameter casing with properly spaced centralizers and a float shoe installed on the bottom joint. Once the well is static, the Contractor will condition the annulus

with a ten (10) barrel bentonite spacer and circulate the annulus until all free crude oil/debris is removed from the wellbore. The Contractor shall cement the casing's annulus to surface using an API approved cement system blended with 2% CaCl and mixed at the recommended API density. The Contractor shall verify cement slurry weight by a beam balance mud scale. The Contractor will wait on cement a minimum of eight (8) hours for the cement to obtain the required compressive strength prior to commencing further plugging activities.

7) The Contractor will install an appropriate wellhead and utilize an approved method of well control on the 7-inch diameter casing to insure there is complete custody of gas and/or fluids generated from the well. **Due to the reactive nature of the Ohio shale to freshwater, a saltwater system should be used during clean out/drill out after the surface casing has been set, as outlined in the Detailed Specifications**.

8) The Contractor will drill out the float shoe and any residual cement and continue to clean/drill out the well to its anticipated total depth of 2,847 feet or a depth approved by the Division. Milling and/or fishing equipment, as outlined in the **Detailed Specifications**, may also be required to reach the required depth.

9) Once the approved depth is reached and the well is static, the Contractor will load the hole, as specified in the **Detailed Specifications**, and run a logging suite consisting of Gamma Ray/CCL/Bond/Caliper logs to verify the wells total depth, the bond quality behind the 7-inch diameter casing, lithology, and hole diameter for cementing purposes. The log data will be utilized for cementing calculations.

10) **The Contractor shall supply/maintain a minimum of 200 barrels of saltwater on location for use as circulation fluid. This quantity is based on two (2) hole volumes of fluid as outlined in the Detailed Specifications**.

11) All staged cement plugs will be set through a working string of a minimum 1.5-inch inside diameter tubing utilizing a Division approved API cement system blended with 2 % CaCl to the recommended API density. The Contractor shall verify the cement slurry weight by a beam balance mud scale. The well shall be in a static condition prior to beginning any cementing activities.

12) The Contractor will condition the wellbore with a ten (10) barrel bentonite gelled fluid spacer prior to any slurry displacement that comes in contact with open hole formation.

13) The Contractor shall circulate two (2) borehole volumes of a compatible fluid, to further condition the borehole, prior to setting the bottom hole plug. This fluid shall be of sufficient weight to suppress a gas kick.

14) 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.** At the discretion of the Division, a minimum of 10 barrels of AquaGel**, cement scavenger and/or an equal approved by the Division shall be pumped immediately ahead of any cement plugs for well conditioning purposes. In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **(a mix ratio of one (1) fifty (50) pound bag of gel per five (5) barrels of the approved fluids).

15) The Contractor will set a 450-foot bottom plug from 2,845 feet to 2,395 feet, as determined by log data, to cover/isolate the Clinton sandstone, wait on cement a minimum of eight hours for the cement to obtain the required compressive strength and then run their tools into the hole to verify the depth to the top of the plug. If the plug level 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 450-foot plug from 1,650 feet to 1,200 feet to cover/isolate the top of the Big Lime section, wait on cement a minimum of eight hours for the cement to obtain the required compressive strength and then run their tools into the hole to verify the top the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

17) The Contractor will set a 450-foot plug from 1,200 feet to 750 feet to cover/isolate the lower Ohio shale section, wait on cement a minimum of eight hours for the cement to obtain the required compressive strength and then run their tools into the hole to verify the top the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

18) The Contractor will set a 450-foot plug from 750 feet to 300 feet to cover/isolate the upper Ohio shale section, wait on cement a minimum of eight hours for the cement to obtain the required compressive strength and then run their tools into the hole to verify the top the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

19) The Contractor will set a cement plug from 300 feet to within forty-eight (48) inches of surface, wait on cement a minimum of eight hours for the cement to obtain the required compressive strength and then check the cement level and top off with additional cement, if necessary.

20) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at the surface to determine if any remedial plugging work will be required at that time. If additional work is not required, the Contractor will cut off the casing a minimum of forty-eight (48) inches below ground level and set the plugged well identification as outlined by the General Specifications and the Ohio Administrative Code 1501-9-11-10.

SCOPE OF WORK
LORAIN #21F Project
John Kelly #1 Orphan Well Site
Lorain County, Columbia Township

WELL DESCRIPTION

This Well Description is for:

John Kelly #1, API# 34-093-6-0727-00-00

Background: The John Kelly #1 is located approximately 1,000 feet south of Capel Road and 1,350 west of Station Road, on a 15-acre residential/agricultural parcel (1200088000010) owned by John and Kathleen Kelly Trustees. The property address is 16870 Station Road, Columbia Station 44028. The John Kelly #1 is situated in the southwest portion of the property, which is being farmed. This well is approximately 425 feet west of the Kelly residence. The nearest neighboring occupied dwellings are all more than 700 feet from this well. Access to the well is west directly off Station Road on the Kelly gravel driveway, travelling approximately 650 feet and then crossing over a small stream and drain tile onto the neighboring property to the south owned by Wayne Lyzen. The location of Mr. Kelly's septic system prevents direct access to the well through his property. Mr. Kelly stated that his and Mr. Lyzens fields are tiled. Depending on weather and soil conditions, matting may be needed for the ingress and egress of plugging equipment to safely conduct plugging activities and to minimize damage to the fields drainage system. An air bridge may also be needed to cross the stream and any associated culverts. There are overhead utilities at the entrance to the property that may affect access of plugging equipment.

The John Kelly #1 was brought to the attention of the Division in May of 2023. Subsequent Division inspections, the most recent ones conducted in August and December 2024, found an open steel casing sticking approximately 18 inches above grade in a small strip of grass in a soybean field behind the Kelly residence. This casing was gauged at 6.88 inches outside diameter (OD) and was partially parted due to corrosion approximately 1 foot below grade. A weighted line was run into open casing to a depth of 20 feet where a solid obstruction was encountered. Fluid was noted at approximately 6 feet below the top of casing and there was no petroleum odor noted. Based on this data it is assumed that this casing was a former water well associated with the drilling of the oil and gas well shown on a map of the property. The area immediately around the well casing and within a ten-foot radius of this casing was excavated to a depth of two (2) feet and no additional/larger casing was encountered around the 6.88-inch diameter casing. However, black gas cut soil was encountered at the base of a 3-foot diameter rock located approximately 5 feet west of the 6.88-inch diameter casing. This rock was removed, and the suspect area was then excavated to a depth of eight (8) feet which encountered a mix of plugging clay, wood and stone and a noticeable petroleum odor. After this area was photo-documented the large rock was placed over the suspected borehole and the excavated area was backfilled. There is no production, transmission or storage equipment known to be associated with this well. Columbia Township is not shown to be a Hydrogen Sulfide (H2S) Township as per Division records.

There are no records drilling, casing, completion or plugging records for the John Kelly #1 in the Division database. However the Ohio Fuel Gas Map for Columbia Township does show a well, labeled as a dry hole drilled to the Clinton sandstone, in the approximate location of the John Kelly #1 (see map in Appendix).

The nearest similar era well to the John Kelly #1 with drilling/formation data is API# 34-093-6-0205-00-00, located approximately 1,000 feet northwest of the John Kelly #1. This well was drilled in 1925 by Logan to a depth of 2,700 feet in the Clinton sandstone. The formation information for this well is as follows:

FORMATION	TOP (FT)	BOTTOM (FT)	REMARKS
GRAVEL AND SAND	0	36	
SAND AND SLATE	36	60	
BEREA GRIT	60	140	DRY
SLATE	140	1,250	
LIMESTONE	1,250	2,550	WATER: 1,460', 2,530'.
SALT	1,730	1,800	
SLATE	2,550	2,605	WATER AT 1,465' AND 2,505'
SHELL	2,605	2,616	
SLATE	2,616	2,625	
1ST CLINTON	2,625	2,632	GAS: 321M
2ND CLINTON	2,652	2,661	MORE GAS
3RD CLINTON	2,680	2,691	BROKEN, SMALL SHOW OF GAS
TOTAL DEPTH		2,700	SHALE OCCUPY BREAKS IN RECORD

Casing records for API# 34-093-6-0205-00-00 are as follows:

- 10-inch diameter casing set to 36 feet.
- 8-inch diameter casing set to 161 feet.
- 6-inch diameter casing set to 1,585 feet.
- 5-inch diameter casing set to 2,556 feet.

There are no plugging records for API# 34-093-6-0205-00-00.

Another similar era offset well with available drilling, casing and plugging data is API# 34-093-2-0275-00-00, located 2,590 feet northwest of the John Kelly #1. This well was drilled in 1944 by Ohio Fuel Gas (OFG) to a depth of 2,740 in the Clinton sandstone. The formation information for this well is as follows:

FORMATION	TOP (FT)	BOTTOM (FT)	REMARKS
SHALE	0	75	
BEREA SANDSTONE	75	105	WATER AT 90'
SHALE	105	1,254	GAS: 715' - EXHAUSTED
LIMESTONE	1,254	2,540	WATER: 1,560', 2,525'.
NEWBERG	2,369	2,377	NO GAS, OIL OR WATER
SHELL	2,545	2,615	
SANDSTONE	2,629	2,633	GAS: 2,630'
SHELL	2,672	2,677	DRY
SHALE	2,677	2,740	
TOTAL DEPTH		2,740	SHALE OCCUPY BREAKS IN RECORD

Casing records for API# 34-093-2-0275-00-00 are as follows:

- 10-inch diameter drive pipe (40#) set to 43 feet (all out when plugged).
- 8.25-inch diameter casing (24#) set to 217 feet (all out when plugged).
- 6.63-inch diameter casing (20#) set to 1,589 feet (1,538 feet out when plugged).
- 5.18-inch diameter casing (17#) set to 2,554 feet (2,496 feet out when plugged).

The plugging records for API# 34-093-2-0275-00-00 shows that it was deemed a dry hole and plugged shortly after drilling by OFG. The plugging records are as follows:

- Filled with rock sediment from 2,740 feet to 2,552 feet,

- Set a 5.18-inch diameter M&F wood plug at 2,552 feet and filled with rock sediment to 2,496 feet,
- Pulled 2,496 feet of 5.18-inch diameter casing,
- Set a 5.18-inch cement plug at 2,496 feet and filled to 1,589 feet with rock sediment,
- Parted 6.63-inch diameter casing at 1,538 feet,
- Set a 6.63-inch cement plug at 1,538 feet and filled to 210 feet with rock sediment,
- Pulled all 8.25-inch diameter casing,
- Set a 8.25-inch cement plug in casing seat at 210 feet and filled with rock sediment to 43 feet,
- Pulled all 10-inch diameter drive pipe,
- Set an 10-inch cement plug at 43 feet and filled to top of hole with rock sediment.

Division records show that the Berea Sandstone is the deepest underground source of drinking water (USDW) in this area and therefore precautions must be in place to protect this zone from contamination during both cleanout and plugging activities. The Berea in this area is found at a depth of approximatly 60 – 70 feet and thicknesses range from 30 to 80 feet. **The cleanout/drillout activities down to and through the Berea should be conducted using a freshwater system and a surface casing should be set and cemented to surface to isolate this zone, as specified in the Detailed Specifications**. There should be minimal penetration of the shale below the Berea.

Drilling records for offset wells located around the John Kelly #1 show that most were drilled in the early to mid 1900's, presumably using a cable tool rig. These records show a 70 foot to 100 foot thick section of "red shale" was encountered immediately below the Berea Sandstone and that the 8-inch diameter surface casing was set through the Berea **and** this shale interval when they were originally drilled. However, the surface casing was pulled when the wells were plugged. These records also indicate that sections of soft brown shale were encountered throughout the mid to lower Ohio Shale, which extends down to the top of the Big Lime, at an approximate depth of 1,300 feet. **Due to the reactive nature of these shales to freshwater, a salt-based system should be used during clean out/drill out after the surface casing has been set, as specified in the Detailed Specifications**.

For the purposes of this Scope of Work it is assumed that the John Kelly #1 was drilled to a depth of 2,700 feet in the Clinton sandstone, that this well was previously equipped with 10, 8, 6.63 and 5.19-inch diameter casings and that all these casings were removed when it was previously plugged. It is also assumed that:

- **cement plugs were set in the 10-inch and 8-inch casing seats at approximate depths of 25 feet and 150 feet, respectively,**
- **cement plugs were also set at the top of parted 6.63-inch and 5.18-inch diameter casing at approximate depths of 1,550 feet and 2,500 feet, respectively,**
- **prior to parting the 5.18-inch diameter casing a wood plug was driven into this casing to a depth of approximately 2,550 feet,**
- **rock sediment was placed on top of these solid plugs and over the producing formation,**
- **the 7-inch diameter casing that is present approximately 5 feet east of the John Kelly #1 is the water well associated with the drilling of this well.**

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, temporary storage, removal and disposal of all fluid and materials generated from the plugging process, regrading and revegetating all areas disturbed by the plugging process, and the installation of a vault and vent system if needed.

Designated Route: The Contractor shall utilize Station Road and other authorized routes to access the site during all stages of the plugging project.

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
LORAIN #21F Project
John Kelly #1 Orphan Well Site
Lorain County, Columbia Township

PLUGGING PLAN

This Plugging Plan is for:

John Kelly #1, API# 34-093-6-0727-00-00

For the purposes of this Scope of Work it is assumed that the John Kelly #1 was drilled to an approximate depth of 2,700 feet in the Clinton sandstone and that all of the drive pipe and/or surface casing and all or a majority of the intermediate and production casings, and the production tubing were removed from the well prior to it being originally plugged and that wood, cement, prepared clay and/or stone bridge plugs may have been utilized to plug this well to surface.

Offset well records also show that natural gas was encountered in the Ohio Shale at depths between 700 feet and 900 feet. The Contractor should exercise caution during the cleanout and plugging of this well.

A review of offset wells drilled to the "Clinton sand" in the subject area reported initial rock pressures ranging from 960 psi to 700 psi. The Contractor will supply and maintain a dedicated kill fluid consisting of 160 barrels of 8.5 pounds per gallon (ppg) weighted brine with the sole purpose of killing the well to regain well control when required. This brine weight should generate a hydrostatic bottom hole pressure of 1,192 pounds per square inch. A mud pump of sufficient size and capacity will be required onsite and always connected to the divertor lines during the plugging operations as means to pump the well kill fluid as required.

1) The Contractor will excavate the suspect area and remove the large rock that was found at an approximate depth of 8 feet below grade covering the plugged borehole. If necessary, the Contractor will continue to excavate to further delineate the plugged borehole.

2) The Contractor will install an appropriately sized, lined, and liquid tight cellar around the well to capture all fluids generated during the plugging process, as outlined in the **Detailed Specifications**.

3) The Contractor will drill in 13.38-inch diameter casing around the exposed borehole, which is estimated to be at a depth of 25 feet. The top of the 13.38-inch pipe will extend to a suitable working height above grade and annular space cemented to surface.

4) The Contractor will install an appropriate wellhead and utilize an approved method of well control on the 13.38-inch diameter casing to ensure there is complete custody of gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process**.

5) The Contractor will clean out the 13.38-inch diameter pipe and wellbore to a depth of 160 feet or a depth approved by the Division. Drilling, milling and/or fishing equipment, as outlined in the **Detailed Specifications**, may be required to reach the anticipated depth. The final clean out/drill out depth and amount of casing installed will be at the discretion of the Division.

6) **For any cleanout or drill-out operation, the Division may require the Contractor to "Mud Up" at the start of the operation. Mud-up operations must be performed under the supervision of a**

certified Mud Engineer, who shall mix the drilling mud and conduct all required mud and fluid checks.

7) The Contractor will install 150 feet of new 7-inch diameter casing with properly spaced centralizers and a float shoe installed on the bottom joint. Once the well is static, the Contractor will condition the annulus with a ten (10) barrel bentonite spacer and circulate the annulus until all free crude oil/debris is removed from the wellbore. The Contractor shall cement the casing's annulus to surface using an API approved cement system blended with 2% CaCl and mixed at the proper API recommended density. The Contractor shall verify cement slurry weight by a beam balance mud scale. The Contractor will wait on cement a minimum of eight (8) hours for the cement to obtain the required compressive strength prior to commencing further plugging activities.

8) The Contractor will install an appropriate wellhead and utilize an approved method of well control on the 7-inch diameter casing to insure there is complete custody of gas and/or fluids generated from the well. **Due to the reactive nature of the Ohio shale to freshwater, a saltwater system should be used during clean out/drill out after the surface casing has been set, as outlined in the Detailed Specifications**.

9) The Contractor will drill out the float shoe and any residual cement and continue to drill out the well to its anticipated total depth of 2,700 feet or a depth approved by the Division. Milling and/or fishing equipment, as outlined in the **Detailed Specifications**, may also be required to reach the required depth.

10) Once the approved depth is reached and the well is static, the Contractor will load the hole and run a logging suite consisting of Gamma Ray/CCL/Bond/Caliper logs to verify the wells total depth, the bond quality behind the 7-inch diameter casing, lithology, and hole diameter for cementing purposes. The log data will be utilized for cementing calculations.

11) **The Contractor shall supply/maintain a minimum of 160 barrels of saltwater on location for use as circulation fluid. This quantity is based on two (2) hole volumes of fluid as outlined in the Detailed Specifications**.

12) All staged cement plugs will be set through a working string of a minimum 1.5-inch inside diameter tubing utilizing a Division approved API cement system blended with 2 % CaCl to the required API density. The Contractor shall verify the cement slurry weight by a beam balance mud scale. The well shall be in a static condition prior to beginning any cementing activities.

13) The Contractor shall circulate two (2) borehole volumes of a compatible fluid, to further condition the borehole, prior to setting the bottom hole plug. This fluid shall be of sufficient weight to suppress a gas kick.

14) 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.** At the discretion of the Division, a minimum of 10 barrels of AquaGel**, cement scavenger and/or an equal approved by the Division shall be pumped immediately ahead of any cement plugs for well conditioning purposes. In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **(a mix ratio of one (1) fifty (50) pound bag of gel per five (5) barrels of the approved fluids).

15) The Contractor will set a 450-foot bottom plug from 2,700 feet to 2,250 feet, as determined by log data, to cover/isolate the Clinton sandstone, wait on cement a minimum of eight (8) hours for the cement to obtain the required compressive strength and then run their tools into the hole to verify the depth to the

top of the plug. If the plug level 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 450-foot plug from 1,400 feet to 950 feet to cover/isolate the top of the Big Lime section, wait on cement a minimum of eight hours for the cement to obtain the required compressive strength and then run their tools into the hole to verify the top the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

17) The Contractor will set a 450-foot plug from 950 feet to 500 feet to cover/isolate the Ohio shale section, wait on cement a minimum of eight hours for the cement to obtain the required compressive strength and then run their tools into the hole to verify the top the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

18) The Contractor will set a cement plug from 500 feet to within forty-eight (48) inches of surface, wait on cement a minimum of eight (8) hours for the cement to obtain the required compressive strength and then check the cement level and top off with additional cement, if necessary.

19) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at the surface to determine if any remedial plugging work will be required at that time. If additional work is not required, the Contractor will cut off the casing a minimum of forty-eight (48) inches below ground level and set the plugged well identification as outlined by the General Specifications and the Ohio Administrative Code 1501-9-11-10.

