SCOPE OF WORK
LORAIN 8F PROJECT
Multiple Orphan Well Sites Lorain County, Various Townships

PROJECT DESCRIPTION

The Lorain 8 project shall include the following wells:

Wells to be plugged per the individual plugging plan.

Well Name	API Number	County	Township	Latitude	Longitude
Midview School District #1	34-093-6-0611-00-00	Lorain	Eaton	41.297432	-82.068176
Kantosky C & B #1	34-093-2-0924-00-00	Lorain	Eaton	41.300835	-82.065662
Spitzer Ford Agency #1	34-093-2-0909-00-00	Lorain	Eaton	41.285018	-82.053312
Spitzer Ford Agency #2	34-093-2-0920-00-00	Lorain	Eaton	41.289154	-82.056271
Spitzer Jackson #1	34-093-2-0946-00-00	Lorain	Carlisle	41.310732	-82.072585

PROJECT SCOPE OF WORK:

This project includes mobilization, access and well site development, drilling or cleaning out of and plugging of five (5) 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.

PROJECT DIRECTIONS: Coordinates listed are the proposed ingress/egress point for the well site.

Midview School District #1
Lat: 41.297237
Long: -82.068935

Kantosky C&B #1
Lat: 41.299882
Long: -82.064509

Spitzer Ford Agency #1
Lat: 41.287727
Long: -82.051177

Spitzer Ford Agency #2
Lat: 41.288176
Long: -82.059095

Spitzer Jackson #1
Lat: 41.311733
Long: -82.069902

SCOPE OF WORK
LORAIN 8F PROJECT
Multiple Orphan Well Sites
Lorain County, Various Townships

GENERAL SCOPE OF WORK

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

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

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

SCOPE OF WORK
LORAIN 8F PROJECT
Multiple Orphan Well Sites
Lorain County, Various Townships

GENERAL CONDITIONS

PART 1: OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS

This Lorain 8 Project (Project) references the Ohio Department of Transportation (ODOT) Construction and Material Specifications (ODOT CMS). Any reference to these specifications is to ODOT's most current version of the specifications. The ODOT CMS can be found at https://www.dot.state.oh.us/Divisions/ConstructionMgt/OnlineDocs/Pages/2023-Online-Spec-Book.aspx

PART 2: PRE-SITE MEETING

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

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

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

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

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

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

PART 4: PERMIT AND INSPECTION REQUIREMENTS

The Division will obtain and pay for all building and U.S. Army Corps of Engineers permits unless otherwise specified in the Detailed Specifications. However, the Contractor shall determine and include in his or her Offer Sheet the costs required to obtain and pay for all other requirements by the applicable governmental agencies; including but not limited to, all certificates of inspection/operation, guarantees, licenses, etc. required to complete the work as described within this document. The contractor shall follow all applicable laws and permit requirements and the Division will not be held responsible for damages that result from violation of laws or permits.

PART 5: INSTRUCTIONS FOR PREPARING AN OFFER

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

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

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

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

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

1. Refer to the Scope of Work posted in OhioBuys with this solicitation.
2. **Only Contractors who are pre-qualified to offer this service on an existing State Contract beginning with CSP900-922 (DAS Index No. MAC110) may respond to this solicitation.** All CSP900922 Contract Terms & Conditions apply to this solicitation. No additional terms and conditions will be accepted. The Division will reject Offers from any Contractor that is not pre-qualified.
3. Completion of the grid is required and will be considered the response for evaluation. No outside or additional documentation will be considered.
4. Fixed prices will be automatically added to Contractor's proposals when shown. Contractors are not to enter pricing for fixed price items.

5. Confirm that your bid has been successfully imported into OhioBuys for all items before submitting. Incomplete bids and/or attachments will not be evaluated.
6. The most recent bid submitted in OhioBuys will be the bid that is evaluated, all prior bids submitted in the same solicitation will not be evaluated.
7. **The Contractor or Contractor's representative must attend the site meeting.** Failure to attend the site meeting is grounds for the Division to reject the Contractor's Offer.

PART 6: DIVISION'S OFFER SELECTION

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

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

PART 7: WITHDRWAL 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.

PART 18: CHANGES IN THE SCOPE OF WORK

18.1 The Division's Right to Require Change Orders

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

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

18.2 Unauthorized Work

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

18.3 Contractor's May Request Change Orders

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

18.4 Determining Price of a Proposed Change Order

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

a. If a Change Order involves items not listed on the Offer Sheet, the Contractor must present the Division with labor and/or material price quotes for the proposed Change Order item(s). The Division may request these quotes either in unit prices or as lump sums; or

b. If the work involved in the Change Order is not definable, the Division may request the work be performed on a time and material basis and include a maximum amount to be paid for the work. The method will be based on unit prices for both labor and materials agreed to by the Division prior to the Contractor commencing the work.

18.5 Disputes Regarding Change Order Prices

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

PART 19: PAY ESTIMATES

19.1 General Information

Payments issued to the Contractor as the work progresses are not acceptance of any portion of the work not completed in accordance with the Scope of Work nor do such payments relieve the 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 payment request, the Contractor and the Division must meet at the Project site to review the Project progress. The Contractor and the Division's Project Representative must mutually agree on quantity and percent of work completed for all offer items prior to submittal of each payment request. No payment request will be approved for work that has not been approved by the Division's Project Representative. Field verification of all lump sum quantities and weight slips for all unit price quantities invoiced must be submitted to the Division's Project Representative for review during the meeting.

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

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

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

19.3 Documents to be Submitted for Payment

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

With each request for payment the Contractor certifies that:

a. The request for payment is accurate as to materials and the work completed under the terms and conditions of the Scope of Work and any Change Order, as applicable, including full compliance with all labor provisions; and

b. All subcontractors and material suppliers have been paid for the work or materials that are applicable to all previous payment requests. As certification, each request for payment, at the Division's request, may need to be accompanied with a properly executed "Waiver of Liens" from all subcontractors and material suppliers to show that all previous payments made by the Division to the Contractor have been applied to fulfill, in full, all of the Contractor's obligations reflected in prior requests for payment.

19.4 Effect of Liens on Payment Requests

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

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

PART 20: RETAINAGE FOR FINAL 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.

SCOPE OF WORK
LORAIN 8F PROJECT
Multiple Orphan Well Sites
Lorain County, Various Townships

GENERAL SPECIFICATIONS

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

PART 1: HOURS OF WORK

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

PART 2: EQUIPMENT

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

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

PART 3: NOTIFICATIONS

3.1 Seven Working Day Notice

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

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

3.2 Public 48 Hour Notice

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

3.3 Emergency Notification

When emergency conditions are encountered, such as a release of hydrogen sulfide gas (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 on-site. A copy of all SDS will be supplied to the local Fire Department and to the Division.

6.6 Site Security

The Contractor shall 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.

6.7 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 Restoration Inspection form that accepted the work.

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

SCOPE OF WORK
LORAIN 8F PROJECT
Multiple Orphan Well Sites
Lorain County, Various Townships

SEQUENCE OF WORK

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

Phase I:

1) Contact the Ohio Utility Protection Service and the Ohio Oil & Gas Producers Underground Protection Service.

2) Coordinate with the Orphan Well Inspector and the local authorities for the mobilization of equipment over the roads and bridges to the site as applicable.

3) Verify with the Orphan Well Inspector that the pre-construction staking (i.e. Construction Work Limits) has been completed by the Division. **The pre-construction staking must be completed prior to mobilization.**

Phase II:

1) Mobilize all necessary equipment to the site and develop the site access as shown on the **Drawing Plan Set**.

2) Implement site safety and secondary containment as described in the **Detailed Specifications**.

3) Install perimeter sediment controls as required by the Division.

4) Prepare the well for plugging as described in the **Detailed Specifications, "Well Head Control."**

5) Upon successful installation and approval of the wellhead and establishment of well control, the Contractor shall begin to plug the well as described in the **Plugging Plan** and **Detailed Specifications, "Well Preparation & Plugging."**

6) **No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut the casing as defined in the Plugging Plan.**

7) The Contractor shall set the plugged well identification as outlined in the **General Specifications**

and Ohio Administrative Code 1501-9-11-10.

Phase III:

1) Within three (3) working days after Division has determined the plugging operations are completed, the Contractor shall remove all well and well plugging-related equipment, fluids, and cuttings from the site. The Contractor shall also excavate and remove all contaminated soils present onsite if present.

2) Within fourteen (14) days after the completion of the plugging operations, the Contractor shall 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 8F PROJECT
Midview School District #1 Orphan Well Site
Lorain County, Eaton Township

WELL DESCRIPTION

This well description is for:

Midview School District #1, API # 34-093-6-0611-00-00, Lorain County, Eaton Township

Background: The Midview School District #1 orphan well is located approximately 1.5 miles north of the City of Grafton. This well is situated approximately 220-feet east of Grafton Road (US Route 57). On an 18.8-acre parcel (1100097000015) owned by the Midview LSD Board of Education. The street address is 12865 Grafton Road, Grafton, Ohio, 44044 with the GPS coordinates being 41.29755, -82.06828.

In June of 2009, the Division received a Complaint from Midview LSD Board of Education regarding a possible Orphan well located on a parcel of property that Midview School District recently acquired. A Division Inspector conducted an onsite inspection on 6/09/2009. His findings were very sparsely detailed only noting " finding a seven (7)-inch casing sticking out of the ground without any mention of leaking oil or gas". The Inspector did mention a possible domestic gas connection being attached to the casing. Mr. Todd Whitsel (Midview LSD) was quoted as saying "going to have the well tested to see if it was capable of suppling several buildings at the football stadium". If the well was not sufficient in supplying enough gas he requested that the well be entered into the I & O well program. On 8/24/2021, the Division conducted a status inspection and located a " blue 10" X 8' PVC pipe in proximity to the GPS coordinates provided by the ODNR Well Locator map.. No production equipment, odors or dead vegetation were identified during this inspection. A follow-up inspection was conducted on 7/25/2024 in preparation for developing a Plugging Plan for inclusion into the Division's Orphan Well Program. After removing the PVC vent pipe this inspection found several open steel casings. The outer casing was calipered at 8.5-inches (O.D.) with the inner casing having an inner diameter of 6.6-inches. A weighted line was lowered down the casing and appeared to "hit" fluid at approximately 100-feet and then tagged a soft obstruction at 163-feet. Upon retrieval the weight had an unknown reddish material on it. No mention of leakage was addressed.

The area has undergone a variety of oil and gas development from shallow Shale gas wells to deeper "Clinton" wells of approximately 2,450-feet. The majority of the offset wells in the field appear to be of the "Clinton" sand variety. A review of the Ohio Fuel Gas maps did not indicate any gas wells located on the property and there aren't any drilling or plugging records available for this well.

The majority of the wells were drilled by the Cable Tool method utilizing various diameters of of casings. The typical well construction would consist of ten (10)-inch to thirty-feet, eight (8)-inch casing set at 125-feet, six (6)-inch casing set at approximately 1,400-feet (usually pulled upon TD), five (5)-inch casing set at 2,300-feet with three (3)-inch tubing set on an anchor packer.

The closest similar vintage well with drilling and casing records is API #34-093-6-0259-00-00, located 0.25 miles to the south of the Midview School District #1. This well is assumed to have been drilled in the mid 1930's. The available records indicate the following information:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Berea	20	85	
"Big Lime"	1,059	2,290	Water @ 1,277', 2,149', Nbg – 2,088 to 2,126
"Little lime"	2,331	2,336	
"Clinton"	2,421	2,423	gas
Total Depth		2,456	R.P. – 935 psi, not shot

Casing data for API # 34-093-6-0259-00-00 is as follows:

- 10-inch not reported
- 8-inch casing set at 125-feet
- 6-inch casing set at 1,393-feet
- 5-inch casing set at 2,319-feet

Plugging records for API # 34-093-6-0259-00-00 were not found.

For the purposes of this Scope of Work it is assumed that the Midview School District #1 orphan well was drilled to a total depth of 2,450-feet, was completed in the "Clinton sand", that it was originally equipped with an unknown amount of 10-inch drive pipe, originally was equipped with 125-feet of 8-inch casing, that it was originally equipped with 1,400-feet of 6-inch casing and had 5-inch casing set at approximately 2,325-feet.. The only casings visible at the surface on the Midview School District #1 were 8-inch and 6-inch.

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

Designated Route: The Contractor shall utilize Grafton Road 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 # 8 PROJECT
Midview School District #1 Orphan Well Site
Lorain County, Eaton Township

PLUGGING PLAN

This Plugging Plan is for:

Midview School District #1, API # 34-093-6-0611-00-00, Lorain County, Eaton Township

For the purposes of this Scope of Work it is assumed that the Midview School District #1 orphan well was drilled to a total depth of approximately 2,450-feet, that it was completed in the "Clinton sand", that is was equipped with an unknown amount of ten (10)-inch drive pipe which is not visible at the surface, that it was originally equipped with 125-feet of eight (8)-inch surface casing, that it was equipped with approximately 1,400-feet of six (6)-inch casing (usually pulled after reaching Total Depth) and originally had approximately 2,325-feet of five (5)-inch production casing. The only casings visible at the surface on the Midview School District # 1 were the eight (8)-inch and six (6)-inch.

The Midview School District #1 had offsetting wells which reported initial "rock pressures" ranging from 900 psi to 1,100 psi. For the purpose of calculating the weight of the brine kill fluid required a pressure of 1,100 psi was utilized. The Contractor will supply and maintain a dedicated kill fluid consisting of 250 barrels of weighted brine with a minimum density of 10.5 pounds per gallon (ppg) with the sole purpose of killing the well to regain well control when required. The 10.5 ppg brine should generate a bottom hole hydrostatic pressure of 1,336 psi. 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 operation as a means to displace the well kill fluid as required. In addition, the Contractor will supply up to 300 barrels of fresh water for use as a circulation fluid.

For clean out 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 mud and conduct all required mud and fluid checks.

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 pressure from the well.

2) The Contractor will visually inspect the eight (8)-inch casing and the six (6)-inch casing to evaluate the condition immediately below grade. If either casing is found to be severely degraded, the Contractor will replace the incompetent section of casing and install sufficient new casing(s) to bring the top of the casing(s) up 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 of the cellar can be found in the Detailed Specifications.**

4) The Contractor will then install a suitable wellhead and an approved method of well control on the six (6)-inch casing to insure 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 250 barrels of an appropriate fluid to ensure wellbore stability on location for well control.

5) The Contractor will run their tools into the six (6)-inch casing and wellbore to verify T.D. and identify any obstructions at depth. If obstructions are found, the Contractor will proceed to clean out / drill out the borehole to its total depth (TD) of 2,450-feet or a depth approved by the Division. This procedure may involve mills, fishing tools, and wash over tools. All fluids utilized in the plugging process will be designed to encourage wellbore stability. The final total depth will be at the Division's discretion.

6) Once total depth has been reached, the Contractor will load the hole with a compatible formation fluid and run a suite of logs consisting of Gamma Ray/CCL/VDL Bond & Caliper logs to verify lithology, casing depth, cement quality and borehole diameter. All cement plug depths and thicknesses will be based on log data. **If the VDL/Bond log data indicates that the six(6)-inch casing is a complete string of casing to approximately 1,400-feet, then the Contractor will sever the six (6)-inch casing at the deepest "free point" of the casing. The Contractor will place the recovered casing on a bermed liner for further evaluation by the Division. The Contractor will provide the Division with an accurate tally of the recovered six (6)-inch casing.**

7) All cement slurry plugs will be displaced through a work string with a minimum inside diameter of 1.5-inch. An API approved cement, blended with 2% Calcium Chloride, mixed at the recommended API density will be utilized. The Contractor will ensure that the cement mix water meets specifications. **The wellbore will be circulated sufficiently with two (2) bottoms up volumes prior to cementing the bottom plug. The wellbore must be in a static condition prior to the displacement of any cement slurry plugs. Slurry density will be verified by a beam balance mud scale and forwarded to the Division. At the discretion of the Division, a minimum of ten (10) barrels of AquaGel[**], a scavenger cement or an equivalent 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 plugs. [**] (a mix ratio of one (1) fifty (50) pound bag of gel per five (5) barrels of the approved fluid.)**

8) The Contractor will set a 400-foot cement plug from 2,450-feet to 2,050-feet to cover and isolate the "Clinton" sand and Newburg Dolomite intervals. The Contractor will wait on the cement a minimum of eight (8)-hours and then run their tools into the wellbore to verify proper plug placement. If the plug has dropped or it is determined that a competent plug was not achieved, additional staged plugs may be required by the Division.

9) The Contractor will set a 400-foot cement plug from 1,300-feet to 900-feet to isolate the top of the "Big Lime" section and the six (6)-inch casing rip. The Contractor will wait on the cement for a minimum of eight (8)-hours and then run their tools into the wellbore to verify proper plug placement. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.

10) The Contractor will then set a 400-foot cement plug from 800-feet to 400-feet to isolate the "Cinnamon" shale section. The Contractor will wait for eight (8)-hours and then run their tools into the wellbore to

verify proper plug placement. If the plug has dropped or a competent plug was not achieved, additional staged plugs may be required at the discretion of the Division.

11) The Contractor will then set a 400-foot cement plug from 400-feet to within 48-inches of grade and wait on the cement for eight (8)-hours. If the plug has dropped or a competent plug was not achieved, additional top off cement or plugs may be required, at the discretion of the Division.

12) 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 additional plugging work will 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 8F PROJECT
Kantosky C&B #1 Orphan Well Site
Lorain County, Eaton Township

WELL DESCRIPTION

This Well Description is for:

C&B Kantosky C&B #1, API# 34-093-2-0924-00-00

Background: The Kantosky C&B #1 is located approximately 925 feet south of Capel Road, 1,225 feet east of Grafton Road/SR 57 and 350 feet north of Hardball Road, on a 34.11-acre agricultural parcel (1100097000043) owned by Midview Local School District Board of Education. The Kantosky C&B #1 is situated in an open farm field, approximately 75 feet east of the wood line. The school baseball field is located approximately 250 feet east of the well, the High School building approximately 450 feet northeast of the well and the Middle School building approximately 825 feet southeast of the well. The nearest residential occupied structures are located approximately 1,100 feet west of the well. Access to the well is off Hardball Road, just east of the bridge, and then north into the agricultural field to the well. Depending on weather and soil conditions, matting may be needed for the ingress and egress of plugging equipment and to safely conduct plugging activities. There are overhead utility lines at access of Hardball Road off of Grafton Road and at the proposed ingress point to the well off of Hardball Road. Several trees may need to be removed and a culvert may be necessary to access the well north of Hardball Road. The remnants of the shed will need to be removed and the project area cleared of brush and debris to safely access the well and associated components.

The most recent inspection of the Kantosky C&B #1 was conducted in June of 2024 and found the well inside a partially demolished shed in the corn field. There was a natural gas odor present but no audible leaks. The 8.63-inch diameter surface casing head was found several inches below grade. There is a DRH tubing head that is fitted to the 4.5-inch diameter production casing with the 2-inch diameter production tubing exiting the top of the head. Attached to the top of the production tubing is a valve with a pressure gauge that reads 50 pounds per square inch (PSI). This gauge was removed and a 100 PSI gauge was installed and was maxed out when the valve was opened. There are two ports on the wellhead, one plumbed to a regulated 1-inch diameter domestic service line and the other plumbed to the regulated 2-inch diameter flow line. The terminus of both the service line and the flowline is unknown. An attempt was made to gauge the pressure on the regulated flow line but one of the regultors was ruptured and prevented a reading from being taken. There appeared to be a substantial amount of natural gas pressure on this line. There is no seperator or oil/brine storage tank known to be associated with this well. Eaton Township is not shown as a Hydrogen Sulfide (H2S) Township as per Division records.

Division records show that the Kantosky C&B #1 was drilled in 1967 by Louis Kapp to a depth of 2,452 feet in the Clinton sandstone. The formation information for this well is as follows:

FORMATION	TOP (FT)	BOTTOM (FT)	REMARKS
SOIL AND SANDSTONE	0	47	BEREA
SHALE	47	1,053	
LIMESTONE	1,053	1,233	
DOLOMITE	1,233	1,368	
SALINA GROUP	1,368	1,948	
GREENFIELD DOLOMITE	1,948	2,120	
CLINTON GROUP	2,120	2,278	
SHALE/DOLOMITE/SHALE	2,278	2,333	
PACKER SHELL	2,333	2,354	
CLINTON GROUP	2,354	2,452	2,391-2,409 Clinton Sandstone-Broken
TOTAL DEPTH		2,452	

Division records show the following casing data for Kantosky #1:

- 8.63-inch diameter casing set to 259 feet with 115 sacks of cement.
- 4.5-inch diameter casing set to 2,450 feet with 100 sacks of cement.

Completion information shows that the Kantosky C&B #1 was perforated with 12 holes from 2,390 feet to 2,432 feet and hydro-fractured with 22,500 gallons of water and 20,000 pounds of sand. Estimated production, after fracture, was 900,000 cubic feet of natural gas per day.

For the purposes of this Scope of Work it is assumed that the Kantosky C&B #1 was drilled to depth of 2,452 feet in the Clinton sandstone, that it is equipped with 259 feet of 8.63-inch (cemented in-place to surface), 2,450 feet of 4.5-inch diameter production casing that is cemented in-place from total depth to approximately 2,000 feet and an unknown amount of 2-inch diameter production tubing. It is also assumed that the production casing and tubing are open to their total depths.

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 Hardball 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 8 PROJECT
C&B Kantosky #1 Orphan Well Site
Lorain County, Eaton Township

PLUGGING PLAN

This Plugging Plan is for:

C&B Kantosky #1, API# 34-035-2-0924-00-00

For the purposes of this Scope of Work it is assumed that the C&B Kantosky #1 was drilled and is open to a depth of 2,452 feet in the Clinton sandstone, that it is equipped with 259 feet of 8.63-inch (cemented to surface), 2,450 feet of 4.5-inch diameter production casing that is cemented in-place from total depth to approximately 2,000 feet and an unknown amount of 2-inch diameter production tubing and that there is pressure on the well. Well data and pictures can be found in the Appendix.

Offset well records also show that natural gas was encountered in the Ohio Shale at depths between 190 feet and 775 feet. The Contractor should exercise caution during the cleanout and plugging of this well.

The Contractor will supply and maintain a dedicated kill fluid consisting of 220 barrels of 10 pounds per gallon (ppg) weighted brine with the sole purpose of killing the well to regain well control when required.

For any clean out 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 properly mix the drilling mud and conduct all required mud and fluid checks/adjustments.

1) The Contractor will provide a twenty-four (24)-hour notice to the Landowner and local Fire authorities prior to safely relieving any pressure that is on the well.

2) The Contractor will excavate around the well to expose and visually examine the existing casing to evaluate its condition immediately below grade. If necessary, 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.

3) The Contractor will install an appropriately sized, lined and liquid tight cellar around the well to capture all fluids generated during the plugging process.

4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure 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 and shall supply and maintain a minimum of 220 barrels of saltwater on location for use as circulation fluid.**

5) The Contractor will remove the production tubing from the well, stage it on a bermed liner and provide an accurate tally of the amount of tubing removed from the well.

6) The Contractor shall run their tools into the 4.5-inch diameter casing to ensure it is open and verify the wells total depth, which records show is 2,452 feet. If required, drilling, milling and/or fishing equipment may be used to reach the required depth, as outlined in the General Specifications.

7) Once total 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 well's total depth, the top of the cement and bond quality behind the 4.5-inch diameter casing, and lithology, for cementing purposes. This log data will be utilized for final cementing calculations.

8) 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 blended 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, ten (10) barrels of a cement scavenger such as AQUAGEL, or an equivalent product approved by the Division, shall be pumped immediately ahead of any cement plugs for well conditioning purposes at a mix ratio of fifty (50) pounds of gel per five (5) barrels of approved fluid**. Circulation must be established and all free crude oil shall be circulated from the wellbore prior to setting any cement plug.

9) The Contractor will set a 450-foot bottom plug from 2,450 feet to 2,000 feet, as determined by log data, to cover/isolate the Clinton sandstone, wait on cement a minimum of eight (8) hours 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.

10) The Contractor will sever the 4.5-inch diameter production casing at the lowest free point above the Salina/salt section (approximately 1,250 feet), remove this casing from the well and stage it on a bermed liner. The Contractor will provide an accurate tally of the amount of casing removed from the well.

11) The Contractor will run in with the working string of tubing and set a 450-foot plug from the sever point at approximately 1,250 feet to 800 feet to cover/isolate both the rip point and the top of the Big Lime section. The Contractor will wait on cement a minimum of eight hours and then run their tools into the hole to verify the top of the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

12) The Contractor will set a 400-foot plug from 800 feet to 400 feet to cover/isolate the Ohio shale section, wait on cement a minimum of eight hours 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.

13) The Contractor will set a cement plug from 400 feet to within forty-eight (48) inches of surface, wait on cement a minimum of eight (8) hours and then check the cement level and top off with additional cement, if necessary.

14) 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.

17) 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 8F PROJECT
Spitzer Ford Agency #1 Orphan Well Site
Lorain County, Eaton Township

WELL DESCRIPTION

This Well Description is for: **Spitzer Ford Agency #1, API # 34-093-2-0909-00-00, Lorain County Eaton Township**

Background: The Spitzer Ford Agency #1 well is located 230-feet north of the Village of Grafton northern Corporation limit. This orphan well is situated approximately 585-feet west of South Durkee Road in an agricultural field (Parcel # 1100082000019) containing approximately 92.26 acres owned by Spitzer Hardware and Supply Co. The address is South Durkee Road, Grafton, OH, 44044.

On 7/5/1989 the Division received a complaint from Daniel Thomas regarding an idle well in Eaton Township in Lorain County. A Division Inspector was dispatched to the site to assess the situation. This assessment reported "a well shut in on 4.5-inch casing, unknown last production records, no gas or flow lines hooked up to well, incapable of production". The Division assigned an Idle and Orphan (I&O) case number of 89-12-158 for the well. A second inspection, for inclusion into the Orphan Well Program, was conducted on 12/13/2022 and found the well equipped "4.5 inch casing with a four (4)-inch valve attached to the 4.5-inch casing, a 4.5-inch by 2-inch swage was on top of the valve and open to the atmosphere. There was a flowline leading to a vertical separator positioned approximately 25 feet from the wellhead. There was an odor of gas at the wellhead. The nearest inhabited structure was located 420-feet away to the east. No responsible party was identified for this well."

