SARANAC LAKE GAS CO., INC. SITE OU01 - REMEDIAL ACTION

Village of Saranac Lake, Essex County, New York
Inactive Hazardous Waste Site Number 516008

AUGUST 2020
ADDENDUM NUMBER 2
TO CONTRACT D011909

Prepared by:

MACTEC Engineering and Geology P.C.
and
New York State Department of Environmental Conservation
Division of Environmental Remediation

ADDENDUM NUMBER 2
TO THE JULY 2020 CONTRAT DOCUMENTS
SARANAC LAKE GAS COMPANY INC, SITE
OU01 REMEDIAL ACTION
VILLAGE OF SARANAC LAKE,
ESSEX COUNTY, NEW YORK
CONTRACT NO. D011909
AUGUST 21, 2020

TO ALL HOLDERS OF THE CONTRACT DOCUMENTS:

Section III, Article 3 of the Contract Documents requires bidders to acknowledge receipt of all addenda on Form V-5.

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Richard Egan, P.E.
MACTEC Engineering and Consulting, P.C.

Saranac Lake - OU01 Remedial Action
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Section A: Changes and Additions

Item 1:
In addition to providing final as built surveys at the completion of the work, the Contractor shall provide a Metes and Bounds survey for the site property and abutting properties that were used as part of the work.

Item 2:
The bidders have until close of business on Monday, August 24, 2020 to submit any request for clarifications on this document, and responses will be provided in Addendum No. 3.

Saranac Lake - OU01 Remedial Action
Contract No. D011909

Section B: Questions and Answers

The following provides answers to the substantive questions received by the New York State Department of Environmental Conservation (Department). Where appropriate, similar questions, or questions related to the same subject were combined together to streamline the Questions and Answers and reduce redundancy. The Bidders must thoroughly review the bidding documents and not rely solely upon answers provided to questions during bid preparation and during implementation of construction activities.

A list of contractors that attended the August 11, 2020 pre-bid conference is included in **Attachment A**.

Q1. Work is being performed within 50' of a railroad and the insurance requirements indicate that a Railroad Protective Liability (RRP) policy must be provided and maintained in the amounts required by the respective Railroad. The limits for the RRP are not indicated in the specification. Please provide the limits for the RRP Policy.

A1. A separate railroad protective liability policy at a $5,000,000 limit is required in addition to the insurance requirements stated elsewhere in the Contract. In addition, proof of a separate **Protective Liability (OCP)** insurance policy with a minimum liability limit of $1,000,000 per occurrence, with New York State Department of Transportation as Named Insured.

Q2. We respectfully request an extension to the bid due date.

A2. The Department is granting an extension to submit bids. Bids are due by 11:00AM on Wednesday, September 2, 2021.

Q3. Can CADD files be provided? We ask if the 3D CAD files for surface topography, design overburden excavation, and target ISS depth be released to bidders to aid in our bid calculations.

A3. CADD drawings files including 3D surface topography have been uploaded to the Procurement Website as separate files for bidder's use.

Q4. What is the square footage of the demolition portion of this project and how many buildings.

A4. Bidders may use the provided CADD drawings to calculate square footage of demolition. Areas where demolition is required are included on Contract Drawing C-104, and includes one building. Other demolition items include, but are not limited to, concrete pads and tank holders.

Q5. Is vibration monitoring required during sheet pile installation and if so, where will it need to be installed.

A5. Bidders shall conduct continuous vibration monitoring and recording at locations approved by the Engineer when work is conducted within 100 feet of buildings and structures including the rail line. Work includes shoring and/or sheeting installation, excavation, solidification, backfilling, compacting, and all other activities utilizing heavy construction equipment that is likely to cause strong vibrations when work within 100 feet of the building or structure are conducted. The subcontractor is required to protect property and any property damage is their responsibility. Per specification 01 76 50 "The Department has zero tolerance for nuisance emissions, including fugitive dust, noise, vibration, turbidity." To ensure that vibrations are not an issue following (including the rail line). Continuous vibration monitoring will be performed using a single portable seismograph monitor similar to Geosonics/Vibra-Tech 3000LC at each abutting property. Vibration limits shall be based on USBM criteria, published in Report of Investigations No. 8507. The Contractor shall halt work activities if vibrations reach USBM criteria. The Contractor shall identify the source of the high vibration levels and inform the Engineer about steps or changes to control ground vibrations before remedial operations resume.