SCOPE OF WORK
LORAIN #21F Project
John Kelly #1 Orphan Well Site
Lorain County, Columbia Township

WATER WELL PLUGGING PLAN

This Plugging Plan is for:

John Kelly #1 Water Well

The casing in question on the John Kelly property was brought to the attention of the Division in May of 2023. Subsequent Division inspections, the most recent ones conducted in August and December 2024, found an open steel casing sticking approximately eighteen (18) inches above grade in a small strip of grass in a soybean field behind the Kelly residence. This casing was gauged at 6.88 inches outside diameter (OD) and was partially parted due to corrosion approximately one (1) foot below grade. A weighted line was run into this casing to a depth of twenty (20) feet where a solid obstruction was encountered. Fluid was noted at approximately six (6) feet below the top of casing and there was no petroleum odor noted. The area immediately around this well casing was excavated to a depth of two (2) feet and no additional/larger casing was encountered around it. Further inspection of the area around the 6.88-inch diameter casing found black gas cut soil at the base of a 3-foot diameter rock located approximately 5 feet west of this casing. This rock was moved and the suspect area was then excavated to a depth of eight (8) feet which encountered a mix of plugging clay, wood and stone and a noticeable petroleum odor. After this area was photo-documented, the large rock was placed back over the suspected borehole and the excavated area was backfilled. Based on this data, it is assumed that the 6.88-inch diameter casing is the water well associated with the drilling of the oil and gas well found buried on the property (API# 34-093-6-0727-00-00).

There are no known domestic water wells within 1,400 feet of the Kelly #1 water well. Division records indicate that the primary aquifer in this area is Lower Mississippian and upper Devonian interbedded sandstones and shales. Drilling records for the nearest offset oil and gas well (API# 34-093-6-0205-00-00), located 1,000 feet northwest of the Kelly #1 water well, encountered the Berea Sandstone from 60 feet to 140 feet and it was dry.

For the purposes of this Scope of Work it is assumed that the John Kelly #1 Water Well was drilled to a depth of approximately 100 feet and is equipped with approximately 40 feet of 6.88-inch diameter casing and that there is an obstruction at a depth of 20 feet.

1) The Contractor will install an appropriately sized, lined, and liquid tight cellar around the well to capture all fluids generated during the plugging process, as outlined in the **Detailed Specifications**.

2) **The cleanout/drillout activities should be conducted using a freshwater system, as outlined in the Detailed Specifications**.

3) The Contractor will clean out the 6.88-inch diameter casing and wellbore to a depth of 100 feet or a depth approved by the Division. Drilling, milling and/or fishing equipment, as outlined in the **Detailed Specifications**, may be required to reach the anticipated depth. The final clean out/drill out depth and amount of casing installed will be at the discretion of the Division.

4) All cement plugs will be set through a working string of 1.5-inch inside diameter tubing using an approved API cement system blended to the recommended API density, as outlined in the **Detailed Specifications**. The Contractor shall verify the cement slurry weight by a beam balance mud scale. The well must be static prior to setting any cement plug.

5) The Contractor will set a cement plug from 100 feet to within forty-eight (48) inches of surface, wait on cement a minimum of eight (8) hours for it to obtain the required compressive strength and then check the cement level and top off with additional cement, if necessary.

6) No sooner than three (3) business days after setting this cement plug, the Division will inspect the well at the surface to determine if any remedial plugging work will be required at that time. If additional work is not required, the Contractor will cut off the casing a minimum of forty-eight (48) inches below ground level and tack weld a steel plate on the top of the casing that is inscribed with WW (water well).

COPE OF WORK
LORAIN #21F Project
C Mills #1 Orphan Well Site
Lorain County, Columbia Township

WELL DESCRIPTION

This Well Description is for:

C Mills #1, API# 34-093-6-0158-00-00

Background: The C Mills #1 is located approximately 500 feet south of Forsythia Drive and 1,100 west of Station Road, on a 6.03-acre residential parcel (1200088000043) owned by Robert G Hennis. The property address is 27271 Forsythia Drive, Columbia Station 44028. The C Mills #1 is situated in the partially wooded back yard, approximately 280 feet south of the Hennis residence and 500 feet south of Forsythia Drive. There is a small manmade lake located approximately 25 feet west of the well location. The nearest neighboring occupied dwellings are located approximately 300 feet west and 400 feet east of this well. Access to the well is south directly off Forsythia Drive. Matting will be needed to protect and minimize damage to the paved driveway and grass yard area that will be affected by plugging equipment/activities. The Cottonwood tree growing around the well will have to be taken out and the stump fully removed to access the well. There are no overhead utilities that will restrict access to the property or plugging equipment setup.

The C Mills #1 was brought to the attention of the Division in September 2020 and subsequent Division inspections found the top of a 10-inch diameter steel casing embedded in the base of a large Cottonwood tree. There is a short section of 1-inch diameter steel tubing protruding up through the cement that is visible in the casing. A Teslong borescope was used to view the inside of the tubing/casing. The tubing was found to be approximately 1 foot long. The interior dimeter of the casing was too large for the borescope light to be effective. A weighted line was run down through the 1-inch diameter tubing to a depth of approximately 1,340 feet where an obstruction was encountered. There was petroleum odor present in the well area. There is no production, transmission or storage equipment known to be associated with this well. Columbia Township is not shown to be a Hydrogen Sulfide (H2S) Township as per Division records.

Division records show that the C Mills #1 was drilled in 1930 by Dillon and McFredricks to a depth of 2,674 feet in the Clinton sandstone. Records show natural production after drilling was 570,000 cubic feet of gas with an initial rock pressure of 940 pounds per square inch. The formation information for this well is as follows:

FORMATION	TOP (FT)	BOTTOM (FT)	REMARKS
BEREA	60	100	
BIG LIME	1,255	2,560	WATER AT 1,465’ AND 2,505’
SALT	1,780	1,840	
CLINTON	2,664	2,670	
TOTAL DEPTH		2,674	

There are no casing, completion or plugging records for the C Mills in the Division database.

The nearest similar era well to the C Mills #1, with casing data, is API# 34-093-6-0164-00-00, located 600 feet south of the C Mills #1. This well was drilled in 1931 by Ohio Fuel Gas to a depth of 2,690 feet in the Clinton sandstone. Casing records for API# 34-093-6-0164-00-00 are as follows:

- 10-inch diameter casing set to 39 feet.

- 8-inch diameter casing set to 234 feet,
- 6-inch diameter casing set to 1,575 feet,
- 5-inch diameter casing set to 2,573 feet.

There is no plugging data for API# 34-093-6-0164-00-00 in the Division database.

Casing and plugging data is available for another similar era well, API# 34-093-2-0847-00-00, located 3,740 feet northeast of the C Mills #1. This well was drilled in 1931 by Ohio Fuel Gas to a depth of 2,673 in the Clinton sandstone. Natural gas was encountered in the Ohio Shale (584 feet to 670 feet) as well as the Clinton 2,649 feet to 2,663 feet). Casing records for API# 34-093-2-0847-00-00 are as follows:

- 10-inch diameter casing set to 60 feet (left in well).
- 8-inch diameter casing set to 218 feet (all out when plugged).
- 6.63-inch diameter casing set to 1,583 feet (1,540 feet out when plugged).
- 5.18-inch diameter casing set to 2,588 feet (1,873 feet out when plugged)
- 3-inch diameter tubing set to 2,673 feet (2,542 out when plugged).

The plugging records for API# 34-093-2-0847-00-00 are as follows:

- Clay from 2,673 feet to 2,173 feet.
- Cement plug at 1,540 feet.
- Clay from 1,540 feet to 1,340 feet.,
- Stone Bridge from 615 feet to 600 feet.
- Clay from 600 feet to 218 feet.
- Cement plug at 218 feet.
- Clay from 218 feet to surface.

For the purposes of this Scope of Work it is assumed that the C Mills #1 was drilled to a depth of 2,674 feet in the Clinton sandstone, that it was previously plugged, that it is equipped with approximately 25 feet of 10-inch diameter drive pipe, that the cement visible in the drive pipe at the surface is approximately 1 foot thick and that there is an obstruction in the well at an approximate depth of 1,340 feet. It is also assumed that all the surface casing has been removed from the well, that all or most of the intermediate casing, production casing and production tubing, if used, were parted below this depth and removed from the well during the abandonment process, that a clay and/or cement plug was set across the Clinton sandstone and also across the 5-inch diameter casing rip point from approximately 1,500 feet to 1,350 feet and that no other plugs were set in this well.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, temporary storage, removal and disposal of all fluid and materials generated from the plugging process, regrading and revegetating all areas disturbed by the plugging process, and the installation of a vault and vent system.

Designated Route: The Contractor shall utilize Forsythia Drive and other authorized routes to access the site during all stages of the plugging project.

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
LORAIN #21F Project
C Mills #1 Orphan Well Site
Lorain County, Columbia Township

PLUGGING PLAN

This Plugging Plan is for:

C Mills #1, API# 34-093-6-0158-00-00

For the purposes of this Scope of Work it is assumed that the C Mills #1 was drilled to a depth of 2,674 feet in the Clinton sandstone, that it was previously plugged, that it is visibly equipped with 10-inch diameter drive pipe that is set to an approximate depth of 25 feet, that the cement visible in the drive pipe at the surface is approximately 1 foot thick, that the well is venting natural gas through the 1-inch diameter tubing set in this cement, and that the well is open to a depth of at least 1,340 feet. It is also assumed that during the initial abandonment process all the surface casing was removed from the well, that all or most of the intermediate casing, production casing and production tubing, if used, were removed from the well and that clay and/or cement plugs may have been set across the Clinton sandstone and any casing/tubing sever points. A petroleum odor was also detected in the well area.

Offset well records also show that natural gas was encountered in the Ohio Shale at depths between 580 feet and 650 feet. The Contractor should exercise caution during the cleanout and plugging of this well.

The Geological Survey of Ohio Well Card shows the initial rock pressure for the C Mills #1 as 940 pounds per square inch. The Contractor will supply and maintain a dedicated kill fluid consisting of 175 barrels of 9 pounds per gallon (ppg) weighted brine with the sole purpose of killing the well to regain well control when required. This brine weight should generate a hydrostatic bottom hole pressure of 1,251 pounds per square inch. A mud pump of sufficient size and capacity will be required onsite and always connected to the divertor lines during the plugging operations as means to pump the well kill fluid as required.

1) The Contractor will remove the tree and stump and excavate around the well to expose and visually examine the existing 10-inch diameter casing to evaluate its condition immediately below grade. The Contractor will remove the visibly damaged casing and install enough new casing, of similar diameter, to bring the top to a suitable working height.

2) The Contractor will install an appropriately sized, lined, and liquid tight cellar around the well to capture all fluids generated during the plugging process as outlined in the **Detailed Specifications**.

3) The Contractor will install an appropriate wellhead and utilize an approved method of well control on the 10-inch diameter casing to ensure there is complete custody of gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process**.

4) The Contractor will clean out the 10-inch diameter casing and wellbore to a depth of 230 feet. Drilling and/or milling equipment, as outlined in the **Detailed Specifications**, may also be required to reach the required depth. **A freshwater system should be used during the cleanout through the setting of surface casing**

5) **For any cleanout or drill-out operation, the Division may require the Contractor to "Mud Up" at the start of the operation. Mud-up operations must be performed under the supervision of a certified Mud Engineer, who shall mix the drilling mud and conduct all required mud and fluid checks.**

6) The Contractor will install 220 feet of 7-inch diameter casing with properly spaced centralizers and a float shoe installed on the bottom joint. Once the well is static, the Contractor will condition the annulus with a ten (10) barrel bentonite spacer and circulate the annulus until all free crude oil/debris is removed from the wellbore. The Contractor shall cement the casing's annulus to surface using an API approved cement system blended with 2% CaCl and mixed at the recommended API density. The Contractor shall verify cement slurry weight by a beam balance mud scale. The Contractor will wait on cement a minimum of eight (8) hours for the cement to obtain the required compressive strength prior to commencing further plugging activities.

7) The Contractor will install an appropriate wellhead and utilize an approved method of well control on the 7-inch diameter casing to insure there is complete custody of gas and/or fluids generated from the well. **Due to the reactive nature of the Ohio shale to freshwater, a saltwater system should be used during clean out/drill out after the surface casing has been set, as outlined in the Detailed Specifications**.

8) The Contractor will drill out the float shoe and any residual cement and continue to clean/drill out the well to its anticipated total depth of 2,674 feet or a depth approved by the Division. Milling and/or fishing equipment, as outlined in the **Detailed Specifications**, may also be required to reach the required depth.

9) Once the approved depth is reached and the well is static, the Contractor will load the hole with saltwater and run a logging suite consisting of Gamma Ray/CCL/Bond/Caliper logs to verify the total depth of the well, the bond quality behind the 7-inch diameter casing, lithology, and hole diameter for cementing purposes. The log data will be utilized for cementing calculations.

10) **The Contractor shall supply/maintain a minimum of 175 barrels of saltwater on location for use as circulation fluid. This quantity is based on two (2) hole volumes of fluid as outlined in the Detailed Specifications**.

11) All staged cement plugs will be set through a working string of a minimum 1.5-inch inside diameter tubing utilizing a Division approved API cement system blended with 2 % CaCl to the recommended API density. The Contractor shall verify the cement slurry weight by a beam balance mud scale. The well shall be in a static condition prior to beginning any cementing activities.

12) The Contractor shall circulate two (2) borehole volumes of a compatible fluid, to further condition the borehole, prior to setting the bottom hole plug. This fluid shall be of sufficient weight to suppress a gas kick.

13) 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.** At the discretion of the Division, a minimum of 10 barrels of AquaGel**, cement scavenger and/or an equal approved by the Division shall be pumped immediately ahead of any cement plugs for well conditioning purposes. In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug. **(a mix ratio of one (1) fifty (50) pound bag of gel per five (5) barrels of the approved fluids).

14) The Contractor will set a 450-foot bottom plug from 2,670 feet to 2,220 feet to cover/isolate the Clinton sandstone, wait on cement a minimum of eight (8) hours for the cement to obtain the required compressive strength and then run their tools into the hole to verify the depth to the top of the plug. If the plug level 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 450-foot plug from 1,350 feet to 900 feet to cover/isolate the top of the Big Lime section, wait on cement a minimum of eight (8) hours for it to obtain the required compressive strength and then run their tools into the hole to verify the top the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

16) The Contractor will set a 450-foot plug from 900 feet to 450 feet to cover/isolate the Ohio shale section, wait on cement a minimum of eight (8) hours for it to obtain the required compressive strength and then run their tools into the hole to verify the top the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

17) The Contractor will set a cement plug from 450 feet to within thirty (30) inches of surface, wait on cement a minimum of eight (8) hours for the cement to obtain the required compressive strength and then check the cement level and top off with additional cement, if necessary.

18) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at the surface to determine if any remedial plugging work will be required at that time. If additional work is not required, the Contractor will cut off the casing a minimum of thirty (30) inches below ground level and set the plugged well identification as outlined by the General Specifications and the Ohio Administrative Code 1501-9-11-10.

SCOPE OF WORK
LORAIN #21F PROJECT
Stephen Bonds # 1 Orphan Well Site
Lorain County, Columbia Township

WELL DESCRIPTION

This Well Description is for:

The Stephen Bonds # 1 orphan well, API # 34-093-6-0647-00-00, Lorain County, Columbia Township

Background: The Stephen Bonds # 1 orphan well is located approximately two (2)-miles northwest of the City of Columbia Station. The orphan well is situated approximately 120-feet west of Jaquay Road, on a residential parcel (12-00-061-00-043) encompassing 1.87 acres owned by Stephen Bonds. The address is 9944 Jaquay Road, Columbia Station, Ohio, 44028.

The Division received a Complaint (#5221) from Mr. Stephen Bonds (Landowner) regarding an abandoned idle well which was venting gas on his property. Subsequent inspections of the Stephen Bonds #1 orphan well found it located in a four (4)-foot by four (4)-foot stone and concrete vault. The vault was excavated and revealed an open six (6)-inch casing (wellhead reportedly may have been removed during the excavation) approximately four (4)-feet below ground level and actively venting natural gas. Natural gas was visually confirmed perculating through the water which had accumulated in the excavation. The leaking casing is located approximately 33-feet north of the residence (built in 1902) on the property and four (4)-feet south of the northern property boundry. The Landowners representive was advised to vent the casing at least twelve feet high to dissipate the gas odor. There was no tubing or rods visible at the surface in this well. There wasn't any transmission or storage equipment associated with this well. The Division's and other historical databases do not have any records regarding the drilling or plugging of this orphan well.

The region is predominately populated by "Clinton sand" wells with total depths of approximately 2,750-feet. There are a few "Ohio shale" wells located in near proximity to the Stephen Bonds # 1 orphan well. The shale wells were mainly used as a domestic supply and were plugbacks from deeper "Clinton" wells that were deemed noncommercial once total depth was reached.

The offsetting "Ohio shale" wells were found to contain gas reserves at various intervals ranging from 250-feet to 800-feet deep. The "Ohio shale" wells were characterized by low pressures and low volume of gas flows.

The closest similar vintage well with drilling and casing records is the Osborne # 1 well, API #34-093-2-0095-00-00-00, located 0.75 miles to the south of the Stephen Bonds # 1 well. This well was drilled in 1937 to the "Clinton sand" and was deemed a "dry hole" upon reaching the total depth. The Division's records show that the Operator turned over the well to the Landowner for "personal" use after plugging back.

Formation	Top (ft.)	Bottom (ft.)	Remarks
Berea	29	149	
Shale	149	1,228	Shale gas at 220', 380', 550'
Lime	1,228	2,560	W. @ 2,400,
Clinton	2,652	2,674	Dry
Total Depth	2,723		

Casing data for the Osborne # 1 , API # 34-093-2-0095-00-00 is as follows:

- 10-inch casing set to 31-feet, 8-feet recovered
- 8-inch casing set to 248-feet, none recovered left in to protect the shale gas
- 7-inch casing set to 1,644-feet; 1,623-feet recovered
- 5-inch casing set to 2,579-feet, 2,558-feet recovered

For the purposes of this Scope of Work it is assumed that the Stephen Bonds # 1 was drilled to a total depth of 800-feet in the "Ohio shale", that it was completed open hole, has approximately 200-feet of six (6)-inch casing, no other tubulars are visibly present and is actively venting gas.

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

Designated Route: The Contractor shall utilize Jaquay Road to access the site during all stages of the plugging project. It is the Contractor's responsibility to contact all Township, County, Municipal and State officials having authority over the roads that are intended to be utilized for this project. The Contractor will provide written documentation to the Division, of all road use notifications / approvals prior to mobilization.

SCOPE OF WORK
LORAIN #21F PROJECT
Stephen Bonds # 1 Orphan Well Site
Lorain County, Columbia Township

PLUGGING PLAN

This Plugging Plan is for:

The Stephen Bonds # 1 Orphan well, API #34-093-6-0647-00-00, Lorain County, Columbia Township

For the purposes of this Scope of Work it is assumed that the Stephen Bonds # 1 well was drilled to a total depth of 800-feet in the "Ohio shale", that it was completed open hole, has approximately 200-feet of six (6)-inch casing, that no other tubulars are visibly present and is actively venting natural gas. Further detailing of the Plugging Plan requirements can be found in the Detailed Specifications.

1) The Contractor will provide a twenty-four-hour notice to the Landowner and local Safety Forces prior to relieving any well pressure. The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations.

2) The Contractor will visually examine the existing six (6)-inch 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 will then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process. If the Contractor can demonstrate and with the approval of the Division, that the existing vault can be configured to be liquid tight that would be deemed as meeting the cellar requirement. The Contractor will maintain custody of any and all fluids generated during the plugging process.

4) The Contractor will install an appropriate wellhead and employ an approved method of well control on the six (6)-inch casing to insure there is complete control of gas and / or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process** and maintain 100 barrels of well control fluid and sufficient pumping equipment on location for well control purposes. The Contractor will be cognizant of the "red rock" intervals and employ all due precautions associated with said beds in the area.

5) The Contractor will run their tools into the six (6)-inch casing to verify the wellbore is free of any obstructions and open to the anticipated total depth of 800-feet.