A third Divisional inspection was conducted on 7/25/2024 and reported the well located in an area of heavy brush and small trees adjacent to a soybean field. The vegetation was cleared around the wellhead and the area was excavated to approximately 18-inches below grade. This excavation exposed the top of a casing head that measured 14.75-inches (possibly the 8.625-inch surface casing head). A second casing extended up through the surface casing head which was calipered at 4.5-inches. Fitted to this casing was a closed gate valve with a 4.5-inch by 2-inch swage whose top section was rusted off and venting natural gas to the atmosphere. There was no tubing, rods or fluid visible at the surface in this well. There wasn't any storage tanks at this wellsite.

The Spitzer Ford Agency #1 orphan well was drilled and completed in August of 1967 by Louis Kapp. This well was drilled by the March Drilling Company utilizing a rotary drilling method. The well reached a total depth of 2,536-feet, which targeted the "Clinton sand" as the production horizon. The well construction included 245-feet of 8.625-inch surface casing cemented back to surface with 125 sacks of neat cement. The production string of casing was comprised of 2,526-feet of 4.5-inch casing cemented with 100 sacks of cement. **All the casing is assumed to be left in the well.** Shelwell Well Logging ran a Gamma Ray, Neutron and Porosity log in the openhole. The production casing was perforated, by Shelwell, through the interval 2,452-feet to 2,476-feet with twelve shots. The well was hydrofractured with 23,000 gallon of slick water and 20,000 pounds of proppant sand. It was reported that the well

pressured up to 1,040 psi in 72 hours after the stimulation with a gas open flow of 5,280 mcf. There aren't any production records available for this well and the Operator is defunct.

Formation	Top (ft.)	Bottom (ft.)	Remarks
Berea	43	126	
shale	126	1,112	
"Big Lime"	1,112	2,390	
Packer Shell	2,400	2,425	
"Clinton sand"	2,450	2,478	Perfs …2,452-feet to 2,476-feet w/ 12 shots
Total Depth		2,536	

Casing data for the Spitzer Ford Agency #1 (API # 34-093-2-0909-00-00) is as follows:

- 8.625-inch O.D. casing set to 245-feet, cemented back to surface with 125 sacks of cement
- 4.5-inch O.D. casing set to 2,526-feet, cemented with 100 sacks of cement

Plugging records for the Sauter #3 (API # 34-093-2-1247-00-00) a similarly constructed well located 4.5 miles to the northeast show that well was plugged on 10/21/1998 in the following manner:

- Perforation plug from 2,680-feet to 2,480-feet, plugged with 25 sacks of cement
- Top of "Big Lime" plug, ripped 4.5-inch casing at 1,850-feet, plugged from 1,539-feet to 1,130-feet with 60 sacks of cement, recovered 1,850-feet of 4.5-inch casing
- Bottom of surface casing plug, 375-feet to 225-feet with 35 sacks of cement
- Surface plug, 140-feet to surface with 40 sacks of cement

For the purposes of this Scope of Work it is assumed that the Spitzer Ford Agency #1 was drilled to a total depth of 2,536-feet, that it was completed by Hydrofracturing through 4.5-inch casing, that it is equipped with 245-feet of 8.625-inch diameter casing cemented to surface, that it has 2,526-feet of 4.5-inch diameter production casing, that both casings remain in the well, that there isn't any tubing visible at the surface, that there are associated flow lines and separation equipment located on the wellsite and that the well is actively venting to the atmosphere.

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 South Durkee 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 all road use notifications or approvals prior to mobilizing equipment to the site.

SCOPE OF WORK
LORAIN 11 PROJECT
Spitzer Ford Agency #1 Orphan Well Site
Lorain County, Eaton Township

PLUGGING PLAN

This Plugging Plan is for:

The Spitzer Ford Agency # 1 well , API #34-093-2-0909-00-00, Lorain County, Eaton Township

For the purposes of this Scope of Work it is assumed that the Spitzer Ford Agency # 1 was drilled to a total depth of 2,536-feet in the "Clinton sand", that it was completed by hydrofracturing through 4.5-inch casing, that it is equipped with 245-feet of 8.625-inch casing cemented back to surface, that it has 2,526-feet of 4.5-inch production casing cemented with 100 sacks of Pozmix, that both casings remain in the well, that there isn't any tubing visible at the surface, that there is associated flow lines and separation equipment located on the wellsite and the well is actively venting natural gas to the atmosphere.

The Spitzer Ford Agency # 1 well reported an initial formation pressure (after 72-hours) of 1040 psi after being hydrofractured. A review of the records of the wells drilled to the "Clinton sand" which offset the Spitzer Ford Agency # 1 indicated a maximum formation pressure of 1,100 psi which was the pressure used in the calculation of the kill fluid density for well control purposes. The Contractor will supply and maintain a dedicated kill fluid consisting of 300 barrels of a weighted brine with a minimum density of 10 pounds per gallon (ppg) with the sole purpose of killing the well to regain well control when required. The 10 ppg weighted brine should generate a hydrostatic pressure of 1,317 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 operation as a means to displace the well kill fluid as required. In addition, the Contractor shall provide up to 250 barrels of fresh water on location for use as a circulation fluid.

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 mud and conduct all required mud and fluid checks

1) The Contractor shall give the property owner and local Safety authorities a minimum of twenty-four (24) hour notice prior to relieving any pressure from the well. The Contractor shall safely relieve any pressure that may be built up on this well prior to commencing plugging operations.

2) The Contractor shall visually examine the existing surface and production casings, to evaluate their condition immediately below grade. If the surface and production casings are found to be severely degraded, the Contractor will remove the incompetent sections of casings and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.

3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process. The cellar **design** and **build requirements** can be found in the **Detailed Specifications.**

4) The Contractor shall then install an approved wellhead and utilize an approved method of well control on the 4.5-inch casing to ensure 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.**

5) The Contractor shall run their tools into the 4.5-inch casing to verify the reported total depth of 2,526 feet and check the casing for any obstructions at depth. The Contractor shall use caution when running tools through the perforated interval from 2,452-feet to 2,476-feet when lowering their tools into the 4.5-inch casing.

6) The Contractor shall clean out / drill out the hole to its reported total depth of 2,526-feet or a depth approved by the Division, and if necessary utilize milling, wash over and / or fishing equipment to remove any obstructions encountered in the well..

7) Once the total depth, or a depth approved by the Division, has been reached, the Contractor will run a work string consisting of a minimum of 1.5-inch inside diameter tubing to approximately 2,500-feet and **circulate a minimum of two (2) well volumes of fluid to condition the wellbore prior to setting the bottom hole plug. The well shall be in a static condition prior to initiating any cementing activities. In addition, circulation must be established and maintained throughout any cement displacement. All free crude oil shall be circulated from the wellbore prior to placing any plug.** All cement plugs shall consist of a recommended API cement, blended with 2% Calcium Chloride, mixed at the recommended API density with the cement density verified by a mud scale measurement and submitted in writing to the Division. Complete cementing requirements can be found in the **Detailed Specifications. At the discretion of the Division, a minimum of 10 barrels of AquaGel**, a scavenger cement or an equivalent 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)**

8) The Contractor shall set a 400-foot cement plug from 2,500-feet to 2,100-feet for cover the "Clinton sand" and Lockport Dolomite. The Contractor shall wait on the cement plug to set for a minimum of eight (8) hours and then run their tools into the 4.5-inch casing to verify the depth to the top of the bottom plug. If the plug has dropped, additional staged plugs may be required at the discretion of the Division.

9) The Contractor shall remove the work string from the casing and run into the 4.5-inch casing with a "ripping" tool to sever the casing at approximately 1,400-feet or a depth approved by the Division. The Contractor shall remove the parted 4.5-inch casing and stage the recovered casing on a bermed liner for further evaluation. The Contractor shall supply, to the Division, an accurate tally of the recovered casing. The Contractor shall install an approved wellhead on the 8.625-inch surface casing and utilize an approved method of well control to ensure complete custody and control of all fluids from the well.

10) The Contractor shall set a 500-foot cement plug from 1,450-feet to 950-feet to isolate the top of the "Big Lime" and cover the 4.5-inch casing "rip" point. The Contractor will wait a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has

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

11) The Contractor shall set a 400-foot cement plug from 600-feet to 200-feet to isolate the "Ohio shale" and cover the 8.625-inch casing seat. The Contractor shall wait a minimum of eight (8) hours for the cement plug to set and then run their tools into the 8.625-inch casing to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug was not achieved, additional staged plugs may be required, at the discretion of the Division.

12) The Contractor shall then set a 200-foot cement plug from 200-feet to surface to function as the surface plug. The Contractor shall wait a minimum of eight (8) hours for the cement to set. After the wait on cement time has expired the Contractor shall inspect the top of the cement to see if any remedial cement plugs are required, at the discretion of the Division.

13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut the 8.625-inch surface 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 8F PROJECT
Spitzer Ford Agency #2 Orphan Well Site
Lorain County, Eaton Township

WELL DESCRIPTION

This Well Description is for:

The Spitzer Ford Agency #2, API # 34-093-2-0920-00-00, Lorain County, Eaton Township

Background: The Spitzer Ford Agency #2 Orphan Well is located approximately one (1) mile north of the City of Grafton. This well is situated 600-feet east of Timber Trail, on a 92.26 acre parcel (# 1100082000019) owned by the Spitzer Hardware and Supply Co. This parcel is an agricultural use tract. The address is South Durkee Road, Grafton, Ohio. The well is located on the southern edge of a small island of heavy brush and trees in a soybean field. There is a small pond approximately 30 feet west of the well. The well is located at the GPS coordinates of 41.28928, -82.05860. The nearest inhabited structure is approximately 450 feet to the southwest of the well. The wellsite would be accessed from Woodland Chase Road approximately 500 feet to the southwest of the wellsite. The project area will require clearing of the brush and trees in order to access the wellsite.

A Division inspection of the Spitzer Ford Agency #2 well, conducted on 4/3/1989, found that the well was idle and incapable of production. The well was equipped with a pump jack, but there wasn't any power to operate it. There wasn't any mention of rods or tubing during this inspection. There wasn't any storage tanks or flow lines attached to the wellhead. The well was noted to be leaking natural gas from the 8.625-inch surface casing. The Division's records include a note that the well was plugged by Production Services, but didn't offer any supporting information regarding the abandonment of the well.

On 7/25/2024 an inspection detailed an excavation which exposed the 8.625-inch casing head with 4.5-inch production casing. There was a partially buried "railroad tie" which previously served as a pump jack sill, but no mention of a pump jack. The 4.5-inch production casing had a two (2) port tubing head on top visibly supporting a tubing string. One port on the tubing head was plugged and the other port has a closed valve which was not able to be opened. The two (2)-inch tubing extended approximately five (5) to six (6)-feet above the tubing head. A gate valve and choke comprised the production manifold. After exiting the choke the two (2)-inch flow line proceeded back down toward the ground where it was not connected to any flow line nor was there any evidence of a flow line in the area. There was reported a distinct petroleum odor in the locale.

The Spitzer Ford Agency #2 orphan well was drilled and completed in September of 1967 by Louis Kapp (a defunct Operator). The well was drilled by the March Drilling Company utilizing a fluid rotary drilling rig. The well reached a total depth of 2,500-feet, which targeted the "Clinton sand" as the production horizon. The well construction included 245-feet of 8.625-inch 20 lbs per foot surface casing cemented back to surface with 115 sacks of neat cement. The 4.5-inch 9.5 lbs per foot J-55 production casing was set at 2,497-feet and cemented with 100 sacks of Pozmix cement. **All casing is assumed to have**

remained in the well. The amount of tubing in the well is unknown. Shelwell Services ran a log consisting of Gamma Ray-Neutron in the openhole and is available in the Division's records. The production casing was perforated by Shelwell with 12 shots through the interval 2,421-feet to 2,475-feet. The well was hydrofractured with 642 barrels of slick water, 20m lbs of proppant sand and 87.7mscf nitrogen. It was reported that the well pressured up to 790 psi in 48 hours with a reported open flow of natural gas of 341 mcf in two (2) hours. There aren't any production or plugging records available for this well and the Operator is out of business.

Formation	Top (ft.)	Bottom (ft.)	Remarks
Big Lime	1,086	2,314	
Oriskany	1,226		
Salt	1,890	1,952	
S. Lime	2,354	2,360	
Little Lime	2,376	2,400	
Clinton	2,419	2,428	
Clinton	2,436	2,446	
Clinton	2,464	2,476	
Total Depth	2,500		Logger's TD……2,500-feet, show of gas natural

Casing data for the Spitzer Ford Agency #2 orphan well is as follows:

- 8.625-inch O.D. casing set to 245-feet, cemented with 115 sacks of neat cement
- 4.5-inch O.D. casing set to 2,497-feet, cemented with 100 sacks of Pozmix cement

Plugging records for the Sauter #3 (API # 34-093-2-1247-00-00) a similarly constructed well located 4.7 miles to the northeast show that the well was plugged on 10/21/1998 in the following manner:

- Perforation plug from 2,680-feet to 2,480-feet, cemented with 25 sacks of cement
- Top of the "Big Lime" plug, ripped casing at 1,850-feet, plugged from 1,539-feet to 1,130-feet with 60 sacks of cement, recovered 1,850-feet of 4.5-inch casing
- Bottom of surface casing plug, 375-feet to 225-feet with 35 sacks of cement
- Surface plug, 40-feet to surface with 40 sacks of cement

For the purposes of this Scope of Work it is assumed that the Spitzer Ford Agency #2 orphan well was drilled to a total depth of 2,500-feet, that it was completed by cased hole hydrofracturing through the 4.5-inch casing, that it is equipped with 245-feet of 8.625-inch diameter casing cemented to surface, that it is equipped with 2,497-feet of 4.5-inch diameter casing, that both casings remain in the well, that it has an unknown amount of two (2)-inch tubing in the well, that it is open to the total depth, that there isn't any production equipment, flow lines or sales lines associated with this well.

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 Woodland Chase 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 all road use notifications or approvals prior to mobilizing equipment to the site.

SCOPE OF WORK
LORAIN 8 PROJECT
Spitzer Ford Agency #2 Orphan Well Site
Lorain County, Eaton Township

PLUGGING PLAN

This Plugging Plan is for:

The Spitzer Ford Agency #2 well, API # 34-093-2-0920-00-00, Lorain County, Eaton Township

For the purposes of this Scope of Work it is assumed that the Spitzer Ford Agency #2 orphan well was drilled to a total depth of 2,500-feet, that it was completed by cased hole hydrofracturing through the 4.5-inch casing, that is equipped with 245-feet of 8.625-inch surface casing cemented to surface, that it is equipped with 2,497-feet of 4.5-inch production casing, that both casings remain in the well, that it is equipped with an unknown amount of two (2)-inch tubing in the well, that it is open to the cased hole total depth, that there isn't any production equipment, flow or sales lines associated with this well.

The Spitzer Ford Agency #2 well reported an initial formation pressure of 790 psi (after 48-hrs.) after being hydrofractured. A review of the records of wells drilled to the "Clinton sand" which offset the Spitzer Ford Agency #2 indicated maximum formation pressures of approximately 1,100 psi which is the pressure used to calculate the minimum density of the kill fluid for well control purposes. The Contractor will supply and maintain a dedicated kill fluid consisting of 300 barrels of a weighted brine with a minimum density of 10 pounds per gallon (ppg) with the sole purpose of killing the well to regain well control when required. The 10 ppg brine should generate a hydrostatic pressure of 1,299 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 operation as a means to displace the well kill fluid as required. In addition, the Contractor shall provide up to 250 barrels of fresh water on location for use as a circulation fluid.

For any clean out 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.

1) The Contractor shall give the property owner and local safety forces a minimum of twenty-four (24) hours' notice prior to relieving any pressure from the well. The Contractor shall safely relieve any pressure that may be built up on this well prior to commencing plugging operations.

2) **The Contractor shall visually examine the existing surface casing, to evaluate its condition immediately** below grade. If the casing is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.

3) The Contractor shall then install an appropriately sized, lined and liquid tight cellar around the wellhead to capture any and all fluids generated during the plugging process. The cellar's **design** and **build requirements** can be found in the **Detailed Specifications.**

4) The Contractor shall then install an appropriate wellhead and employ an approved method of well control on the 4.5-inch casing to ensure there is complete control and custody of any gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**

5) The Contractor shall remove the two (2)-inch tubing and stage it on a bermed liner for further evaluation. The Contractor shall provide, the Division, with a written measurement of the amount of tubing retrieved from the wellbore.

6) The Contractor shall run their tools into the 4.5-inch casing to verify the reported cased hole total depth of 2,497-feet and to check the casing for any obstructions at depth. The Contractor shall use caution when running tools through the perforated interval from 2,421-feet to 2,475-feet. If required, drilling out, clean out, wash over, milling and fishing equipment may be required to reach the reported total depth, as specified in the **Detailed Specifications.** The Contractor shall provide up to 400 barrels of fresh water on location for use as a circulation fluid.

7) Once total depth has been reached, or a depth approved by the Division, the Contractor shall run a work string consisting of a minimum 1.5-inch inside diameter tubing to approximately 2,450-feet. **The well shall be in a static condition prior to initiating any cementing activities. Prior to setting the bottom hole plug, the Contractor shall circulate a minimum of two (2) well volumes to condition the well. The well shall be in a static condition prior to beginning any cementing activities. At the discretion of the Division, a minimum of ten (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 pound bag of gel per five (5) barrels of the approved fluids).** All cement plugs shall consist of an API recommended cement, blended with 2% CaCl, mixed at the recommended API density. The cement density shall be verified by a mud scale measurement and submitted, in writing, to the Division. Complete cementing requirements can be found in the **Detailed Specifications.**

8) The Contractor shall set a 400-foot cement plug from 2,450-feet to 2,050-feet to cover and isolate the "Clinton sand" and the Lockport Dolomite. The Contractor shall wait on the cement to set a minimum of eight (8)-hours and then run their tools into the 4.5-inch casing to verify the depth to the top of the bottom plug. If the plug top has dropped, additional staged plugs may be required by the Division.

9) The Contractor shall remove the work string from the casing and run into the 4.5-inch with a "ripping" tool to sever the casing at approximately at 1,400-feet or a depth approved by the Division. The Contractor shall remove the parted 4.5-inch casing and stage the recovered casing on a bermed liner for further examination. The Contractor shall supply, to the Division, a written tally of the recovered casing. The Contractor shall install an approved wellhead on the 8.625-inch surface casing and utilize an approved method of well control to ensure complete custody and control of all fluids generated by the well.

10) The Contractor shall set a 400-foot cement plug from 1,300-feet to 900-feet across the Oriskany Sandstone and the top of the "Big Lime" interval. The Contractor shall wait on the cement to set for a minimum of eight (8)-hours and then run their tools into the wellbore to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug was not achieved, additional staged plugs may be required, at the discretion of the Division.

11) The Contractor shall set a 400-foot cement plug from 600-feet to 200-feet to isolate the "Ohio shale" and cover the 8.625-inch casing seat. The Contractor shall wait a minimum of eight (8)-hours to allow the cement to set. The Contractor shall run their tools into the 8.625-inch to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug was not achieved, additional staged plugs may be required, at the discretion of the Division.

12) The Contractor shall then set a 200-foot cement plug from 200-feet to surface to function as the surface plug. The Contractor shall wait a minimum of eight (8)-hours to allow the cement to set. After the wait on cement period has expired, the Contractor shall inspect the top of the cement to see if any remedial cement work is required, at the discretion of the Division.

13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut 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 8F PROJECT
Spitzer-Jackson #1 Orphan Well Site
Lorain County, Carlisle Township

WELL DESCRIPTION

This Well Description is for:

Spitzer-Jackson #1, API# 34-093-2-0946-00-00

Background: The Spitzer-Jackson #1 is located approximately 950 feet north of Bear Creek Drive and 750 feet west of Grafton Road/SR 57, on a 72.95-acre agricultural parcel (100015116001) owned by Spitzer Hardware and Supply Company. The Spitzer-Jackson #1 is situated in a small circular wooded area in an open farm field. The nearest occupied structure is located approximately 535 feet east of the well. Access to the well is west off Grafton Road/SR 57 at GPS: 41.311702, -82.069883. Depending on weather and soil conditions, matting may be needed for the ingress and egress of plugging equipment and to safely conduct plugging activities. There are overhead and buried utility lines at the proposed ingress point. The project area will need to be cleared of brush and several trees to access the well.

Inspections of the Spitzer-Jackson #1, conducted in April of 2023 and June/July of 2024, found the well in a small island of trees in the soybean field. The area around the well head was hand excavated to approximately 8 inches below grade where the top of the surface casing head was exposed. The outside diameter (OD) of the production casing was measured with the tape at 4.55 inches. The outside diameter of the production tubing was measured with the tape at 2.42 inches. The tubing head has two ports, one fitted with a 2-inch nipple and plugged elbow and the other with a 2-inch nipple and a plugged gate valve. The production tubing extends vertically approximately 6 feet out of the top of the head and is fitted with a plugged valve. An attempt was made to remove this plug and open the valve to test for pressure, but the plug was rusted in-place and could not be removed. The plug in the gate valve in the side port of the tubing head was removed and the gate valve was open slightly and there was a steady flow of natural gas and some oil present. There is a 2-foot vertical section of open-ended flow line sticking out of the ground approximately 2 feet north of the well. Probing around this line indicated that it may travel below grade to the west, terminus unknown. There are numerous sections of tubing, metal sucker rods and metal thread protectors scattered throughout the woods near the well. There are several large partially buried railroad ties approximately 10 feet southeast of the well. The presence of these ties and the sucker rods indicate that a pumping unit may have been used on this well. There is a 15-foot section of 2-inch diameter tubing cemented in the ground approximately 15 feet to the southeast of the well. The remnants of a second 15-foot section of tubing, that had been also cemented in the ground, is located approximately 15 feet to the northeast of the well. However, this pipe was broken off at ground level. It is assumed that these were used as supports for the drilling rig. No storage tanks, separators or other production/transmission equipment were noted on location. Carlisle Township is not shown as a Hydrogen Sulfide (H2S) Township as per Division records.

Division records show that the Spitzer-Jackson #1 was drilled in 1967 by Louis Kapp to a depth of 2,477 feet in the Clinton sandstone. The formation information for this well is as follows:

FORMATION	TOP (FT)	BOTTOM (FT)	REMARKS
SOIL AND SANDSTONE	0	10	Till
SHALE	10	1,088	
BIG LIME	1,088	1,581	
LIME-SALT	1,581	1,952	
LIME	1,952	2,316	
SHALE	2,316	2.355	
LIME	2,355	2,363	
SHALE	2,363	2,375	
LIME	2,375	2,393	
SHALE	2,393	2,428	
CLINTON SAND	2,428	2,431	Show of Oil and Gas
SHALE	2,431	2,439	
CLINTON SAND	2,439	2,450	Show of Oil and Gas
SHALE	2,450	2,477	
TOTAL DEPTH		2,477	

Division records show the following casing data for Spitzer-Jackson #1:

- 8.63-inch diameter casing set to 252 feet with 125 sacks of cement.
- 4.5-inch diameter casing set to 2,474 feet with 100 sacks of cement.

Completion information shows that the Spitzer-Jackson #1 was perforated with 2 holes from 2,428 feet to 2,430 feet and 10 holes from 2,440 feet to 2,450 feet and hydro-fractured with 600 barrels of water 20,000 pounds of sand and 100,000 cubic feet of nitrogen. Estimated production, after fracture, was 190,000 cubic feet of natural gas and 12 barrels of oil, with a rock pressure of 1,050 pounds per square inch.

For the purposes of this Scope of Work it is assumed that the Spitzer-Jackson #1 was drilled to a total depth of 2,477 feet in the Clinton sandstone, that it is equipped with approximately 252 feet of 8.63-inch (cemented in-place to surface), 2,475 feet of 4.5-inch diameter production casing that is cemented in-place from total depth to approximately 2,000 feet and an unknown amount of 2-inch diameter production tubing. It is also assumed that the production casing and tubing are open to their total depths.

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 Grafton Road/SR 57 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 8 PROJECT
Spitzer Jackson #1 Orphan Well Site
Lorain County, Carlisle Township

PLUGGING PLAN

This Plugging Plan is for:

Spitzer Jackson #1, API# 34-093-2-0946-00-00

For the purposes of this Scope of Work it is assumed that the Spitzer-Jackson #1 was drilled and is open to a total depth of 2,477 feet in the Clinton sandstone, that it is equipped with approximately 252 feet of 8.63-inch (cemented to surface), 2,475 feet of 4.5-inch diameter production casing that is cemented in-place from total depth to approximately 2,000 feet and an unknown amount of 2-inch diameter production tubing and that there is pressure on the well.

Offset well records also show that natural gas was encountered in the Ohio Shale at depths between 190 feet and 775 feet. The Contractor should exercise caution during the cleanout and plugging of this well.

The Contractor will supply and maintain a dedicated kill fluid consisting of 220 barrels of 10 pounds per gallon (ppg) weighted brine with the sole purpose of killing the well to regain well control when required.

For any clean out 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 properly mix the drilling mud and conduct all required mud and fluid checks/adjustments.

1) The Contractor will provide a twenty-four (24)-hour notice to the Landowner and local Fire authorities prior to safely relieving any pressure that is on the well.

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

3) The Contractor will install an appropriately sized, lined, and liquid tight cellar around the well to capture all fluids generated during the plugging process.

4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure 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 and shall supply and maintain a minimum of 220 barrels of saltwater on location for use as circulation fluid.**

5) The Contractor will remove the production tubing from the well, stage it on a bermed liner and provide the Division an accurate tally of the amount of tubing removed from the well.

6) The Contractor shall run their tools into the 4.5-inch diameter casing to ensure it is open and verify the wells' total depth, which records show is 2,477 feet. If required, drilling, milling and/or fishing equipment may be used to reach the required depth, as outlined in the General Specifications.

7) Once total 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 well's total depth, the top of the cement and bond quality behind the 4.5-inch diameter casing and lithology for cementing purposes. This log data will be utilized for final cementing calculations.

8) 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 blended 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, ten (10) barrels of a cement scavenger such as AQUAGEL, or an equivalent product approved by the Division, shall be pumped immediately ahead of any cement plugs for well conditioning purposes at a mix ratio of fifty (50) pounds of gel per five (5) barrels of approved fluid. Circulation must be established and all free crude oil shall be circulated from the wellbore prior to setting any cement plug.