Q6. Can geotechnical soil borings be provided for the areas surrounding the sheet pile walls? Both the design of sheet piling for temporary support of excavation and the design of auger/drilling equipment require the review of geotechnical data. Are there boring logs available that indicate standard penetration testing/relative density of the soils to be mixed and may they be provided prior to bid for contractor use?

A6. Geotechnical borings conducted for the OU02 Pre-design investigations as well as a figure showing their location are provided in **Attachment B**. Geoprobe borings (direct push) from OU01 and OU02 from the original remedial investigation along with a figure showing their location are also provided in **Attachment B**.

Q7. Can further clarification be given regarding UP-7 & UP-8? Is the intent for all non-hazardous soils to be brought to a landfill and all hazardous MGP waste be brought off site for thermal treatment? Can you provide a list of the disposal facilities or provide representative manifests from the previous remedial action on OU2 and OU3 that was performed in 2019? What material is the DEC considering hazardous that represents the 751 tons for Payment Item UP-8 and what waste code is it assumed to be?

A7. Bid Item UP-7 is to be used for any excavated soil deemed unsuitable for solidification or re-use as cover material and is characterized as non-hazardous material based on results of waste characterization testing. This soil should be disposed off-site in accordance with regulations. Bid Item UP-8 is to be used for any excavated soil deemed unsuitable for solidification or re-use as cover material and is characterized as hazardous material based on results of waste characterization testing. This soil should be disposed off-site in accordance with regulations. Copies of manifest for two disposal facilities used during implementation of OU02 and OU03 activities are included in **Attachment C**. The quantity of 751 tons included in the bid form for UP-8 was derived by assuming a percentage of the overall volume of excavated material may be unsuitable for re-use and been characterized as hazardous. It was intended to provide a basis for bidders to develop cost for off-site hazardous waste disposal.

Q8. Can an allowance be provided to all contractors for the removal of Asbestos Containing Materials (ACM) in the existing building on site? Plan sheet C-104 note 11 talks about Asbestos Containing Building Materials is there an Asbestos Survey available? Has an asbestos and hazardous materials survey been performed?

A8. A hazardous building material survey was conducted and is included in **Attachment D**. This survey shall be used to quantify hazardous building material including asbestos. Based on this, an allowance is not necessary and the bidder should include his costs for this work in payment item LS-1 to conduct the demolition and UP-9 for off-site transportation and disposal of demolition debris including Asbestos.

Q9. Unit price item 6 has a bid quantity of 68 Each. Does this quantity contain all confirmatory samples and waste characterization samples for the job?

A9. Unit Price item 6 is for confirmation samples. Waste characterization testing for soil is included in UP-7 and UP-8.

Q10. Can a permanent fence detail be provided? What height is the temporary security fencing? The documents state 8’ in one area and 6’ in others.

A10. Permanent fencing must be replaced in-kind, per specification 32 31 00, and existing fencing is anticipated to be reinstalled if removed or replaced at the contractor's own expense. Temporary security fencing shall be 8 feet in height.

Q11. Due to the Brandy Brook being primarily outside of the excavation limits, can clarification be given regarding the expectation of work in the Brandy Brook (Bid item LS-5). Is restoration of the brook only to take place in areas that get disturbed during construction, or is the contractor required to price a full restoration of the brook in accordance with page 11 of the contract drawings?

A11. Restoration of Brandy Brook is to take place in areas that are disturbed during construction only. The restoration plan provided included restoration items that were conducted and required as part of the OU02 construction, which does include areas outside of the OU01 excavation area as reference for items that would need to be restored if impacted during the work.

Q12. Bid item LS-2 in the measurement for payment part "2a" states that the installation of sheeting along Brandy Brook should be included in this item. Is this a mistake?

A12. Yes, this is an error. LS-2 should include sheeting/shoring adjacent to the excavation located at the southwest end of the site adjacent to the sewer line, but should not include sheeting/shoring associated with the excavation adjacent to Brandy Brook, that is covered under LS-3. A revised Section XII - Measurement for Payment is included in **Attachment E**.