6) If obstructions are found resulting in a lesser total depth the Contractor will clean out / drill out the hole to its total depth (TD) of 800-feet or a depth approved by the Division.

7) Once total depth has been reached, the Contractor will load the hole with freshwater and run a suite of logs comprised of Gamma Ray / CCL / VDL Bond & Caliper log to verify lithology, casing depth, cement quality and wellbore diameter. All cement plug depths and thicknesses will be based on log data.

8) If access and well conditions allow and with Divisional approval, this well may be plugged using the Bail and Grout Method with a nine-sack grout mixture in lieu of pumping a cement slurry. The Contractor will mix the grout at a consistency that will allow the grout to flow to the bottom of the well without bridging off in the wellbore. **Twenty-four hours prior to either grouting the well or pumping a cement slurry the Contractor will allow the wellbore to vent to the atmosphere, if approved by the Division. Immediately prior to either grouting or cementing the well the Contractor will make a bailer run to ensure the wellbore is free of all fluids.** If the well cannot be bailed dry, the Contractor will utilize a "siphon string", that is plumbed to an open top steel tank to ensure the well fluids are being displaced by the placement of the grout mixture.

9) If the Bail and Grout method disallowed or access is prohibitive, the Contractor will set the plugs through a work string with a minimum 1.5-inch inside diameter using an approved API cement system at the required API density. **The well will be in a static condition prior to initiating any plug placement. In addition, the Contractor will establish circulation and maintain the circulation during the plugging operation.**

10) The Contractor will set a 400-foot grout / cement plug from approximately 800-feet to 400-feet and wait on the grout / cement plug to set for a minimum of eight (8)-hours to obtain the required compressive strength. After the wait on cement period has expired, the Contractor will run their tools into the well to verify the depth to the top of the bottom 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 then set a 400-foot plug from 400-feet to within 30-inches of ground level and shut in the well with 100 psi and then wait on the plug to set for a minimum of eight (8)-hours to allow the grout / cement to reach the required compressive strength. The Contractor will then check the plug level and top off, if necessary.

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 the casing 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
LORAIN #21F PROJECT
Multiple Orphan Well Sites
Lorain County, Columbia Township

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 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.

As part of the consideration to be satisfactorily completed, work shall be per the "Sequence of Work."

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

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."**

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 3inches, **shall not take place between April 1st and September 30th.**

All suitable debris cleared shall be chipped by mechanical methods and the mulch shall be removed offsite as designated by the Division's Representative.

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

All stumps shall be cut off flush with the existing ground surface prior to placement of material.

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."**

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".**

SILT FENCE

A. General: This item covers construction of 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 of. 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-inches 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. 2 STONE

A. Description: This work covers the quality, material placement and requirements as a base course stone for 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 satisfactorily 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 to its 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.**

All No. 2 stone used for the construction of a temporary access drives shall be removed at the completion of the project to allow for the completion of the **"Site Restoration"** line item. **The No. 2 stone 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: 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. 2 Stone shall be used if necessary.

E. Payment: Payment of this work as specified above shall be made based on the unit price per ton for **"No. 2 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."**

ROAD MATS (COMPOSITE)

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 subgrade, existing utilities, driveways, roadway, curbs, sidewalks, and lawn space that will be traversed within the construction work limits. This item shall also include all work required to move between wells included in this contract, that require road mats as shown on the Drawing Plan Set.

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 for the duration required to plug the well at each site. Only one measurement and payment shall be made for "Road Mats" upon completion of the well site.

For circumstances in which the Division extends the projected completion date (i.e. well obstructions, required milling operations, etc.), the Contractor shall also provide a cost for "Road Mats" as a dollar amount per mat per day under "Contingency Specifications" within the original Offer. Additional payment will be evaluated and determined by the Division.

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

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.

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.

For circumstances in which the Division extends the projected completion date (i.e. well obstructions, required milling operations, etc.), the Contractor shall also provide a cost for "Timber Mats" as a dollar amount per mat per day under "Contingency Specifications" within the original Offer. Additional payment will be evaluated and determined by the Division.

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

SITE SAFETY

A. Description: The work will include the installation and implementation of safety procedures/requirements for each well site 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 workforce.

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 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. Temporary Construction Fence & Posts: The temporary construction fencing shall be chain link fence with a minimum overall height of six (6) feet. Fence shall be constructed in panels. Each panel shall have a horizontal and vertical support. Each panel shall be held upright by a stand at the base of each side of the panel. All panels shall be locked together with saddle clamps, nuts, and bolts. A minimum of two entry/exit points will be required. The gate(s) shall be maintained in locked position when the site is unattended.

   For estimating purposes, fencing shall be placed around the entire work area. The Contractor shall work in conjunction with the Division for placement/layout of the temporary fence. All fence shall be removed at the completion of the project.

3. Identifications, Markings & Plugs: All conduits capable of allowing methane migration (i.e. ventilation pipes, storm/water drains) into the lower level of an inhabited dwelling shall be identified and capped by the Contractor.

   Any potential ignition sources within a fifty (50) foot radius shall be identified and marked by the Contractor.

   All identifications, marking and plugs shall be inspected and approved by the Division prior to commencing with any well plugging activities.

4. Air Movers (Industrial Fans): The Contractor will also be required to have onsite

industrial fans or air movers **at all times** in the event natural gas is detected and found to be settling at ground level and not properly dissipating from the site (unless otherwise approved in writing from the Division).

5. Air Monitoring: The Contractor will set up a wireless monitoring system (up to 4 channels) to monitor Methane (CH4), Lower Explosive Limit (LEL), Oxygen Saturation (02%), Carbon Monoxide (CO), and Hydrogen Sulfide (H2S) around the plugging operation and the interior of the building nearest the well. The Contractor will be required to provide **two (2)** wireless monitor systems. The first monitor shall be placed within five (5) feet from the well outside of the building and the second monitor shall be placed in a location designated by the Division. The Contractor shall work with the Division to ensure the proper placement of these monitors. During plugging operation, the Contractor will provide these monitors on a 24-hour basis to ensure building occupants, onsite workers, and over all public safety. Air monitoring will be conducted in this manner daily until the plugs have been set and it is determined that there is no further gas migration/release detected.

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. **Absorbent booms shall only be required at the Mills #1 well site.**

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. **Protective barrier shall only be required at the Jason Friscone #1 & Stephen Bonds #1 well sites.**

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: Other utility lines also cross the work area which will also need to be worked around to ensure no damage is caused to the lines.

   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 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. A copy of the ERP along with the SDS sheets will be stored at the project entrance in a container labeled "ERP/SDS". 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**
Jason Friscone #1, Stephen Bonds #1	Notification; Temporary Construction Fence & Posts; Identifications, Markings & Plugs; Air Movers; Air Monitoring; Protective Barriers; Temporary Shut-in; Power/Utility Lines Safety; Emergency Response Plan
Mills #1	Notification; Temporary Construction Fence & Posts; Identifications, Markings & Plugs; Air Movers; Air Monitoring; Absorbent Booms; Temporary Shut-in; Power/Utility Lines Safety; Emergency Response Plan
Jason Friscone #2, J&E Greenwalk #1, John Kelly #1	Notification; Temporary Construction Fence & Posts; Identifications, Markings & Plugs; Air Movers; Air Monitoring; Absorbent Booms; Protective Barriers; Temporary Shut-in; Power/Utility Lines Safety; Emergency Response Plan

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."**

ABSORBENT BOOMS

A. Description: This work shall consist of furnishing all labor, material, and equipment necessary for the use of absorbent booms at a well site. Any use of absorbent booms that are required due to negligence of the Contractor shall not be paid as part of this line item and will be the Contractor's responsibility to provide.

B. Material: The absorbent boom shall be specifically manufactured for the purpose of absorbing oilfield waste and contaminants. Booms shall be a minimum of five (5) inches in diameter.

C. Installation: The contractor shall apply the absorbent booms in areas where oilfield waste and contaminants are known to have reached the ground or surface waters or visible impacts of oilfield contaminants can be seen on the ground or in surface waters.

D. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.

E. Payment: Payment for this work shall be made at the unit price per linear foot for **"Absorbent Booms."**

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 extend at least one foot horizontally beyond the primary containment and provide at least one foot in depth capacity or provide a minimum volume equal to 25% 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 sections of secondary containment to 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."**

WELL HEAD CONTROL

A. Description: This work consists of all labor, equipment, and material necessary to excavate and evaluate existing casing(s) and 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. Excavation of the existing casing(s) shall be the responsibility of the Contractor. A four (4) foot minimum excavation/evaluation of the existing casing(s) shall be completed. Casing(s) requiring excavation depths exceeding four (4) feet shall be discussed with the Division prior to starting work. All excavations shall be in accordance with OSHA Construction Standards for excavation and trenching under 29CFR 1926 Subpart P.

The casing shall be free from any damage or defects. If required, the casing shall be cut and cleaned of any dirt, oil, 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 well kill fluid at the well for possible well control emergencies, which shall be paid under the line item **"Well Kill Fluid."** The injection point for the kill line will be a minimum of twenty (20) feet from the well.

For the duration of this project the following wellhead control will be utilized. The wellhead control device/flow diverter assembly will have two 4.5-inch diameter discharge ports. The diverter lines running from both 4.5-inch diameter discharge ports on the wellhead assembly to the above ground steel tank will consist of two (2) – 4.5-inch diameter steel lines. Both diverter lines will have two inline valves (rated minimum 1,000 psi) for control of flow. Lines will discharge into the tank at a downward angle or at an angle that will reduce fluids from splashing or spraying out of the tank if a sustained blow is encountered while drilling out the plugged wells. These lines will be a fixed connection (i.e. hammer union, flanges) to the steel pit with equipment that is capable of withstanding the possible pressures encountered. One of the 4.5-inch diverter lines will be equipped with a 2-inch diameter port and valve that will serve as the kill line access. This port and valve will be installed between the wellhead and the 4.5-inch inline valve.

No well operations shall begin until an 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 KILL FLUID

A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use weighted brine as a “kill” fluid for the drilling and plugging process of the well.

B. Requirements: The Contractor shall provide a weighted brine of sufficient density to kill the well and regain well control in the event of a sustained and/or uncontrolled wellbore kick (a rapid influx of formation fluids and/or gases into the wellbore).

Sufficient density shall be defined as dense enough to exert hydrostatic pressure greater than

the anticipated formation pressure but less than the anticipated formation fracture pressure.

The Division will require a minimum of (160-300) (see plugging plan) **barrels of (8.5-9.0)** (see plugging plan) **pound-per-gallon weighted brine kill fluid be maintained at each well site throughout the plugging project for the sole purpose of killing the well to regain well control when required. Kill fluid shall be maintained onsite in a single reservoir.**

A mud pump of sufficient size/capacity shall be required to be onsite at all times during plugging operations as means to pump well kill fluid when required.

C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of barrels (bbls) of weighted brine used as a kill fluid for the orphan well as approved 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 Kill Fluid."**

DRIVE CASING (13.38")

A. Description: This item covers all labor, equipment, and material required to drive/set the conductor in order to begin the plugging procedure.

B. Materials: The conductor shall be a 13.38-inch diameter casing conforming to a 54.5 pound per foot minimum STC (Short Thread and Coupling) or an approved equal material specifications. The Contractor shall supply the proper ranges and pup joints to complete the lengths required during installation.

Pipe shall be new pipe or used pipe that has been tested and drifted. The Contractor shall supply documentation for pipe that has been tested and drifted. The Division shall approve used pipe based on documentation and inspection of the pipe. The bottom joint shall be equipped with a drive shoe.

C. Installation and Execution: The Contractor shall propose the method for driving casing. Prior to execution, this method and a proposed depth shall be approved by the Division. Quantities listed are for estimating purposes only. All conductors shall be driven in place to refusal.

D. Measurement: Measurement for payment for the conductor work shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of conductor set.

E. Payment: Payment for this item shall be made at the unit price per linear foot of **"Drive Casing (13.38")"**.

SURFACE CASING (8.63")

A. Description: This item covers all labor, equipment, and material required to set the surface casing for the plugging of the orphan well.

B. Materials: The surface casing shall be an 8.63-inch diameter casing conforming to a 24 pound per foot STC (Short Thread and Coupling) or an approved equal material specifications. The Contractor shall supply the proper ranges and pup joints to complete the lengths required during installation.

Pipe shall be new pipe or used pipe that has been tested and drifted. The Contractor shall supply documentation for pipe that has been tested and drifted. The Division shall approve used pipe based on documentation and inspection of the pipe.

The casing will be equipped with a float shoe on the bottom joint. This shall be incidental to this line item.

C. Installation and Execution: The surface casing shall set to a depth as detailed in the **Plugging Plan** and **Quantity Sheet**. This quantity is for estimating purposes only. Prior to setting any surface casing, the Contractor shall review the plan with the Division. No surface casing shall be set without Division approval.

Drilling shall be completed with an appropriately sized drilling bit. All surface casing shall be drilled with freshwater and set in place. The Division shall not be responsible for additional materials if an alternative method or drill bit is proposed for use.

Centralizers shall be used when setting surface casing. At minimum, both the bottom and top joint of the surface casing shall be equipped with centralizers. The Division reserves the right to adjust centralizer locations and quantities as needed.

In the event that there is not a competent bottom to pump cement, the Contractor shall be required to provide and install a cement basket at the discretion of the Division. This shall be considered incidental to this line item.

D. Measurement: Measurement for payment for the surface casing work shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of surface casing set.

E. Payment: Payment for this item shall be made at the unit price per linear foot of **"Surface Casing (8.63")"**.

SURFACE CASING (7.0")

F. Description: This item covers all labor, equipment, and material required to set the surface casing for the plugging of the orphan well.

G. Materials: The surface casing shall be an 7.0-inch diameter casing conforming to a 20

pound per foot STC (Short Thread and Coupling) or an approved equal material specifications. The Contractor shall supply the proper ranges and pup joints to complete the lengths required during installation.

Pipe shall be new pipe or used pipe that has been tested and drifted. The Contractor shall supply documentation for pipe that has been tested and drifted. The Division shall approve used pipe based on documentation and inspection of the pipe.

The casing will be equipped with a float shoe on the bottom joint. This shall be incidental to this line item.

H. Installation and Execution: The surface casing shall set to a depth as detailed in the **Plugging Plan** and **Quantity Sheet**. This quantity is for estimating purposes only. Prior to setting any surface casing, the Contractor shall review the plan with the Division. No surface casing shall be set without Division approval.

Drilling shall be completed with an appropriately sized drilling bit. All surface casing shall be drilled with freshwater and set in place. The Division shall not be responsible for additional materials if an alternative method or drill bit is proposed for use.

Centralizers shall be used when setting surface casing. At minimum, both the bottom and top joint of the surface casing shall be equipped with centralizers. The Division reserves the right to adjust centralizer locations and quantities as needed.

In the event that there is not a competent bottom to pump cement, the Contractor shall be required to provide and install a cement basket at the discretion of the Division. This shall be considered incidental to this line item.

I. Measurement: Measurement for payment for the surface casing work shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of surface casing set.

J. Payment: Payment for this item shall be made at the unit price per linear foot of **"Surface Casing (7.0")"**.

WELL PREPARATION & PLUGGING

A. Description: This work consists of all labor, equipment, and material necessary to prepare the well for plugging and completing 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 (See General Specifications, Part 13 for minimum requirements), 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 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 H_2S 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**. A minimum of four (4) sacks of bentonite gel per ten (10) barrels of freshwater shall be required if requested. 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.** LCM shall be available at the site during the completion of this line item **"Well Preparation & Plugging."** The Contractor shall provide up to **five (5) sacks of LCM per well for use** (e.g. cotton seed hulls, bentonite gel/polymer, cellophane flake) incidental to this line item). Additional need for use of LCM

shall be per the **"Lost Circulation Material"** specification included in the Contingency Specification.

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 be required to tag all cement tops unless otherwise approved by the Division. Tagging with a sinker bar and depth meter is recommended. Confirmation of cement tops shall be considered incidental to this line item.

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, and equipment necessary for the well preparation and plugging, shall be made at the lump sum price for **"Well Preparation & Plugging."**

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.

Logs shall ONLY be ran at the discretion of the Division based on the conditions encountered regardless of the direction given in the Plugging Plan.

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.** Prior to use, the Contractor shall propose the method of logging and 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. **A copy of the log shall be provided with the invoice as backup documentation.**

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."**

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. **A copy of the log shall be provided with the invoice as backup documentation.**

D. Payment: Payment for the above-described work, which includes all labor, materials, and equipment necessary for the perforating the casing or tubing made at the unit price per each for **"Perforating."**

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 3.0-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".**

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. A mud anchor and/or perforations on the bottom joint of the tubing is recommended. Any issues caused due to running tubing open ended shall be the Contractor's responsibility.

For this project the Contractor shall supply up to 2,900 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."**

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:

a. API Class "A"
b. API Class "L"
c. ASTM C150 Type 1
d. 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.

Additives (e.g. cotton seed hulls, cellophane flake, etc.) used for the purposes of lost circulation zones shall be considered incidental to this line item.

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.

The Cement shall be placed to the depths and intervals described in **Plugging Plan**. **Once a cement plug is set, the Contractor shall be prepared to hold pressure on the plug for five minutes. The Division shall inform the Contractor if pressure is to be held and the amount of pressure to use based on the depth of the plug. To be based on the 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 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 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."**

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.

The area within the fields shall only use Temporary Ground Cover materials.

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.

   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.

GENERAL SEED MIX	lbs/acre
Orchardgrass (Dactylis glomerata)	15.0
98/85 Kentucky Bluegrass	12.0
Timothy (Phleum pratense)	12.0
Birdsfoot Trefoil (Lotus sp.)	9.0
Red Clover (Trifolium pratense)	8.0
White Clover (Trifolium repens)	7.0
Annual Ryegrass (Lolium multiflorum)	8.5
Perennial Ryegrass (Lolium perenne)	3.5
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.

5. Temporary Ground Cover: All crop field areas shall be seeded with Cereal Rye at a rate of 150 lbs/acre. The seed shall be broadcast over the entire disturbed area as a temporary ground cover until the next growing season. Areas of Temporary Ground Cover shall not include lime, fertilizer, or mulching requirements.

   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.

All final prepared surface(s) 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. Mulch shall not be applied in areas requiring Temporary Ground Cover.

   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."**

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 1.3 tons 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."**

FENCE REPAIR

A. Description: This work consists of all labor, equipment, and material necessary to remove, temporarily store and reconstruct the existing fencing to its original condition and to the size and dimensions shown on the Drawing Plan Set. The Division shall determine exact locations in the field.

B. Materials:

1. Chain Link Fence - The new posts, rails, ties, and other hardware shall match the existing chain link fence construction. The existing mesh shall be reused. The posts, rails, ties, and other hardware shall be treated for continuous outdoor use. All hardware shall be of a minimum size and length to provide a secure connection as approved by the Division.

C. Payment: Cost for this item, including posts, rails, ties, hardware and stretching the existing mesh shall be at the contract unit price per linear foot **"Fence Repair"**.

CONTAMINATED MATERIAL DISPOSAL

A. Description: This item shall consist of removing contaminated soil and cuttings from the site for off-site disposal. Soil 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/Drill Fluids: Contaminated soils, cuttings and drill fluids are defined as soils, cuttings and materials in which oil, gas, condensate, brine, plugging products, or oil field waste substances have been released in or on the land and/or materials generated by the Contractor while working on the well.

Contaminated Soils: The Contractor will excavate and properly dispose of all soils from the location that are visibly impacted with oilfield contaminants. Areas to be excavated shall be at the discretion of the Division and/or as shown on the Drawing Plan Set.

Contaminated soils shall be loaded and hauled away as they are excavated.