9) The Contractor will set a 450-foot bottom plug from 2,475 feet to 2,025 feet, as determined by log data, to cover/isolate the Clinton sandstone, wait on cement a minimum of eight (8) hours 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.

10) The Contractor will sever the 4.5-inch diameter casing at the lowest free point above the Salina/salt section (approximately 1,250 feet), remove this casing from the well and stage it on a bermed liner. The Contractor will provide the Division an accurate tally of the amount of casing removed from the well.

11) The Contractor will run in with the working string of tubing and set a 450-foot plug from the sever point at approximately 1,250 feet to 800 feet to cover/isolate both the sever point and the top of the Big Lime section. The Contractor will wait on cement a minimum of eight hours and then run their tools into the hole to verify the top of the plug. If the plug level has dropped or an incompetent plug was achieved, additional plugs may be required by the Division.

12) The Contractor will set a 400-foot plug from 800 feet to 400 feet to cover/isolate the Ohio shale section, wait on cement a minimum of eight hours 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.

13) The Contractor will set a cement plug from 400 feet to within forty-eight (48) inches of surface, wait on cement a minimum of eight (8) hours and then check the cement level and top off with additional cement, if necessary.

14) 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 8F PROJECT
Multiple Orphan Well Sites
Lorain County, Various Townships

DETAILED SPECIFICATIONS

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

MOBILIZATION

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

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

As part 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.

Crop/Vegetation removal shall be considered incidental to **"Mobilization"**.

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.**

If any portion of the item is non-performed to the satisfaction of the Division (i.e., the mud

and dirt are not cleaned from the roadway, the proper signage is not used as detailed) this is considered unsatisfactory and shall be cause for the rejection of payment of this item.

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

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 marketable trees over ten (10) inches in diameter at 4.5 feet off the ground shall be cut to a minimum of nine (9) foot lengths and stacked for the landowner at a location on the project site as directed by the Division. The Contractor shall be responsible for the repair/reconstruction of the log piles, at the discretion of the Division, up to the final acceptance of the project.

All suitable debris cleared shall be chipped by mechanical methods and the mulch shall be stockpiled/spread onsite in the locations designated by the Division's Representative.

All stumps shall be grubbed, and holes graded out for positive drainage. Approved resoil shall be used if the area can't be properly graded.

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.

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

C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. This measurement shall be for the entire project as one unit.

D. Payment: Payment shall be made at the contract lump sum price per **"Clearing & Grubbing."**

SITE SAFETY

A. Description: The work will include the installation and implementation of safety procedures for the plugging of the orphan well as described herein.

B. Definitions & Installation: It is the Contractor's responsibility to properly maintain all of the latter mentioned throughout the duration of the project. Any damages shall be repaired or replaced at no additional cost to the Division. Site safety measures shall be removed prior to the demobilization of the Contractor's workforces.

Any release of materials into or onto the ground or surface waters outside of the primary and/or secondary containment shall follow the Ohio One-Call System as described in Appendix I, "One Call". The Ohio One-Call System shall be contacted at 1-844-OHCALL1 within 30-minutes of becoming aware of the occurrence.

1. Notification: Due to the close proximity of the wells to residences, buildings and the potential safety issues involved with the plugging procedure, the contractor or contractor's representative will contact the residents two weeks prior to the commencement of plugging activities to notify them of the potential safety issues.

2. 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. The entrance gate shall be maintained in locked position when the site is unattended.

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

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. Storm Inlet Protection: The Contractor shall protect the storm inlet indicated on the Drawing Plan Set. The Contractor shall notify the local municipality a minimum of 7 calendar days prior beginning work on the storm inlet. The contractor shall **use a liner with a minimum 20-mil thickness** to cover the inlet weighted down along each edge to keep a good seal on the great. An Absorbent Boom shall be place around the covered inlet. Anytime work is being done on the well the cover shall be in place. During rain events and/or non-working hours the covers shall be removed. **Upon completion of the Project, the materials shall be removed from the site and properly disposed of by the contractor.**

5. 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).

6. Air Monitoring: The Contractor will set up a wireless monitoring system (up to 4 channels) to monitor for 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 occupant, onsite workers, and over all public safety. Air monitoring will be conducted in this manner on a daily basis until the plugs have been set and it is determined that there is no further gas migration/release detected.

7. 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.

8. 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.

9. Emergency Response Plan: The Contractor will assemble an Emergency Response Plan (ERP) with all contact information, emergency preventative measures, and **contingency plans for Hydrogen Sulfide (H_2S) release** and for any well-related issues that may occur. ERPs shall be submitted to the Division via email to DOGRM.EMNOTIFY@dnr.ohio.gov for approval prior to beginning work.

   The Contractor will be responsible for maintaining this ERP on site during the plugging operations. 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
Midview School District #1, Kantosky C&B #1, Spitzer Ford Agency #1, Spitzer Ford Agency #2, Spitzer Jackson	Temporary Construction Fence & Posts; Identifications, Air Movers; Temporary Shut-In; Air Monitoring; Emergency Response Plan
Midview School District #1, Spitzer Ford Agency #1, Spitzer Ford Agency #2, Spitzer Jackson	Power/Utility Lines Safety
Spitzer Ford Agency #2, Midview School District #1	Storm Inlet Protection
Midview School District #1	Notification

C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division.

D. Payment: Payment for this work, including labor, installation, materials and removal shall be made at the lump sum price for **"Site Safety."**

ROAD MATS

A. Description: This item shall consist of the transportation, delivery, installation, and removal of road mats as described. The placement of road mats within the limits of construction shall be at the discretion of the Division. This item shall be utilized to protect the existing utilities, driveways, roadway, curbs, sidewalks and lawn space that will be traversed within the construction work limits. 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."**

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 that sections of a secondary containment be removed for inspection and sampling if a spill occurs during the project.

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

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

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

D. Measurement: Secondary containment, which includes all materials, labor, and equipment necessary to provide the required secondary containment, will be considered and measured as a unit satisfactorily completed and accepted by the Division. Secondary containment shall not be considered complete until all secondary containment has been removed from the site at the

completion of the project.

E. Payment: Payment for this work shall include all material, labor, and equipment necessary to complete the work and be made at the lump sum price for **"Secondary Containment."**

SILT FENCE

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

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

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

B. Straw Bale Dikes

1. Materials: Straw bale dikes shall be constructed with twine-bound square straw or hay bales, staked to remain in place.

2. Installation and Execution: The location of the dikes shall be as directed by the Division, at the time of construction. When the usefulness of the dikes has ended, they shall be removed and disposed. Dikes may remain in place upon completion of the project only when permitted by the Division.

C. Silt Fence

1. Materials

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

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

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

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

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

against deterioration from the sun, mud, dirt, dust, and other harmful conditions at all times until their use.

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

   a. First, a small toe-in trench shall be dug along the line where the silt fence is to be placed. The trench shall be a minimum of 6-inch deep and 6-inch wide. The excavated material shall be placed on the front or uphill side of the trench to facilitate backfilling later.

   b. Next, fence posts shall be driven into the back or downstream side of the trench. The posts shall be driven so that at least one-third (1/3) of the height of the post is in the ground. When installing a prefabricated silt fence with fabric attached to the posts, the posts shall be driven so that at least 6-inch of fabric shall be buried in the ground. Most prefabricated silt fences have posts spaced approximately 6 feet – 8 feet apart, which is usually adequate. If there is a low spot where most sediment tends to collect, the prefabricated silt fences can be backed up with bale backup. Posts shall be hardwood with sufficient strength to support a full load of deposited sediment.

   c. Finally, the trench shall be backfilled with the excavated material and tamped so that at least 6-inch of the fabric is securely toed into the ground to prevent under-mining.

   d. The silt fences shall be maintained throughout construction. The Contractor shall conduct regular inspections and after all heavy rains. Damaged fences must be repaired immediately.

   e. At the completion of construction and upon establishment of suitable vegetation as determined by the Division, all silt fence structures shall be removed. Areas disturbed by the removal operation including temporary access roads shall be revegetated. In general, this operation shall consist of regrading, re-fertilizing, reseeding, and mulching.

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

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

No. 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 satisfactory on similar structures.

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

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."**

TREE AND SHRUB REPLACEMENT

A. Description: This work shall cover all operations incidental to the replacement of trees and shrubs within the project areas. The work shall include all equipment, labor, and materials to replace the tree/shrub material required to be removed to complete the project. This work shall be completed within **fourteen (14) days** of the completion of the construction activities. The Contractor may request in writing to the Division an extension for site restoration. Requests shall only be granted based on season or weather conditions.

B. Materials: The materials to be used for tree and shrub replacement shall conform to the applicable requirements of these specifications. For each tree and shrub cut down or damaged due to unavoidable work near the tree that tree and shrub shall be replaced at the direction of the Division. 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.

1. Planting Soil: Backfill all tree pits with approved planting soil in accordance with ODOT CMS 661.09 and details. Place twelve (12) inches of approved planting soil in accordance with ODOT CMS 661.09 and details in all shrub planting beds.

   Planting soil shall be included in this line item.

2. Landscape Species:

   ACER saccharinum (Silver Maple) 2” caliper Balled and Burlapped (B&B)
   QUERCUS bicolor (Swamp White Oak) 2” caliper B&B
   or similar native species

   All plants shall be healthy, of normal growth, well rooted, free from disease and insects. Quality and size of plant material shall conform to ANSI Z60.1: "American Standards for Nursery Stock", current edition. Plants shall be in a healthy and vigorous condition, free of dead or broken branches, scars that are not completely healed, frost cracks, disfiguring knots, broken or abraded bark, redundant leaders or branches, or aberrations of any kind. Plants shall not have multiple leaders unless otherwise noted.

Balled and Burlapped, (B&B), plants shall be dug with a firm root ball of natural earth, of a size proportion to the plant's size, as measured by caliper, height or spread. B&B plants shall be handled only by the rootball, not by the trunk or branches. Container plants shall have been established for a minimum of one full growing season in their containers before installation. Container plants shall be handled only by the container. Any plants damaged after delivery by improper handling or care will be rejected and must be removed offsite and replaced.

Plants shall be protected from drying out during shipping with tarpaulins or other coverings. Plants shall be protected from drying out after delivery by planting immediately. If this is not possible, plants shall be stored in a location protected from sun and wind and the rootballs shall be covered with mulch or earth and watered frequently to keep moist until planting.

Anti-desiccant/anti-transpirant shall be in liquid form and comply with ASTM specification E-96, (such as "Wilt-Proof" or other approved equal). Wood dressing shall be Cabot tree paint or approved equivalent.

3. Mulching Material: Mulch shall be double shredded mulch at all planting beds. Mulch color shall be natural and not dyed. Contractor shall submit mulch samples to the Division for approval prior to installation.

4. Fertilizer: Commercial fertilizer shall be a complete, slow-release fertilizer meeting applicable state laws and shall analyze 5-10-5 or 10-20-10. Analysis of fertilizer shall be as follows, 5-10-5 for example; 5 percent total nitrogen, 10 percent available phosphoric acid, and 5 percent total potash.

5. Tree Bracing: Tree bracing shall be flexible, biodegradable ties. All tree stakes shall be 2"x2"x30" hardwood.

C. Installation:

1. Start of Work. Tree and shrub replacement shall begin as soon as possible after the completion of construction. 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 contractor shall maintain and preserve all trees and shrubs not being removed. This shall include protection of the root zone from compaction or disturbance.

The general contractor shall submit a planting schedule with projected dates for preparation of plant beds, installation and seeding. The general and landscape contractor shall coordinate their work to allow sufficient time for the landscape contractor to perform their work during the optimal seasonal conditions. In the event that the project is delayed or significant areas are not ready to allow plantings to be installed during correct weather or soil moisture conditions or with sufficient time to allow the plants to become established before fall and winter, the Division reserves the right to delay planting until the following season.

2. Area Preparation of Soil. The planting soil shall be used as backfill for tree and shrub planting. This soil shall also be placed in the bottom of the root pit and tamped firmly to avoid settlement. Fill soil around the ball of the plant and water thoroughly. Prepare a raised earth basin as wide as the planting pit around each plant. Water again immediately after planting by filling the basin around each plant with water, taking care not to disturb the backfill. Water to the extent necessary to ensure that there are no air pockets around the rootball and that the rootball and

backfill are thoroughly saturated. Normal planting times are as follows:

Deciduous trees and shrubs -	October 15 to December 1
	March 1 to May 15
Evergreen trees and shrubs -	September 1 to November 10
	March 1 to May 15

Deciduous trees and shrubs can be planted later than December 1 providing that the ground is not frozen and with approval of the Division.

3. Mulching. Provide a minimum of three (3) foot diameter, two (2) inch thick of mulch bed around each individual tree.

4. Fertilizer. Fertilizer to be added at the following rates.
   Trees: – ½ lb. of actual nitrogen per 500 S.F tree pit area
   Shrubs: - ½ lb. of actual nitrogen per 100 S.F. of bed area
   Groundcovers/Perennials: - ¼ lb. of actual nitrogen per 100 S.F. of bed area

5. Tree Preparation/Bracing. Install loose fittings ties that will not girdle the trunk. Ensure that the tie will allow trunk movement and growth.

   Apply a pre-emergent herbicide, pendimethalin or approved similar to tree, shrub, and groundcover areas in accordance with manufacturer's written recommendations. **DO NOT APPLY TO SEEDED OR WETLAND AREAS.**

   Remove all sales tags, strings, straps, wire, rope, or other materials that may inhibit plant growth both above and below the surface of the soil.

   Remove any broken, suckering, diseased, crisscrossed branches back to live leader or side lateral with a flush cut.

   All trees shall be braced and mulched as per details and these specifications at the time of installation.

   The contractor shall be responsible to properly water all plant material immediately upon planting.

6. Maintenance and Repairs. The Contractor shall, during construction and prior to acceptance, properly care for all plantings.

D. Maintenance Period. The permanent planting of trees and shrubs 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 meet 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 install 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. 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 all plant material, digging, installation costs including topsoil, mulch, bracing, fertilization, including removal of all staking at the end of the warranty period shall be incidental to this line item.

F. Payment: Payment for this work, which includes all plant material, digging, installation costs including topsoil, mulch, bracing, fertilization, including removal of all staking at the end of the warranty period shall be made at the unit price per each for **"Tree and Shrub Replacement."**

WELL HEAD CONTROL

A. Description: This work consists of all labor, equipment, and material necessary to excavate and evaluate existing casing(s) and 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.

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 damages or defects. If required, the casing shall be cut and cleaned of any dirt, oils, and debris prior to welding extensions and/or installation of the diverter.

The Contractor shall supply a cellar with a cement base around the wellhead. This cellar shall be set around the well and extended up to working elevation, as the depressed area around the well head will be modified to establish workable base. This cellar shall be made of steel, concrete, or polyethylene pipe. **The cellar shall be a minimum of 48 inches in diameter. This work shall include a six (6) inch minimum of Approved Cement as specified or Portland Cement in the cellar base with a three (3) inch minimum port near the well. The port shall extend up to within three (3) inches of the well at working height and be used to monitor and contain any gas/oil escaping around the back side of the casing.**

Once a well head control device is installed, all fluids, gases and solids generated by the plugging process shall be diverted into a tank. This tank shall be set a minimum of twenty (20) feet from the well. The Contractor shall also maintain an adequate supply of well kill fluid at the well for possible well control emergencies, which shall be paid under the line item **"Well Kill Fluid."** The Contractor will install a two (2) inch diameter (minimum) kill line on the well. The injection point for the kill line will be a minimum of twenty (20) feet from the well.

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 a satisfactory inspection of the prepared well has been completed by the Division.

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

D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the well head control shall be made at the cost proposal lump sum price for **"Well Head Control."**

WELL 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 weighted brine kill fluid, as listed below, to be maintained at each well site throughout the plugging project for the sole purpose of killing the well to regain well control when required.

Well Name	Fluid Volume (barrels)	Kill Fluid Weight (pounds per gallon)
Midview School District #1	**250**	**10.5**
Kantosky C&B #1	**100**	**10**
Spitzer Ford Agency #1	**210**	**10**
Spitzer Ford Agency #2	**210**	**10**
Spitzer Jackson #1	**100**	**10**

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."**

WELL PREPARATION & PLUGGING

A. Description: This work consists of all labor, equipment, and material necessary to prepare the well for plugging and complete all required plugs. This shall include cleanout, drillout, and washover of the well bore to the total depth of the well based on the well description(s) and plugging plan(s), circulating the well bore prior to each plug, setting all required plugs, and verification of each plug depth.

B. Execution: The Contractor shall supply all equipment needed to complete the well preparation in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, drill pipe, collars, mud pump (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 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.

When required the Contractor shall complete the ripping of the casing or tubing at a depth approved by the Division. Ripping shall be considered incidental to this line item.

The Contractor shall trip out or up into the nearest competent cased string and secure all tools at the end of each workday or when work shall be paused for an extended time. Any tools left in the hole during such paused work time shall be at the Contractor's own risk. Any tools or tubing that are lost due to the Contractor's failure to complete the task of tripping out during paused work times shall be at their own expense as well as any work required to then prepare the hole to continue the plugging process (this shall include but not be limited to shooting, fishing, over drilling, lost or damaged tools, etc.). The tripping out of the tools during paused work times shall be incidental to this line item.

Formations within the well bore known to be producing 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, 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.

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 include but not be limited to **gamma ray (GR), casing collar locator (CCL), temperature, bond, and caliper log as well as shooting etc.**. Prior to use, the Contractor shall propose the method of logging and shall be approved by the Division.

A copy of the completed Log must be submitted to the Division via email at OrphanWellProgram@dnr.state.oh.us.

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

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 2,550 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 allow cement to set for a minimum of eight hours.**

It is the Contractor’s responsibility to provide a mud scale for weighing the cement slurry.

When using API Class “L” cement or ASTM C595 Type 1L cement, all the following conditions apply:

• Mill test information must be provided to the applicable Division inspector prior to utilization of API Class L cement or ASTM C595 Type 1L cement. The mill test information must be of a representative sample of the mixture of cement proposed to be used to plug the well. A person is not required to provide the mill test information if the Division already has the mill test information of the mixture of cement for a batch.

• Performance data shall be provided in compliance with Ohio Administrative Code 1501:9-11-07 prior to usage. To determine if Ohio Administrative Code 1501:9-11-07 is met, test results shall include at a minimum slurry density, composition, compressive strength, free fluids, thickening time, curing pressure, and curing temperature. The data also shall include percent limestone and percent pozzolan material.

• For blended cement containing limestone and pozzolanic material, the combination of the materials shall not exceed fifty per cent by volume.

• A sample of at least 20lbs representative of the of cement mixture proposed to be used in a well must be provided to the Division at the request of the Division.

• A person using API Class L cement or ASTM C595 Type 1L cement shall leave the plugged well in a manner that will allow for further inspection past the contract requirement of three days after the completion of the uppermost plug unless the applicable Division inspector determines that the contract requirement of three days is sufficient.

D. Setting: Setting times shall be completed as described in the **Plugging Plan.** For the surface plug any void space between the top of the cement and the top of the casing shall be filled to achieve a level cement line with the top of the casing. This shall be done at no additional cost to the Division.

The cement must develop a minimum compressive strength of 500 PSI after 24 hours at well bore temperatures. The Division reserves the right to collect test cylinders throughout the duration of the cementing process.

E. Measurement: Measurement for payment shall be based on the actual quantity of sacks of cement acceptably placed and shall be verified with delivery tickets. A sack shall be considered to be 94 pounds prior to mixing.

F. Payment: The above-described work shall be paid for at the unit price per sack for **"Approved Cement."**

CEMENT MIXING & PUMPING

A. Description: This item shall cover all labor, materials, and equipment necessary to mix and pump cement as specified in the **Plugging Plan**.

B. Execution: Cementing equipment required on site to mix and pump casing cement and cement plugs shall be provided until each individual casing cementing or plug cementing is completed. This shall include but not be limited to pump truck, mud pump, and associated equipment.

C. Measurement: Measurement for payment shall be for each trip to the project site in order to complete the plug(s) as described in the **Plugging Plan**. Payment for staged plugs shall be measured as one unit.

D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the mixing & pumping of cement into the well shall be made at the unit price per each for **"Cement Mixing & Pumping."**

SEVERING

A. Description: This work consists of all labor, equipment, and material necessary to sever a casing at a determined depth for the purpose of removing the casing string from the wellbore.

B. Execution: The Contractor shall complete the severing of the casing at a depth approved by the Division. The Contractor shall propose the material and method for severing of the casing, which

shall be approved by the Division. This includes, but is not limited to, **locating free point**, ripping, shooting, or cutting.

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

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

FLUID DISPOSAL

A. Description: This item shall consist of removing and disposing of the fluid generated from the well plugging process. Fluids to be removed shall be at the discretion of the Division and shall be injected at an approved Class II disposal well as provided by the Contractor prior to removal from the site.

B. Material: Materials will be defined below as described for the purposes of this scope of work.

Contaminated Fluids: Contaminated fluid will be considered as all fluids used in the circulation of the well bore, fluids utilized as a "kill" substance and/or fluids generated from the well. The Division reserves the right to deem a fluid "contaminated" at its discretion.

Contaminated fluids are further defined as water that contains quantifiable concentrations of oil, natural gas(es), condensate, brine, plugging products, or other oil field waste substances.

Freshwaters: Water that has not been classified as a contaminated fluid and has been stored in an uncontaminated container shall be visually inspected for oil sheen, and field tested for pH and chlorides. The chloride concentration shall be less than 250 mg/L and the pH shall be within a range of 6.5-8.5 standard units (SU). If a water is deemed as freshwater based on these inspections and tests, the Contractor may discharge freshwater into or onto the land in an appropriate manner. Freshwater disposal shall not be paid for under this line item **"Fluid Disposal."**

C. Off-Site Disposal: Fluids designated as "contaminated" shall be hauled to an appropriate Class II disposal well. Proof of disposal from the disposal well shall be furnished within three (3) days of acceptance to the Division.

No additional compensation shall be made for onsite fluid storage. If contaminated fluids remain onsite, proper containment shall be established meeting all requirements as described in line item **"Secondary Containment"** at no additional cost to the Division. Onsite storage time shall not exceed 72 hours after plugging activities have been completed.

D. Measurement: Measurement for payment shall be verified based on documentation proof of a quantity of disposal from the disposal well utilized. Documentation required shall include driver's haul tickets, fluid disposal tickets and a copy of the paid invoice from the Class II disposal well (dollar amounts may be redacted from the invoice copy).

E. Payment: Payment shall be made at the unit price per barrel for **"Fluid Disposal."**

CONTAMINATED MATERIAL DISPOSAL

A. Description: This item shall consist of removing contaminated soils and cuttings from the site for off-

site disposal. Soils and cuttings to be removed shall be at the discretion of the Division and shall be disposed of at an approved EPA licensed landfill as provided by the Contractor prior to removal from the site.

B. Material:

Contaminated Soils/Cuttings: Contaminated soils and cuttings are defined as soils or cuttings in which oil, gas, condensate, brine, plugging products, or oil field waste substances have been released in or on the land.

The Contractor will excavate and properly dispose of all soils from the location that are visibly impacted with oilfield contaminants. The Contractor shall solidify any residual fluid associated with these soils with Portland Cement, prior to removal as a part of this line item. Prior to solidification of contaminated materials, the contractor shall use due diligence to remove fluids from the contaminated materials. Fluids removed from the contaminated materials shall be disposed of per line item **"Fluid Disposal."**

Soils deemed "contaminated" as a result of Contractor negligence during the plugging process will be removed and disposed of at the Contractor's expense. Disposal procedures will conform to all requirements stated within this line item.

C. Off-Site Disposal: Soils designated as "contaminated" shall be hauled to an appropriate licensed landfill. Copies of truck weight tickets from the landfills shall be furnished within 3 days of acceptance to the Division.

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

No additional compensation shall be made for onsite contaminated soil storage. If excavated soils remain onsite, proper containment shall be established meeting all requirements as described in line item **"Secondary Containment"** at no additional cost to the Division. Onsite storage time shall not exceed 72 hours after plugging activities have been completed.

D. Measurement: Measurement for payment shall be verified based on quantities disposed at the approved EPA licensed landfill. Documentation required shall include driver's haul tickets, certified scale tickets and a copy of the paid invoice from the landfill/waste facility (dollar amounts may be redacted from the invoice copy).

E. Payment: Payment shall be made at the unit price per ton for **"Contaminated Material Disposal."**

SALVAGE MATERIAL DISPOSAL

A. Description: This item shall consist of preparing, removing, and salvaging all materials from the site that have a salvage value as shown on the Drawing Plan Set or as required by the Division. All items to be salvaged shall include all surface equipment, well casing, and production equipment. Salvage items shall also include any hydrocarbon materials (oil, condensate, etc.) that have a marketable value. Salvage items shall be stored onsite within the construction project limits until removed for salvage.

B. Off-Site Disposal: Prior to removal from the site the Contractor shall supply in writing to the Division an inventory of all materials to be salvaged. On 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."**

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 ton per cubic yard of resoil shall be used if necessary.

E. Payment: Payment for this work shall be made at the unit price per ton for **"Approved Resoil."**

SITE RESTORATION

A. Description: This work shall cover all operations incidental to the establishment of grasses within the areas disturbed by the Contractor, including the furnishing and sowing of seed; and furnishing and applying of mulch materials, all in accordance with these specifications. Additionally, this work shall include, but not be limited to, repair of grounds and vegetation, including landscaping amenities, ornamental shrubs and trees damaged in any manner during the work operations. All areas shall be properly graded to a smooth final grade with topsoil and blended into adjoining areas at the most moderate slope possible. Seedbed preparation through the use of scarifying equipment is also required. All site restoration work is to be completed within **fourteen (14) days** of the completion of the construction activities. The Contractor may request in writing to the Division an extension for site restoration. Requests shall only be granted based on season or weather conditions.

The Contractor shall contract with each of the landowner's individual landscapers to finish this work on the properties affected. (If the landowner does not have a landscaper the contractor will be responsible to locate a professional landscaper to complete the work.)

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%

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.

   Final prepared surface shall have a smooth final grade and be appropriate for a residential yard, free from rocks, large dirt clumps and any other foreign debris.

   Immediately following area preparation for seeding, materials shall be applied in the following order:

- Lime, as applicable
- Fertilizer, as applicable
- Seed, after broadcasting or otherwise applying the seed, the surface of the seedbed shall be loosely disturbed by hand raking, dragging, and/or cultipacking.