Q13. Bid item UP-4 measurement for payment part "4" states to include the mix study and pilot study however, bid item LS-1 part "t" also includes the mix study and pilot study. Which is correct?

A13. The mix study and pilot study shall be included in UP-4, not LS-1. A revised Section XII - Measurement for Payment is included in **Attachment E**.

Q14. Bid item UP-5 part "2b" states to include waste characterization testing however, this is also included in bid item UP-6. Which is correct?

A14. UP-5 should include any waste characterization sampling required for wastewater streams (not soil) that are unable to be treated on-site. UP-6 is confirmation soil sampling and does not include waste characterization.

Q15. It appears that Bid item UP-11 in the measurement for payment was pulled from OU3. Can an updated UP-11 for OU1 be provided?

A15. Bid item UP-11 in the measurement for payment has been revised to remove associated references to OU03. A revised Section XII – Measurement and Payment is included in **Attachment E**.

Q16. Does the overhead electric line and pole to be removed need to be reinstalled at the end of the job?

A16. Yes.

Q17. Is builders risk insurance required?

A17. No, builders risk insurance is not required.

Q18. What's the volume of material to be treated by Ex Situ method?

A18. This will be depending on the Contractor's means and methods and should be developed by the contractor based on the information provided, the total cubic yards of solidification in UP-4 includes both in-situ and ex-situ volumes. An estimated 8,000 cubic yards are to be excavated and solidified ex-situ. A portion of this material, to be determined in the field, will not be suitable for solidification.

Q19. Is the contractor required to use auger mixing for the entire area designated for In Situ method, or may a combination of excavator bucket/mixing tool and auger be used?

A19. As per Spec Section 31 32 13, 2.2 B Equipment – ISS shall be performed with auger mixing.

Q20. Spec Section 31 32 13, 3.1G Remixing – The spec says that material shall be retreated/remixed if "through additional field testing by the ENGINEER indicating ***likely*** failure to meet k or UCS requirements." Other spec sections detail the QC field and lab tests to be performed by the CONTRACTOR. What additional field testing will be performed by the ENGINEER will indicate "likely" failure?

A20. The ENGINEER may collect independent samples from the cores, as a QC measure with a separate laboratory. Testing of the independent samples would be the same as those identified in the specification and would be compared to the requirements provided in the contract documents.

Q21 Spec Section 31 32 13, 3.1H Obstructions – Can this section be revised to include defined refusal criteria, such as failure to advance ISS boring 6 inches in 5 mins (typical)? The specifications states that the first 30 minutes of obstruction removal is not considered extra Work. What frequency is this based on? Per day? Per Cell? Please clarify.

A21 Refusal may be defined as a condition that occurs during mixing when the auger can no longer be advanced or cannot advance more than 6 inches in 5 minutes. Each obstruction shall be considered independently.

Q22. Spec Section 31 32 13, 3.3D – "Soils solidified during the initial Pilot Test will need to be remixed during full scale mixing to meet project requirements" Is remixing during full scale required only if those soils mixed during the Pilot Test fail to meet project requirements, or shall the Pilot Test soils be remixed regardless? Please clarify.

A22. The Pilot Test soils will be remixed cost to the Department if they fail to meet project requirements and the pilot test repeated, at no additional cost to the Department.

Q23. Spec Section 31 32 13, 3.4E2 Visual Inspection Criteria – Please further clarify/define "non mechanical" as it is used here.

A23. A non-mechanical break is a fracture or a discontinuity in the sample that was not caused by the process of collecting the sample or removing it from the sampler. A non-mechanical break could indicate a lens of untreated material or improperly mixed zone within the ISS. Non-mechanical breaks shall be determined by the Engineer. Typically, these are apparent in the cores. The Contractor should expect to interact with the Engineer and should have a competent person present.

Q24. Spec Section 32 32 13, 3.4E4&5 Visual Inspection Criteria – According to this section ***any*** visible NAPL on coring and wash equipment may be grounds for additional corrective action. Please clarify if this spec is absolute, or may trace amounts of visual NAPL (as would be expected and in the nature of this type of work) be acceptable?

A24 Trace amounts of NAPL visible on equipment may be acceptable if the resulting mixture is evenly mixed and with no visible NAPL or sheen as determined by the Engineer.

Q25. Is there public water available near the site?