Cuttings/Drill Fluids: Cuttings and drill fluids generated as part of the plugging process shall be temporarily stored onsite. The Division reserves the right to require removal of these materials at any time. The Contractor shall be aware at all times of capacity limitations. Should removal of materials be required, the Contractor shall be responsible for properly cleaning onsite tanks. Any downtime associated with the removal shall be done so at no additional expense to the Division.

The Contractor shall solidify any residual fluid associated with these materials with Portland Cement or by other means approved by the Division, 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/material 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: Material 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.

No additional compensation shall be made for onsite contaminated material storage. If materials 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 of 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 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 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.

Any materials which exceed 50 micro- Roentgen per hour (μR/hr) or deemed by Division staff to be radioactive shall not be considered for "Salvage Material Disposal"; instead this material shall be considered "Radioactive Material Disposal" and be disposed of per ton at a negotiated change order rate agreed upon by the Division or at a rate originally agreed upon on the Offer Sheet.

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. Any downtime associated with proper decommissioning shall be considered incidental to this line item.

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."**

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.

Freshwater: Water that has not been classified as 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 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 invoice paid 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."**

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."**

CROP DAMAGE

A. Description: This work covers the payment to the owner of the crops on the property for the crop damage/lost yields required to complete the project. The owner of the crop may be the property owner or a tenant of the property owner, either way it must be verified with

the landowner who the owner of the crop is prior to making the payment.

B. Execution: The Contractor will verify with the property owner the owner of the crop on each property. The owner of the crop shall receive payment for the damages associated with plugging the wells. If it is verified that the crops are all the same owner, one payment for all the wells on that property may be paid to the owner of those crops.

The Contractor shall directly pay the owner of the crop. The Contractor shall pay the balance of money due to the crop owner prior to the request of final payment from the Division. Receipt of payment (i.e., landowner waiver) from the landowner shall be furnished to the Division. Final payment will not be made to the Contractor without receipt.

C. Measurement: Crop damage shall be measured on a per acre base. Areas for crop damage have been predetermined by the Division according to the construction work limits as shown on the Drawing Plan Set. Any crop damage that occurs outside of these limits shall be paid for by the Contractor.

D. Payment: Payment for this work as specified above shall be made based on the unit price per acre for **"Crop Damage."** For corn crops the damages shall be based on a prime farmland yield of 192.7 bushels per acre of corn crop at a market value of $4.35 per bushel or $840.00 per acre. For soybean crops the damages shall be based on a prime farmland yield of 53.9 bushels per acre of soybean crop at a market value of $53.9 per bushel or $560.00 per acre.

CONTINGENCY SPECIFICATIONS

CONTINGENCY SPECFICATIONS 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.

PROFESSIONAL SERVICES (MUD ENGINEER)

A. Description: This work shall be for professional services provided by a Certified Mud Engineer (also known as a "Drilling Fluids Engineer") and outline the responsibilities, deliverables, performance metrics, and contractual obligations for managing the drilling fluid system used during oil and gas clean/drill out and plugging operations.

B. Execution: The Mud Engineer shall be responsible for the comprehensive management of the drilling fluid system to ensure safe, efficient, and environmentally compliant clean/drill out operations. Services may include, but not be limited to, the following:

- **Drilling Fluid Program Design:** Reviewing geological data and well specifications to design an effective drilling fluid program (fresh water, or brine).
- **Fluid Monitoring and Maintenance:** Regularly testing and monitoring mud properties (viscosity, density, pH, fluid loss, rheology, etc.) to keep them within programmed specifications.
- **Chemical Management:** Determining the correct dosage of additives, supervising chemical mixing, and managing the logistics and inventory of all mud materials and chemicals.
- **Troubleshooting and Optimization:** Diagnosing and resolving fluid-related issues such as lost circulation, wellbore instability, stuck pipe prevention, and contamination events (e.g., cement, salt, CO2, H2S).
- **Solids Control Optimization:** Collaborating with the drilling crew to ensure the optimal performance of solids control equipment (shakers, desanders, centrifuges) to minimize drill solids and waste volumes.
- **HSE Compliance:** Adhering strictly to all health, safety, and environmental (HSE) regulations regarding chemical handling, waste management, and disposal.

C. Deliverables and Reporting: The Mud Engineer shall provide the following deliverables:

- **Daily Mud Reports (DMR):** Detailed daily reports submitted to the Division summarizing fluid properties, chemical usage, treatments, and upcoming requirements.
- **End-of-Well Recap Reports:** A comprehensive report summarizing fluid performance, costs, lessons learned, and recommendations for future wells, submitted within one week after well completion.
- **Cost Tracking:** Regular, accurate actual costs.
- **Safety Documentation:** Ensure Material Safety Data Sheets (MSDS) for all chemicals are current, accessible, and understood by rig personnel.

D. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. Measurement of personnel time shall only be counted when the personnel are on-site working diligently to complete the work required. All equipment and field-testing supplies shall be included in the unit rate of the Mud Engineer.

Travel and Per Diem will be at the discretion of the Division. Per Diem shall be paid on a per person basis. Per Person Per Diem will only be paid when work requires overnight travel.

E. Payment: Payment for this work shall be made at the fixed unit price per each for "**Professional Services (Mud Engineer)**" based upon the actual cost incurred by the Contractor and accepted by the Division.

ADDITIONAL CIRCULATION FLUID

A. Description: This work shall consist of furnishing all labor, equipment, and material necessary to provide additional circulation fluid for the drilling and plugging process for the well.

B. Requirements: The Contractor shall receive prior approval from the Division before bringing additional circulation fluid onsite. The fluid type shall be as listed below and based on the requirements of the original plugging plan.

Freshwater: Freshwater brought to location shall be free of 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).

Brine: A mixture composed of water and dissolved salts at a required density defined in the Plugging plan. Prior to supplying additional brine to location for use as a circulation fluid, the Contractor shall confirm the required density.

Fluid type, characteristics and quantities shall be confirmed with the Division prior to bringing onsite.

C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of barrels (bbls) used to successfully plug and/or drill the orphan as approved by the Division.

D. Payment: Payment for the above work shall be made at the unit price per barrel (bbls) for **"Additional Circulation Fluid (Freshwater)** and/or **Additional Circulation Fluid (Brine)."**

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 determined by the Division in the field.

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 damage or defects. If required, the casing shall be cleaned of any dirt, oil, and debris prior to the installation of the saddle. At the discretion of the Division, further investigation of the well may be required 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"**.

DOWNHOLE VIDEOGRAPHY

A. Description: This work consists of all labor, equipment, and material necessary to video record the well bore to assess the 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.

The Division is not obligated to provide camera services to the Contractor. At no point

shall the Division be responsible for delays associated with availability of camera runs.

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"**.

FISHING

A. Description: This work consists of all labor, equipment, and material necessary to remove and/or clear the well bore as needed 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, and equipment necessary for the obstruction removal, shall be made at the unit price per hour for **"Fishing"**.

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 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"**.

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, and equipment necessary to supply the magnet to extract the obstruction, shall be made at the per unit price per each for **"Magnet"**.

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. **A copy of the log shall be provided with the invoice as backup documentation.**

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"**.

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. **If applicable, a copy of the log shall be provided with the invoice as backup documentation.**

D. Payment: Payment for the above-described work, which includes all labor, materials, and equipment necessary for the severing the casing made at the unit price per each for **"Severing"**.

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."**

GROUT PUMPING

A. Description: This item shall cover all labor, materials, and equipment necessary to pump grout as specified in the **Plugging Plan** for the required distance needed as determined by field conditions.

B. Execution: Grouting equipment required on site to pump grout plugs shall be provided until each individual plug grouting is completed. This shall include but not be limited to pump, and associated equipment.

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 pumping of grout into the well shall be made at the cost proposal per unit price per each for **"Grout Pumping."**

SIPHON PIPE

A. Description: This item covers all labor, equipment, and material required to supply pipe at the site for the purpose of a siphon if the well bore cannot be bailed prior to the placement of cement. The Contractor shall submit a plan to the division for approval prior to the seven-day notice of mobilization to the site.

B. Materials: The Contractor shall supply the pipe in a condition that will allow for siphoning for the purposes of plugging the well.

For this project the Contractor shall supply up to 1,000 feet of pipe.

C. Installation: The Contractor will install and remove the pipe as necessary in order to complete the **Plugging Plan.** The Contractor shall maintain ownership at the conclusion of the project of all pipe 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 pipe delivered to the site.

Pipe shall be measured as one use for the duration of the project.

E. Payment: Payment for this item shall be made at the cost proposal lump sum price for **"Siphon Pipe."**

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."

SALTWATER DRILLING MUD

A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use saltwater-based drilling mud for the drilling and plugging process of the well.

B. Materials: Based on the onsite conditions the Contractor shall propose saltwater-based drilling mud for approval from the Division. The Contractor shall be required to provide a product capable of achieving a 40 viscosity. Once a material is approved, the Division will require a minimum quantity to 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 saltwater-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 "Saltwater Drilling Mud."

ASPHALT PAVEMENT

A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary to construct the asphalt pavement, 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 cut and remove the existing asphalt pavement and unsuitable base material.

This work shall only include pavement that is located within 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. Asphalt. Asphalt shall be Bituminous materials and mixes and shall conform to ODOT Standard Specifications Items 441 Asphalt Concrete, Intermediate Course, (Type 2), 448 and 441 Asphalt Concrete, Surface Course, (Type 1), PG 64-22. Material shall be furnished from an ODOT approved source. Proof of current ODOT approval and aggregate samples may be required. The asphalt shall be rolled until smooth and match the grade and width of the existing pavement to the satisfaction of the Division.

2. Base. Dependent upon the condition of the encountered subgrade, No. 304 Aggregate base, a minimum of three (3) inches thick, shall be installed prior to the placement of asphalt 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.

3. Surface Preparation. The areas between the existing subgrade and proposed asphalt shall be properly prepared as shown on the Drawing Plan Set conforming to ODOT Standard Specifications Items 408 Bituminous Prime Coat (0.25 gallons/square yard) and 407 Tack Coat (0.075 gallons/square yard).

4. Sealer. The joints between the existing and proposed asphalt will be sealed with a crack seal that conforms to ODOT Standard Specifications Item 423 Crack Seal (Type 1) and then the proposed asphalt coated with an asphalt sealer (1.5 gallons/square yard). Asphalt sealer shall be as manufactured by Black Jack, Drive Maxx 700, or an approved equal.

C. Installation: The Division shall be notified at least 24 hours in advance of placing asphalt.

1. Excavation. Upon field evaluation of the existing asphalt pavement, within the limits of construction, by the Division, the Contractor shall excavate a minimum of three (3) inches below the existing grade of the pavement designated by the Division for removal. **All existing asphalt shall be removed by means of saw cutting based on Division inspection. All removal and disposal shall be considered incidental to this line item.**

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. Asphalt. The sub-base shall be inspected and approved by the Division prior to commencing with the asphalt.

   Before placing the asphalt, all surfaces which will be in contact with the asphalt shall be thoroughly cleaned and the space occupied by the asphalt shall be free from all silt, dirt, shavings, rust, and other debris.

   Asphalt shall not be deposited in water.

1. Hot Applied Joint Sealer. The Contractor shall seal the joints between the existing and constructed asphalt and shall ensure the seal has a smooth finish.

D. Construction Methods:

1. The Contractor shall compact the pavement subgrade using a vibrating plate compactor as field conditions require per the Division. Sub-grade compaction shall be incidental to this line item.

2. Aggregate Base (ODOT Item 304 Aggregate Base) shall be placed and compacted using a vibrating plate compactor. The placement of the base material shall be approved by the

Division prior to placement of the asphalt pavement. Compacted No. 304 aggregate shall be incidental to this line item.

3. The Contractor shall apply the Bituminous Prime Coat (ODOT Item 408) at the rate of 0.25 gallons per square yard with a pressure distributor or approved pressure spray method.

   When the prime coat has become tacky but not dry and hard, ODOT Item 441 Asphalt Concrete Intermediate Course, (Type 2), 448, shall be placed. The asphalt shall be compacted per ODOT Item 401.

   The Contractor shall apply the tack coat (ODOT Item 407) at the rate of 0.075 gallons per square yard with a pressure distributor or approved pressure spray method.

   When the tack coat has become tacky but not dry and hard, ODOT Item 441 Asphalt Concrete Surface Course, (Type 1), PG 64-22, shall be placed. The asphalt shall be compacted per ODOT Item 401.

   The completed surface shall match the grades and slopes of the adjacent existing surfacing and be free of offsets, depressions, raised places, and all other irregular surfaces.

   The Contractor shall apply ODOT Item 423, Crack Seal, (Type 1), to the existing saw cuts.

   The Contractor shall apply asphalt sealer at 1.5 gallons per square yard to the top of the asphalt pavement.

4. In the event the progress and scheduling of the work is such that the asphalt pavement replacement would occur in the winter months, during adverse cold weather, and/or during such times the asphalt plants are not in operation, then the final pavement replacement shall be postponed until favorable weather occurs in the spring and the asphalt and concrete plants resume normal operations. No bituminous concrete shall be laid when the temperature is below 40° F except by written permission of the Chief. "Cold Mix" asphalt is specifically prohibited.

2. Pavement shall not be placed when the temperature is such that the pavement placed will freeze before it has had adequate time to set.

3. The Contractor shall be responsible for replacement of pavement that has been placed and which has been damaged by inclement weather conditions without additional compensation.

4. The joints between the replaced and existing sections of pavement shall be sealed with ODOT Item 705.04 Hot Applied Joint Sealer in a way that creates a smooth transition and completely seals the gap to the satisfaction of the Division

E. Measurement: Measurement for payment for the asphalt pavement shall be made by actual field measurements of quantities satisfactorily installed at the site. The asphalt pavement shall be measured per square foot installed.

F. Payment: Payment for all the above-described work shall be made at the unit price per square foot for **"Asphalt Pavement"**.

SCOPE OF WORK
LORAIN #21F PROJECT
Multiple Orphan Well Sites
Lorain County, Columbia Township

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	Any 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(H_2S) Gas (within the Working Area)	Exceeding **20 ppm** (Sustained airborne concentration); For duration > 10 min	**OR** any H_2S 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; OR Refined Oil Products	Any 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 equal to or > than 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 *Code of Federal Regulations (C.F.R.) References:* HS- *Appendix A 40 CFR Part 302.4* EHS- *Appendix A 40 CFR Part 355*

THE FOLLOWING ARE NOT REPORTABLE INCIDENTS: *(OAC 1501:9-8-02 (A)(7))*

1. 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;
2. Properly functioning emission control devices authorized pursuant to Revised Code Section 3704.03;
3. Subsurface detonation of perforation-guns;
4. Seismic shots;
5. Controlled blasting for well site construction

Date Last Edited & Printed: 9/27/2018

SCOPE OF WORK
LORAIN #21F PROJECT
Multiple Orphan Well Sites
Lorain County, Columbia Township

APPENDIX II – WELL PHOTOS

Jason Friscone #1
API #34-093-6-0723-00-00
Lorain County, Columbia Township

APPENDIX II – WELL PHOTOS

Jason Friscone #2
API #34-093-6-0724-00-00
Lorain County, Columbia Township

APPENDIX II – WELL PHOTOS

J&E Greenwald #1
API #34-093-6-0227-00-00
Lorain County, Columbia Township

APPENDIX II – WELL PHOTOS

John Kelly #1
API #34-093-6-0727-00-00
Lorain County, Columbia Township

APPENDIX II – WELL PHOTOS

C Mills #1
API #34-093-6-0158-00-00
Lorain County, Columbia Township

APPENDIX II – WELL PHOTOS

Stephen Bonds #1
API #34-093-6-0647-00-00
Lorain County, Columbia Township

APPENDIX II – OFFSET WELL CARD

Jason Friscone #1
API #34-093-6-0723-00-00
API #34-093-6-0219-00-00
Lorain County, Columbia Township

B-0049-8-44 GEOLOGICAL SURVEY OF OHIO 60219 -8-44

OIL AND GAS WELL LOG

State Ohio
County Lorain Township Columbia Quadrangle Berea
Lot 32 Quarter Tract Section 32 NW NE SW
Measured 1400 Feet From S Line And 970 Feet From W Line Of Lot 32
1400' SL & 970' WL of Lot 32- from Pepper Map
Land Owner Oliver Leitner Well No. 3 Date Started
Operator O. F. G. - Empire G. & F. Well No. Date Completed 9-30-25
Elevation Bar S. L. Total Depth 2771 Plugged Back
Formation Drilled To Clinton Producing Form Clinton Init. Prod. Nat. gas
Shot or Acid Record Prod. A. S. or Acid
Init. Rock Press Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Berea	100	160					
ls.	1345	2630	w. 1555 & 2470; Salt 1860-1938; Mwbg - 2455				
Shell	2640	2651					
Stray	2720	2728					
Clinton	2733	2740	gas 2736				
Clinton	2761	2768	gas 2762				
		2771	T.D.				
			Vol. - 3 MM				

APPENDIX II – OFFSET WELL CARD

Jason Friscone #2
API #34-093-6-0724-00-00
API #34-093-2-0644-00-00
Lorain County, Columbia Township

B-0049-8-9

GEOLOGICAL SURVEY OF OHIO

764 644

20644 | OIL AND GAS WELL LOG

State Ohio

County Lorain Township Columbia Quadrangle Berea

Lot 29 Quarter Tract Section ~~29~~ NW NE SW

Measured 1270 Feet From S Line And 1100 Feet From E Line Of Lot 29

(0.28 Mi W 0.28 Mi S Rd. Jc. 869) 1270 ' SL & 1100' EL of Lot 29- from Pepper Map

Land Owner (R. Putt) J.H. Long Est. Well No. 1 Date Started

Operator O. F. G. Co. Well No. 1917-g Date Completed

Elevation Bar 869 S. L. Total Depth 2874 Plugged Back

Formation Drilled To Clinton Producing Form Clinton Init. Prod. Nat. gas 1.06

Shot or Acid Record Prod. A. S. or Acid

Init. Rock Press. Abandoned 6-10-52

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Berea	155	255					
Niagara	1430	2712					
shell	2785	2805					
Stray ss.	2822	2834					
Clinton	2864	2873	gas				
		2874	T.D.				

APPENDIX II – WELL CARDS

J&E Greenwald #1
API #34-093-6-0227-00-00
Lorain County, Columbia Township

B-0049-8-57

GEOLOGICAL SURVEY OF OHIO

60227 -8-57

OIL AND GAS WELL LOG

State Ohio

County Lorain Township Columbia Quadrangle Berea

Lot 32 Quarter Tract Section NW NE SW

Measured 775 Feet From S Line And 550 Feet From E Line Of LOT 32

775' SL & 550' EL of Lot 32- from Pepper Map

Land Owner J. & E. Greenwald Well No. 1 Date Started

Operator O. F. G. Well No. 2026 Date Completed 8-2-25

Elevation Bar S. L. Total Depth 2847 Plugged Back

Formation Drilled To Clinton Producing Form Clinton Init. Prod. Nat. 1,152 M.

Shot or Acid Record 20 Qts. 2789-97 Prod. A. S. or Acid 2,694M. S.I. 1,902 M.

Init. Rock Press. 975 #'s Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
			No Berea				
ls.	1387	2675					
shell	2683	2703					
Clinton	2789	2802	1,152 M. b.d. to 680 M.				
		2847	T.D.				