Lime, fertilizer and/or seed shall be sown by approved methods that provide for uniform distribution of the mixes as specified above.

3. Mulching: Apply the equivalent of 100 pounds per 1,000 square feet of clean straw mulch. 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:

3. 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.

4. 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.

E. Measurement: Measurement for payment of site restoration, which includes seedbed preparation, lime, fertilizer as applicable, seeding, mulching, and replacement of landscape amenities (i.e. shrubs, trees, etc.) shall be considered and measured as a unit satisfactorily completed and accepted by the Division.

F. Payment: Payment for this work, which includes seedbed preparation, liming, fertilizing, seeding, mulching, required replacement of all shrubs, trees and landscaping amenities, etc., and general cleanup shall be made at the lump sum price for **"Site Restoration."**

DEMOBILIZATION

A. Description: This work shall consist of the demobilization of all personnel, plugging related equipment and materials as well as the cleanup of all areas upon completing all other work required under the scope of work for the well site.

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

This item shall also include the continued and proper use of any maintenance of traffic required within the road right-of-way per Part 7 of the General Specifications**.**

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

C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. **Demobilization of equipment from the well site to well site for this project shall be considered incidental to this line item.**

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."**

VAULT

A. Description: This work shall include all material, labor, and equipment necessary for the excavation and installation of a modified precast ODOT Catch Basin 2-3 per ODOT Standard Construction Drawing Number: CB-1.2 with a modified specific frame, cover, and top assembly as shown on the Drawing Plan Set. The catch basin shall be modified to be open ended on the bottom of the basin. In addition, all fittings, joint seal, steps, connection of the vent pipes to the vault, and aggregate base in the bottom of vault shall be considered as incidental items to the completion of work detailed in this specification.

B. Materials:

1. Vault: The vault shall be a modified ODOT approved Catch Basin 2-3 per ODOT Standard Construction Drawing Number: CB-1.2 of precast concrete modular construction as shown on the Drawing Plan Set. Materials shall conform to those referenced in 2016 ODOT CMS Item 611.02 and 706.13. The following is a link to the current ODOT precast concrete producers certified in accordance with specifications.
https://www.dot.state.oh.us/Divisions/ConstructionMgt/Materials/Pages/CertifiedSuppliers.aspx

2. Frame, Cover, & Concrete Top: Frame and cover shall meet all standards of ODOT Standard Construction Drawing Number: MH-1.2 and 2016 ODOT CMS Item 711.14. Frame and cover shall state "GAS WELL" on the cover. The concrete top shall be sized to fit the Catch Basin 2-3 sidewalls.

3. Joint Seal: Joint seal for vent pipes shall be a resilient seal between the precast vault sections and flexible gasket joints per 2016 ODOT CMS Item 706.11.

4. Base: The aggregate bedding material shall conform to granular material 2016 ODOT CMS Item 304 aggregate base. This work shall be incidental to this line item.

5. Backfill: The concrete backfill shall be placed around the vault as dry Quikrete placed as shown on the vault detail on the Drawing Plan Set.

C. Installation:

1. The vault shall be installed as shown on the Drawing Plan Set. The trench for the vault shall be excavated to the elevations shown on the Construction Plan Set. **The Contractor shall excavate and maintain the sides of the trenches as required by OSHA**. **No person shall be permitted to enter the trench unless OSHA required standards are constructed for the trenches.** No additional payment shall be made for excavation of material beyond the depth and width as shown on the Construction Plan Set. Any dewatering required to keep the trench dry during construction shall be performed by the Contractor.

2. Clean surface of vault pipe openings and exterior side of vent pipes of all foreign material. Place the vent pipes as detailed in the Drawing Plan Set. Install or have precast rubber gaskets on the vault. Complete a watertight seal per ASTM C923 for all vent pipes with the rubber gasket.

3. Fill the base grade with 2016 ODOT CMS Item 304 in a level manner to the dimensions define in the Drawing Plan Set. **This work and material shall be considered incidental to this line item.**

4. No backfilling shall be permitted without visual inspection and approval of the Division. The backfill for the vault shall be dry Quikrete or approved equal placed to fill around the vault. Any remaining area not filled by the quantity shown on the detail shall be backfilled by materials excavated from around the vault and shall be compacted with on-site equipment with the exception of the topsoil.

5. A minimum eight (8) inches of topsoil shall be removed and stockpiled during construction. Topsoil shall be utilized at trench backfill completion and shall not be compacted. Trench settlement shall be corrected by the Contractor to maintain existing grade outside the trench.

D. Measurement: Measurement for payment shall be made by field inspection of quantities satisfactorily installed.

E. Payment: Payment for this work shall be made at the unit price per each for **"Vault."**

VENT PIPE

A. Description. This work shall include all material, labor, and equipment necessary for the excavation and installation of a two (2) inch diameter galvanized steel vent pipe. In addition, all pipe fittings shall be considered as incidental items to the completion of work detailed in this specification. Work and materials associated with the Vent Support as Detailed on the Drawing Plan Set shall be considered incidental to this line item.

B. Materials (Vent Pipe):

1. Vent Pipe & Fittings: All pipe and associated fittings shall be schedule 40 galvanized steel.

2. Monitoring Plug: Monitoring plug shall be made of brass and shall be ¾-inch in diameter.

3. Insect and Rodent Vent Screen: The screen shall be made of either stainless steel or galvanized steel.

4. Backfill: Backfill vent pipe trench with compacted earth from excavation, up to within three (3) feet of the vault.

C. Installation. The vent pipe shall be installed according to the details on the Drawing Plan Set. The pipe and fittings shall be connected and installed in accordance with manufacturer's instructions.

The trench for the vent pipe shall be excavated to the elevations shown on the Drawing Plan Set. **The Contractor shall excavate and maintain the sides of the trench as required by OSHA**. **No person shall be permitted to enter the trench as is designed on the Drawing Plan Set.** No additional payment shall be made for excavation of material beyond the depth and width as shown on the Drawing Plan Set.

Any dewatering required to keep the trench dry during construction shall be performed by the Contractor.

No backfilling shall be permitted without visual inspection and approval of the Division. **Backfill shall be placed in six (6) inch maximum lifts and compacted by a minimum of three (3) passes of a vibratory plate compactor capable exerting a minimum of 2,000 lbs. of centrifugal force.** The loose lifts shall be compacted to the satisfaction of the Division. All materials excavated and replaced with the exception of the topsoil shall be compacted.

All topsoil shall be removed and stockpiled during construction. Topsoil shall be utilized at trench backfill completion and shall not be compacted. Trench settlement shall be corrected by the Contractor to maintain existing grade outside the trench.

As an equal the contractor may choose to bore the vent pipe in place rather than trench the vent pipe in place. All dimensions and grades shall be maintained as planned if boring is chosen by the contractor. The Division shall be given written notice with boring locations supplied prior to the start of work. The Division will approve the boring locations. This work shall be completed within the approved work limits. Any additional costs associated with boring shall be incorporated into this line item **"Vent Pipe."**

D. Measurement. Measurement for payment for the vent pipe shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of vent pipe.

E. Payment. Payment for all the work specified above shall be made at the unit price per linear foot for **"Vent Pipe."**

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 damages/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 a 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 bases. 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.

C. 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 $4.47 per bushel or $862 per acre. For soybean crops the damages shall be based on a prime farmland yield of 53.90 bushels per acre of soybean crop at a market value of $9.97 per bushel or $538 per acre. Other crops will be paid as determined by the Division. The value per acre is a set value not to be changed by the Contractor.

Well Name	Disturbance (acres)	Corn (price per acre)	Total	Soybean (price per acre)	Total
Midview School District #1	0.00	$862	**$0**	$538	**$0**
Kantosky C&B #1	0.41	$862	**$354**	$538	**$221**
Spitzer Ford Agency #1	1.06	$862	**$914**	$538	**$571**
Spitzer Ford Agency #2	0.62	$862	**$535**	$538	**$334**
Spitzer Jackson #1	0.89	$862	**$768**	$538	**$479**

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.

ROAD MATS

A. Description: This item shall consist of the transportation, delivery, installation, and removal of road mats as described. The placement of road mats within the limits of construction shall be at the discretion of the Division. This item shall be utilized to protect the existing utilities, driveways, roadway, curbs, sidewalks and lawn space that will be traversed within the construction work limits. 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."**

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)**

FISHING

A. Description: This work consists of all labor, equipment, and material necessary to remove and/or clear the well bore as needed in order to reach total depth by the means of fishing the obstruction in the well bore.

B. Execution: The Contractor shall supply the equipment needed to complete the fishing in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, impression blocks, and associated equipment. **This shall not include the fishing tools required to complete this work. The Division will develop a negotiated change order to deliver and use the appropriate fishing tools required based on the unforeseen conditions.** Appropriate fishing tools shall be provided for the circumstances encountered.

C. Measurement: Measurement for payment shall be made by field inspection of the actual quantity of hours in which the drilling rig and other fishing equipment were diligently operating in a manner to

remove the obstruction.

D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the obstruction removal shall be made at the unit price per hour for **"Fishing"**.

MAGNET

A. Description: This work consists of all labor, equipment, and material necessary to supply a magnet and the required subs as the fishing tool.

B. Execution: The Contractor shall supply all equipment needed for a magnet fishing tool to be used for fishing out the well bore to the depth of the current obstruction and extracting it. This shall include but not be limited to the rig, subs, and associated equipment. Appropriate tools shall be provided for the circumstances encountered. The work to complete the fishing shall be per line item **"Fishing"**.

C. Measurement: Measurement for payment shall be made by the delivery of the magnet to extract the obstruction as satisfactorily completed and accepted by the Division.

D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary to supply the magnet to extract the obstruction shall be made at the per unit price per each for **"Magnet"**.

MILLING/DRILLOUT

A. Description: This work consists of all labor, equipment, and material necessary to remove an obstruction from inside the wellbore or casing as needed in order to reach a required depth by means of milling/drilling.

This work may include removing metal, cement, grout, wood plugs, failed cement plugs and/or other materials in which typical cleanout operations failed to remove.

B. Execution: The Contractor shall supply the equipment needed to complete the work in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, a mud pump, power swivel/power sub, drill string (including collars and casing or tubing) and associated equipment.

This shall not include the bits required to complete this work. The Division will develop a negotiated change order to deliver and use the appropriate bit(s) required based on the unforeseen conditions. Bit types shall be based on the type of material encountered. Bits shall be factory made unless otherwise approved in writing by the Division.

C. Measurement: Measurement for payment shall be made by field inspection of the actual quantity of hours in which the drilling rig and equipment were diligently operating in a manner to remove the obstruction.

D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the obstruction removal shall be made at the unit price per hour for **"Milling/Drillout"**.

LOGGING

A. Description: This work consists of all labor, equipment, and material necessary to determine the total depth of the well and the casing, if a packer is present (along with its depth and thickness), determine bond quality behind the casing and the free point of the casing. The Log should also confirm zones of gas production and formation tops for cementing purposes.

B. Execution: The contractor shall complete the logging of the well bore, casing, tubing, packer, and/or cement to the depth of the existing well bore, casing, tubing, packer, and/or cement. The methods of logging to be used shall be as indicated on the individual plugging plan and may include but not be limited to **gamma ray (GR), casing collar locator (CCL), temperature, bond, and caliper log as well as shooting etc.**. Prior to use, the Contractor shall propose the method of logging and shall be approved by the Division.

A copy of the completed Log must be submitted to the Division via email at OrphanWellProgram@dnr.state.oh.us.

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

D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the investigation of the well shall be included at the per unit price per each for **"Logging."**

SHOOTING

A. Description: This work consists of all labor, equipment, and material necessary to sever/shoot a casing or tubing at a determined depth for the purpose of removing the casing or tubing string by the means of shooting.

B. Execution: The Contractor shall complete the shooting of the casing or tubing at a depth approved by the Division. This work shall include a CCL and Bond Log at the discretion of the Division to locate free point of casing or tubing in the well.

The Contractor shall propose the material and method for shooting of the casing or tubing, which shall be approved by the Division.

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

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

LOST CIRCULATION MATERIALS

A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary to expose portions of the well bore to lost circulation materials (LCM) as determined necessary. Lost circulation materials shall be implemented to aid in obtaining well bore circulation prior to any cementing operations.

B. Materials: Lost circulation materials shall be selected by the Contractor based on site conditions encountered and proposed to the Division for approval.

C. Measurement: Measurement for payment shall be based on the actual quantity of sacks of lost circulation materials satisfactorily placed and shall be verified with delivery tickets. For estimating purposes, it has been assumed that one (1) sack is equal to fifty (50) pounds.

D. Payment: Payment for all the above-described work shall be made at the unit price per sack for **"Lost Circulation Materials"**.

DRILLING MUD

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

B. Materials: Based on the onsite conditions the Contractor shall propose a water-based drilling mud for approval from the Division. Once a material is approved the Division will require a minimum quantity be maintained at the site during the plugging project based on circumstances encountered.

C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of sacks (50 lbs) of additives for the water-based drilling mud used to successfully plug the orphan well.

D. Payment: Payment for the above work shall be made at the unit price per sack for "Drilling Mud."

HYDROGEN SULFIDE SCAVENGER

A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use a hydrogen sulfide scavenger for the drilling and plugging process of the well.

B. Materials: The Contractor shall provide Sulfa-Clear or an approved equal. The Sulfa-Clear shall be applied at a rate to eliminate the presence of Hydrogen Sulfide (H_2S) at the surface and shall not be less than seven (7) percent concentration with the applicable well bore fluid.

C. Execution: The Contractor shall be prepared to apply the hydrogen sulfide scavenger at any time during the drilling and plugging operation. When Hydrogen Sulfide (H_2S) is encountered the Contractor shall apply the hydrogen sulfide scavenger. If the hydrogen sulfide scavenger is applied during drilling operations the Contractor shall continue to monitor the presence of H_2S and apply additional hydrogen sulfide scavenger as needed in order to complete the plugging.

Once total depth has been reached an additional batch of hydrogen sulfide scavenger will be applied to the total depth of the well bore prior to setting of any plugs. Once this total depth application has been applied the Contractor shall wait a minimum of 24 hours to commence work on the well bore.

D. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of gallons of hydrogen sulfide scavenger used to successfully plug and/or drill the orphan well.

E. Payment: Payment for the above work shall be made at the unit price per gallons for **"Hydrogen Sulfide Scavenger"**.

H2S SAFETY TEAM

A. Description: The work will include the installation and implementation of safety procedures for the plugging of the orphan well as described herein that wells in the area have been known to produce bacterial H_2S. **Per 29 CFR 1910.1000, Air Contaminants, Table Z-2 the permissible exposure limits (PEL) ceiling standard for H_2S is 20 ppm.** This shall also include any labor, equipment, materials, and time needed to implement these safety procedures. The H_2S safety team shall be qualified employees of the Contractor or subcontractors including no less than two employees available for 24/7 coverage of the monitoring equipment. The personnel shall be available for no more than 12-hour shifts (Shifts include active and on call service) and shall be on site while work is being completed.

B. Execution: The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H_2S emitted from the well. All personnel on location must have and wear H_2S monitor and/or 4-gas monitor. If permissible exposure limits (PEL) are exceeded, the Contractor will be required to have an H_2S safety team on site until the geological zone of interest is covered with cement and no further H_2S issues are at the surface while the well is vented for a minimum of 8 hours. The H_2S safety team may be released at this point, but personal monitors and the rig monitor are still required. The safety team shall be called back as needed.

Once the contractor is on site and well is ready to be opened or detection of permissible exposure limits (PEL) are exceeded, the Contractor will not continue plugging operations until the safety team has developed and implemented a H_2S safety plan that is compliant with Occupational Safety and Health Administration (OSHA) and The National Institute for Occupational Safety and Health (NIOSH) regulations. The plan shall be approved by the Division.

Along with any other measures required to be compliant with regulations and to implement the approved H_2S safety plan, the Safety Team at minimum shall supply, train, and utilize the following:

1. Supply & use exhaust and ventilation systems,
2. Train and educate workers about hazards and controls,
3. Test (monitor) the air 24/7 with the ability to receive real-time notifications of site conditions through email, website, and phone/text alerts to receive real-time alerting of events and alarms,
4. Establish, train, and use proper rescue and first aid procedures,
5. Supply, train, and use respiratory and other personal protective equipment, &
6. Establish, train, and implement an H_2S Emergency Response Plan for the site including Emergency Medical Technicians (EMTs) ready to respond to the 24/7 monitoring unless otherwise contacted by the Safety Team.

For days that the site is idle for weekends, holidays, or any other day that the Division agrees work cannot take place, the H2S Safety Team shall be on standby and the cost associated with those days shall be paid at the unit price per day for **"H2S Safety Team Standby"**. Any days that work could have been completed and was not due to the Contractor shall be at the Contractor's expense.

C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division.

D. Payment: Payment for this work, including labor, equipment, materials, and time shall be made at the unit price per day for **"H2S Safety Team" or "H2S Safety Team Standby".**

NINE SACK GROUT

A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary to plug the well as specified in the **Plugging Plan**.

B. Materials: Nine Sack Grout shall consist of the following materials and requirements:

Constituent	SSD Weight (lbs.)	Volume ($ft.^3$)
Cement Type I-II	846.00	4.30
Sand	2550.00	15.54
Water	417.00	6.68

(SSD means saturated surface dry)

1. Cement Type I-II: Cement shall conform to ODOT CMS Item 701.02 and 701.04.

2. Sand: Sand shall be in accordance with ASTM C150.

3. Water: Water shall be in accordance with ASTM C1602.

The grout shall contain a maximum of 1% entrapped air.

Grout shall have a water to cement ratio (W/C) equal to 0.50 and an overall unit weight of 142.30 pounds per cubic foot.

Slump tests may be done at the discretion of the Division. Slump requirements shall be determined in the field at the time of construction.

The Division has accounted for excess materials due to loss in the wellbore in the quantities on the **Quantity Sheet**.

C. Installation: **The Contractor shall notify the Division at least 24 hours in advance of placing grout.** The surface plug shall be grouted to the depth described in the **Plugging Plan**.

Well preparation and circulation shall be achieved as detailed in the **"Well Preparation & Plugging"** line item and the **Plugging Plan**.

D. Setting: Setting times shall be completed as described in the **Plugging Plan.** For the casing any void space between the top of the grout and the top of the casing shall be filled to achieve a level grout line with the top of the casing. This shall be done at no additional cost to the Division.

E. Measurement: Measurement for payment for the above-described work shall be based upon material quantities satisfactorily installed as well as delivery tickets furnished to the Division.

F. Payment: Payment for all the above-described work shall be made at the unit price per cubic yard for **"Nine Sack Grout."**

DOWNHOLE VIDEOGRAPHY

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

B. Execution: The Contractor shall supply all equipment needed and complete the videography recording of the well bore to the depth of the current obstruction. The Contractor shall supply the Division with an electronic copy of the videography recorded in a format viewable in readily available current software.

C. Measurement: Measurement for payment shall be made by the delivery of an acceptable video and photos to the Division of the current obstruction. Measurement shall be per obstruction, not per video or photo.

D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the video recording of the current obstruction made at the per unit price per each for **"Downhole Videography"**.

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.

4. 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.

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

6. 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.

7. 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"**.

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.

SCOPE OF WORK
LORAIN 8F PROJECT
Multiple Orphan Well Sites
Lorain County, Various Townships

APPENDIX I – OHIO ONE-CALL

THE FOLLOWING ARE REPORTABLE INCIDENTS: *(OAC 1501:9-8-02)*		
TYPE OF INCIDENT (All Incident types associated with production operation or other activity regulated under Chapter 1509)	**QUANTITY** (GAL, BBL,PPM) NOTE: 1 Barrel = 42 US Gallons	**ADDITIONAL FACTORS**
Release of Gas	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
	> 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)

Release of Brine from a Vehicle, Vessel, Railcar, or Container		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 8F PROJECT
Multiple Orphan Well Sites
Lorain County, Various Townships

APPENDIX II – PHOTOS & WELL RECORDS

PHOTOS

Midview School District #1

View looking south of Midview School District #1

View looking north of Midview School District #1

View of Midview School District #1 surface casing.

Kantosky C&B #1

Photo of the Kantosky C&B #1 (API# 34-093-2-0924-00-00), looking north, showing the partially demolished shed housing the well.

Photo of the Kantosky C&B #1, looking northeast, showing the shed/well in relation to Midview High School and the power lines.

Photos of the Kantosky C&B #1 showing the 2-inch diameter production tubing exiting the top of the well head, the domestic service line connected to one of the ports in the well head (top photo) and the 2-inch diameter flow line connected to second port of the well head (bottom photo), with their associated valves, regulators, and gauges.

Photo of the Kantosky C&B #1 showing wellhead fitted to the 4.5-inch diameter casing, the 2-inch diameter production tubing exiting the top of the well head and the 2-inch diameter flow line connected to the left side and the domestic service line connected to the right side of the wellhead.

Spitzer Ford Agency #1

Spitzer Ford Agency #1 separator looking west.

Spitzer Ford Agency #1 looking northeast.

Spitzer Ford Agency #1 domestic line looking west.

Spitzer Ford Agency #1 production casing and surface casing below. Flowline to the right of casings.

Spitzer Ford Agency #2

View looking north of access entrance, well is in the island of trees across the field.

View looking northwest of access entrance and storm water inlet.

View of valve assembly and flowline.

View of Spitzer Ford Agency #2 well head.

Spitzer Jackson #1

July 2024 photo of the Spitzer-Jackson #1 (API# 34-093-2-0946-00-00), looking west, showing the exposed tubing head, 4.5-inch diameter production casing, 2-inch diameter production tubing, associated 2-inch diameter tubing/fittings and disconnected flowline.

July 2024 photo of the Spitzer-Jackson #1 (API# 34-093-2-0946-00-00) showing the exposed surface casing head, which was found approximately 8 inches below grade.

July 2024 photos of the Spitzer-Jackson #1 (API# 34-093-2-0946-00-00) site showing what is believed to be the drilling rig supports, found 15 feet to the northeast and southeast of the well.

WELL RECORDS

Midview School District #1

Ohio Department of Natural Resources
Division of Mineral Resources
Management
Facility Report

Quad Grafton

API Well No.
34093901590000

Project: NA

County: LORAIN Twp EATON Sec: 0 Lot: 97 WI Typ: OG

UNKNOWN OWNER Resp Co I&O

Well Name: MIDVIEW SCHOOL DISTRICT No.: 1 WH_LAT 41.297500 WH_LONG: 82.068410

X 2118592 Y594438

Directions to site: 12865 SR 57 north of Grafton.
8280'SL & 580' WL OF TWP
40'SL & 580' WL OF LOT 97

EL 792

Inspection Type: Orphan Contact: Todd Whitesel Phone 440-343-8224
Address

Inspection Purpose: Complaint

Type of Notification Contact MORAVY HAROLD

Inspection Comments:

Met with Todd Whitesel of Midview School District to inspect an abandoned well on property school purchased. Well is equipped with 7" casing and domestic gas hookup. Buildings and home is being demolished on June 22, 2009. Midview is having contractor test well for pressure. If well is capable of producing gas they will register and keep it for buildings at football field. If it is dry it will be put on I&O well program.

Accompanied by
INJECTIONPRESSUR Vac ANNULUSPRESSURE: Vac FLOWMETER: Vac

HAULERNO: LISCENSE_NUM:

LANDOWNERWAIVER: P_REST_PASS: F_REST_PASS:

Inspection Date: 6/9/2009
Signature: MORAVY HAROLD
Date notice of violation Issued:
Required action to be completed by:
Reviewed by:
Extended action due:
Forward to
Required action completed:
Duration: hrs SectionName

Midview School District #1 inspection report.

Kantosky C&B #1

Form 8; 7-1966

SUBMIT IN DUPLICATE

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
811 OHIO DEPARTMENTS BUILDING
COLUMBUS, OHIO 43215

FOR OFFICE USE
Permit No.: 924
County: LORAIN
Township: EATON
Section or Lot: 97

WELL COMPLETION RECORD

(Required by Section 1509.10 of Ohio Revised Code)

OPERATOR: L.H. Kapp

ADDRESS: P.O. Box 128

Elyria, Ohio 44035
Zip Code

PERMIT NUMBER: 924
WELL NO.: 1 LEASE: C. Kantosky
COUNTY: Lorain CIVIL TOWNSHIP: Eaton SECTION:
LOT: QUARTER TOWNSHIP: SURVEY:
ALLOTMENT: CITY LOT: OF
FOOTAGE LOCATION: 1130' SL. 1219' WL of lot 97

ELEVATION: GL 785 DF KB 790 TOOLS: Rotary
DATE COMMENCED: Nov. 18, 1967 DATE COMPLETED: Nov. 26, 1967 TOTAL DEPTH: 2452'
RECORD OF SHOT, ACID OR FRACTURE TREATMENTS, PRODUCTION TESTS, PRESSURES, ETC.:
Fracture treatments used: 600 BBLS. of water, 20,000 lbs of sand.
Production test: EST. 900,000 cu. ft. per day

AMOUNT OF INITIAL PRODUCTION: GAS: X Unknown OIL: none WATER: none
DRY AND ABANDONED:
ADDITIONAL DATA:

CASING AND TUBING RECORD:

SIZE	FEET USED IN DRILLING	AMOUNT OF CEMENT OR MUD	FEET LEFT IN WELL	COMMENTS
8 5/8"	259'	115 sacks cem.	259	
4 1/2"	2450'		2450'	

NAME OF CONTRACTOR: Datco Srilling Co.
TYPES OF ELECTRICAL AND/OR RADIOACTIVITY LOGS RUN: Gamma Ray-Neutron
NAME OF LOGGING COMPANY: Shelwell

COMPLETE AND ACCURATE LOG OF ROCKS PENETRATED

Type of rock	Top	Base	Name of Formation	Fluid Content	Remarks
Soil & sandstone	0	47	Berea		
Shale	47'	1053			
Limestone	1053	1233			
Dolomite	1233	1368			
Anhy, dol. salt	1368	1948	Salina fm.		
Dolomite, anhy.	1948	2120	Greenfield		
Dolomite	2120	2278	Clinton group		
Shale & dolomite	2278	2315	Casing Shell		
Shale	2315	2333			
Limestone & dol.	2333	2354	"Packer Shell"		
Shale & sandstone	2354	2452	Clinton		
Sandstone	2391	2409	Clinton sandstone		Broken

Well Completion records for the Kantosky C&B #1, API# 34-093-2-0924-00-00.