A25. The approximate location of the fire hydrant is located on **Attachment F**.

Q26. Explain swell assumptions and impact on measurement for payment.

A26. The assumed swell of 20%, was based on the preliminary mix study and experience. The swell is the increase from existing volume to the post stabilized volume. The swell does not apply to cost, because ISS is paid based on the existing (in-situ) volume and will have no impact on the amount of soil required for off-site disposal or the amount of imported soil because final grades can be adjusted and the amount of cover material over the ISS will not change. The contractor is responsible for any swell based on the approved mix and contractor's own means and methods.

Q27. If tracks are gone, can the excavation be laid back / benched in leu of sheet pile or trench box?

A27. No.

Q28. Why are we bypassing the sewer line if it's outside of the removal area? On the temporary sewer bypass, is the Contractor installing the valves and flanges on the existing pipe at the tie-in locations? Are these being removed at the end of the project? Where is the details on making a temporary tie-in for the sewer, so that the bypass system can be installed? What is the flow rates in the system? Can the system be temporarily shut down? If so how long to make the tie-ins? Does this require wet taps? Will the sanitary flow in the pipe be shut down for the installation of the bypass equipment, or is the contractor responsible for managing the waste materials during the work? Please confirm that no pumping will be required, and this is a gravity flow bypass.

A28. Contractor will not be required to install a temporary sewer bypass. The Contractor shall, however, include means and methods to protect this sewer line during construction. Any impacts caused during construction to this sewer line and associated repairs will be the Contractor's responsibility and at no cost to the Department.

Q29. Define tree clearing along tracks. What trees are required to come down as part of this contract? It is unclear how many large trees greater than three inches have to be removed, especially on the southern boundary of the site. The drawings show overhead electric in this location, yet the slope has many large trees. Please provide additional details on the number of large trees that need removal for this project.

A29. Any remaining trees greater than three inches in diameter that need to be removed for remedial construction activities will be removed by the Department between November 1, 2020 and March 31, 2020. The logs and woodchips will be left on-site for removal by the Contractor. The Contractor shall indicate to the Engineer any trees greater than three inches in diameter which need to be removed to complete remedial construction activities within 30 days of receiving Notice to Proceed. Any remaining trees smaller than three inches and brush within the limits of work will be the contractor's responsibility to clear. This includes small trees and brush located along the railroad right of way.

Q30. What is quantity of trees and woodchips that need to be removed from the site.

A30. There is approximately 220 cubic yard of trees (longest trunks are about 30 feet) and 240 cubic yards of wood chips to be removed from the site.

Q31. Explain railroad track removal and rails to trails schedule and requirements.

A31. The Contractor is to assume that the tracks will not be removed prior to mobilization and the tracks will need to be protected from the contractor's equipment. A NYSDOT highway work permit will need to be in place. The Department and Engineer will assist in preparation of the permit that will require insurance certificates from the contractor. A copy of a NYSDOT permit application is included as **Attachment G**.

Q32. After monitoring points are removed to match up with previous excavation along the Brook, Will monitoring points need to be replaced?

A32. Yes. Location of the monitoring points will be identified in the field.

Q33. How and where have the drums and tires been quantified in the contract documents?

A33. Drum carcasses and tires are scattered across the site, specifically outside of the fenced in area but within the limits of work, as seen during the pre-bid walk. Management and separation of debris shall be included in LS-1 Site Preparation, and off-site transportation and disposal and debris shall be included in UP-9.

Q34. Are the decon pad and scale off-site at the south end of the site off-property?

A34. Yes, they are located on the railroad ROW and will be included in the permit application. This decon pad should have been named wheel wash, its intent is to remove site soils from clean site access roads from tires of trucks transporting materials to and from the site so that nothing is tracked on local roadways. Full equipment decon shall be conducted on the site property.

Q35. Explain award and mob date. When does the clock start on the project schedule? Does it start once the pilot study is complete and approved? Or does it start on the day we arrive on-site?

A35. The Date for Commencement of the Contract time begins when the Notice to Proceed is issued. The Notice to proceed Date is anticipated in mid-January 2021. Contractor is required to mobilize to the site by no later than May 1, 2021; however, the contractor can mobilize sooner than May 1, 2021 at Contractor's discretion without additional cost, so long as workplans and preconstruction submittals are approved. The bidders shall provide a schedule with their proposal that includes all aspects of the work including preparation of work plans and anticipated mobilization date.