APPENDIX II – OFFSET WELL CARD

John Kelly #1
API #34-093-6-0727-00-00
API #34-093-6-0205-00-00
Lorain County, Columbia Township

B-0049-7-11

GEOLOGICAL SURVEY OF OHIO 7580 -7-11
60205 **OIL AND GAS WELL LOG**

State Ohio
County Lorain Township Columbia Quadrangle Berea
Lot 88 Quarter Tract Section NW NE SW
Measured 700 Feet From N Line And 300 Feet From W Line Of Lot 88
700' NL & 300' WL of Lot 88- from Pepper Map
Land Owner G. D. & J. E. Alexander Well No. 1 Date Started
Operator Logan Well No. Date Completed 8-14-25
Elevation Bar. 818-T S. L. Total Depth 2700 Plugged Back
Formation Drilled To 3rd Clinton Producing Form 1st., 2nd., & 3rd Cl. Init. Prod. Nat. 566 M.
Shot or Acid Record Prod. A. S. or Acid
Init. Rock Press. Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
gravel & sd.		36					
sd. & sl.	36	60					
Berea Grit	60	140	dry				
sl.	140	1250					
ls.	1250	2550	w. 1460 & 2530;	Salt & sh. 1730-1800			
sl.	2550	2605					
shell	2605	2616					
sl.	2616	2625					
1st Clinton	2625	2632	321M.				
2nd Clinton	2652	2661	more gas				
3rd Clinton	2680	2691	brkn - small show gas				
		2700	T.D.				

APPENDIX II – WELL CARDS

C Mills #1
API #34-093-6-0158-00-00
Lorain County, Columbia Township

B-0049-7-3

GEOLOGICAL SURVEY OF OHIO

60158 -7-3

OIL AND GAS WELL LOG

State Ohio

County Lorain Township Columbia Quadrangle Berea

Lot 88 Quarter Tract Section ~~88~~ NW NE SW

Measured 240 Feet From S Line And 960 Feet From E Line Of LOT 88

(1.40 Mi W 0.10 Mi N Rd. Jc. 816) 240' SL & 960' EL of Lot 88 -from Pepper Map

Land Owner C. Mills Well No. Date Started

Operator Dillon & McFredericks Well No. Date Completed 12-11-30

Elevation Bar 815 S. L. Total Depth 2674 Plugged Back

Formation Drilled To Clinton Producing Form Init. Prod. Nat. 570,000

Shot or Acid Record Prod. A. S. or Acid

Init. Rock Press 940 Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Berea	60	100					
big ls.	1255	2560					
		1465	water				
	2500	2505	water				
salt	1780	1840					
Clinton	2664	2670					
		2674	T.D.				

APPENDIX II – OFFSITEWELL CARD

Stephen Bonds #1
API #34-093-6-0647-00-00
API #34-093-2-0095-00-00
Lorain County, Columbia Township

B-0049-4-17 GEOLOGICAL SURVEY OF OHIO 20095 95 95

OIL AND GAS WELL LOG

State Ohio
County Lorain Township Columbia Quadrangle Berea
Lot 62 Quarter Tract Section NW NE SW
Measured 815 Feet From S Line And 250 Feet From E Line Of 20f62
815' SL & 250' EL of Lot 62 from Pepper Map
Land Owner C. & E. Osborne Well No. 1 Date Started 1/2/37
Operator Kemrow Co. et ux Well No. Date Completed 2-12-37
Elevation Bar 792-T S. L. Total Depth 2723 Plugged Back
Formation Drilled To red rock Producing Form shale Init. Prod. Nat. gas
Shot or Acid Record Prod. A. S. or Acid
Init. Rock Press. Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
gravel	0	29					
berea	29	149					
sh.	149	1228	gas 220,380,550				
Lime	1228	2560					
L. Ls.	2587	2593					
1st Cl.	2652	2656	dry				
2nd Cl.	2664½	2674	dry				
red rock	2709	2723					
		2723	T.D.				
			Shales occupy	breaks in record below Lime.			

APPENDIX III: DAVIS-BACON WAGE DETERMINATION

State
Ohio
Counties
Adams, Allen, Ashland, Ashtabula, Athens, Auglaize, Belmont, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Cuyahoga, Darke, Defiance, Delaware, Erie, Fairfield, Fayette, Franklin, Fulton, Gallia, Geauga, Greene, Guernsey, Hamilton, Hancock, Hardin, Harrison, Henry, Highland, Hocking, Holmes, Huron, Jackson, Jefferson, Knox, Lake, Lawrence, Licking, Logan, Lorain, Lucas, Madison, Mahoning, Marion, Medina, Meigs, Mercer, Miami, Monroe, Montgomery, Morgan, Morrow, Muskingum, Noble, Ottawa, Paulding, Perry, Pickaway, Pike, Portage, Preble, Putnam, Richland, Ross, Sandusky, Scioto, Seneca, Shelby, Stark, Summit, Trumbull, Tuscarawas, Union, Van Wert, Vinton, Warren, Washington, Wayne, Williams, Wood, Wyandot

Document

"General Decision Number: OH20260001 01/02/2026

Superseded General Decision Number: OH20250001

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Modification Number	Publication Date
0	01/02/2026

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
Bricklayer, Stonemason.....	$ 33.39	20.06

BROH0014-002 06/01/2024

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek, Saline & Salineville Townships & the Village of Dillonvale)

	Rates	Fringes
Bricklayer, Stonemason.....	$ 33.39	20.06

BROH0016-002 06/01/2023

ASHTABULA, GEAUGA, and LAKE COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	$ 32.40	19.30

BROH0018-002 06/01/2024

BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (Gasper, Dixon, Israel, Lanier, Somers & Gratis Townships) & WARREN COUNTIES:

	Rates	Fringes
Bricklayer, Stonemason.....	$ 33.39	20.06

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
Bricklayer, Stonemason.....	$ 33.39	20.06

BROH0032-001 06/01/2024

GALLIA & MEIGS

	Rates	Fringes
Bricklayer, Stonemason.....	$ 33.39	20.06

BROH0035-002 06/01/2024

ALLEN, AUGLAIZE, MERCER and VAN WERT COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	$ 33.39	20.06

BROH0039-002 06/01/2024

ADAMS & SCIOTO

	Rates	Fringes
Bricklayer, Stonemason.....	$ 33.39	20.06

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 COSHOCTON, 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

COSHOCTON, 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	$ 35.94	28.39

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

COSHOCTON, 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 05/01/2025

CRAWFORD, 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 06/01/2025

ALLEN, 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 04/28/2025

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) & LORAIN (Columbia Township)

	Rates	Fringes
ELECTRICIAN		
Excluding Sound & Communications Work	$ 46.63	24.92

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

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ELEC0038-008 04/28/2025

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) & LORAIN (Columbia Township)

	Rates	Fringes
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

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ELEC0064-003 11/30/2025

COLUMBIANA (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
ELECTRICIAN	$ 41.49	21.81

ELEC0071-005 01/06/2025

ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN

	Rates	Fringes
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
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 12/02/2024

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
ELECTRICIAN	$ 38.00	22.49

ELEC0082-006 11/25/2024

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
Sound & Communication Technician		
Cable Puller	$ 13.85	5.30
Installer/Technician	$ 27.70	15.71

ELEC0129-003 02/24/2025

LORAIN (Except Columbia Township) & MEDINA (Litchfield & Liverpool Townships)

	Rates	Fringes
ELECTRICIAN	$ 42.95	18.81

ELEC0129-004 02/24/2025

ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman, Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich, Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
ELECTRICIAN	$ 42.95	18.81

ELEC0141-003 06/02/2025

BELMONT COUNTY

	Rates	Fringes
CABLE SPLICER	$ 42.94	27.74
ELECTRICIAN	$ 39.25	31.23

ELEC0212-003 11/26/2018

BROWN, CLERMONT & HAMILTON

	Rates	Fringes
Sound & Communication Technician	$ 24.35	10.99

ELEC0212-005 06/02/2025

BROWN, CLERMONT, and HAMILTON COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 38.05	22.97

ELEC0245-001 08/26/2024

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Richland, Ridge & Salem Townships)

	Rates	Fringes
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

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ELEC0245-003 01/01/2025

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

	Rates	Fringes

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 06/02/2025

GALLIA & LAWRENCE

	Rates	Fringes
CABLE SPLICER	$ 32.68	18.13
ELECTRICIAN	$ 41.15	29.35

ELEC0540-005 06/30/2025

CARROLL (Northern half, including Fox, Harrison, Rose & Washington Townhships), 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	$ 39.86	29.19

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 09/01/2025

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

	Rates	Fringes
CABLE SPLICER	$ 30.50	18.23
ELECTRICIAN	$ 38.00	24.162

ELEC0673-004 05/26/2025

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	$ 41.17	24.58

ELEC0683-002 06/02/2025

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	$ 44.00	26.40
ELECTRICIAN	$ 43.00	26.37

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 COUNITES

	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 Inserter/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 expect masonary; 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; Artiaculating/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 masonary; 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); 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.

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
IRONWORKER		
Ornamental, Reinforcing, & Structural	$ 36.83	29.01

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
IRONWORKER		
Structural, including metal building erection & Reinforcing	$ 36.83	29.01

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
IRONWORKER, REINFORCING	$ 38.27	23.90

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
IRONWORKER		
Fence Erector	$ 35.88	23.90
Ornamental; Structural	$ 37.77	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
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 06/01/2025

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
IRONWORKER	$ 38.00	26.39

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
IRONWORKER	$ 40.87	23.15

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
IRONWORKER		
Layout; Sheeter	$ 37.26	28.16
Ornamental; Reinforcing;		

Structural.....$ 36.26		28.16

IRON0290-002 06/01/2025

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford, Darrtown & 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
IRONWORKER.....$ 37.39		25.35

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
IRONWORKER.....$ 35.19		25.66

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

Ironworkers:Structural, Ornamental and Reinforcing	$ 34.70	22.88

IRON0769-004 06/01/2025

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

	Rates	Fringes
IRONWORKER	$ 39.70	29.59

IRON0787-003 06/01/2025

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.10	24.65

LABO0265-008 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); Yarner; 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); & Gunite 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
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 07/01/2025

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	$ 33.66	23.88
GROUP 2	$ 34.66	23.88
GROUP 3	$ 34.66	23.88
GROUP 4	$ 34.66	23.88
GROUP 5	$ 34.66	23.88
GROUP 6	$ 34.66	23.88
GROUP 7	$ 34.66	23.88
GROUP 8	$ 34.66	23.88
GROUP 9	$ 34.66	23.88

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)

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

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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 12/01/2024

ATHENS, 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
PAINTER		
Bridge Equipment Tenders and Containment Builders	$ 27.93	7.25

Bridges; Blasters; andRiggers	$ 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
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 COUNITES

	Rates	Fringes
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

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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 07/01/2025

MEDINA, PORTAGE (South of and including Ohio Turnpike), and SUMMIT (South of and including Ohio Turnpike) COUNTIES

	Rates	Fringes
Painters:		
GROUP 1	$ 31.93	18.15
GROUP 2	$ 32.58	18.15
GROUP 3	$ 32.68	18.15
GROUP 4	$ 32.78	18.15
GROUP 5	$ 33.18	18.15
GROUP 6	$ 38.60	18.15
GROUP 7	$ 33.18	18.15

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

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PAIN0841-002 07/01/2025

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
PAINTER		

Bridges; Towers, Poles & Stacks; Sandblasting Steel; Structural Steel & Metalizing	$ 33.18	18.15
Brush & Roller	$ 31.93	18.15
Spray; Tank Interior & Exterior	$ 32.78	18.15

PAIN1020-002 07/01/2025

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

	Rates	Fringes
PAINTER		
Brush & Roller	$ 27.59	18.54
Drywall Finishing & Taping	$ 28.34	18.54
Lead Abatement	$ 29.34	18.54
Spray, Sandblasting Pressure Cleaning, & Refinery	$ 28.34	18.54
Swing Stage, Chair, Spiders, & Cherry Pickers	$ 27.84	18.54
Wallcoverings	$ 28.34	18.54

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
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 06/01/2025

MEDINA, PORTAGE, STARK, and SUMMIT COUNTIES

	Rates	Fringes
PLASTERER	$ 33.00	23.83

PLAS0109-003 06/01/2025

CARROLL, HOLMES, TUSCARAWAS, and WAYNE COUNTIES

	Rates	Fringes
PLASTERER	$ 33.00	23.83

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 07/01/2025

FULTON, HANCOCK, HENRY, LUCAS, PUTNAM, and WOOD COUNTIES

	Rates	Fringes
PLASTERER	$ 36.65	25.60

PLAS0886-003 07/01/2025

DEFIANCE, ERIE, HURON, OTTAWA, PAULDING, SANDUSKY, and SENECA

	Rates	Fringes
PLASTERER	$ 36.65	25.60

PLAS0886-004 07/01/2025

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, and VAN WERT

	Rates	Fringes
PLASTERER	$ 35.29	23.07

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 (Northen 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 06/01/2025

COLUMBIANA (Excluding Washington & Yellow Creek Townships & Liverpool Twp. - Secs. 35 & 36 - West of County Road #427), MAHONING and TRUMBULL COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 40.55	29.25

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 05/01/2025

STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1	$ 34.26	18.85
GROUP 2	$ 35.26	18.85

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

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TEAM0436-002 05/01/2025

CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1	$ 34.92	19.30
GROUP 2	$ 35.73	19.30

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

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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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.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, 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 the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

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.

SCOPE OF WORK

Quantity Sheet

Lorain 21F Project

Lorain County, Columbia Township

Well Names :ONDS STEPHEN 1, GREENWALD J & E 1, JASON FRISCONE #1, JASON FRISCONE #2, John Kelly 1, MILLS C

APIs 34093606470000, 34093602270000, 34093607230000, 34093607240000, 34093607270000, 34093601580000

Line	Item	Description	Unit	Type	Cost	Qty	Estimate Total
		Phase 1: Mobilization and Access					
1	1100	Mobilization	Each	Material		4.00	
2	1110	Demobilization	Each	Material		4.00	
3	1140	Clearing & Grubbing (Kelly 1)	Each	Material		1.00	
4	1140	Clearing & Grubbing (Bonds 1)	Each	Material		1.00	
5	1150	Filter Fabric	Sq. Yd.	Material		20.00	
6	1160	Silt Fence	Linear Ft.	Material		1060.00	
7	1220	No. 2 Stone	Ton	Material		25.00	
8	1250	No. 57 Stone	Ton	Material		300.00	
9	1510	Road Mats (Composite)	Sq. Ft.	Material		64246.00	
10	1570	Timber Mats	Sq. Ft.	Material		896.00	
		Phase 2: Well Site Safety					
11	2100	Site Safety	Each	Material		6.00	
12	2120	Absorbent Booms	Linear Ft.	Material		395.00	
13	2130	Secondary Containment	Each	Material		6.00	
14	2160	Well Head Control	Each	Material		6.00	
15	2171	Well Kill Fluid	BBL	Material		1085.00	
16	2230	Conductor Casing (13-3/8 inch)	Linear Ft.	Material		25.00	
17	2240	Surface Casing (8-5/8 inch)	Linear Ft.	Material		150.00	
18	2240	Surface Casing (7-0 inch)	Linear Ft.	Material		540.00	
		Phase 3: Plugging					
19	3100	Well Prep & Plugging (Friscone 1)	Each	Material		1.00	
20	3100	Well Prep & Plugging (Friscone 2)	Each	Material		1.00	
21	3100	Well Prep & Plugging (Greenwald 1)	Each	Material		1.00	
22	3100	Well Prep & Plugging (Kelly 1)	Each	Material		1.00	
23	3100	Well Prep & Plugging (Mills 1)	Each	Material		1.00	
24	3100	Well Prep & Plugging (Bond 1)	Each	Material		1.00	
25	3100	Well Prep & Plugging (Kelly 1 Water Well	Each	Material		1.00	
26	3240	Logging (GR/CCL/Temp/Bond/Caliper)	Each	Material		8.00	
27	3240	Logging (Bond)	Each	Material		1.00	
28	3260	Perforating	Each	Material		2.00	
29	3310	Tubing	Each	Material		1.00	
30	3340	Approved Cement (Sack)	Each	Material		3290.00	
31	3350	Cement Mixing & Pumping	Each	Material		32.00	
32	3500	Washover Pipe (4-1/2 inch)	Linear Ft.	Material		2800.00	
		Phase 4: Site Clean-up and Restoration					
33	4100	Site Restoration (Friscones 1 & 2_ Greenv	Each	Material		1.00	
34	4100	Site Restoration (Kelly 1)	Each	Material		1.00	
35	4100	Site Restoration (Mills 1)	Each	Material		1.00	
36	4100	Site Restoration (Bonds 1)	Each	Material		1.00	
37	4160	Approved Resoil	Ton	Material		18.00	
38	4400	Fence Repair	Linear Ft.	Material		65.00	
39	4420	Contaminated Material Disposal	Ton	Material		90.00	
40	4440	Salvage Material Disposal	Each	Material		1.00	
41	4460	Fluid Disposal	BBL	Material		1500.00	
		Fixed Costs					
42	0800	Salvage Material Reimbursement	Each	Material	$0.00	0.00	$0.00
43	0810	Crop Damage (Corn)	Acre	Material	$840.00	0.60	$504.00
44	0820	Crop Damage (Soybean)	Acre	Material	$560.00	0.60	$336.00
		Contingency					
45	0240	Professional Services(Mud Engineer)(Fixe	Each	Labor		10000.00	
46	1520	Road Mats (Composite) (Mats/Day)	Each	Material		3530.00	
47	1520	Timber Mats (Mat/Day)	Each	Material		70.00	
48	2181	Additional Circulation Fluid (Freshwater)	BBL	Material		650.00	
49	2191	Add Circulation Fluid (Brine)	BBL	Material		535.00	
50	2220	Well Casing Tap	Each	Material		2.00	
51	2360	Downhole Videography	Each	Material		4.00	
52	3140	Fishing	Hour	Material		64.00	
53	3160	Milling/Drillout	Hour	Material		64.00	
54	3170	Magnet	Each	Material		4.00	
55	3240	Logging (GR/CCL/Temp/Bond/Caliper)	Each	Material		1.00	
56	3250	Shooting	Each	Material		4.00	

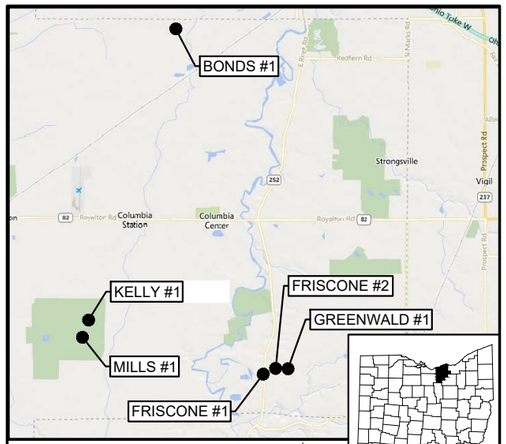
57	3260	Perforating	Each	Material	3.00
58	3290	Severing	Each	Material	4.00
59	3380	Nine Sack Grout	Cubic Yd.	Material	30.00
60	3390	Grout Pumping	Each	Material	1.00
61	3400	Siphon Pipe (EA -Lump Sum)	Each	Material	1.00
62	3450	Lost Circulation Materials (Sack)	Each	Material	150.00
63	3460	Drilling Mud (Sack)	Each	Material	150.00
64	3470	Saltwater Drilling Mud (Sack)	Each	Material	75.00
65	4250	Asphalt Pavement	Sq. Ft.	Material	3500.00

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,

SHEET INDEX



LOCATION MAP
SCALE 1" = 2 MILES

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS RESOURCES MANAGEMENT

LORAIN #21F

MULTIPLE ORPHAN WELL SITES

ORPHAN WELL INFORMATION

WELL NAME	API NUMBER	COUNTY	TOWNSHIP	LATITUDE	LONGITUDE
JASON FRISCONE #1	34-093-6-0723	LORAIN	COLUMBIA	41.283507°	-81.912293°
JASON FRISCONE #2	34-093-6-0724	LORAIN	COLUMBIA	41.284594°	-81.911094°
J&E GREENWALD #1	34-093-6-0227	LORAIN	COLUMBIA	41.284602°	-81.908254°
JOHN KELLY #1	34-093-6-0727	LORAIN	COLUMBIA	41.295041°	-81.958942°
C MILLS #1	34-093-6-0158	LORAIN	COLUMBIA	41.290628°	-81.958195°
STEPHEN BONDS #1	34-093-6-0647	LORAIN	COLUMBIA	41.349679°	-81.933654°

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 PROGRAM MANAGER
THOMAS HUFFMAN
PH: (330) 605-2879

ORPHAN WELL INSPECTOR
WILLARD CHAMPAGNE
PH: (330) 858-8386

PROJECT ENGINEER
JAMES J. JUDGE, P.E.
PH: (614) 314-6153

OHIO811.org Before You Dig

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/OGPUPS TICKET DURING THE ENTIRE PROJECT BY CONTACTING OUPS EVERY 10 DAYS. BOTH OUPS AND OGPUPS CAN BE COMPLETED USING THE OHIO 811 ONE CALL SERVICE BY PHONE OR ON THE WEB.