Form 19, 7-1966

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECORD OF CEMENTING AND MUDDING

Permit No.: 924
County: Lorain
Township: Eaton
Sec.: ____ Lot: L-97 ¼Twp.: ____

OPERATOR: Louis Kepp
P. O. Box 128
Elyrai, Ohio 44035
(Zip Code)

CONTRACTOR: DATCO Drilling Co.

WELL NO.: 1 LEASE: C. & B. Kantosky

DATE PERMIT ISSUED: 9-29-67

DATE OF CEMENTING: 11-26-67 DATE OF MUDDING: ____

DATE OF COMPLETION OF DRILLING: 11-26-67

DEPTH OF HOLE: 2452' Feet

RECORD OF CASING AND TUBING -- (Attach cement/mud tickets if available.)

SIZE	AMOUNT	PROCEDURE
4½"	2450'	Cemented with 100 sks Rathole cemented with 15 sks. CST attached.

RECEIVED
DEC 5 1967
DIVISION OF OIL AND GAS

Signed: J. C. Campbell
Oil and Gas Well Inspector

Date: 12-3-67

Cementing record for the 4.5-inch diameter casing installed in the Kantosky C&B #1, API# 34-093-2-0924-00-00.

Spitzer Ford Agency #1

Shel. GR-N, GR-N/P [redacted] S-2046

Ohio Division Of Geological Survey 20909

Permit No. 909
Permit Issued 7-20-67
Quadrangle Grafton
Twp. Quarter

County Lorain Township Eaton
Section Lot 82 Tract
Measured 999' SL & 585' EL of Lot 82

Sal-Pool- R.T.

Land Owner Spitzer Ford Agency Well No. 1 Date Commenced 8-1-67
Operator Louis Kapp Well No. Date Completed 8-6-67
Elevation Bar 806.5 DF S.L. 800.46 G,807.5KB Total Depth 2536 Plugged Back
Formation Drld. To. Prod. Form. Prod. Nat.
F/W 600 BW, 20M# Sd. I.P. A.F. 8,000MCFG
Init. Rock Press.
Casing Record 8-5/8"-245';4½"-2530' Abandoned

Formation	Top	Bottom	Remarks
X= 2,122,750			
Y= 589,950			
COMPLETION			
Shale	0	43	
Sandstone	43	126	Be.-Brkn.
Shale	126	1112	
Limestone	1112	1273	B. Lm.
Dol.	1273	1424	
Dol.Anhy.Salt	1424	2141	Salina
Dol.-Anhy.	2141	2222	Greenfield
Dol.	2222	2343	Lockport
Sh.-Dol.	2343	2383	Cl. Grp.
Dol.	2383	2390	
Shale	2390	2400	
Dol.-Ls.	2400	2425	Pkr. Shell
Shale-Ss.	2425	2536	
Sandstone	2450	2460	
Ss.	2468	2478	

Formation	Top	Bottom	Remarks
Sample-Range	250	2530	
Missing-Samples			
600-700			
1100-1200			
1500-1610			
1780-90			
1990-2100			
2240-50			
2370-80			
2400-20			
2430-70			
2475-95			

NSR 10-5-67
Comp. 8-6-67
Show gas nat.
Csg. 8"-245'w/125sks.;4½"-2526'w/100sks.
Perf. 2452-58,6; 2470-76,6
F/W 23M gal. W., 20M# Sd.
A.F. 5,280 MCFG--R.P. 1030#/72 hrs.
Show gas nat.

E. Log:

B. Lm.	1112	2343
Lockport	2212	
L. Lm.	2401	2425
Cl.	2444	2478
T.D. 2533'--L.TD	2536'	

Spitzer Ford Agency #1 well card.

Form 6; 10-1965

State of Ohio
Department of Natural Resources
Division of Oil and Gas

FILES

PERMIT

Permit No. 909
Date: 7-19-67

Permission is hereby granted to: Louis Kapp
P. O. Box 123
Elyria, Ohio 44035

To perform the operations indicated below at the following wellsite:
Well No.: 1 Lease: Spitzer Ford Agency
County: Lorain Civil Township: Eaton
Section: _____ Lot: 82 Quarter Section: _____
City Lot: _____ of City or Village: _____
Survey: _____ Allotment: _____
Footage location: 999' from SL & 585' from EL of Lot 82
Tools: Rotary Proposed Total Depth: 2650 feet in Clinton formation.
Elevation: GL 800.~~XX~~ 46 DF _____ KB _____

Oil and/or Gas XX Brine _____ Artificial Brine (Salt) _____
Drill New Well XX Reopen _____ Deepen _____ Plug Back _____
Abandon new well if unproductive XX Abandon old well _____
Disposal _____ Substance to be disposed _____
Disposal interval _____ in _____ formation.
Storage: Input (Injection) _____ Extraction _____
Substance to be stored _____
Storage interval _____ in _____ formation.
Core Hole _____ Stratigraphic ("slim hole") _____
Secondary Recovery: Input (Injection) _____ Production _____
Method: Air _____ Gas _____ Water _____ Thermal _____

Permit is NOT TRANSFERABLE. This permit, or an exact copy thereof, must be displayed in a conspicuous and easily accessible place at the wellsite before operation commences and remain until the well is completed.

Permit expires 180 days after issuance, unless operations have commenced prior thereto.

All mudding, cementing, placing and removing casing, and plugging operations must be done under the supervision of:

OIL AND GAS WELL INSPECTOR	DEPUTY MINE INSPECTOR
H. C. Laughlin	
207 Grand Ave	
Wellington, Ohio	
Phone: 647-2662	Phone:

APPROVED CASING PROGRAM:
8-3/4" approx. 235'
Production casing to T. D. and cemented.

Ample notification to INSPECTOR is necessary.

Signed: Donald L. Sterling, Chief
Division of Oil and Gas

ot

Spitzer Ford Agency #1 permit

D
W
B

Form 8; 7-1966

SUBMIT IN DUPLICATE

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
811 OHIO DEPARTMENTS BUILDING
COLUMBUS, OHIO 43215

FOR OFFICE USE
Permit No.: 909
County: LORAIN
Township: EATON
~~Section or~~ Lot: 82

WELL COMPLETION RECORD

(Required by Section 1509.10 of Ohio Revised Code)

OPERATOR: Louis Papp

ADDRESS: P.O. Box 128

Elyria, Ohio 44035
Zip Code

PERMIT NUMBER: 909
WELL NO.: 1 LEASE: Spitzer Ford Agency
COUNTY: Lorain CIVIL TOWNSHIP: Eaton SECTION:
LOT: 82 QUARTER TOWNSHIP: SURVEY:
ALLOTMENT: CITY LOT: OF
FOOTAGE LOCATION: 999' SL, 585' EL of lot 82

ELEVATION: GL 800 DF KB 808 TOOLS: Rotary
DATE COMMENCED: Aug. 1, 1967 DATE COMPLETED: Aug. 6, 1967 TOTAL DEPTH: 2536'
RECORD OF SHOT, ACID OR FRACTURE TREATMENTS, PRODUCTION TESTS, PRESSURES, ETC.:
Fracture treatments used: 600 bbls water, 20,000 lbs sand.
Production tests: 8,000,000 gas cu ft/ day

AMOUNT OF INITIAL PRODUCTION: GAS: 8,000,000 OIL: none WATER: none
DRY AND ABANDONED:
ADDITIONAL DATA:

CASING AND TUBING RECORD:

SIZE	FEET USED IN DRILLING	AMOUNT OF CEMENT OR MUD	FEET LEFT IN WELL	COMMENTS
8 5/8"	245'		245'	
4 1/2"	2530'		2530'	

NAME OF CONTRACTOR: March Drilling Co.

TYPES OF ELECTRICAL AND/OR RADIOACTIVITY LOGS RUN: Gamma Ray-Neutron

NAME OF LOGGING COMPANY: Shelwell

COMPLETE AND ACCURATE LOG OF ROCKS PENETRATED

Type of rock	Top	Base	Name of Formation	Fluid Content	Remarks
Shale	0	43			
Sandstone	43'	126'	Berea		Broken, shaley
Shale	126	1112			
Limestone	1112	1273	"Big Lime"		
Dolomite	1273	1424			
ol., anhy., salt	1424	2141	Salina		
olomite & anhy.	2141	2222	Greenfield		
lomite	2222	2343	Lockport		
le & dolomite	2343	2383	Clinton group		
omite	2383	2390	"Casing Shell"		
le	2390	2400			
Dolomite & limestone	2400	2425	"Packer Shell"		
Shale & sandstone	2425	2536			
Sandstone	2450	2460			
Sandstone	2468	2478			

(OVER FOR SIGNATURE)

Spitzer Ford Agency #1 well completion record.

Form 19, 7-1966

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECORD OF CEMENTING AND MUDDING

Permit No.: 909
County: Lorain
Township: Eaton
Sec.: ____ Lot: L-82 ¼Twp.: ____

OPERATOR: Louis Kapp
P. O. Box 128
Elyria, Ohio 44035
(Zip Code)

CONTRACTOR: Maroh Drilling Co.

WELL NO.: 1 LEASE: Spitzer Ford Agency

DATE PERMIT ISSUED: 7-19-67

DATE OF CEMENTING: 8-2-67 DATE OF MUDDING: ____

DATE OF COMPLETION OF DRILLING: Commenced 8-2-67

DEPTH OF HOLE: 246' Feet

RECORD OF CASING AND TUBING -- (Attach cement/mud tickets if available.)

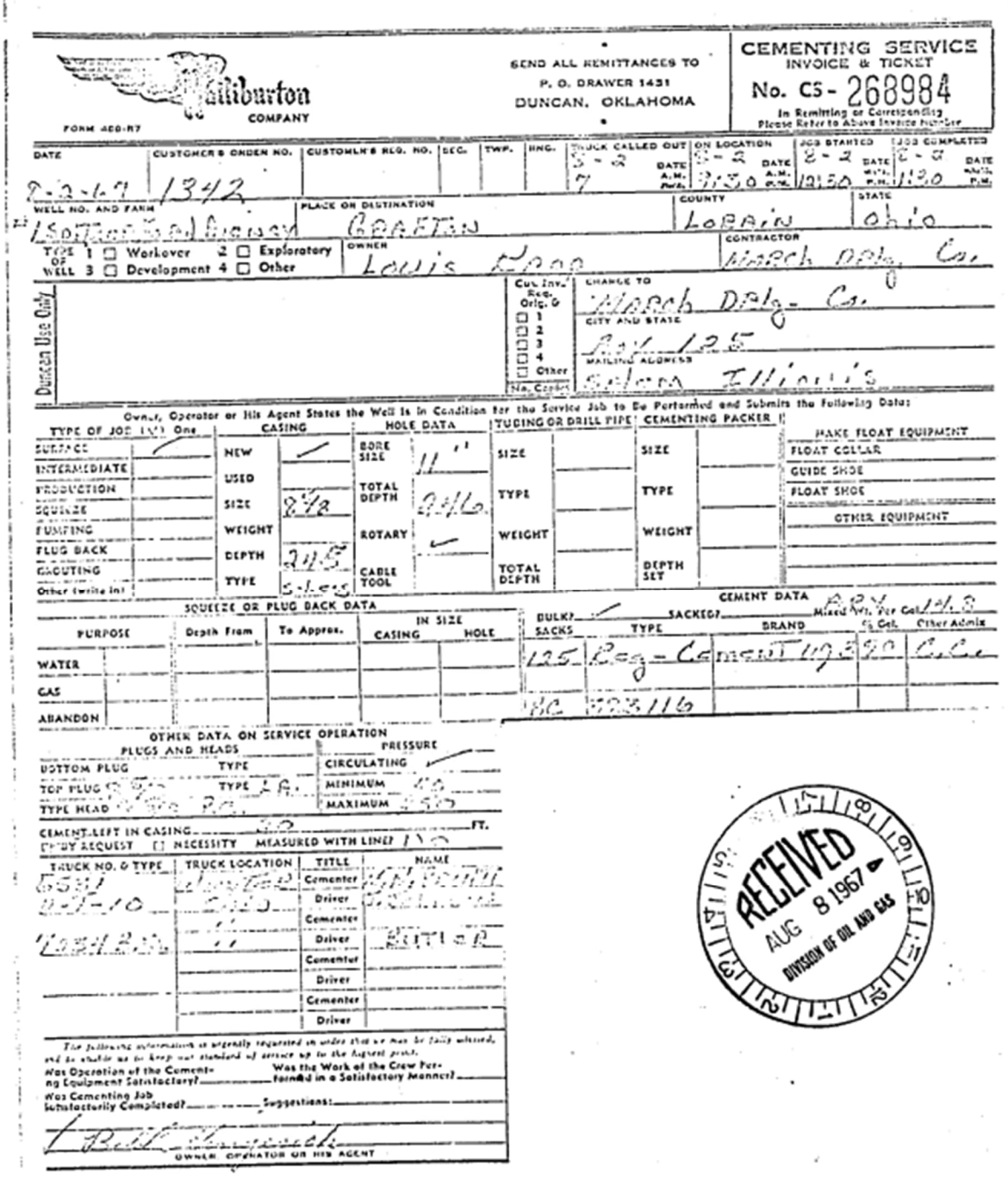
SIZE	AMOUNT	PROCEDURE
8 5/8"	245'	Cemented with 125 sks. reg. plus 3% cacl. Cement returns.
		Sed attached CST.

RECEIVED
AUG 8 1967
DIVISION OF OIL AND GAS

Signed: _____
Oil and Gas Well Inspector

Date: 8-7-67

Record of Cementing and Mudding for the Spitzer Ford Agency #1



HALLIBURTON COMPANY

FORM 460-R7

SEND ALL REMITTANCES TO
P. O. DRAWER 1431
DUNCAN, OKLAHOMA

CEMENTING SERVICE
INVOICE & TICKET
No. CS- 268984

In Remitting or Correspondence
Please Refer to Above Invoice Number

DATE	CUSTOMER'S ORDER NO.	CUSTOMER'S REQ. NO.	SEC.	TWP.	RNG.	TRUCK CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
8-2-67	1342					8-2 DATE 7 A.M. P.M.	8-2 DATE 9:30 A.M. P.M.	8-2 DATE 12:50 A.M. P.M.	8-2 DATE 1:20 A.M. P.M.

WELL NO. AND FARM: #1 Spitzer Ford Agency | PLACE OR DESTINATION: GRAFTON | COUNTY: LORAIN | STATE: Ohio

TYPE OF WELL: 1 ☐ Workover 2 ☐ Exploratory 3 ☐ Development 4 ☐ Other

OWNER: Louis Lapp | CONTRACTOR: March Drlg. Co.

Duncan Use Only

Cust. Inv. Req. Orig. 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ Other ☐ No. Copies

CHARGE TO: March Drlg. Co. 0
CITY AND STATE: Ark. City Kans.
MAILING ADDRESS: Salem Illinois

Owner, Operator or His Agent States the Well Is in Condition for the Service Job to Be Performed and Submits the Following Data:

TYPE OF JOB (X) One	CASING		HOLE DATA		TUBING OR DRILL PIPE		CEMENTING PACKER		MAKE FLOAT EQUIPMENT
SURFACE ✓	NEW ✓		BORE SIZE 11"		SIZE		SIZE		FLOAT COLLAR
INTERMEDIATE	USED		TOTAL DEPTH 246		TYPE		TYPE		GUIDE SHOE
PRODUCTION	SIZE 8 5/8		ROTARY ✓		WEIGHT		WEIGHT		FLOAT SHOE
SQUEEZE	WEIGHT		CABLE TOOL		TOTAL DEPTH		DEPTH SET		OTHER EQUIPMENT
PUMPING	DEPTH 245								
PLUG BACK	TYPE S-Leg								
GROUTING									
Other (Write In)									

SQUEEZE OR PLUG BACK DATA

PURPOSE	Depth From	To Approx.	IN SIZE CASING	IN SIZE HOLE
WATER				
GAS				
ABANDON				

CEMENT DATA — BULK? ✓ SACKED? — Mixed Wt. Per Gal. 14.8

SACKS	TYPE	BRAND	% Gel.	Other Admix
125	Reg - Cement	Ash Grove	2%	C.C.
180	60-40 Poz			

OTHER DATA ON SERVICE OPERATION

PLUGS AND HEADS

		PRESSURE	
BOTTOM PLUG	TYPE	CIRCULATING ✓	
TOP PLUG	TYPE Lg.	MINIMUM	
TYPE HEAD	Rub.	MAXIMUM	

CEMENT LEFT IN CASING ____ FT.
☐ BY REQUEST ☐ NECESSITY MEASURED WITH LINE 1½

TRUCK NO. & TYPE	TRUCK LOCATION	TITLE	NAME
5311	Lorain	Cementer	[illegible]
0-2-10	Grafton	Driver	[illegible]
Ford 2½	"	Cementer	[illegible]
	"	Driver	Butler
		Cementer	
		Driver	
		Cementer	
		Driver	

The following information is urgently requested in order that we may be fully advised, and to enable us to keep our standard of service up to the highest point.

Was Operation of the Cementing Equipment Satisfactory? ____ Was the Work of the Crew Performed in a Satisfactory Manner? ____

Was Cementing Job Satisfactorily Completed? ____ Suggestions: ____

Bill Hancock
OWNER OPERATOR OR HIS AGENT

RECEIVED
AUG 8 1967
DIVISION OF OIL AND GAS

Cementing ticket for Spitzer Ford Agency #1

Spitzer Ford Agency #2

Shel.: GR-N, GR/P [redacted]

Ohio Division Of Geological Survey

20920

Permit No. 920
Permit Issued 8-31-67

County Lorain Township Eaton Quadrangle Grafton
Section Lot 82 Tract Twp. Quarter
Measured 2460' SL & 230' WL of Lot 82

Sal - Pool - R.T.

Land Owner Spitzer Ford Agency Well No. 2 Date Commenced
Operator Louis Kapp Well No. Date Completed
Elevation Bar 801 DF S.L. 794.13 G , 804 KB Total Depth Plugged Back
Formation Drld. To. Prod. Form. Prod. Nat.
I.P.
Init. Rock Press.
Casing Record Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
X= 2,121,350 Y= 591,350							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
				NSR 10-19-67 Start 9-6-67, comp. 9-14-67 Csg. 8-5/8"-245';4"-2497'w/100sks. Perf. 2421-46';2466-67; 2474-75, 12 shots F/W 642 BW, 20M# Sd., 87,700 nitrogen A.F. 341 MCFG open 2 hrs. R.P. 790#/48 hrs. Show gas nat. E. Log:			
				B. Lm.	1086	2314	
				Orisk.	1226		
				Salt	1890	1952	
				S. Lm.	2354	2360	
				L. Lm.	2376	2400	
				Cl.	2419	2428	
				Cl.	2436	2446	
				Cl.	2464	2476	
				T.D. 2500--L.TD 2500'			

Spitzer Ford Agency #2 well card.

Form 6; 10-1965

FILES

State of Ohio
Department of Natural Resources
Division of Oil and Gas

01265

PERMIT

Permit No. 920
Date: 8-29-67

Permission is hereby granted to: Louis Kapp
P. O. Box 128
Elyria, Ohio

To perform the operations indicated below at the following wellsite:
Well No.: 2 Lease: Spitzer Ford Agency
County: Lorain Civil Township: Eaton
Section: _____ Lot: 82 Quarter Section: _____
City Lot: _____ of City or Village: _____
Survey: _____ Allotment: _____
Footage location: 2460' from SL & 230' from WL of Lot 82
Tools: Rotary mud Proposed Total Depth: 2650 feet in Clinton formation.
Elevation: GL 794.13 DF _____ KB _____

Oil and/or Gas XX Brine _____ Artificial Brine (Salt) _____
Drill New Well XX Reopen _____ Deepen _____ Plug Back _____
Abandon new well if unproductive XX Abandon old well _____
Disposal _____ Substance to be disposed _____
Disposal interval _____ in _____ formation.
Storage: Input (Injection) _____ Extraction _____
Substance to be stored _____
Storage interval _____ in _____ formation.
Core Hole _____ Stratigraphic ("slim hole") _____
Secondary Recovery: Input (Injection) _____ Production _____
Method: Air _____ Gas _____ Water _____ Thermal _____

Permit is NOT TRANSFERABLE. This permit, or an exact copy thereof, must be displayed in a conspicuous and easily accessible place at the wellsite before operation commences and remain until the well is completed.

Permit expires 180 days after issuance, unless operations have commenced prior thereto.

All mudding, cementing, placing and removing casing, and plugging operations must be done under the supervision of:

OIL AND GAS WELL INSPECTOR	DEPUTY MINE INSPECTOR
H. C. Laughlin	
207 Grand Ave	
Wellington, Ohio	
Phone: 647-2662	Phone:

APPROVED CASING PROGRAM:
8-5/8" approx. 245' cemented to surface
4½" production casing, if needed, cemented.

Ample notification to INSPECTOR is necessary.

Signed: Donald L. Norling, Chief
Division of Oil and Gas

Spitzer Ford Agency #2 permit.

Form 19, 7-1966

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECORD OF CEMENTING AND MUDDING

Permit No.: 920
County: Lorain
Township: Eaton
Sec.: ____ Lot: L-82 ¼Twp.: ____

OPERATOR: Louis Kapp
P. O. Box 128
Elyria, Ohio
(Zip Code)

CONTRACTOR: Marsh Drilling

WELL NO.: 2 LEASE: Spitzer Ford Agency

DATE PERMIT ISSUED: 8-29-67

DATE OF CEMENTING: 9-9-67 9-14-67 DATE OF MUDDING: ____

DATE OF COMPLETION OF DRILLING: 9-14-67

DEPTH OF HOLE: 248' 2500' Feet

RECORD OF CASING AND TUBING -- (Attach cement/mud tickets if available.)

SIZE	AMOUNT	PROCEDURE
8 5/8"	247'	Cemented with 115 sks. Good cement returns.
4½"	2497'	Cemented with 100 sks. Rathole cemented with 10 sks.

RECEIVED
OCT 4 1967
DIVISION OF OIL AND GAS

Signed: ____
Oil and Gas Well Inspector

Date: 9-17-67

Record of Cementing and Mudding for the Spitzer Ford Agency #2

Halliburton COMPANY

FORM 488-N7

SEND ALL REMITTANCES TO
P. O. DRAWER 1431
DUNCAN, OKLAHOMA 73533

CEMENTING SERVICE
INVOICE & TICKET
No. CS-335151
In Remitting or Corresponding Please Refer to Above Invoice Number

DATE	CUSTOMER'S ORDER NO.	CUSTOMER'S REQ. NO.	SEC.	TWP.	RNG.	TRUCK CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
9-9-67	2088					9-9-67 DATE 8:00 A.M.	DATE 11:30 A.M.	DATE 2:30 P.M.	9-9-67 DATE 3:50 P.M.

WELL NO. AND FARM: #2. SPITZER FORD. | PLACE OR DESTINATION: GRAFTON | COUNTY: LORAIN | STATE: OHIO

TYPE OF WELL: 1 ☐ Workover 2 ☐ Exploratory 3 ☐ Development 4 ☐ Other

OWNER: LOUIS KAPP | CONTRACTOR: MARCH DRLG. CO.

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Cus. Inv. Req. Orig. & 1 2 3 4 Other No. Copies: 00000

CHARGE TO: MARCH DRLG. CO.
CITY AND STATE: SALEM ILL.
MAILING ADDRESS: BOX 125

Owner, Operator or His Agent States the Well is in Condition for the Service Job to Be Performed and Submits the Following Data:

TYPE OF JOB (√) One		CASING		HOLE DATA		TUBING OR DRILL PIPE		CEMENTING PACKER	
SURFACE	√	NEW	√	BORE SIZE		SIZE		SIZE	
INTERMEDIATE		USED		TOTAL DEPTH	248'	TYPE		TYPE	
PRODUCTION		SIZE	8¾	ROTARY	√	WEIGHT		WEIGHT	
SQUEEZE		WEIGHT	24#	CABLE TOOL		TOTAL DEPTH		DEPTH SET	
PUMPING		DEPTH	247'						
PLUG BACK		TYPE							
GROUTING									
Other (write in)									

MAKE FLOAT EQUIPMENT
FLOAT COLLAR
GUIDE SHOE
FLOAT SHOE
OTHER EQUIPMENT

SQUEEZE OR PLUG BACK DATA

PURPOSE	Depth From	To Approx.	IN SIZE CASING	IN SIZE HOLE
WATER				
GAS	CEMENT CIRCULATED			
ABANDON				

CEMENT DATA
BULK? ✓ SACKED? ____ Mixed Wt. Per Gal. ____

SACKS	TYPE	BRAND	% Gal.	Other Admix
115	REG.	BULK	3	CC
		BC. 382957		

OTHER DATA ON SERVICE OPERATION

PLUGS AND HEADS

	TYPE	
BOTTOM PLUG		
TOP PLUG	ONE	WOOD
TYPE HEAD	PC.	

PRESSURE

CIRCULATING	200#
MINIMUM	
MAXIMUM	300#

CEMENT LEFT IN CASING ____ FT.
☑ BY REQUEST ☐ NECESSITY MEASURED WITH LINE? NO

TRUCK NO. & TYPE	TRUCK LOCATION	TITLE	NAME
6318 TWIN T.U.	WOOSTER	Cementer	J. ESKELTON
		Driver	DICKARD
7575 Comb 1119	" "	Cementer	
		Driver	MC. GREGOR
		Cementer	
		Driver	
		Cementer	
		Driver	

The following information is urgently requested in order that we may be fully advised, and to enable us to keep our standard of service up to the highest point.

Was Operation of the Cementing Equipment Satisfactory? ____ Was the Work of the Crew Performed in a Satisfactory Manner? ____
Was Cementing Job Satisfactorily Completed? ____ Suggestions: ____

X R. D. Sergeant
OWNER, OPERATOR OR HIS AGENT

INVOICE SECTION

DEPTH OF JOB 249 FT.