Q36. Squatter and trailers should be more clearly defined.

A36. There are existing mobile work trailers located at the southeast of the site at the top of an embankment that are outside of the limits of work. These trailers are owned by an abutting property but are located on the site property. Letters will be sent to the owners of the property notifying them of the work. The Contractor should assume areas outside of the limits of work is not available for use and the contractor is responsible for protection of these trailers from any impacts from their work.

Q37. What are the requirements for odor control? The Department should consider adding a line item or specifically direct the Contractor's on how much odor control foam should be provided in the cost. The Contractor's do not have knowledge of the site and providing a quantity for everyone to utilize provides a fair and equitable bidding process. The Engineer has the knowledge of the site and should be able to provide an estimated quantity of drums to provide. In a number of locations a temporary fabric structure is called out. Is there a requirement for a temporary fabric structure on this project?

A37. Per specification 01 76 50 the Department has zero tolerance for nuisance emissions, including odors, fugitive dust, noise, vibration, turbidity. Contractor experience shall be applied. This is the source area at a former MGP facility, which typically requires considerable quantities of foam or other odor control methods for exposed areas. Foam usage may be dependent on Contractor means and methods (amount of impacted material exposed at any given time, or the contractor's preference to use tarps); therefore, no quantity will be provided. A temporary fabric structure is not anticipated to be needed for this project given that the most heavily contaminate areas will be managed in-situ and assuming the contractor has sufficient experience to manage odors with odor control foam or other methods.

Q38. What is the purpose of the brook bypass?

A38 To minimize water that could potentially enter the excavation area adjacent to the brook. Shoring for the excavation in certain areas is at the edge of the brook. The brook water does not need to be treated if it bypasses the excavation area; however, water treatment is required if water enters the excavation and is pumped out as part of excavation dewatering.

Q39. Is T&D exempt from the 40% subcontracting? Article IV – Supplementary Bidding Information and Requirements – Article 6 – Subcontracting – The Department States "The maximum subcontracting allowed for this contract is forty percent (40%) unless a higher percentage is approved by Department in writing." What items within the bid is the Department calling "Subcontracting"? Is the Transportation and Disposal going to be considered a subcontracted cost? Please provide all items that the Department would consider not falling under the subcontracting requirement.

A39. Disposal is exempt from the allotted 40% for subcontracting, however the contractor remains responsible for making good faith efforts to meet the goals related to transportation.

Q40. Can we livestream the bid opening process?

A40. No. An email will be distributed to all bidders shortly after bid opening identifying the bids received. Additionally, the bid opening may be observed in person at the Department's office located at 625 Broadway Albany NY. Attendees must register with DEC PM Brianna Scharf and follow all Covid-19 guidelines.

Q41. What are the pink flags along the railroad tracks?

A41. The pink flags located along the tracks were identifying the location of the sanitary sewer line. It is possible that the flags have been moved and the contractor shall not rely on these flags to locate this line. GPS coordinates will be provided for this utility line and the contractor shall locate all utilities in accordance with require New York regulations including coordination with Dig Safely.

Q42 The specifications for the ISS sampling are confusing regarding how many samples are taken. The specification does not seem to differentiate how many samples are required on the pilot versus the entire project. This needs to be clarified.

A42 The embedded table in section 3.4F of specification 31 32 13-12 differentiates samples from the pilot test (PT) and full scale (FS).

Q43. The Conceptual site layout shows the temporary access road coming to the site and then going out the site, however nothing through the site, was this intended to make the road through the site the Contractors Means and Methods?

A43 The location of the access road through the site is based on contractors means and methods and is likely going to change as the project progresses and active working areas change. The access road shall be constructed and maintained such that trucks leaving the site do not drive through impacted soil.

Q44 It is not clear from the ISS bench scale study which mix designs should the contractor base their bid? Can the Department provide the mix design in more detail?

A44 The ISS bench scale study was provided for informational purposes to assist qualified contractors in identifying an applicable mix design for the pilot test. The Department is not identifying an exact mix for the pilot test as that would preclude contractors from considering their own means and methods and from reaching out to vendors that use proprietary mix designs.