LEGEND

EXISTING:

- VEGITATION BED
- DRIVEWAY
- OVERHEAD ELECTRIC (OHP)
- PROPERTY LINE (EX. P/L)
- EDGE OF PAVEMENT
- BUSH LINE
- RIGHT OF WAY
- BUILDING
- GAS (G)
- WATER (W)
- CONTOUR MAJOR
- CONTOUR MINOR
- WOOD FENCE
- SANITARY (SAN)
- STORM SEWER (ST)
- WOVEN WIRE FENCE
- BIKEWAY
- SIDEWALK
- CHAINLINK FENCE
- CONCRETE
- TREE LINE
- RETAINING WALL
- CULVERT
- RIGHT OF WAY CENTER LINE
- ELECTRIC (E)
- TELEPHONE (T)

PROPOSED:

- WORK LIMITS (CWL)
- SILT FENCE (SF)

PROPOSED:

- COMPOSITE MATTING

EXISTING:

- GAS WELL
- POWER POLE
- WATER VALVE
- WATER HYDRANT
- GAS VALVE
- TREE/BUSH
- BOLLARD
- CURB INLET
- CATCH BASIN
- LIGHT POLE
- TELE POLE W/ GUY
- IRRIG. CONTROL VALVE
- CLEANOUT
- I.P.F. IRON PIN FOUND
- STORM MANHOLE
- I.P.S IRON PIN SET
- P.F. PIN FOUND
- ROUND CATCH BASIN
- MONUMENT
- TREE STUMP
- GAS STRUCTURE
- GAS MARKER
- TRAFFIC SIGN
- SANITARY MANHOLE
- ELECTRIC PEDESTAL
- TELEPHONE PEDESTAL

DIVISION OF OIL & GAS RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
https://oilandgas.ohiodnr.gov

TITLE SHEET

LORAIN #21F
MULTIPLE
ORPHAN WELL SITES

REVISION

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C.
DATE: 10/29/2024
SHEET NO. 1 OF 11

EDIT DATE: 9/5/2025 2:03 PM EDIT BY: 10185856 DRAWING FILE: M:\ORPHAN WELL PROGRAM\PROJECTS\LORAIN COUNTY\LORAIN 21 (CT, OLD 9)\ENGINEERING DESIGN\DRAWINGS\FINAL DRAWING\LORAIN 21.DWG

EX R/W

EX R/W

EAST RIVER RD.

EX. P/L

EX. P/L

EXISTING GRAVEL DRIVE

TEMPORARY SILT FENCE (± 85 L.F.)

EXISTING CONC PATIO

50.0'

36.0'

54.0'

GAS WELL FND MULTIPLE PIPES APPROX 8' ABOVE GRADE

FOLLOW TOE OF SLOPE FOR CWL

JASON FRISCONE #1 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-093-6-0723-00-00
N= 589599.92, E= 2130019.72, EL= 820.32
LAT=41.283507°, LONG=-81.912293°

MATTED ACCESS AND WORK AREA (±5,824 S.F.)

EXISTING STONE WALL TO REMAIN

8" SPP
817.32

6" GRX

REMOVE EXISTING 30" ROCK, STORE ONSITE & REINSTALL AT PROJECT COMPLETION

12" PVC
825.14

PROPOSED INGRESS/EGRESS POINT
AT EAST RIVER RD.
N=589480.70, E=2129623.27, EL=826.61
LAT=41.283187°, LONG=-81.913739°

LOWEST OH WIRE
842.7

52.0'

16.0'

EXISTING GRAVEL DRIVE

EXISTING WOOD POST

TEMPORARY MATTED ENTRANCE
APRON & ACCESS DRIVE (±1,274 S.F.)

DRIVE ACCESS OVERLAY
PLACE No. 57 STONE
(±185 TONS, SEE DETAIL)

STM YD
RIM: 826.16
12" PVC (N-S): 624.3

JASON B FRISCONE
TRUSTEE
PARCEL #: 1200032000025
(OWNER OF GAS WELL)

ELIZABETH H & TUMA
ROBERT L RYSER
PARCEL #: 1200032000027

SEE SHEET 3

0' 20' 40' 60'

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
http://oilandgas.ohiodnr.gov

SITE PLAN
JASON FRISCONE

LORAIN #21
MULTIPLE
ORPHAN WELL SITES

REVISION

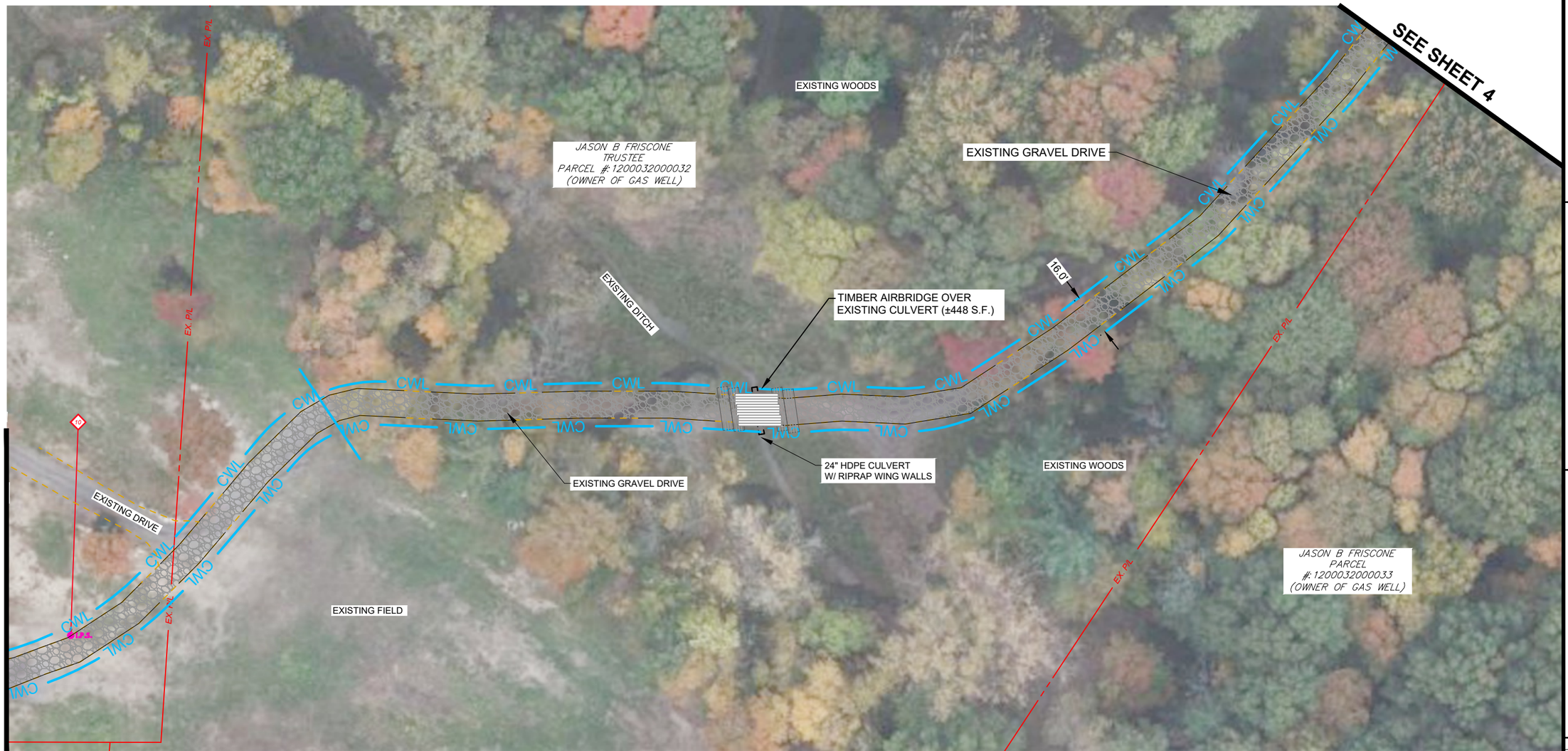
DESIGN UNIT
O&G ENGINEERING

DRAWN BY: S.T.L.

CHECKED BY: J.J.J.

DATE: XX/XX/XXXX

SHEET NO.
2 OF 11



0' 20' 40' 60'

BAR SCALE

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DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

ACCESS ROUTE

LORAIN #21
MULTIPLE
ORPHAN WELL SITES

REVISION

DESIGN UNIT
O&G ENGINEERING

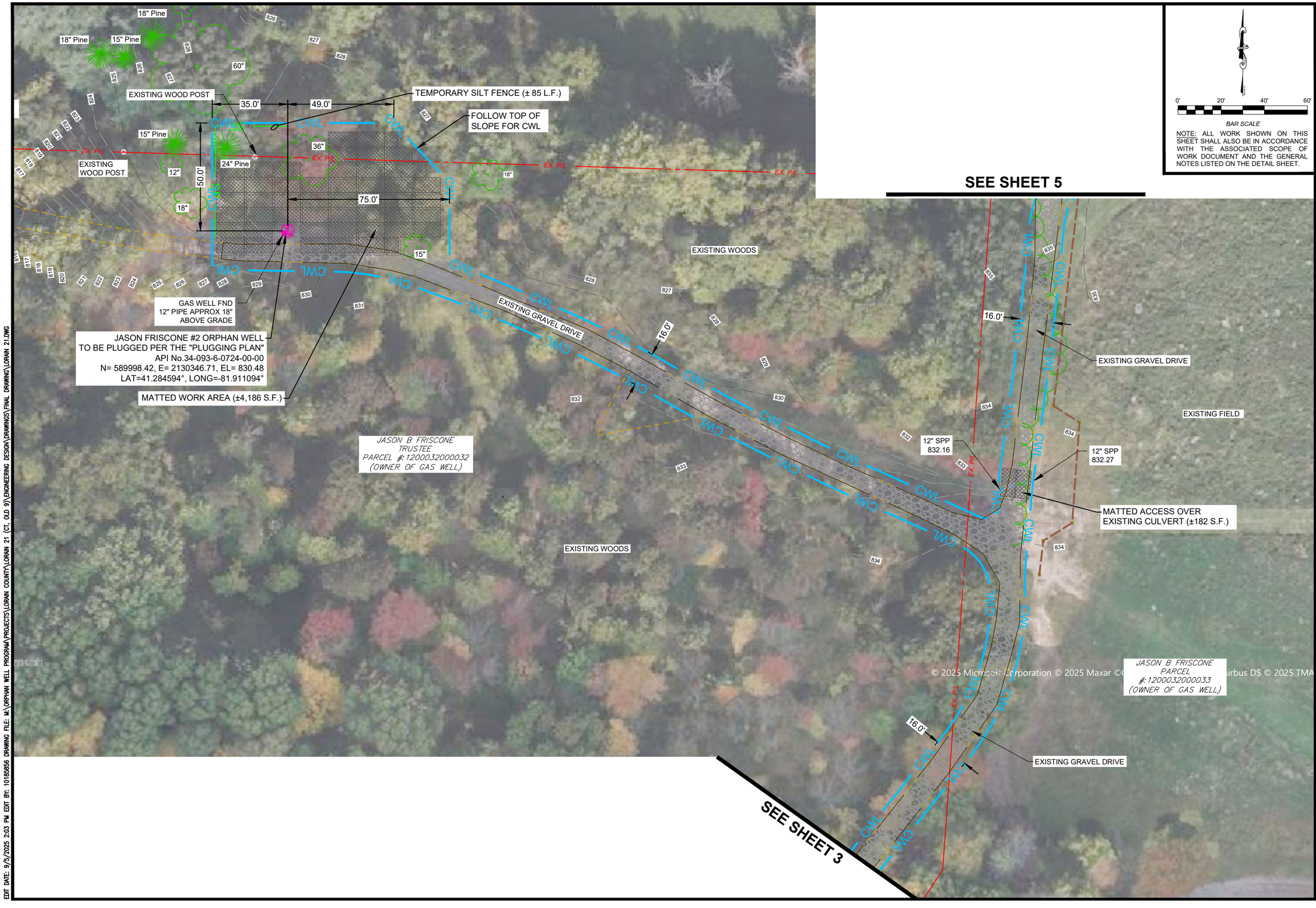
DRAWN BY: S.T.L.

CHECKED BY: J.J.J.

DATE: XX/XX/XXXX

SHEET NO.
3 OF 11

EDIT DATE: 9/5/2025 2:03 PM EDIT BY: 10185856 DRAWING FILE: M:\ORPHAN WELL PROGRAM\PROJECTS\LORAIN COUNTY\LORAIN 21 (CT, OLD 9)\ENGINEERING DESIGN\DRAWINGS\FINAL DRAWING\LOR21N 21.DWG



0' 20' 40' 60'

BAR SCALE

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DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

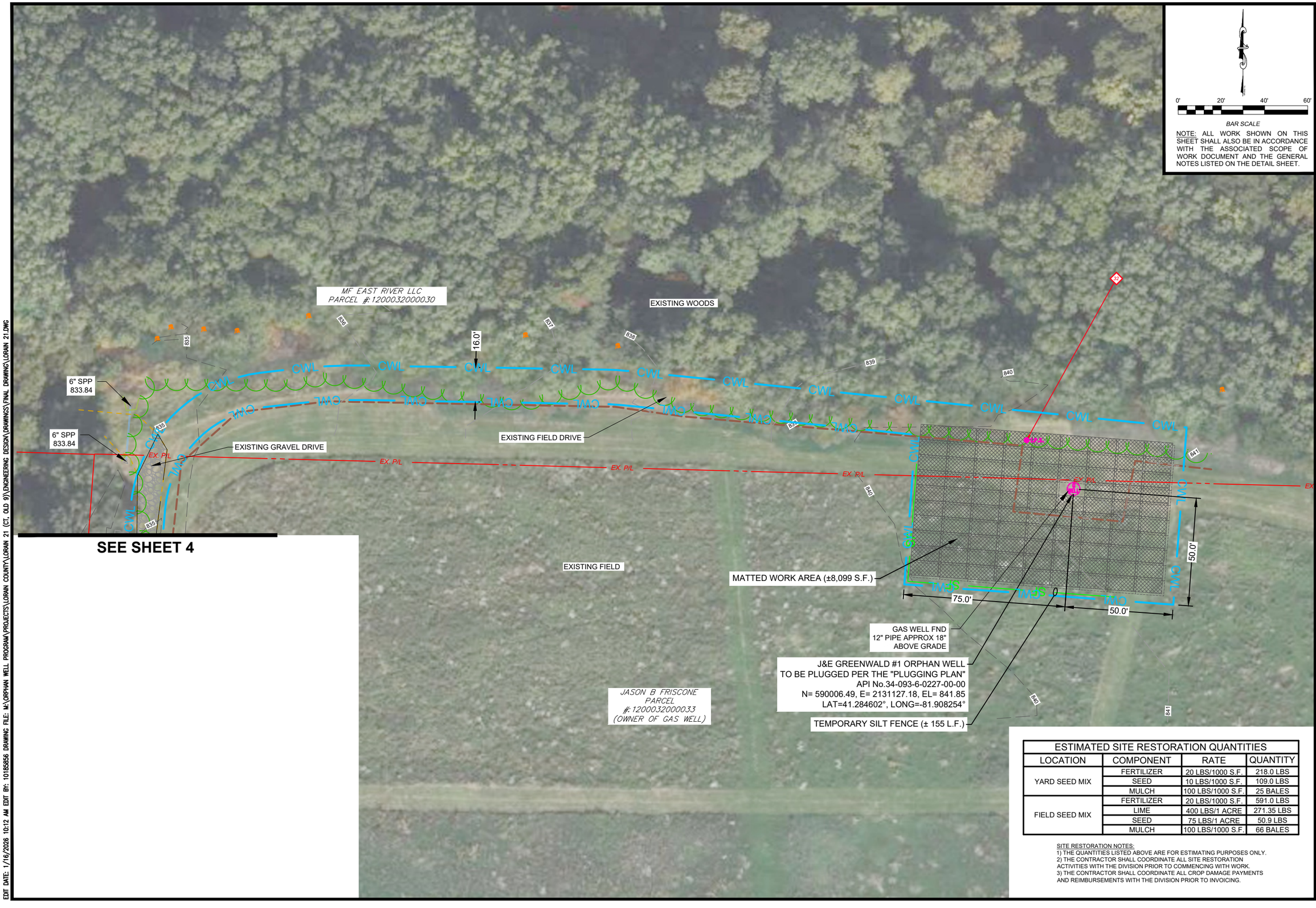
SITE PLAN
JASON FRISCONE #2

LORAIN #21
MULTIPLE
ORPHAN WELL SITES

REVISION

DESIGN UNIT
O&G ENGINEERING
DRAWN BY: S.T.L.
CHECKED BY: J.J.J.
DATE: XX/XX/XXXX
SHEET NO.
4 OF 11

EDIT DATE: 9/5/2025 2:03 PM EDIT BY: 10185856 DRAWING FILE: M:\ORPHAN WELL PROGRAM\PROJECTS\LORAIN COUNTY\LORAIN 21 (CT, OLD 9)\ENGINEERING DESIGN\DRAWINGS\FINAL DRAWING\LORAIN 21.DWG



0' 20' 40' 60'

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

LOCATION	COMPONENT	RATE	QUANTITY
YARD SEED MIX	FERTILIZER	20 LBS/1000 S.F.	218.0 LBS
	SEED	10 LBS/1000 S.F.	109.0 LBS
	MULCH	100 LBS/1000 S.F.	25 BALES
FIELD SEED MIX	FERTILIZER	20 LBS/1000 S.F.	591.0 LBS
	LIME	400 LBS/1 ACRE	271.35 LBS
	SEED	75 LBS/1 ACRE	50.9 LBS
	MULCH	100 LBS/1000 S.F.	66 BALES

SITE RESTORATION NOTES:
1) THE QUANTITIES LISTED ABOVE ARE FOR ESTIMATING PURPOSES ONLY.
2) THE CONTRACTOR SHALL COORDINATE ALL SITE RESTORATION ACTIVITIES WITH THE DIVISION PRIOR TO COMMENCING WITH WORK.
3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