PRICE REF.	SERVICE AND RENTAL CHARGES	AMOUNT
001-616	BASE CHARGE 300 FT.	188 00
	FT. Per Ft. per 100' or Fraction	
	EXTRA TRUCK	
	STAND BY TRUCK	
D30.500	LA TOP PLUG	10 50
	MILEAGE	
	SUB TOTAL	198 50
	TAX	
	TOTAL	

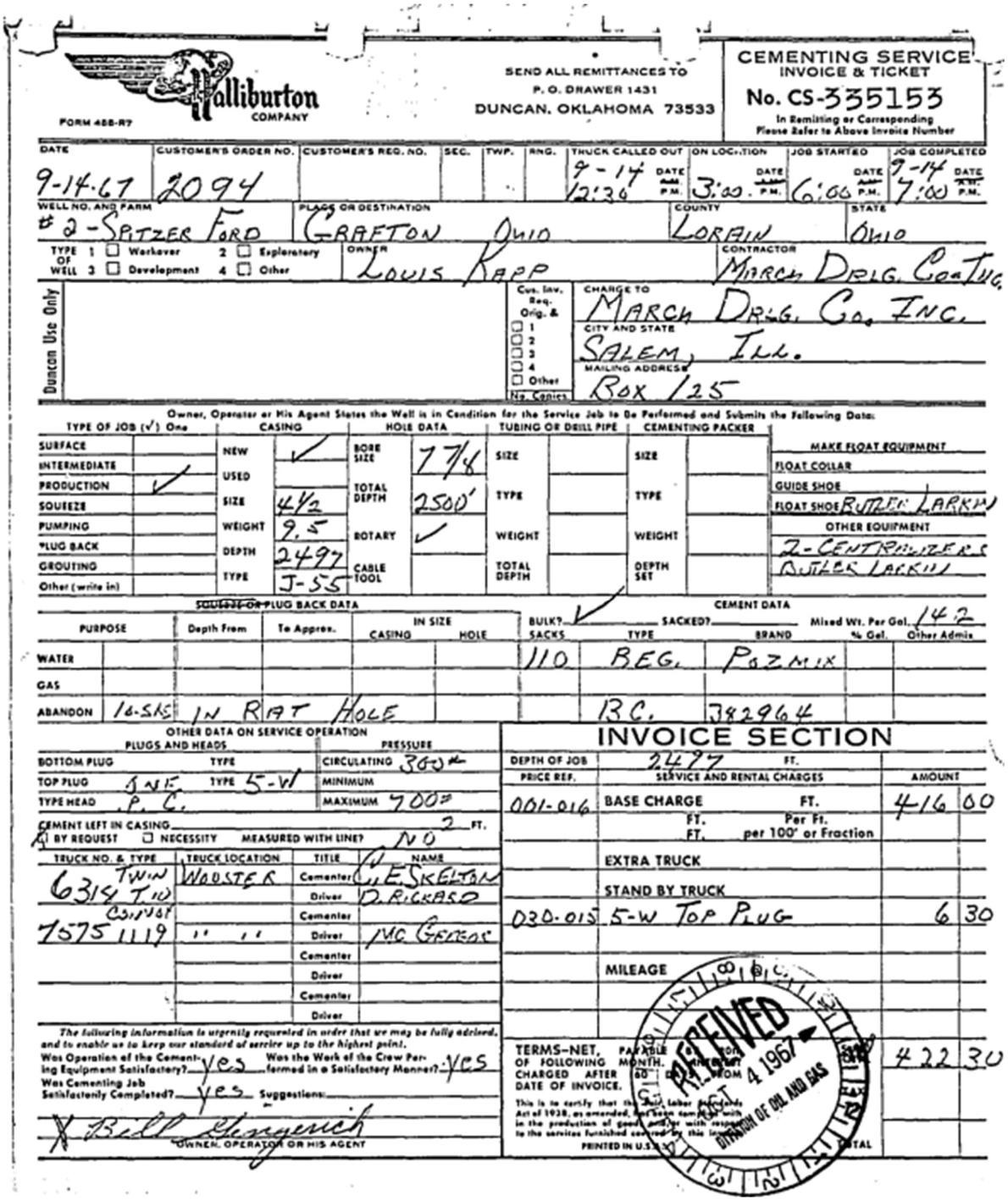
TERMS—NET, PAYABLE ____ DAYS FROM DATE OF INVOICE. 1% PER MONTH INTEREST CHARGED AFTER ____ DAYS FROM DATE OF INVOICE.

This is to certify that the provisions of the Fair Labor Standards Act of 1938, as amended, were complied with in the production of goods and/or with respect to the services furnished or covered by this invoice.

PRINTED IN U.S.A.

RECEIVED SEP 14 1967 DIVISION OF OIL AND GAS

Spitzer Ford Agency #2 cementing ticket.



Halliburton COMPANY
FORM 488-R7

SEND ALL REMITTANCES TO
P. O. DRAWER 1431
DUNCAN, OKLAHOMA 73533

CEMENTING SERVICE
INVOICE & TICKET
No. CS-335153
In Remitting or Corresponding Please Refer to Above Invoice Number

DATE	CUSTOMER'S ORDER NO.	CUSTOMER'S REG. NO.	SEC.	TWP.	RNG.	TRUCK CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
9-14-67	2094					9-14 12:30 P.M.	3:00 P.M.	6:00 P.M.	9-14 7:00 P.M.

WELL NO. AND FARM: #2 - SPITZER FORD | PLACE OR DESTINATION: GRAFTON OHIO | COUNTY: LORAIN | STATE: OHIO

TYPE OF WELL: 1 ☐ Workover 2 ☐ Exploratory 3 ☐ Development 4 ☐ Other

OWNER: LOUIS KAPP

CONTRACTOR: MARCH DRLG. CO. INC.

Duncan Use Only

Cus. Inv. Req. Orig. & ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ Other No. Copies

CHARGE TO: MARCH DRLG. CO. INC.
CITY AND STATE: SALEM, ILL.
MAILING ADDRESS: BOX 125

Owner, Operator or His Agent States the Well is in Condition for the Service Job to Be Performed and Submits the Following Data:

TYPE OF JOB (√) One	CASING		HOLE DATA		TUBING OR DRILL PIPE		CEMENTING PACKER	
SURFACE	NEW	✓	BORE SIZE	7 7/8	SIZE		SIZE	
INTERMEDIATE	USED		TOTAL DEPTH	2500'	TYPE		TYPE	
PRODUCTION ✓	SIZE	4½	ROTARY	✓	WEIGHT		WEIGHT	
SQUEEZE	WEIGHT	9.5	CABLE TOOL		TOTAL DEPTH		DEPTH SET	
PUMPING	DEPTH	2497						
PLUG BACK	TYPE	J-55						
GROUTING								
Other (write in)								

MAKE FLOAT EQUIPMENT
FLOAT COLLAR
GUIDE SHOE
FLOAT SHOE BUTLER LARKIN
OTHER EQUIPMENT
2 - CENTRALIZERS BUTLER LARKIN

SQUEEZE OR PLUG BACK DATA

PURPOSE	Depth From	To Approx.	IN SIZE CASING	IN SIZE HOLE
WATER				
GAS				
ABANDON	16-SAX	IN RAT HOLE		

CEMENT DATA: BULK? ✓ SACKED? ____ Mixed Wt. Per Gal. 14.2

SACKS	TYPE	BRAND	% Gel.	Other Admix
110	REG.	POZMIX		
	13C.	382964		

OTHER DATA ON SERVICE OPERATION

PLUGS AND HEADS

	TYPE	
BOTTOM PLUG		
TOP PLUG	TYPE 5-W	
TYPE HEAD	P. C.	

PRESSURE

CIRCULATING	300#
MINIMUM	
MAXIMUM	700#

CEMENT LEFT IN CASING 2 FT.
☑ BY REQUEST ☐ NECESSITY MEASURED WITH LINE? NO

TRUCK NO. & TYPE	TRUCK LOCATION	TITLE	NAME
6314 TWIN TID	WOOSTER	Cementer	C. E. SKELTON
		Driver	D. RICKARD
7575 1119 CONVOY	" "	Cementer	
		Driver	MC GEEHAN
		Cementer	
		Driver	
		Cementer	
		Driver	

The following information is urgently requested in order that we may be fully advised, and to enable us to keep our standard of service up to the highest point.
Was Operation of the Cementing Equipment Satisfactory? Yes
Was the Work of the Crew Performed in a Satisfactory Manner? Yes
Was Cementing Job Satisfactorily Completed? Yes
Suggestions:

X Bill Gazgenich
OWNER, OPERATOR OR HIS AGENT

INVOICE SECTION

DEPTH OF JOB 2497 FT.

PRICE REF.	SERVICE AND RENTAL CHARGES		AMOUNT
001-016	BASE CHARGE	FT.	416 00
	FT.	Per Ft. per 100' or Fraction	
	EXTRA TRUCK		
	STAND BY TRUCK		
030-015	5-W TOP PLUG		6 30
	MILEAGE		
		TOTAL	422 30

TERMS—NET, PAYABLE ____ FOR OF FOLLOWING MONTH. ____ CHARGED AFTER ____ DAYS FROM DATE OF INVOICE.

This is to certify that the ____ Labor Practices Act of 1938, as amended, ____ been complied with in the production of goods and/or with respect to the services furnished covered by this invoice.

PRINTED IN U.S.A.

RECEIVED
OCT 4 1967
DIVISION OF OIL AND GAS

Spitzer Ford Agency #2 cementing ticket (continued).

Spitzer Jackson #1

Shel.: GR-N

Ohio Division Of Geological Survey 20946

Permit No. 946
Permit Issued 12-21-67
Quadrangle Grafton
Twp. Quarter

County Lorain Township Carlisle
SE¼ Section 15 Lot Tract
Measured 960' NL & 655' EL of SE¼ of Sec. 15
~~63 Acres~~ Sal - Pool - R.T.
Land Owner Spitzer-Jackson Well No. 1 Date Commenced 12-14-67
Operator Louis Kapp Well No. Date Completed 3-1-68
Elevation Bar 782.50 G S.L. 788 DF, 790 KB Total Depth 2477 Plugged Back
Formation Drld. To Prod. Form. Prod. Nat.
F/W 600 BW, 20M# Sd., 100 MCF Nitrogen I.P. 190 MCFG, 12 BO
Init. Rock Press. 1050#-- Perf. 10 holes @ 2440-50, 2 holes @ 2428-30'
Casing Record 8-5/8"-252';4½"-2475'w/100sks. Abandoned

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
X= 2,117,450				Sand	2428	2431	Cl. sh/O&G
Y= 599,150				Shale	2431	2439	
COMPLETION				Sand	2439	2450	Cl.,s/O&G
Till	0	10		Shale	2450	2477	
Shale	10	1088					
Lime	1088	1581	B.Lm.				
Lime-Salt	1581	1952					
Lime	1952	2316					
Shale	2316	2355					
Lime	2355	2363	Csg. Shell				
Shale	2363	2375					
Lime	2375	2393	Pkr. Shell				
Shale	2393	2428					

Well Completion record for the Spitzer-Jackson #1, API# 34-093-2-0946-00-00.

Form 19, 7-1966

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECORD OF CEMENTING AND MUDDING

Permit No.: 946
County: Lorain
Township: Carlisle
Sec.: 15 Lot: ____ Twp.: ____

OPERATOR: Louis Kapp
P. O. Box 128
Elyria, Ohio
(Zip Code)

CONTRACTOR: Calvert Eastern Drlg. Co.

WELL NO.: 1 LEASE: Spitzer-Jackson

DATE PERMIT ISSUED: 12-15-67

DATE OF CEMENTING: 12-17-67 DATE OF MUDDING: ____

DATE OF COMPLETION OF DRILLING: ____

DEPTH OF HOLE: 255' Feet

RECORD OF CASING AND TUBING -- (Attach cement/mud tickets if available.)

SIZE	AMOUNT	PROCEDURE
8 5/8"	252'	Cemented with 125 sks reg. Cement return. CST attached.

Signed: [signature]
Oil and Gas Well Inspector

Date: 12-17-67

Cementing record for the 8.63-inch diameter casing installed in the Spitzer-Jackson #1.

Form 19, 7-1966

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECORD OF CEMENTING AND MUDDING

Permit No.: 946
County: Lorain
Township: Carlisle
Sec.: 15 Lot: ¼Twp.:

OPERATOR: Louis Kepp
P. O. Box 128
Elyria, Ohio 44035
(Zip Code)

CONTRACTOR: Calvert Eastern Drilling

WELL NO.: 1 LEASE: Spitzer-Jackson

DATE PERMIT ISSUED: 12-15-67

DATE OF CEMENTING: 12-22-67 DATE OF MUDDING:

DATE OF COMPLETION OF DRILLING: 12-21-67

DEPTH OF HOLE: 2477' Feet

RECORD OF CASING AND TUBING -- (Attach cement/mud tickets if available.)

SIZE	AMOUNT	PROCEDURE
8 5/8"	253'	
4½"	2474'	Cemented with 100 sks. Rathole cemented with 15 sks CST attached.

RECEIVED JAN - 3 1968 DIVISION OF OIL AND GAS

Signed:
Oil and Gas Well Inspector

Date: 1-2-68

Cementing record for the 4.5-inch diameter casing installed in the Spitzer-Jackson #1.

APPENDIX III
WAGE DETERMINATION

"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)

PAIN0012-008 05/01/2019

BUTLER COUNTY

	Rates	Fringes
PAINTER		
GROUP 1	$ 21.95	10.20
GROUP 2	$ 25.30	10.20
GROUP 3	$ 25.80	10.20
GROUP 4	$ 26.05	10.20
GROUP 5	$ 26.30	10.20

PAINTER CLASSIFICATIONS

GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder

GROUP 2: Brush & Roller

GROUP 3: Spray

GROUP 4: Sandblasting; & Waterblasting

GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead Abatement

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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

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.

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END OF GENERAL DECISION
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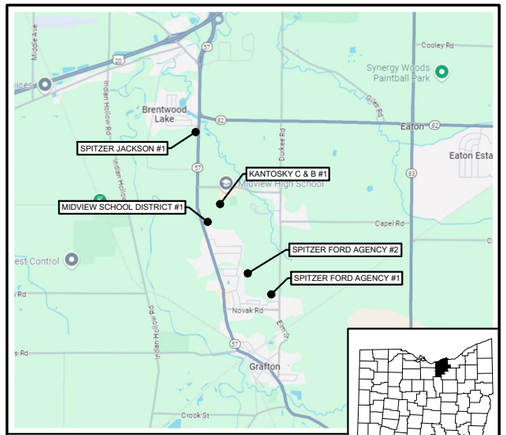
SHEET INDEX



LOCATION MAP
SCALE 1" = 2 MILES

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

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

ORPHAN WELL INFORMATION

WELL NAME	API NUMBER	COUNTY	MUNICIPALITY	LATITUDE	LONGITUDE
MIDVIEW SCHOOL DISTRICT #1	34-093-6-0611	LORAIN	EATON	41.297432°	-82.068176°
KANTOSKY C & B #1	34-093-2-0924	LORAIN	EATON	41.300835°	-82.065662°
SPITZER FORD AGENCY #1	34-093-2-0909	LORAIN	EATON	41.285018°	-82.053312°
SPITZER FORD AGENCY #2	34-093-2-0920	LORAIN	EATON	41.289154°	-82.056271°
SPITZER JACKSON #1	34-093-2-0946	LORAIN	CARLISLE	41.310732°	-82.072585°

CONTACT INFORMATION

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS RESOURCES MANAGEMENT
2207 REISER AVE. SE
NEW PHILADELPHIA, OHIO 44663
PH: (330) 308-0007 FAX: (330) 308-0011

OHIO Utilities Protection SERVICE
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)
Call Before You Dig

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (www.ogpups.com)
1-800-925-0988

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 TICKET DURING THE ENTIRE PROJECT BY CONTACTING OUPS EVERY 10 DAYS.

LEGEND

EXISTING:

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

PROPOSED:

- CWL — WORK LIMITS
- SF — SILT FENCE
- DRIVE OR LOT STONE OVERLAY
- TREE TO BE REMOVED

PROPOSED:

- COMPOSITE MATTING
- INLET PROTECTION

EXISTING:

- GAS WELL
- POWER POLE
- WATER VALVE
- WATER HYDRANT
- GAS VALVE
- TREE/BUSH
- CATCH BASIN
- LIGHT POLE
- TELE POLE W/ GUY
- WATER METER
- SIGN
- TELEPHONE PEDESTAL
- I.P.F. — IRON PIN FOUND
- STORM MANHOLE
- I.P.S — IRON PIN SET
- P.F. — PIN FOUND
- GAS STRUCTURE
- GAS MARKER
- SA — SANITARY MANHOLE
- EP — ELECTRIC PEDESTAL
- STEEL POST

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

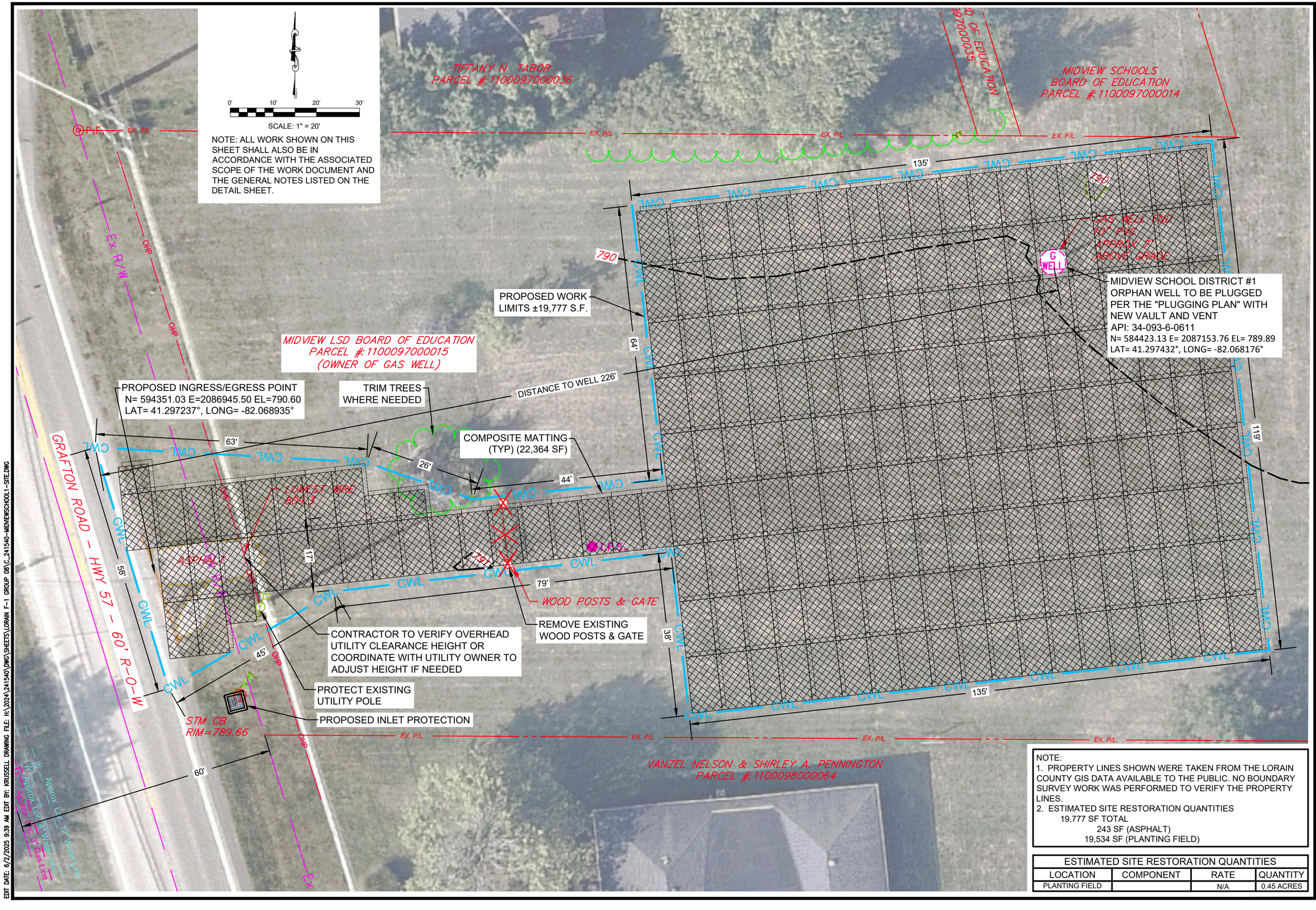
TITLE SHEET

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION	
5/30/25	
6/4/25	

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C.
DATE: 12/17/2024
SHEET NO. 1 OF 15

EDIT DATE: 6/5/2025 11:43 AM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\ODNR TITLE SHEET_GROUP-8.DWG



NOTE:
1. 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.
2. ESTIMATED SITE RESTORATION QUANTITIES
   19,777 SF TOTAL
   243 SF (ASPHALT)
   19,534 SF (PLANTING FIELD)

ESTIMATED SITE RESTORATION QUANTITIES

LOCATION	COMPONENT	RATE	QUANTITY
PLANTING FIELD		N/A	0.45 ACRES

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

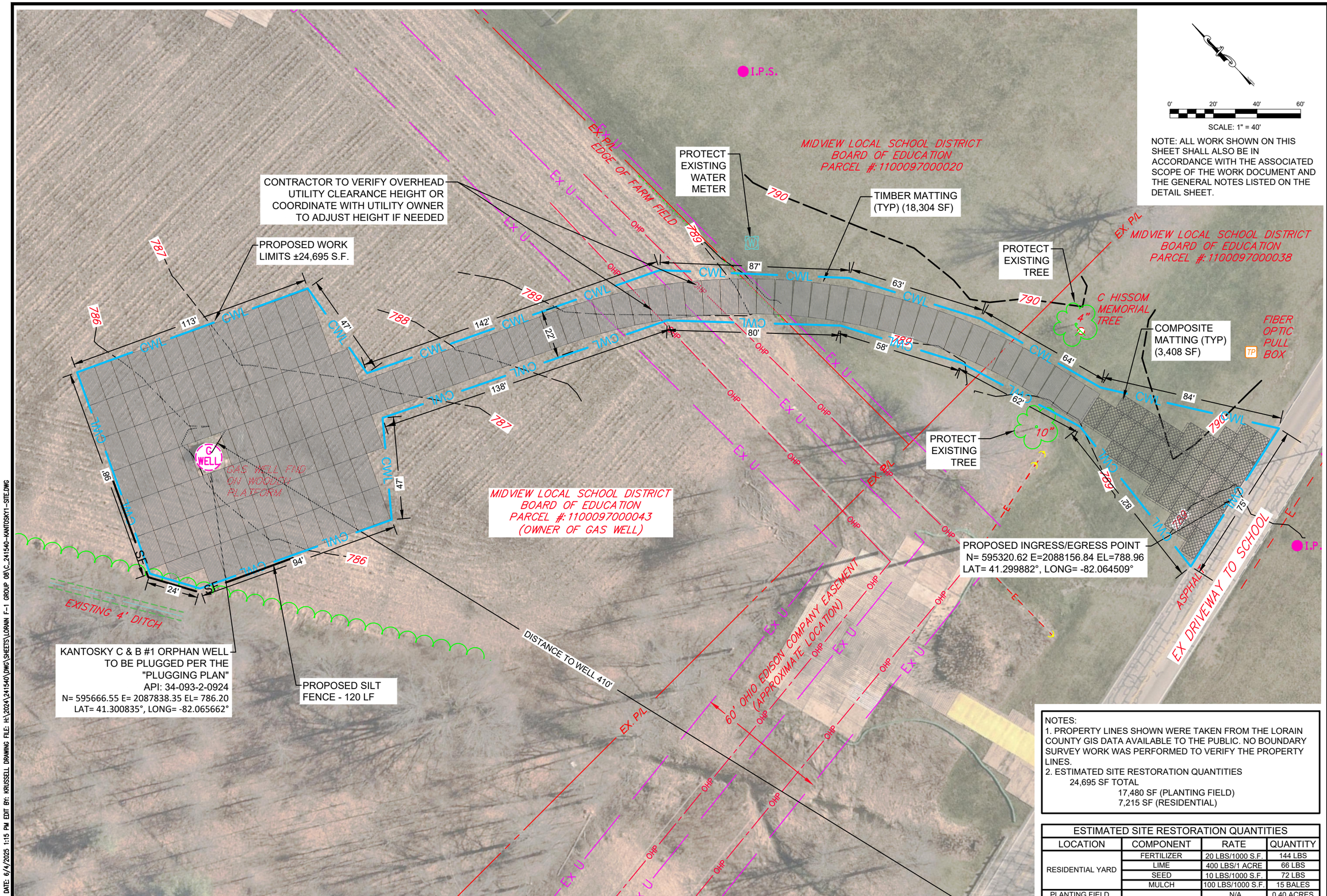
MIDVIEW SCHOOL
DISTRICT #1
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION	
5/30/25	

DESIGN UNIT
CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO.
2 OF 15

EDIT DATE: 6/2/2025 9:39 AM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\C_241540-MIDVIEWSCHOOL1-SITE.DWG



0' 20' 40' 60'

SCALE: 1" = 40'

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.