Q45 Stated at the bid walk that the project award is Jan 2021. Will the design mix/bench scale test be allowed to immediately commence?

A45 Upon award of the contract, the design mix/bench scale test may commence upon approval of associated work plans and submittals.

Q46 Can full-scale ISS implementation proceed prior to 28-day cure period of the pilot test?

A46 The contractor may run early QC tests (i.e., at 7, 14 days); if the early test results indicate that the performance criteria for the project has been met, the Contractor may proceed with full scale ISS. However, 28-day test results will need to be provided and must meet performance requirements, or the contractor will be required to remix unacceptable materials at no additional cost or time to the Department.

Q47 In order to reduce variations in the pilot test scope & pricing, is there a set number of mixes or columns the contractor should assume?

A47 The ISS pilot-test requirements are included in section 3.3 of specification 31 32 13-10. The pilot shall include at least 3 columns, with cores collected from each. Successful mix designs identified from the Contractors bench test should be the basis of the pilot test, and the contractor may choose to test more than one mix as part of the pilot depending on results from the bench test.

Q48 Considering the differing levels of effort required for in-situ solidification vs. ex-situ solidification, will separate line items be provided for the two methods?

A48 No.

Q49 Are core samples anticipated to proceed to the bottom of the column or be required to continue any deeper than the solidified column?

A49 Core sampling shall go through the bottom of the column as a means of field verifying the column depth against recorded elevations. Soil collected from cores below the bottom of the column will not be submitted for core testing.

Q50 How will measurement and payment of ISS for areas outside the limits that are required based on having to mix outside the limits with the auger to achieve the required limits?

A50 Measurement of the ISS will be based on a field survey to determine the top elevation of the ISS surface, field measurements to determine bottom grades (full depth or refusal surface) and the horizontal extents shown on the drawings. Solidification of material outside of the ISS limits to allow for solidification to the limits is considered incidental to the work. The bidders should account for this additional solidification in their unit price bid. No payment will be made for ISS of areas outside the given limits. The quantity of solidification in the bid documents is anticipated to be enough to include over solidification to meet the required limits.

Saranac Lake - OU01 Remedial Action
Contract No. D011909

Section C: Revisions Based on Recent Investigations

Additional investigations were conducted in two excavation areas of the site during the week of July 20, 2020. Based on results of the investigations, the limits of excavation in these two areas have decreased slightly. The revised limits of excavation are shown on the revised drawing C-105 included in **Attachment H**. Please note that the revised limits identified in this drawing will slightly decrease the overall quantities of excavation and solidification identified in the contract documents, contractor shall bid the quantity identified and this shall not constitute a change in the unit rate for this pay items. These revised limits were not identified in sufficient time to incorporate into the 3D CADD surfaces that are being provided to assist with bidding, however, revised surfaces will be issued for construction to the chosen contractor.

Attachment A

Pre-Bid Conference Sign-In Sheet

Saranac Lake Gas Co. OU01 Remedial Action
Contract No.: D011109
Site No. 516008
34 Payeville Road
Saranac Lake, Essex County