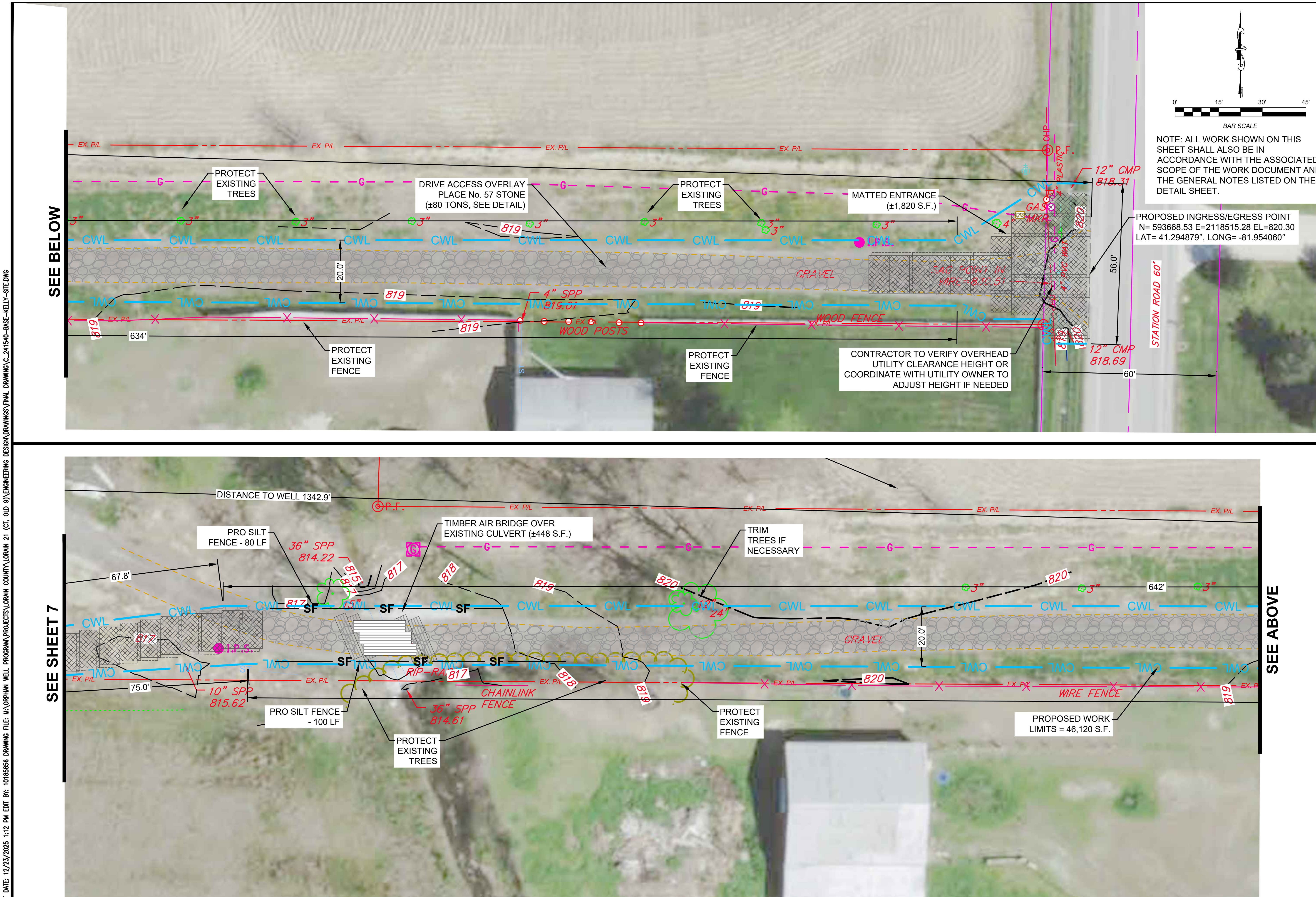
SITE PLAN
J&E GREENWALD #1

LORAIN #21F
MULTIPLE
ORPHAN WELL SITES

REVISION

DESIGN UNIT
O&G ENGINEERING
DRAWN BY: S.T.L.
CHECKED BY: J.J.J.
DATE: XX/XX/XXXX
SHEET NO.
5 OF 11

EDIT DATE: 1/16/2026 10:12 AM EDIT BY: 10185866 DRAWING FILE: M:\ORPHAN WELL PROGRAM\PROJECTS\LORAIN COUNTY\LORAIN 21 (CT, OLD 9)\ENGINEERING DESIGN\DRAWINGS\FINAL DRAWINGS\LORAIN 21.DWG



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DIVISION OF OIL & GAS RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

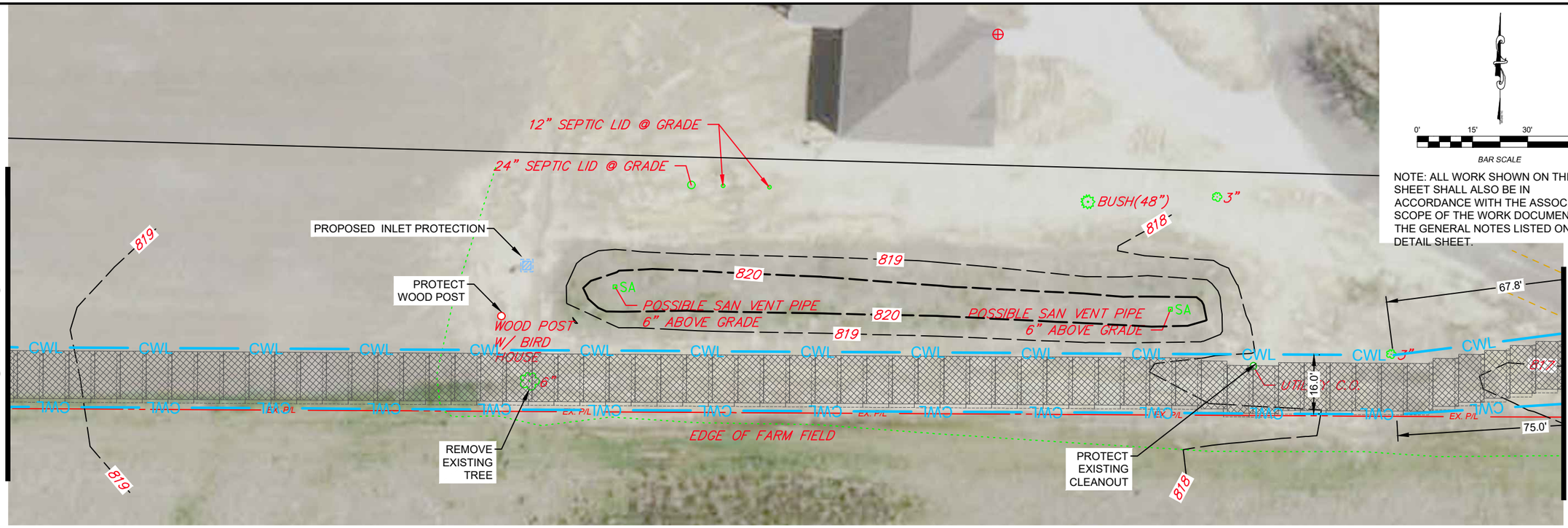
SITE PLAN
JOHN KELLY #1

LORAIN #21F MULTIPLE ORPHAN WELL SITES

REVISION

DESIGN UNIT CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C
DATE: 10/29/2024

SHEET NO.



0' 15' 30' 45'

BAR SCALE

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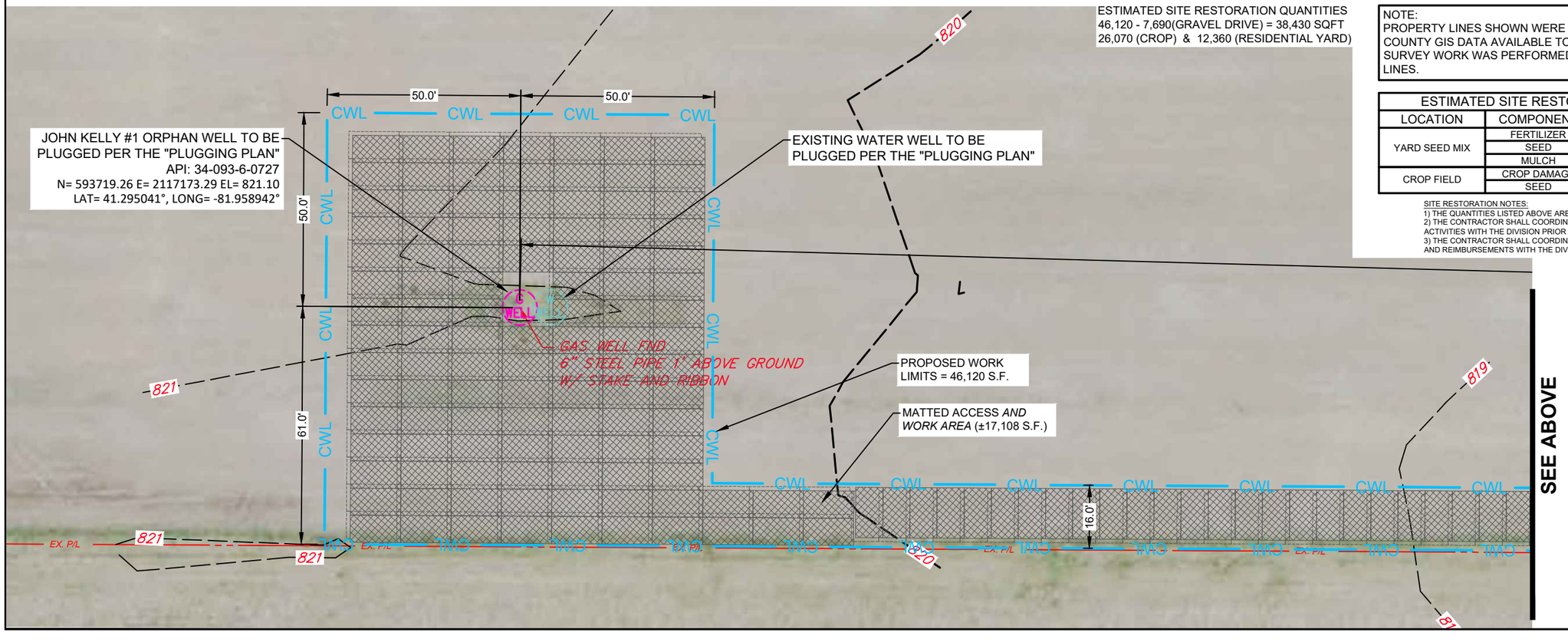

ESTIMATED SITE RESTORATION QUANTITIES
46,120 - 7,690(GRAVEL DRIVE) = 38,430 SQFT
26,070 (CROP) & 12,360 (RESIDENTIAL YARD)

NOTE:
PROPERTY LINES SHOWN WERE TAKEN FROM THE LORAIN COUNTY GIS DATA AVAILABLE TO THE PUBLIC. NO BOUNDARY SURVEY WORK WAS PERFORMED TO VERIFY THE PROPERTY LINES.

ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
YARD SEED MIX	FERTILIZER	20 LBS/1000 S.F.	250.0 LBS
	SEED	10 LBS/1000 S.F.	125.0 LBS
	MULCH	100 LBS/1000 S.F.	28 BALES
CROP FIELD	CROP DAMAGE	N/A	0.60 ACRES
	SEED	150 LBS/1 ACRE	90.0 LBS

SITE RESTORATION NOTES:
1) THE QUANTITIES LISTED ABOVE ARE FOR ESTIMATING PURPOSES ONLY.
2) THE CONTRACTOR SHALL COORDINATE ALL SITE RESTORATION ACTIVITIES WITH THE DIVISION PRIOR TO COMMENCING WITH WORK.
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DIVISION OF OIL & GAS
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SITE PLAN
JOHN KELLY #1

LORAIN #21F
MULTIPLE
ORPHAN WELL SITES

REVISION

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CT CONSULTANTS
DRAWN BY: K.M.R.
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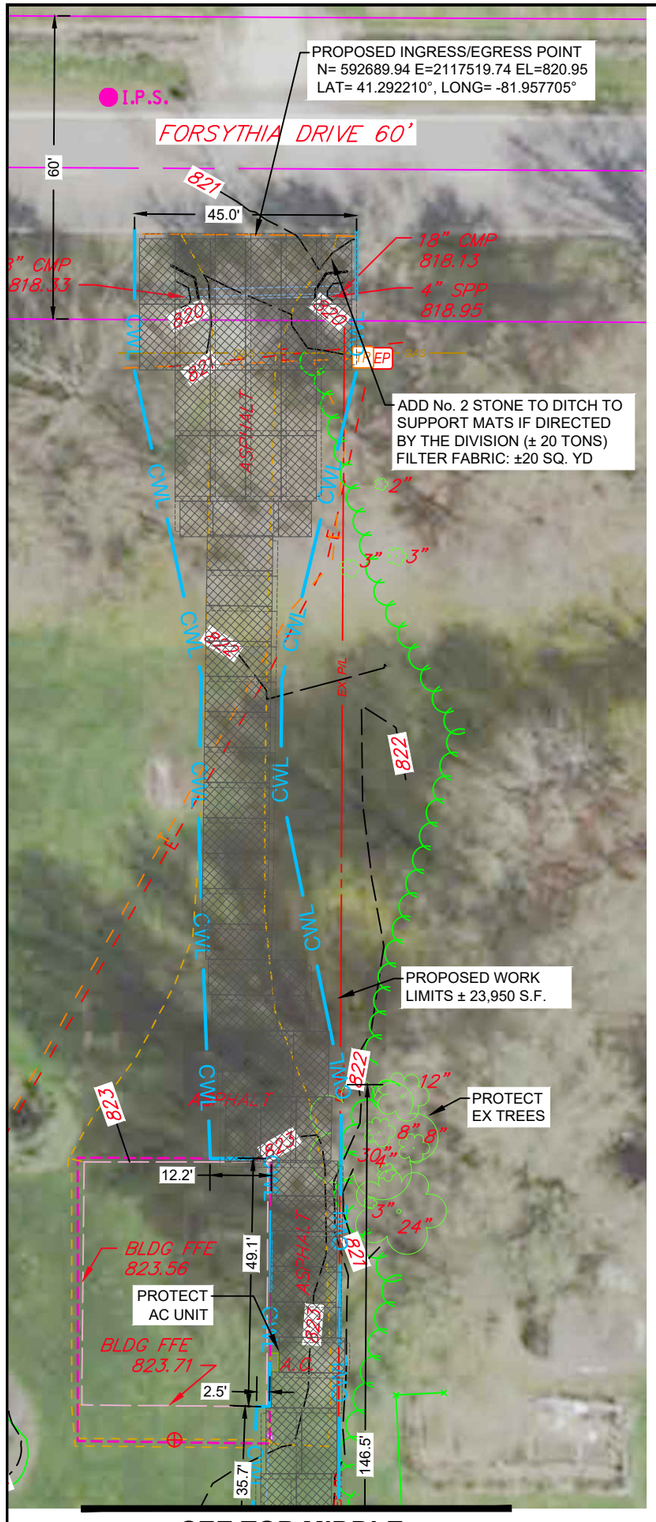
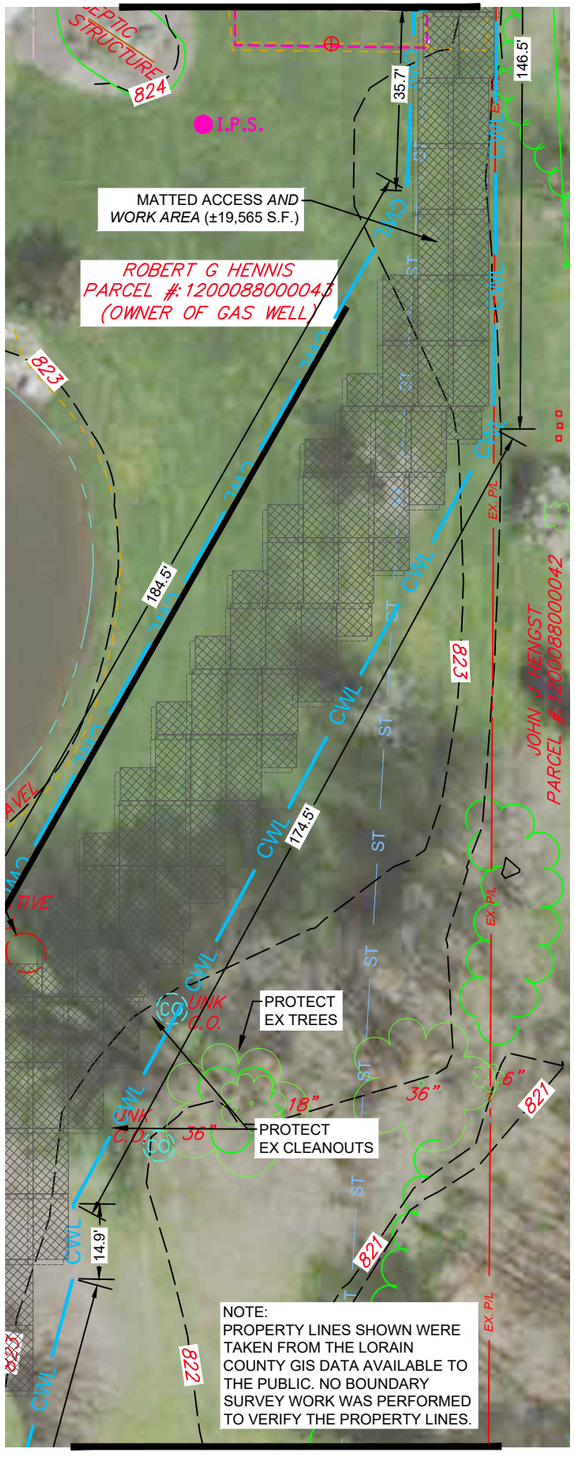
DATE: 10/29/2024
SHEET NO.
7 OF 11

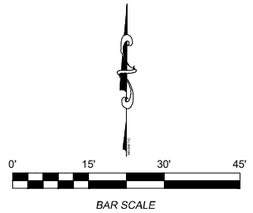


SEE TOP MIDDLE

SEE BOTTOM LEFT



SEE TOP RIGHT



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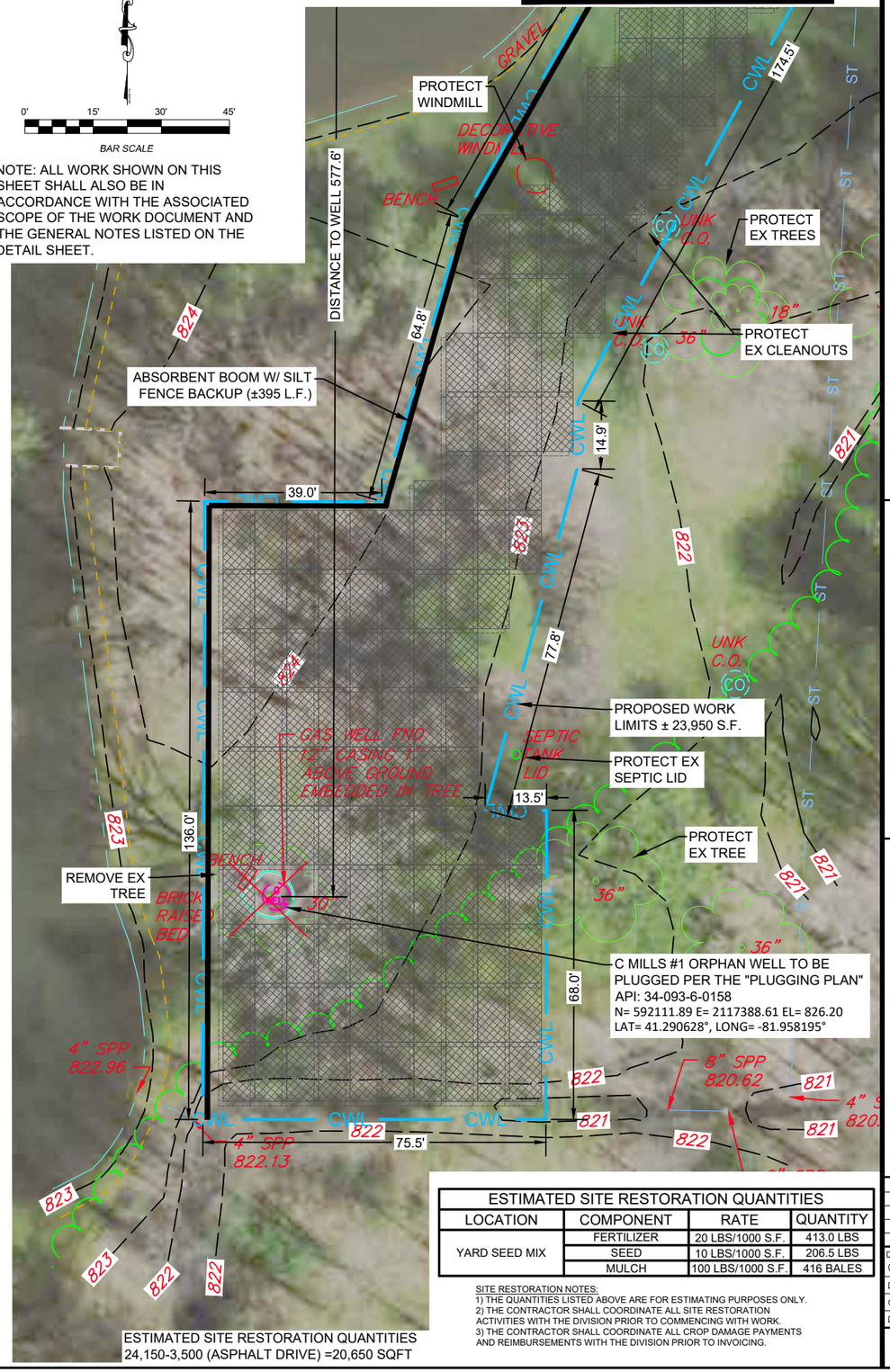
SEE BOTTOM MIDDLE