NOTES:
1. 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.
2. ESTIMATED SITE RESTORATION QUANTITIES
   24,695 SF TOTAL
   17,480 SF (PLANTING FIELD)
   7,215 SF (RESIDENTIAL)

ESTIMATED SITE RESTORATION QUANTITIES

LOCATION	COMPONENT	RATE	QUANTITY
RESIDENTIAL YARD	FERTILIZER	20 LBS/1000 S.F.	144 LBS
	LIME	400 LBS/1 ACRE	66 LBS
	SEED	10 LBS/1000 S.F.	72 LBS
	MULCH	100 LBS/1000 S.F.	15 BALES
PLANTING FIELD		N/A	0.40 ACRES

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

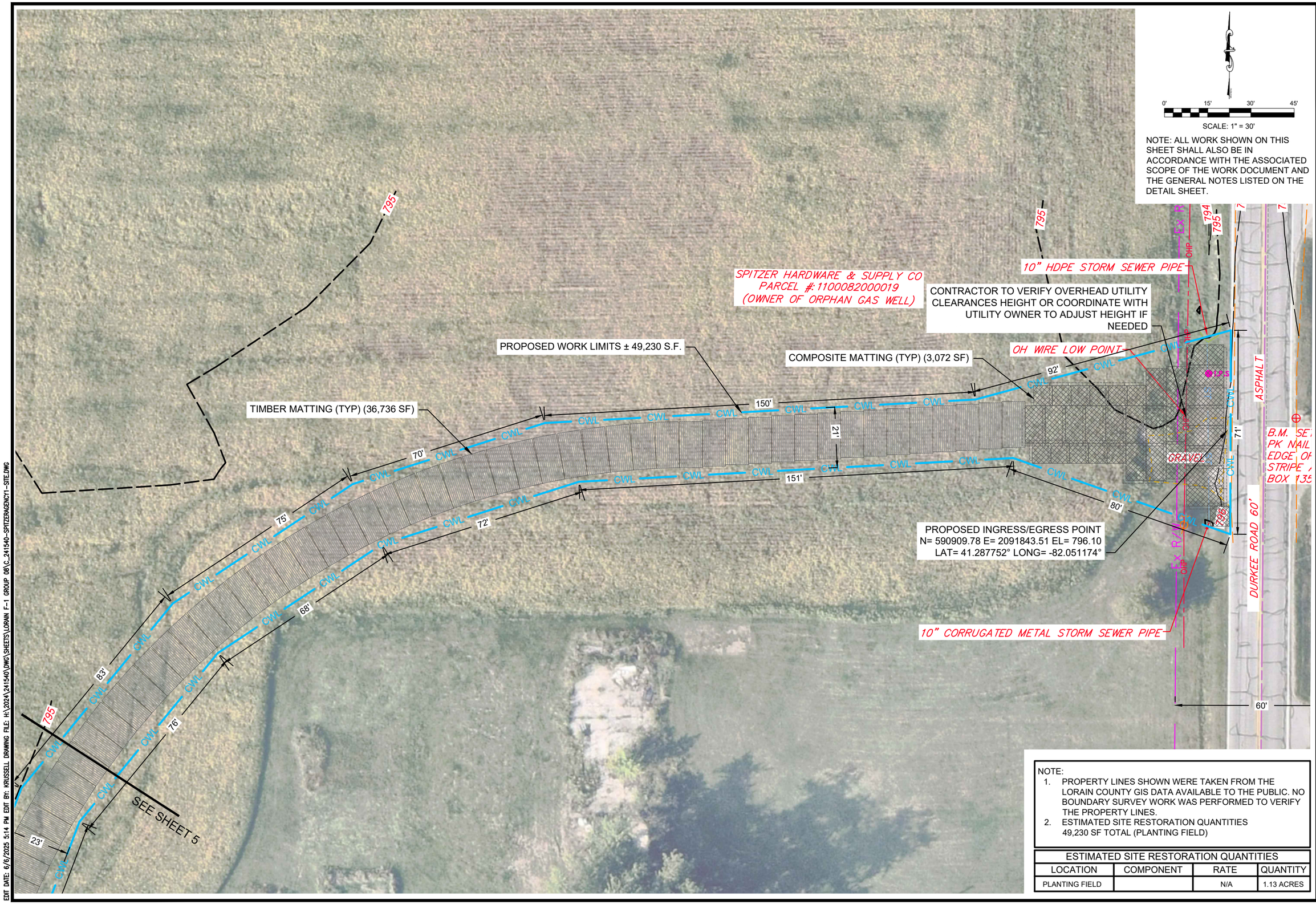
KANTOSKY C & B #1
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION
5/30/25
6/4/25

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO. 3 OF 15

EDIT DATE: 6/4/2025 1:15 PM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\24154O\DWG\SHEETS\LORAIN F-1 GROUP 08\C_24154O-KANTOSKY1-SITE.DWG



NOTE:
1. 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.
2. ESTIMATED SITE RESTORATION QUANTITIES 49,230 SF TOTAL (PLANTING FIELD)

ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
PLANTING FIELD		N/A	1.13 ACRES

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

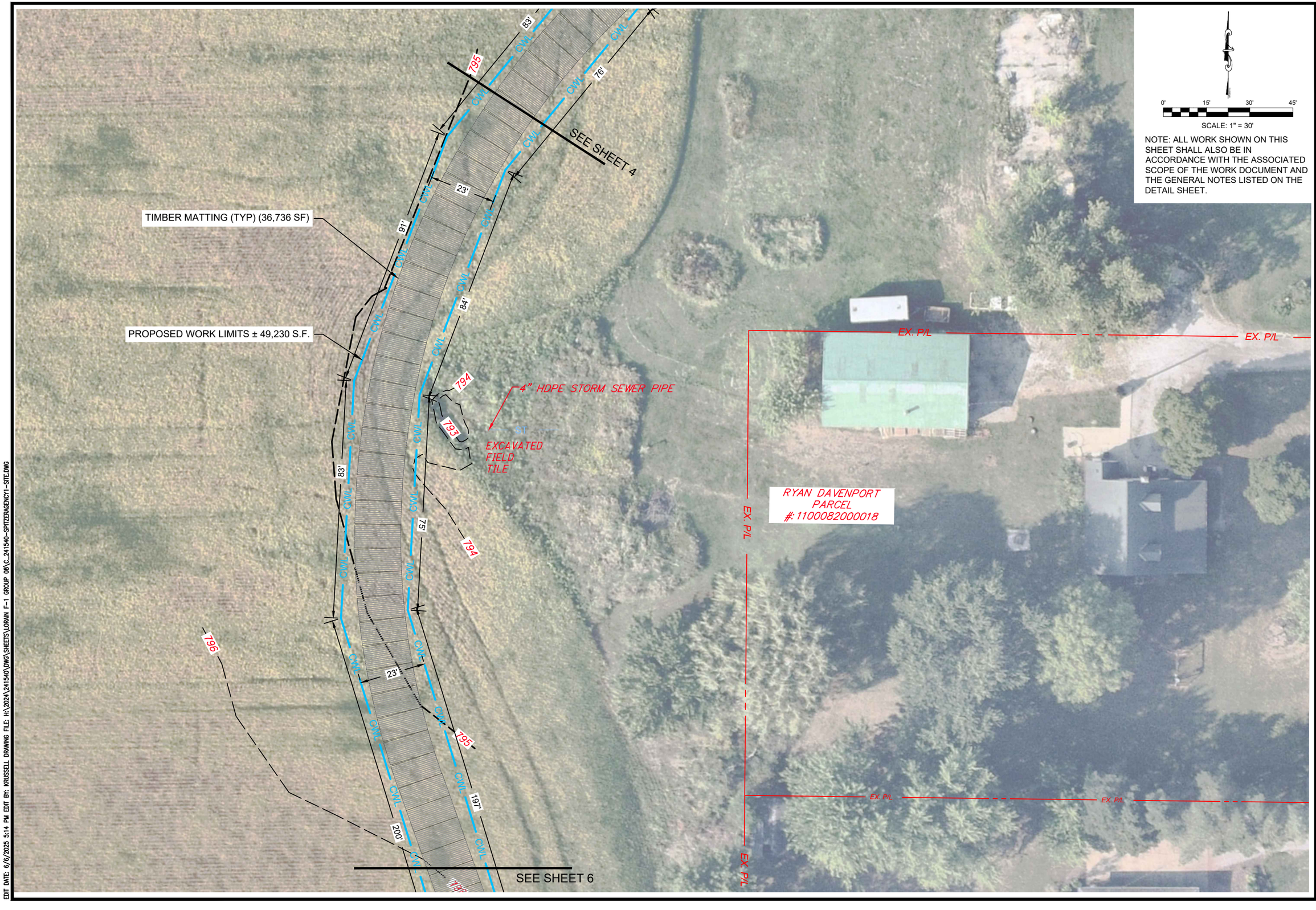
SPITZER FORD AGENCY #1
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION
5/30/25
6/4/25

DESIGN UNIT
CT CONSULTANTS
DRAWN BY: E.J.S
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO.
4 OF 15

EDIT DATE: 6/6/2025 5:14 PM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\C_241540-SPITZERAGENCY1-SITE.DWG



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.

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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SPITZER FORD AGENCY #1
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION	
5/30/25	
6/4/25	

DESIGN UNIT
CT CONSULTANTS
DRAWN BY: E.J.S
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO.
5 OF 15

EDIT DATE: 6/6/2025 5:14 PM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\C_241540-SPITZERAGENCY1-SITE.DWG

EMILY SUE CRAWFORD
PARCEL #: 1100082000120

JOY ELLAN DAWSON
HUNE
PARCEL
#: 1100082000014

EARLE H IV STERLING
PARCEL
#: 1100082000005

EX. P/L

PROPOSED WORK LIMITS ± 49,230 S.F.

TIMBER MATTING (TYP) (36,736 SF)

SEE SHEET 5

SEE BELOW

291'

283'

22'

197'

200'

23'

795'

796'

796

0' 15' 30' 45'

SCALE: 1" = 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.

EARLE H IV STERLING
PARCEL
#: 1100082000005

EARLE H IV STERLING
PARCEL
#: 1100082000006

EARLE H IV STERLING
PARCEL
#: 1100082000007

EX. P/L

SEE ABOVE

SEE SHEET 7

291'

283'

60'

55'

57'

56'

50'

796

797

798

EDIT DATE: 6/6/2025 5:14 PM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\C_241540-SPITZERAGENCY1-SITE.DWG

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

SPITZER FORD AGENCY #1
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION	
5/30/25	
6/4/25	

DESIGN UNIT
CT CONSULTANTS
DRAWN BY: E.J.S
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO.
6 OF 15

SPITZER HARDWARE & SUPPLY CO
PARCEL #:1100082000019
(OWNER OF ORPHAN GAS WELL)

SEE SHEET 6

0' 15' 30' 45'

SCALE: 1" = 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.

TIMBER MATTING (TYP) (36,736 SF)

PROPOSED WORK LIMITS ± 49,230 S.F.

REMOVE EXISTING TREES (3,950 SF)

SPITZER FORD AGENCY #1 ORPHAN WELL TO BE PLUGGED AS PER THE "PLUGGING PLAN"
API: 34-093-2-0909
N= 589920.66 E= 2091261.03 EL= 799.15
LAT= 41.415724°, LONG= -82.09162°

PROPOSED SILT FENCE - 130 LF

DISTANCE TO WELL 587'

EARLE H IV STERLING
PARCEL
#:1100082000007

EARLE H IV STERLING
PARCEL
#:1100082000008

EX. P/L

EX. P/L

798 799 800

CWL SF

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

SPITZER FORD AGENCY #1
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION	
5/30/25	
6/4/25	

DESIGN UNIT
CT CONSULTANTS

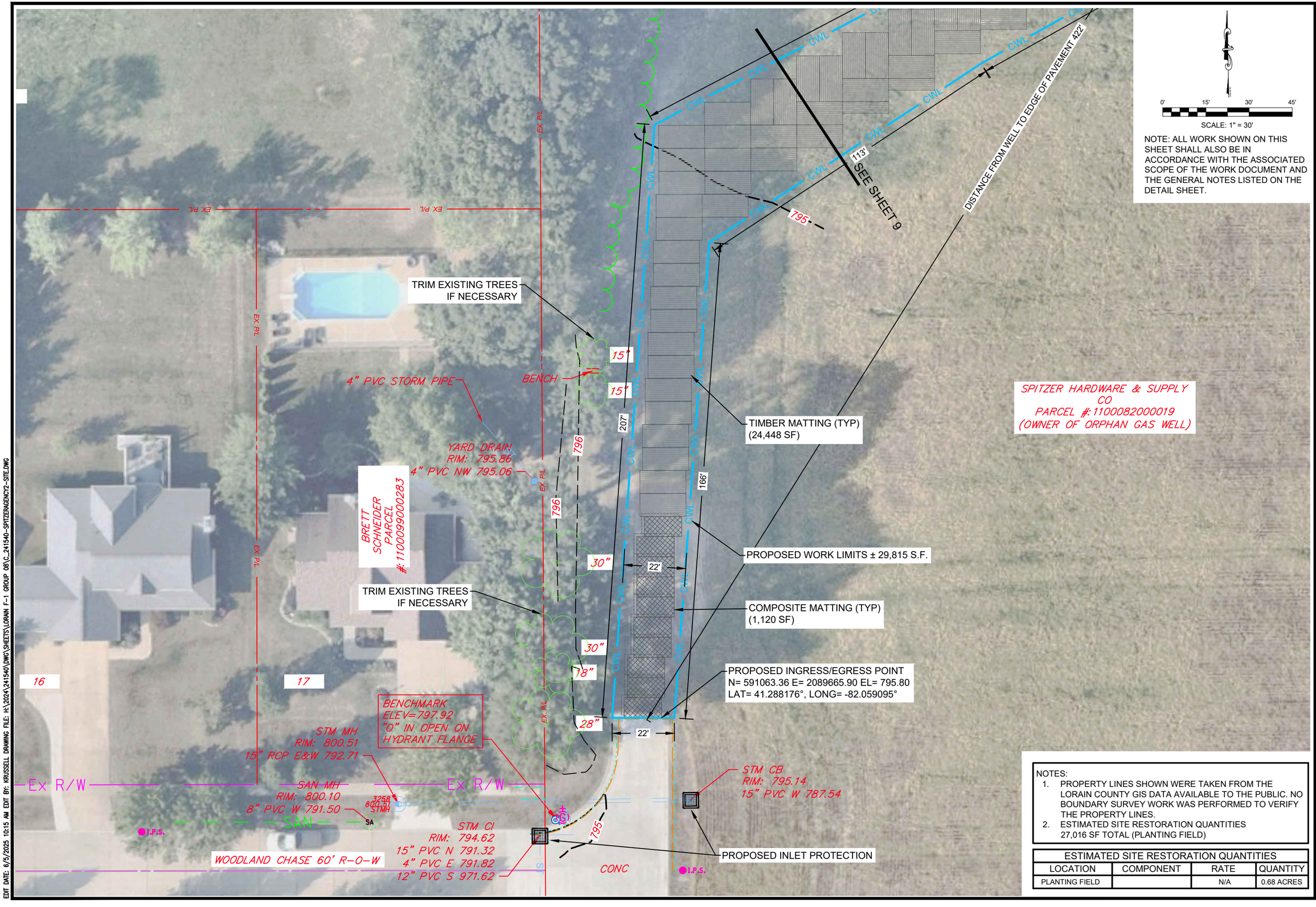
DRAWN BY:E.J.S

CHECKED BY:J.E.C

DATE:12/17/2024

SHEET NO.
7 OF 15

EDIT DATE: 6/9/2025 12:29 PM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 06\C_241540-SPITZERAGENCY1-SITE.DWG



NOTES:

1. 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.
2. ESTIMATED SITE RESTORATION QUANTITIES 27,016 SF TOTAL (PLANTING FIELD)

ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
PLANTING FIELD		N/A	0.68 ACRES

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

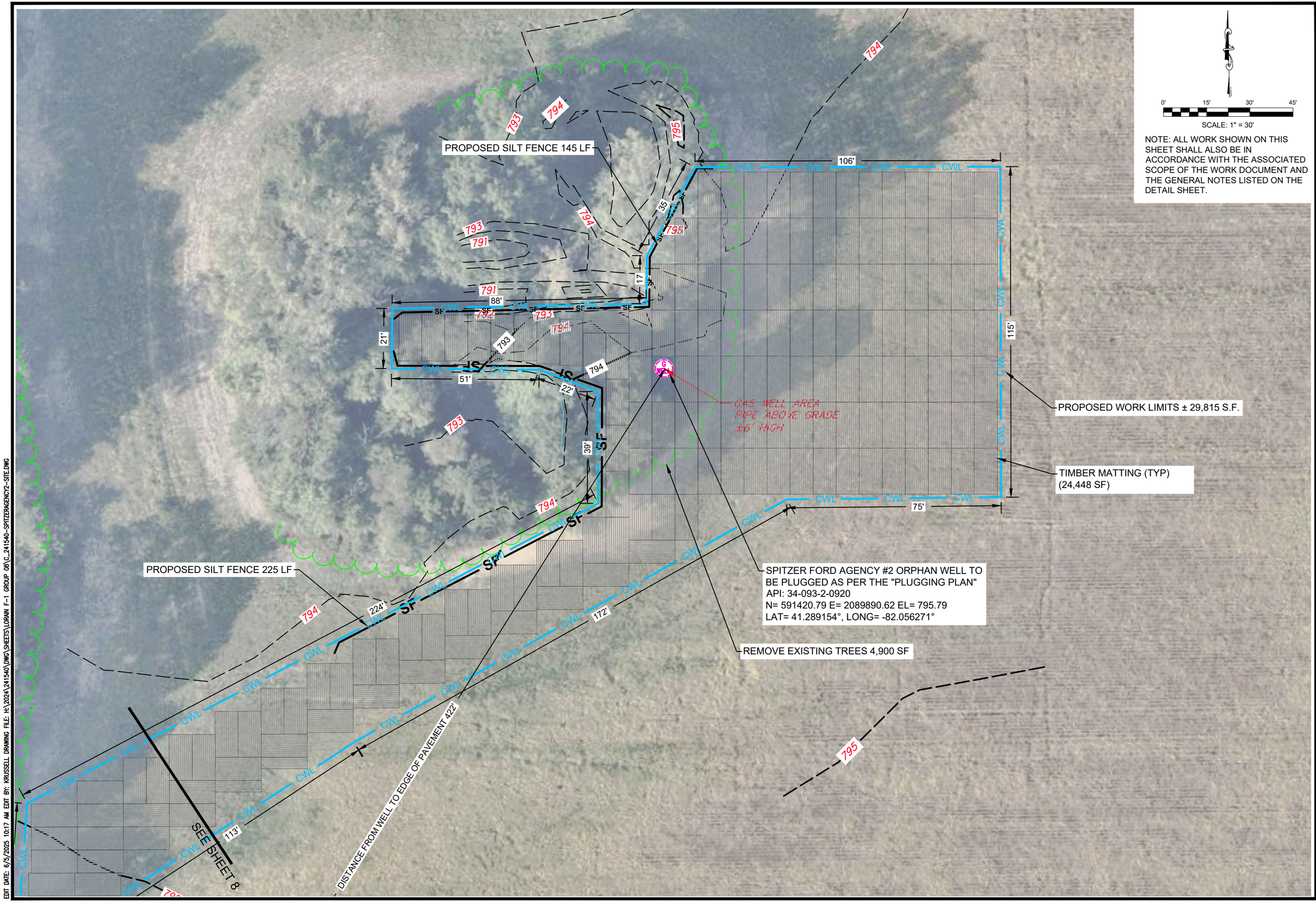
SPITZER FORD AGENCY #2
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION	
5/30/25	
6/4/25	

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: E.J.S
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO.
8 OF 15

EDIT DATE: 6/5/2025 10:15 AM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\C_241540-SPITZERAGENCY2-SITE.DWG



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.

EDIT DATE: 6/5/2025 10:17 AM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\C-241540-SPITZERAGENCY2-SITE.DWG

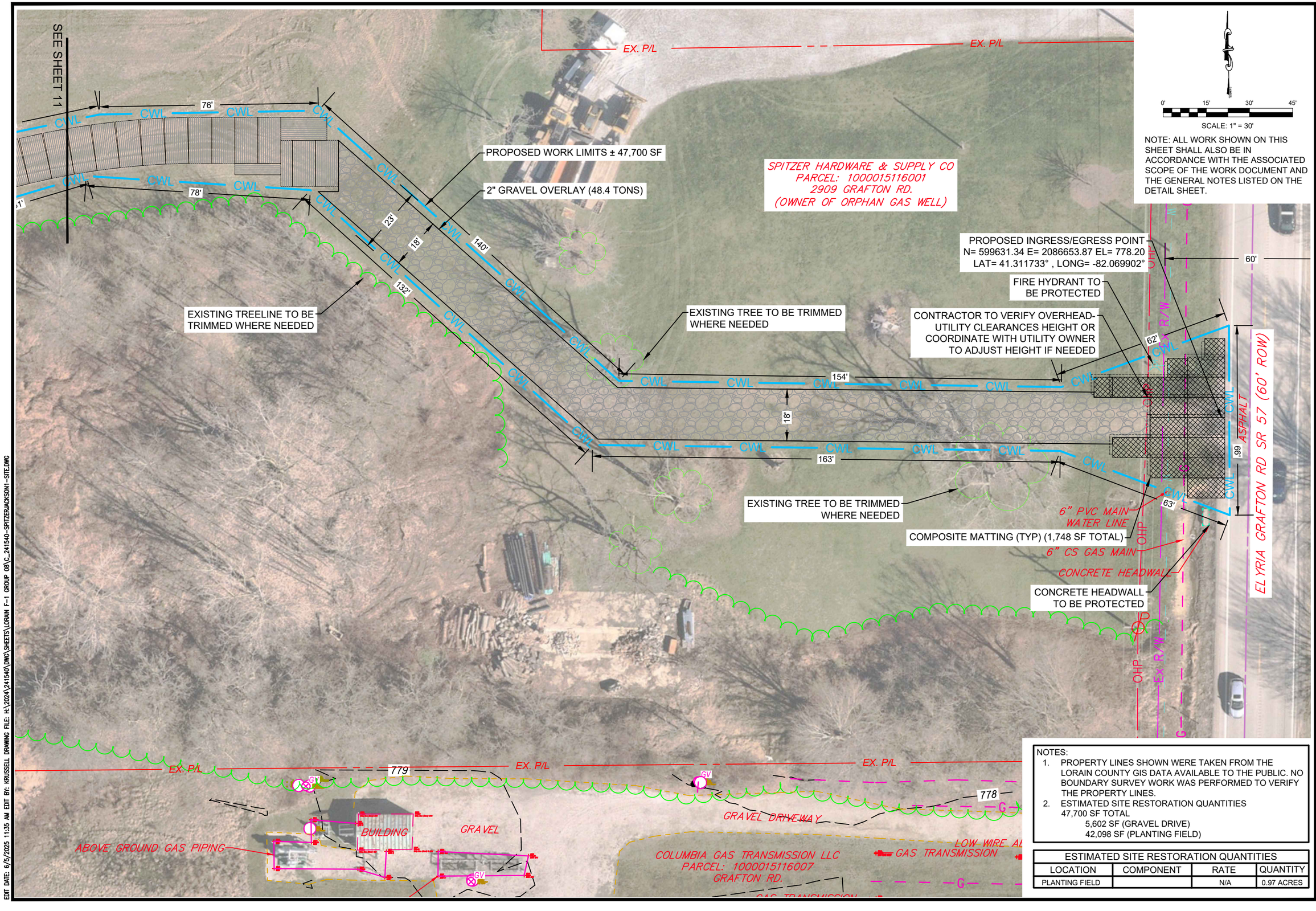
DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

SPITZER FORD AGENCY #2
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION	
5/30/25	
6/4/25	

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: E.J.S
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO.
9 OF 15



NOTES:

1. 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.
2. ESTIMATED SITE RESTORATION QUANTITIES
   47,700 SF TOTAL
   - 5,602 SF (GRAVEL DRIVE)
   - 42,098 SF (PLANTING FIELD)

ESTIMATED SITE RESTORATION QUANTITIES

LOCATION	COMPONENT	RATE	QUANTITY
PLANTING FIELD		N/A	0.97 ACRES

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

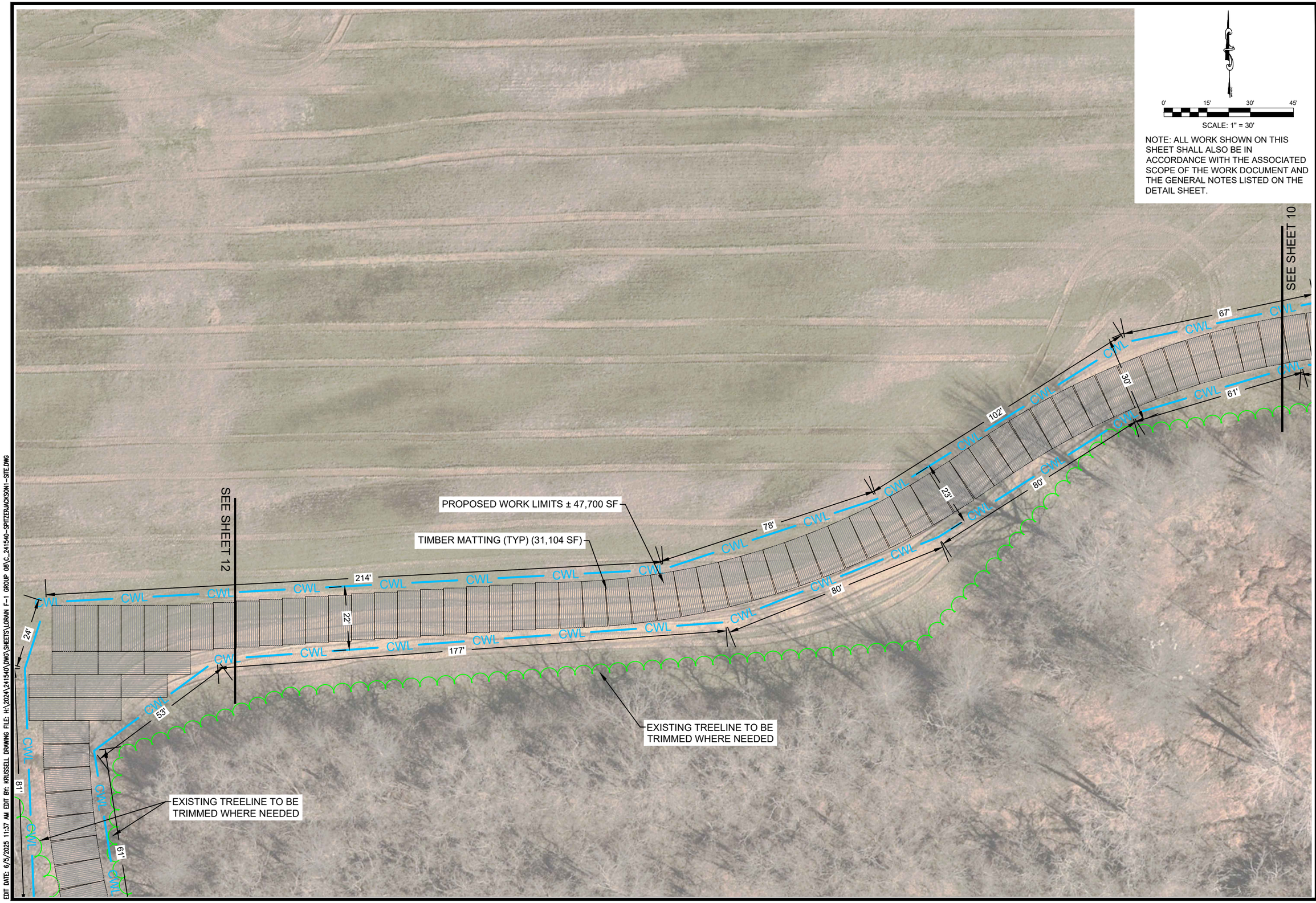
SPITZER JACKSON #1
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION	
5/30/25	
6/4/25	

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: E.J.S
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO. 10 OF 15

EDIT DATE: 6/5/2025 11:35 AM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\C_241540-SPITZERJACKSON1-SITE.DWG



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

SPITZER JACKSON #1
SITE PLAN

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION
5/30/25
6/4/25

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: E.J.S
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO.
11 OF 15

SEE SHEET 11

SEE LEFT

SEE RIGHT

EXISTING TREELINE TO BE TRIMMED WHERE NEEDED

TIMBER MATTING (TYP) (31,104 SF)

PROPOSED WORK LIMITS ± 47,700 SF

SPITZER HARDWARE & SUPPLY CO
PARCEL: 1000015116001
2909 GRAFTON RD.
(OWNER OF ORPHAN GAS WELL)

SPITZER JACKSON #1 ORPHAN WELL TO BE PLUGGED AS PER THE "PLUGGING PLAN"
API: 34-093-2-0946
N= 599262.77 E= 2085918.59 EL= 779.65
LAT= 41.310732° , LONG= -82.072585°

PROPOSED WORK LIMITS ± 47,700 SF

TIMBER MATTING (TYP) (31,104 SF)

REMOVE EXISTING TREES 4,129 SF

DISTANCE TO WELL FROM ROW CL 740'

WELL SITE–SMALL DIA. PIPE 6' ABOVE GRADE

0' 15' 30' 45'

SCALE: 1" = 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.

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

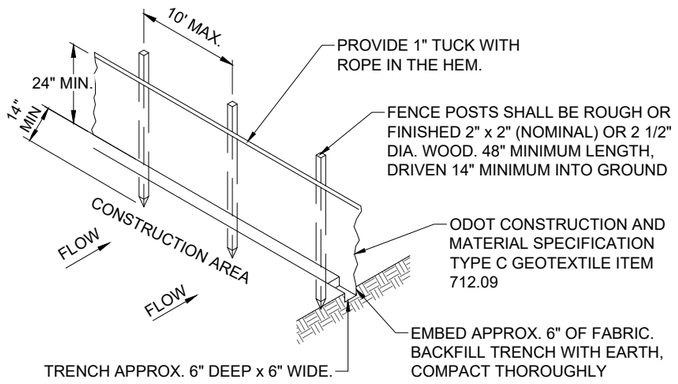
SPITZER JACKSON #1 SITE PLAN

LORAIN #8F PROJECT PLUGGING SOW PLAN SET

REVISION	
5/30/25	
6/4/25	

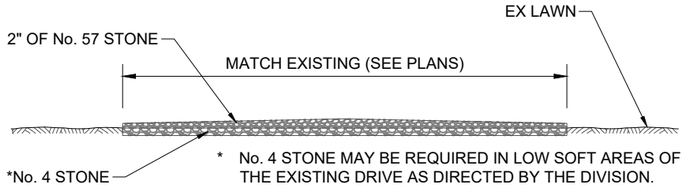
DESIGN UNIT: CT CONSULTANTS
DRAWN BY: E.J.S
CHECKED BY: J.E.C
DATE: 12/17/2024
SHEET NO. 12 OF 15

EDIT DATE: 6/5/2025 11:40 AM EDIT BY: KRUSSELL DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\C_241540-SPITZERJACKSON1-SITE.DWG



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

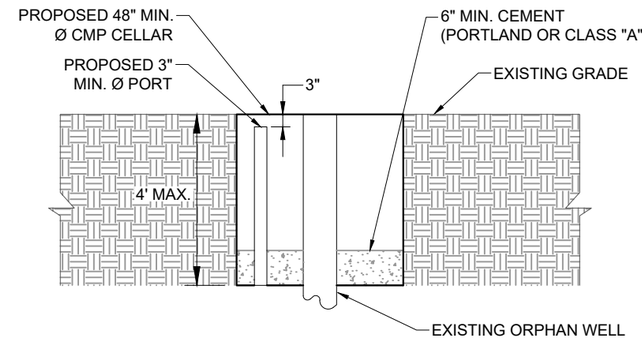


SECTION A-A'

NOTES:

1. 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".
2. ADDITIONAL STONE MAY BE NECCESSARY TO ENSURE ADEQUATE COVER OVER TOP OF DRAINAGE CULVERTS. (12" COVER PREFERRED)

ACCESS DRIVE AND LOT STONE OVERLAY
NOT TO SCALE

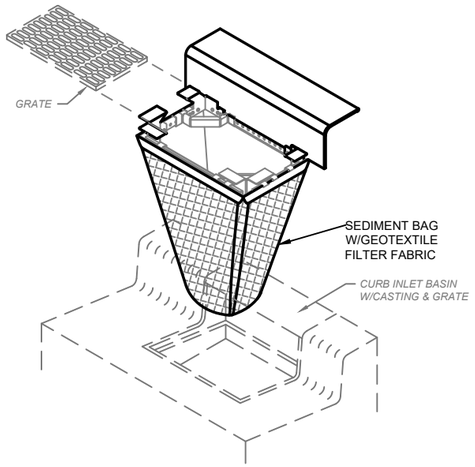


NOTES:
ALL WORK & MATERIAL ASSOCIATED WITH THE INSTALLATION & REMOVAL OF THE CELLAR SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "WELL HEAD CONTROL".

TEMPORARY CELLAR
NOT TO SCALE

GENERAL NOTES:

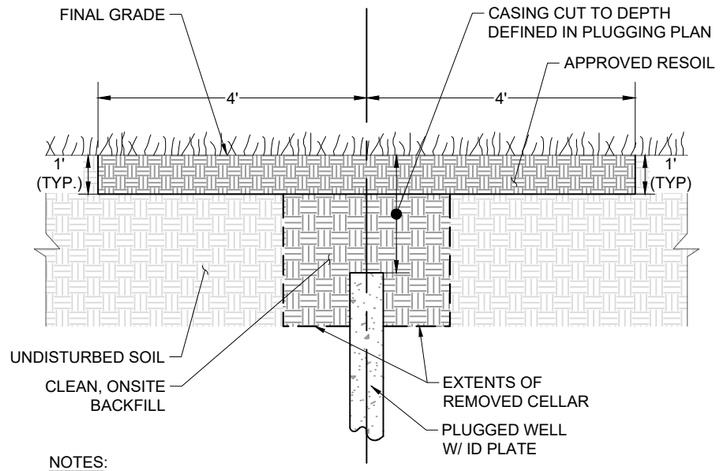
1. UTILITY LINES AND APPURTENANCES ARE SHOWN AS LOCATED IN THE FIELD AND/OR AS REPORTED BY THE RESPECTIVE OWNERS. NEITHER THE NUMBER, TYPE, SIZE, OR LOCATION CAN BE GUARANTEED, AND IT IS THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS.
2. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY PROTECTING THE EXISTING BURIED UTILITIES AND CURB & GUTTER 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 18A CORS DERIVED.
4. AERIAL IMAGES OBTAINED FROM NEARMAP DATED AUGUST 2023.
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 "TRAFFIC MAINTENANCE".
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 PERMANENT CONDITIONS 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 PLACED INTO BRUSH PILES AT THE DISCRETION OF THE DIVISION.
12. ALL "CUT" MATERIAL SHALL BE STOCKPILED ON SITE FOR REUSE. STOCKPILES SHALL BE STABILIZED PER LINE ITEM "SITE RESTORATION" UPON ESTABLISHMENT OF TEMPORARY GRADE IF AREAS ARE TO REMAIN OPEN FOR 14 DAYS OR LONGER.
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. ALL STONE PLACED USING SIX (6) INCH MAXIMUM LIFTS, SHALL BE COMPACTED WITH A MINIMUM OF THREE (3) PASSES PER LIFT USING ONSITE EQUIPMENT.
15. AT THE DISCRETION OF THE DIVISION, ALL STONE, FABRIC, AND/OR GEOGRID SHOWN ON THE SITE PLAN SHEET(S) AS TEMPORARY SHALL BE REMOVED UPON COMPLETION OF THE PROJECT AND RESTORED PER LINE ITEM "SITE RESTORATION"



NOTES:

1. ALL SURROUNDING DOWNSTREAM INLET BASINS SHALL HAVE INLET PROTECTION INSTALLED.
2. DIFFERENT INLET CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEASURING AND INSTALLING PROPERLY SIZED INLET PROTECTION BAGS OR COMPOST FILTER SOCKS AS APPROVED BY THE DIVISION.

INLET PROTECTION 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

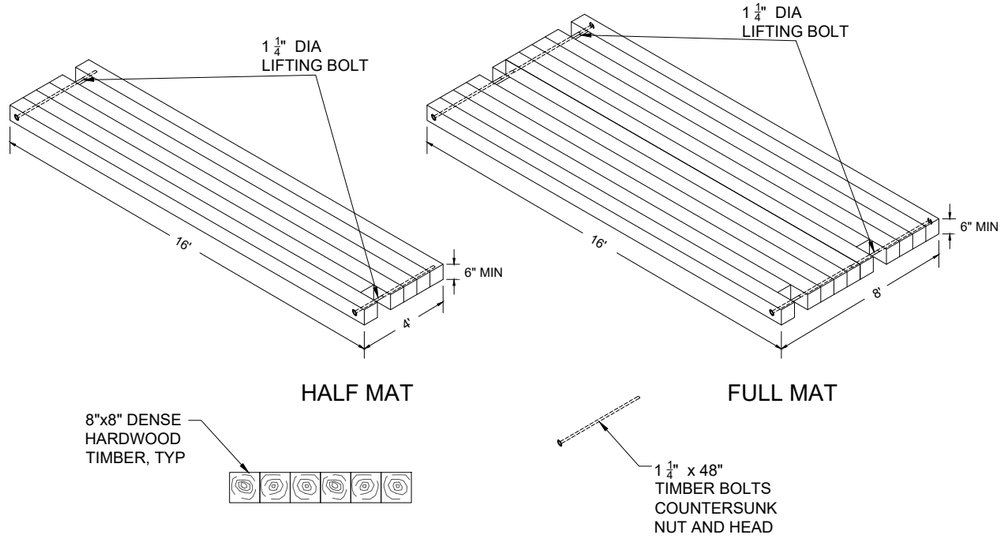
DETAILS

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

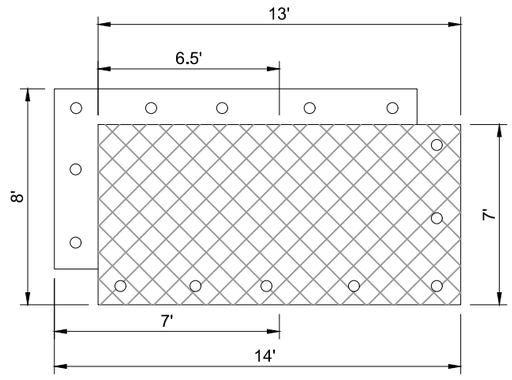
REVISION
5/12/25

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C.
DATE: 12/17/2024
SHEET NO. 13 OF 15

EDIT DATE: 12/27/2024 2:41 PM EDIT BY: EVELYN.SILER DRAWING FILE: H:\2024\241540\DWG\SHEETS\LORAIN F-1 GROUP 08\DETAILS SHEET-GROUP-8.DWG



TIMBER MAT
NOT TO SCALE



PRODUCT SPECIFICATIONS		
MANUFACTURER	NEWPARK	
FULL SIZE	OVERALL DIMENSIONS: 8' X 14' X 4"	SURFACE DIMENSIONS: 7' X 13' X 4"
HALF SIZE	OVERALL DIMENSIONS: 8' X 7.5' X 4"	SURFACE DIMENSIONS: 7' X 6.5' X 4"
WEIGHT	1,000 LBS	
COMPRESSIVE LOAD CAPACITY	600 PSI (70 KG/CM2)	
COLOR	BEIGE	
MATERIAL	THE DURABASE ADVANCED COMPOSITE MATS ARE COMPOSED OF A PROPRIETARY FORMULATION THAT INCLUDEDS SPECIALTY RESINS AND HIGH-END POLYMER ADDITIVES FOR ENHANCED DURABILITY AND DIMENSIONAL STABILITY. THIS SPECIAL FORMULATION ALSO PROVIDES AN ANTI-SKID SURFACE AND PREVENTS STATIC CHARGE ACCUMULATION FOR ADDED WORKER SAFETY.	
FLAMMABILITY RESISTANCE	NEED INFO RATED	
INDUSTRIES	OIL & GAS, TRANSMISSION & DISTRIBUTION, CONSTRUCTION, UTILIZED PETROCHEMICAL, PIPES	

DURA-BASE ADVANCED COMPOSITE MAT SYSTEM OR EQUIVALENT
NOT TO SCALE

W21-1
(500' FROM W20-7,
BOTH SIDES OF THE
ENTRANCE)

W20-7
COVER OR TURN DURING EVENINGS
OR WHEN BOTH LANES ARE OPEN
(500' FROM FLAGGER, BOTH SIDES OF
ENTRANCE)

NOTES:
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

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DETAILS

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION
5/30/25
6/4/25

DESIGN UNIT
CT CONSULTANTS
DRAWN BY: K.M.R.
CHECKED BY: J.E.C.
DATE: 12/17/2024
SHEET NO.
14 OF 15

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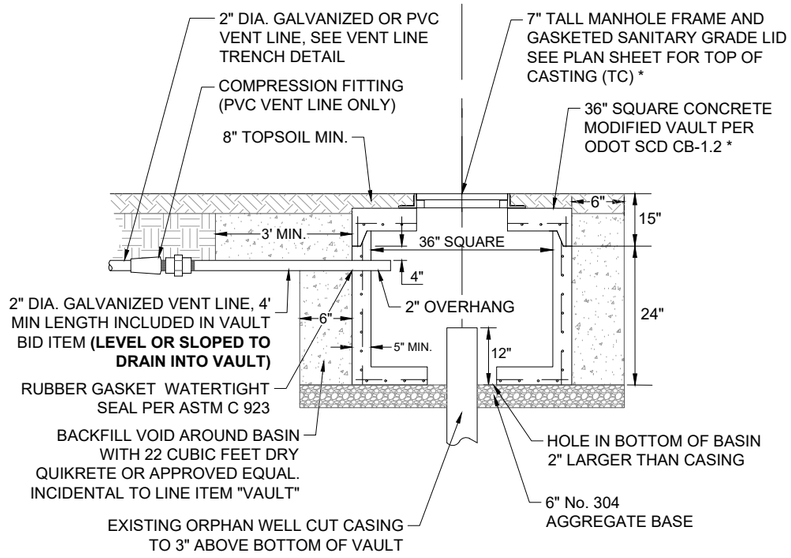
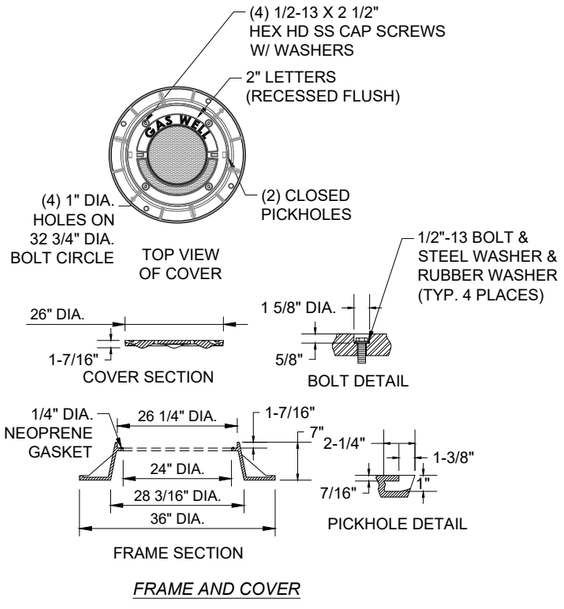


SECTION VIEW & PROFILE

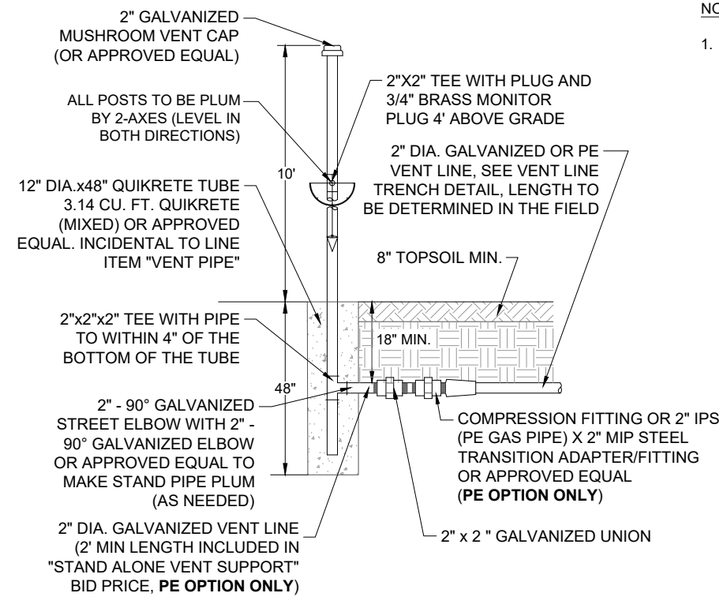


FRAME AND COVER

NOTES:

1. JOINT SEAL: FURNISH RESILIENT SEAL BETWEEN PRECAST MANHOLE SECTIONS AND FLEXIBLE GASKET JOINTS PER ODOT CMS 706.11.
2. MATERIALS: PROVIDE MATERIALS FOR PRECAST SECTIONS, INCLUDING REINFORCEMENT NOT SPECIFIED HERE, THAT MEET THE REQUIREMENTS OF ODOT CMS 706.13.
3. FRAME & COVER: PROVIDE MATERIALS THAT MEET THE MATERIALS REQUIREMENTS OF ODOT CMS 711.14 (NEENAH 1916-C1, EJIW 1040 APT 1045ZPT ASSEMBLY, OR APPROVED EQUAL).
4. VENT PIPES: HORIZONTAL AND VERTICAL LOCATIONS SHALL BE DEFINED IN PLAN VIEW OF THIS PLAN SET OR AS DETERMINED BY THE CHIEF.
5. **VENT PIPE SUPPORT: CONCRETE SHALL MEET THE REQUIREMENTS OF ODOT CLASS "C" AND SHALL BE PLACED IN THE CONCRETE TUBE AS SHOWN IN THE SECTION VIEW. THE VENT PIPE SHALL BE SET THROUGH THE TUBE PRIOR TO THE PLACEMENT OF THE CONCRETE.

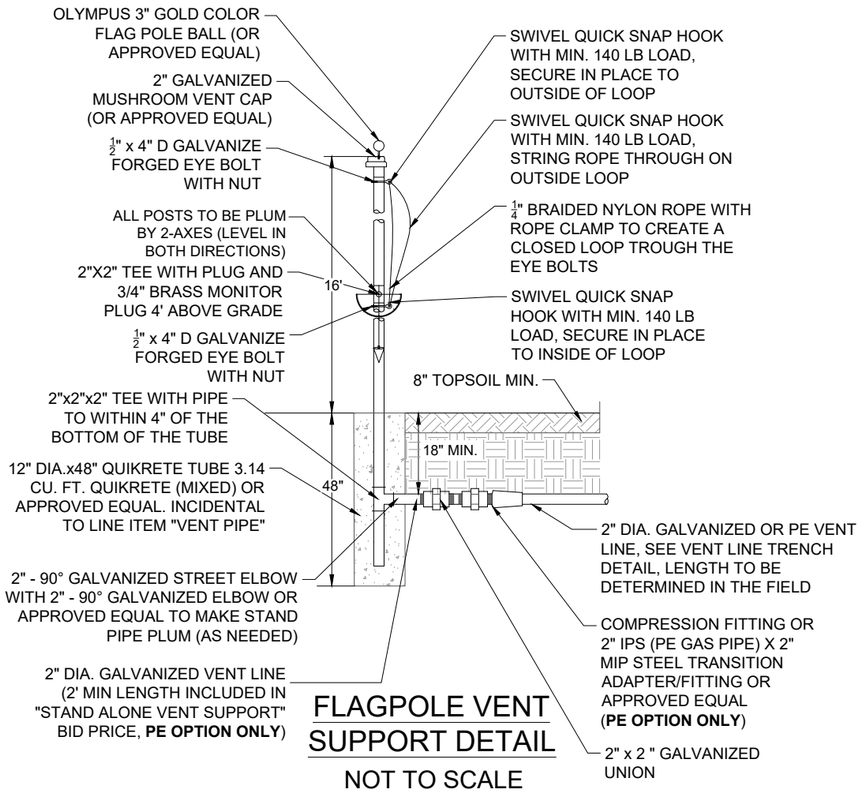
VAULT DETAILS
NOT TO SCALE



NOTE:

1. ODNR AND HOMEOWNER TO COORDINATE AND DECIDE WHICH VENT OPTION (STAND ALONE OR FLAGPOLE) THEY'D LIKE THE CONTRACTOR TO INSTALL.

STAND ALONE VENT SUPPORT DETAIL
NOT TO SCALE



FLAGPOLE VENT SUPPORT DETAIL
NOT TO SCALE

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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DETAILS

LORAIN #8F PROJECT
PLUGGING SOW PLAN SET

REVISION
5/12/25

DESIGN UNIT: CT CONSULTANTS
DRAWN BY: K.M.R.
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15 OF 15

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SCOPE OF WORK

Quantity Sheet

Lorain 8F Project

Lorain County, Multiple Townships

Well Names SKY C & B 1, MIDVIEW SCHOOL DISTRICT 1, SPITZER FORD AGENCY 2, SPITZER-FORD 1, SPITZER-JACKSON 1

APIs 34093209240000, 34093606110000, 34093209200000, 34093209090000, 34093209460000

Line	Item	Description	Unit	Type	Cost	Qty	Estimate Total
		Phase 1: Mobilization and Access					
1	1100	Mobilization	Each	Material		5.00	
2	1110	Demobilization	Each	Material		5.00	
3	1140	Clear & Grub (Midview School District #1)	Each	Material		1.00	
4	1140	Clear & Grub (Spitzer Ford Agency #1)	Each	Material		1.00	
5	1140	Clear & Grub (Spitzer Ford Agency #2)	Each	Material		1.00	
6	1140	Clear & Grub (Spitzer Jackson #1)	Each	Material		1.00	
7	1160	Silt Fence	Linear Ft.	Material		743.00	
8	1390	No. 57 Stone	Ton	Material		49.00	
9	1510	Road Mats	Sq. Ft.	Material		31712.00	
10	1570	Timber Mats	Sq. Ft.	Material		110592.00	
		Phase 2: Well Site Safety					
11	2100	Site Safety	Each	Material		5.00	
12	2130	Secondary Containment	Each	Material		5.00	
13	2160	Well Head Control	Each	Material		5.00	
14	2171	Well Kill Fluid	BBL	Material		870.00	
		Phase 3: Plugging					
15	3100	Well Prep & Plug (Midview School District	Each	Material		1.00	
16	3100	Well Prep & Plug (Kantaosky C & B #1)	Each	Material		1.00	
17	3100	Well Prep & Plug (Spitzer Ford Agency #1	Each	Material		1.00	
18	3100	Well Prep & Plug (Spitzer Ford Agency #2	Each	Material		1.00	
19	3100	Well Prep & Plug (Spitzer Jackson #1)	Each	Material		1.00	
20	3240	Logging (GR/CCL/Temp/Bond/Caliper)	Each	Material		5.00	
21	3290	Severing	Each	Material		5.00	
22	3310	Tubing	Each	Material		1.00	
23	3340	Approved Cement (Sack)	Each	Material		2357.00	
24	3350	Cement Mixing & Pumping	Each	Material		20.00	
25	3380	Nine Sack Grout	Cubic Yd.	Material		5.00	
		Phase 4: Site Clean-up and Restoration					
26	4100	Site Restoration (Midview School District	Each	Material		1.00	
27	4100	Site Restoration (Kantaosky C & B #1)	Each	Material		1.00	
28	4100	Site Restoration (Spitzer Ford Agency #1)	Each	Material		1.00	
29	4100	Site Restoration (Spitzer Ford Agency #2)	Each	Material		1.00	
30	4100	Site Restoration (Spitzer Jackson #1)	Each	Material		1.00	
31	4160	Approved Resoil	Ton	Material		20.00	
32	4320	Vault	Each	Material		2.00	
33	4330	Vent Pipe	Linear Ft.	Material		20.00	
34	4340	Vent Pipe Support	Each	Material		2.00	
35	4420	Contaminated Material Disposal	Ton	Material		15.00	
36	4440	Salvage Material Disposal	Each	Material		1.00	
37	4460	Fluid Disposal	BBL	Material		500.00	
38	4600	Tree and Shrub Replacement	Each	Material		40.00	
		Fixed Costs					
39	0800	Salvage Material Reimbursement	Each	Material	$0.00	0.00	$0.00
40	0810	Crop Damage (Corn)	Acre	Material	$862.00	2.98	$2,568.76
41	0820	Crop Damage (Soybean)	Acre	Material	$538.00	2.98	$1,603.24
		Contingency					
42	0240	Professional Services (Mud Engineer)	Each	Labor	$1.00	10000.00	$10,000.00
43	1520	Road Mats	Each	Material		7819.00	
44	2140	H2S Safety Team	Day	Material		10.00	
45	2150	H2S Safety Team Standby	Day	Material		2.00	
46	2181	Additional Circulation Fluid (Freshwater)	BBL	Material		870.00	
47	2360	Downhole Videography	Each	Material		5.00	
48	3140	Fishing	Hour	Material		24.00	
49	3160	Milling/Drillout	Hour	Material		24.00	
50	3170	Magnet	Each	Material		5.00	
51	3240	Logging (GR/CCL/Temp/Bond/Caliper)	Each	Material		5.00	
52	3250	Shooting	Each	Material		4.00	
53	3450	Lost Circulation Materials (Sack)	Each	Material		25.00	
54	3470	Saltwater Drilling Mud (Sack)	Each	Material		275.00	
55	3480	Hydrogen Sulfide Scavenger	Gallons	Material		275.00	
56	4250	Asphalt Pavement	Sq. Ft.	Material		243.00	

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,