ESTIMATED SITE RESTORATION QUANTITIES
24,150-3,500 (ASPHALT DRIVE) =20,650 SQFT

ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
YARD SEED MIX	FERTILIZER	20 LBS/1000 S.F.	413.0 LBS
	SEED	10 LBS/1000 S.F.	206.5 LBS
	MULCH	100 LBS/1000 S.F.	416 BALES

SITE RESTORATION NOTES:
1) THE QUANTITIES LISTED ABOVE ARE FOR ESTIMATING PURPOSES ONLY.
2) THE CONTRACTOR SHALL COORDINATE ALL SITE RESTORATION ACTIVITIES WITH THE DIVISION PRIOR TO COMMENCING WITH WORK.
3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
https://oilandgas.ohiodnr.gov

SITE PLAN
C MILLS #1

LORAIN #21F
MULTIPLE
ORPHAN WELL SITES

REVISION

DESIGN UNIT
CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C
DATE: 10/29/2024
SHEET NO.
8 OF 11

STEPHEN BONDS #1 ORPHAN WELL TO BE PLUGGED PER THE "PLUGGING PLAN"
API: 34-093-6-0647
N= 613673.04 E= 2123988.20 EL= 790.49
LAT= 41.349679°, LONG= -81.933654°

JAN S KIHLE
PARCEL #: 1200061000046

PRO SILT FENCE - 160 LF

REMOVE TREES

PROTECT EXISTING TREES

DRIVE ACCESS OVERLAY PLACE No. 57 STONE (±16 TONS, SEE DETAIL)

PROPOSED INGRESS/EGRESS POINT
N= 613659.12 E=2124121.37 EL=787.10
LAT= 41.349383°, LONG= -81.933211°

REMOVE EXISTING RAILS AND POSTS, ROLLUP MESH FOR REUSE, SET NEW RAILS AND POSTS AS PER DETAIL AND AS DIRECTED BY THE DIVISION AND REINSTALL THE EXISTING MESH (±65 L.F.)

MATTED ACCESS *AND WORK AREA* (±6,188 S.F.)

DISTANCE TO WELL 134.9'

PROPOSED WORK LIMITS ± 5,550 S.F.

CONTRACTOR TO VERIFY OVERHEAD UTILITY CLEARANCE HEIGHT OR COORDINATE WITH UTILITY OWNER TO ADJUST HEIGHT IF NEEDED

STEPHEN A BONDS
PARCEL #: 1200061000043
(OWNER OF GAS WELL)

ESTIMATED SITE RESTORATION QUANTITIES
5,600-1,600 (GRAVEL DRIVE)= 4,000 SF

BAR SCALE 0' 10' 20' 30'

NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF THE WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.

NOTE:
PROPERTY LINES SHOWN WERE TAKEN FROM THE LORAIN COUNTY GIS DATA AVAILABLE TO THE PUBLIC. NO BOUNDARY SURVEY WORK WAS PERFORMED TO VERIFY THE PROPERTY LINES.

ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
YARD SEED MIX	FERTILIZER	20 LBS/1000 S.F.	80.0 LBS
	SEED	10 LBS/1000 S.F.	40.0 LBS
	MULCH	100 LBS/1000 S.F.	9 BALES

SITE RESTORATION NOTES:
1) THE QUANTITIES LISTED ABOVE ARE FOR ESTIMATING PURPOSES ONLY.
2) THE CONTRACTOR SHALL COORDINATE ALL SITE RESTORATION ACTIVITIES WITH THE DIVISION PRIOR TO COMMENCING WITH WORK.
3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

SITE PLAN
STEPHEN BONDS #1

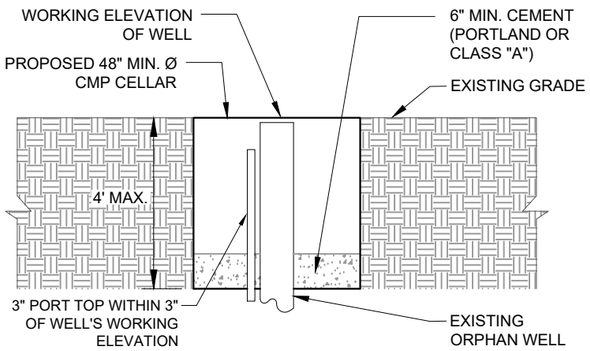
LORAIN #21
MULTIPLE
ORPHAN WELL SITES

REVISION	

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C
DATE: 10/29/2024
SHEET NO. 9 OF 11

GENERAL NOTES:

1. 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.
2. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY PROTECTING THE EXISTING BURIED UTILITIES, CURBS, ASPHALT DRIVEWAYS DURING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "MOBILIZATION".**
3. THE HORIZONTAL DATUM IS BASED ON NAD83 (2011) OHIO STATE PLANE NORTH 3401, AND THE VERTICAL DATUM IS BASED ON NAVD88 GEOID 12A CORS DERIVED.
4. PHOTO IMAGE DATE OBTAINED FROM OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP) FROM THE OHIO STATEWIDE IMAGERY PROGRAM (OSIP III).
5. THE CONTRACTOR SHALL WORK WITHIN THE WORK LIMITS AT ALL TIMES DURING CONSTRUCTION.
6. TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE DETAILED SPECIFICATIONS FOR "MOBILIZATION".
7. A FLAGGER IN EACH DIRECTION SHALL BE USED WHEN MATERIALS ARE BEING UNLOADED WITHIN THE ROAD RIGHT OF WAY.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PHOTO/VIDEO DOCUMENTING THE CONDITION OF THE EXISTING ASPHALT DRIVE PRIOR TO BEGINNING CONSTRUCTION.
9. 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.
10. THE DIVISION MUST BE PRESENT DURING ALL CLEARING OPERATIONS. NO TREES ARE TO BE REMOVED UNLESS DESIGNATED BY THE DIVISION.
11. ANY REMOVED TREES AND VEGETATION SHALL BE REMOVED OFFSITE AT THE DISCRETION OF THE DIVISION.
12. TIMBER MATS SHALL BE USED FOR TEMPORARY CONSTRUCTION ACCESS TO TRAVERSE WET AREAS AND/OR DRAINAGE COURSES.
13. 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.
14. SEDIMENT CONTROLS SHALL BE PLACED AT THE DISCRETION OF THE DIVISION.

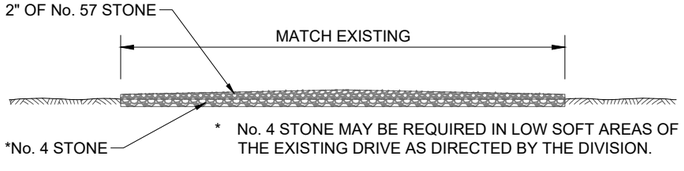


NOTES:
ALL WORK & MATERIAL ASSOCIATED WITH THE INSTALLATION & REMOVAL OF THE CELLAR SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "WELL HEAD CONTROL".

TEMPORARY CELLAR
NOT TO SCALE

NOTES:
1. 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.**
2. ALL SIGNS MAY BE MOUNTED PORTABLE MOUNTS.
3. 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.
4. 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).
5. 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.**
6. TEMPORARY CLOSURES SHALL BE MINIMIZED TO LESS THAN 20 MINUTES AND THEN THE ROAD SHALL BE FULLY REOPENED TO TRAFFIC.
7. 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.

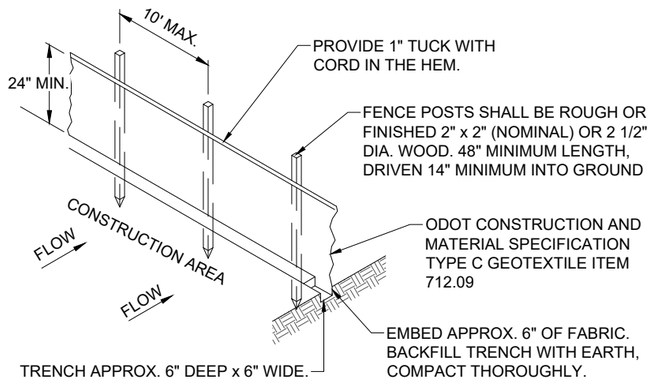
FLAGGER & CONSTRUCTION SIGNAGE NOTES
NOT TO SCALE



SECTION A-A'

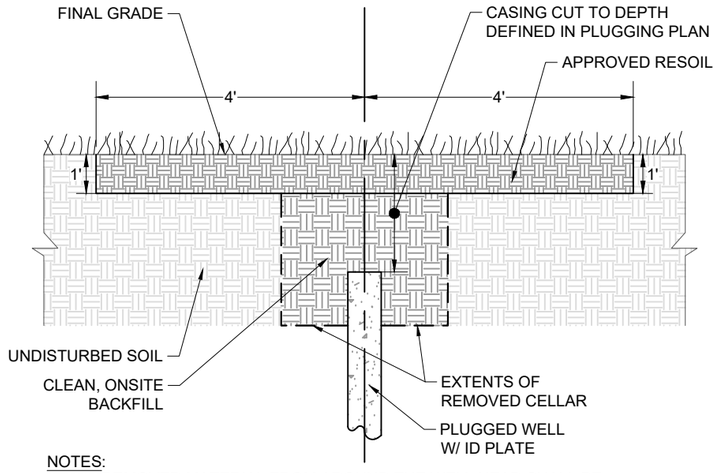
NOTE:
THE EXISTING DRIVE WILL BE THE ONLY ACCESS TO THE PROJECT SITE(S). ACCESS FOR THE LANDOWNER SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. AT THE DISCRETION OF THE DIVISION, No. 57 STONE SHALL BE PLACED ON THE EXISTING DRIVE UPON COMPLETION OF THE PROJECT. ALL OTHER ACCESS AREAS SHALL BE RESTORED PER LINE ITEM "SITE RESTORATION".

DRIVE ACCESS OVERLAY
NOT TO SCALE



NOTES:
1. FABRIC TO BE FASTENED SECURELY TO FENCE POST AS PER MANUFACTURER'S RECOMMENDATIONS.
2. ENDS OF INDIVIDUAL ROLLS OF FABRIC SHALL BE SECURELY FASTENED TO A COMMON POST OR OVERLAPPED 3" MIN.

SILT FENCE DETAIL
NOT TO SCALE



NOTES:
1. ANY REMOVED MATERIAL FROM AROUND THE WELL HEAD SHALL BE SEGREGATED TO PREVENT ADDITIONAL CONTAMINATION.
2. 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".
3. REMOVED MATERIAL SHALL BE DISPOSED OF PER LINE ITEM "CONTAMINATED MATERIAL DISPOSAL".
4. PRIOR TO DELIVERY TO THE SITE OF "APPROVED RESOIL", ON SITE TOPSOIL MAY BE UTILIZED AT THE APPROVAL OF THE DIVISION
5. 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

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

DETAILS

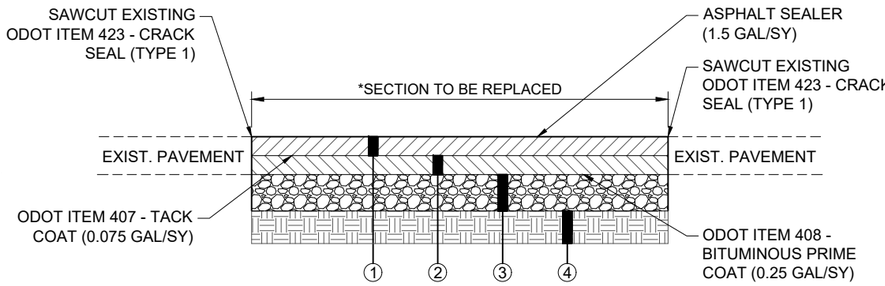
LORAIN #21F
MULTIPLE
ORPHAN WELL SITES

REVISION

DESIGN UNIT
O&G ENGINEERING
DRAWN BY: S.T.L.
CHECKED BY: J.J.J.
DATE: XX/XX/XXXX
SHEET NO.
10 OF 11

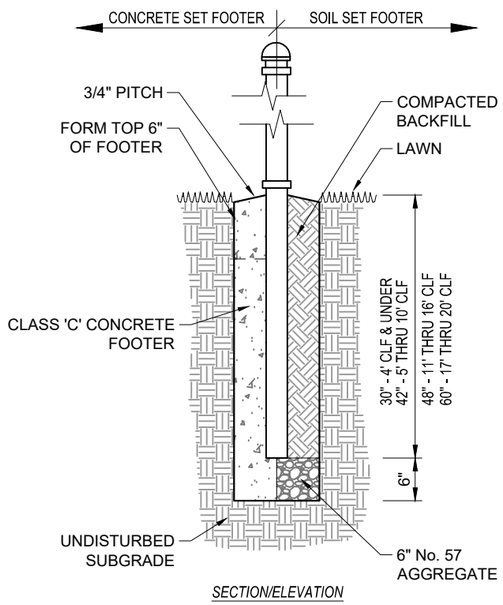
EDIT DATE: 12/23/2025 11:12 AM EDIT BY: 10185856 DRAWING FILE: M:\ORPHAN WELL PROGRAM\PROJECTS\LORAIN COUNTY\LORAIN 21 (CT, OLD 9)\ENGINEERING DESIGN\DRAWINGS\FINAL DRAWING\LORAIN 21.DWG

NOTES:
1. THE PAVEMENT SECTION SHOWN IS FOR ESTIMATING PURPOSES CONTINGENCY LINE ITEM "PAVEMENT REPAIR"
2. THE CONTRACTOR SHALL BE REQUIRED TO PHOTO DOCUMENT THE EXISTING ASPHALT APRON PRIOR TO THE MOBILIZATION OF PLUGGING EQUIPMENT TO THE SITE.
3. *AT THE DISCRETION OF THE DIVISION, THE CONTRACTOR SHALL BE REQUIRED TO REPLACE ANY DAMAGED PORTIONS OF THE ROADWAY/DRIVE. THE FINAL PAVEMENT SECTION SHALL BE BASED ON THE EVALUATION OF EXISTING PAVEMENT SECTION.
4. IN ADDITION TO THE REPLACEMENT SECTION SHOWN. REMOVAL AND LAWFUL DISPOSAL OF THE DAMAGE DRIVE SHALL BE CONSIDERED INCIDENTAL TO THIS LINE ITEM.

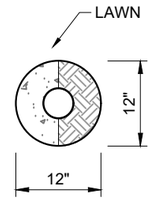


1. ODOT ITEM 441-1.5" ASPHALT CONCRETE, SURFACE COURSE, (TYPE 1), PG 64-22
2. ODOT ITEM 441-2.5" ASPHALT CONCRETE, INTERMEDIATE COURSE, (TYPE 2)
3. 3" NO.304 AGGREGATE BASE (COMPACTED)
4. EXISTING SUBGRADE SECTION

ASPHALT PAVEMENT REPLACEMENT SECTION
NOT TO SCALE



SECTION/ELEVATION

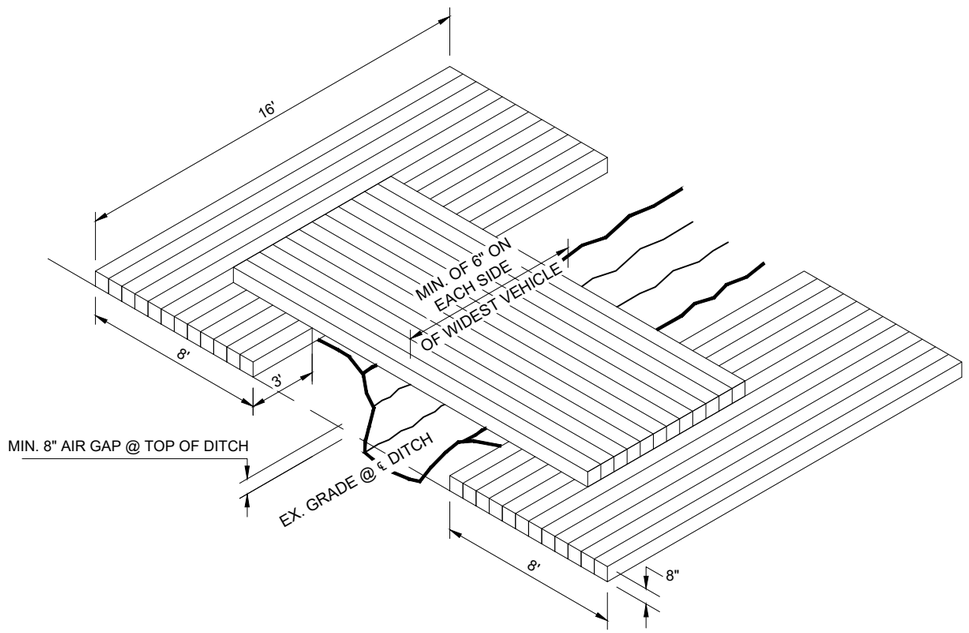


(18" FOR POST TALLER THAN 12')

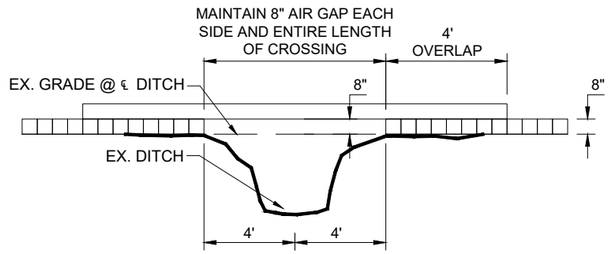
PLAN

NOTES:
1. THE CONTRACTOR SHALL MATCH THE EXISTING FENCE POST FOOTERS.
2. CHAINLINK FENCE TALLER THAN 8' SHALL HAVE CONCRETE SET FOOTERS.

CHAINLINK FENCE POST FOOTERS
NOT TO SCALE



ISOMETRIC PLAN



CROSSING SECTION

STANDARD AIRBRIDGE OVER DITCH
NOT TO SCALE

DIVISION OF OIL & GAS RESOURCES MANAGEMENT
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