Company	Name	Email	Phone #	Signature
Abscope Environmental, INC	Frisbey, Keith	Kfrisbey@abscope.com	(315) 697-8437	
Abscope Environmental, INC	Romagnoli, Andrew	aromagnoli@abscope.com	(315)697-8437	
Aztech Environmental Technologies	Ryan, Matthew	mryan@aztechenv.com	(518) 885-5383	
CFI Contracting Inc. WBE	Martin, Michael	michael@CFIConstruction.com	(518) 774-8424	
Clean Harbors / Safety-Kleen	Mcarley, David	Mccarley.David@cleanharbors.com	(781) 792-5801	
D.A. Collins	Belden, Ryan	rbelden@dacollins.com	(518) 664-9855 ext. 076	
~~Dans Hauling & Demo Inc.~~	~~Wolfe, Daniel~~			
Environmental Service Group	Harris, Brian	bharris@esgenv.com	716-890-0993	
Envirotrac	Lorthioir, David	davidl@envirotrac.com + JOHNS@ENVIROTRAC.COM	(631) 924-3031	
~~EYMOPC~~	~~Alpuerto, Abraham~~	aalpuerto@eymodpc.com	(315) 569-9039	
Labella Associates	Carr, Michael	MCARR@LABELLAPC.COM	(518) 885-5383 ext. 215	
Land Remediation	Decker, Keith	kad@land-remediation.com	(518) 766-4105 ext. 14	
Lockwood Remediation Technologies, LLC	Lockwood, Paul	plockwood@lrt-llc.net	508-450-8802	
MACTEC Engineering and Geology	Johnson, Brian	brian.johnson3@woodplc.com	(207) 828-3483	
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~~M.J Raymond Construction~~	~~Garso, Cindy~~	cindy@miraymond.com		
~~M.J Raymond Construction~~	~~Shatraw, Seth~~	seth@miraymond.com	(518) 891-8822	
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NYSDEC	Hyuck, Brian	brian.hyuck@dec.ny.gov	(518) 897-1241	
NYSDEC	Keenan, Kristopher	kristopher.keenan@dec.ny.gov	(518) 402-9813	
NYSDEC	Saucier, Sarah	sarah.saucier@dec.ny.gov	(518) 402-9675	
NYSDEC	Scharf, Brianna	brianna.scharf@dec.ny.gov	(518) 402-5987	
~~Provider of Sheet and Bearing Pile~~	~~Rider, Daniel J~~	danriderpe@gmail.com	(716) 353 6370	
~~Rambell~~	~~Zimmerman, John~~	jzimmerman@rambll.com	(703) 516-2409	
RECON	Houston, Brad	bradley.houston@reconservices.com	610-999-3149	

Saranac Lake Gas Co. OU01 Remedial Action
Contract No.: D011109
Site No. 516008
34 Payeville Road
Saranac Lake, Essex County

Company	Name	Email	Phone #	Signature
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Sessler Environmental Services	Hoban, Eric	Chaban@Sessler env	(518) 721-5797	
Sessler Environmental Services	Sessler, Brian	BSessler@Sessle-env.com	(315) 719-8111	
The Chazen Companies	McGrath, Kevin	kmcgrath@chazencompanies.com	(518) 266-7370	
The Wesson Group, LLC	Lantiegne, Jeff	jeffl@twg.us.com	(315) 385-9846	
US ecology/ NRC	Benati, Danielle	dbenati@nrcc.com	(315) 764-1917	
US ecology/ NRC	Mayetee, Richard	rmayette@nrcc.com	(315) 764-1917	
Xylem Dewatering Solutions	Morris, Seth	seth312@gmail.com	(518) 390- 4052	
Guardian Environ Serv	Brian MacKay	bmacken@gesonline.c	860-410-9279	
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NYSDEC	Kaleigh Zappia	Kaleigh.Zappia@dec.ny.gov	518-897-1241	

Attachment B

Soil Borings and Locations

River St (Rt 86)
Brandy Brook Rd
Lake Flower Ave
Slater Ave
Winona Ave
Pontiac St
Pine St

SB-322
SB-320
HB-409
SB-319
SB-324
SB-326
SB-323
SB-321
HB-408
HB-407
SB/PZ-318
SB/PZ-317
SB-340
HB-406
SB-339
9'
6'
4'
SB-309
SB/PZ-311
SB/PZ-337
SB/PZ-304
SB/PZ-303
MW-203
MW-201
HB-402
SB/PZ-301
HB-401
HB-403
HB-404
HB-405
9.5'
SB/PZ-302
MW-104
MW-202
MW-106

Legend

- Direct Push Location
- HSA Location
- Hand Boring Location
- Mounted Barge Drilling Location
- Sample Location
- Surface Water Location

Estimated Horizontal Limit of:
(1) Visually/MGP-Impacted Sediment Exceeding Class A Sediment Guidance Values, and
(2) Soil Exceeding Restricted Residential and Protection of Ecological Resources Soil Cleanup Objectives

9.5' Estimated Depth below Top of Sediment of Visually/MGP-Impacted Sediment Exceeding Class A Sediment Guidance Values

- Fence
- Brandy Brook
- Existing Structure
- Former Structure
- Adirondack Scenic Railroad
- Saranac Lake Gas Co. Parcel
- Water Utility
- Water/Sewer Utility
- Sewer Utility
- Forced Sewer Main Utility
- Storm Sewer Utility

N

0 45 Feet

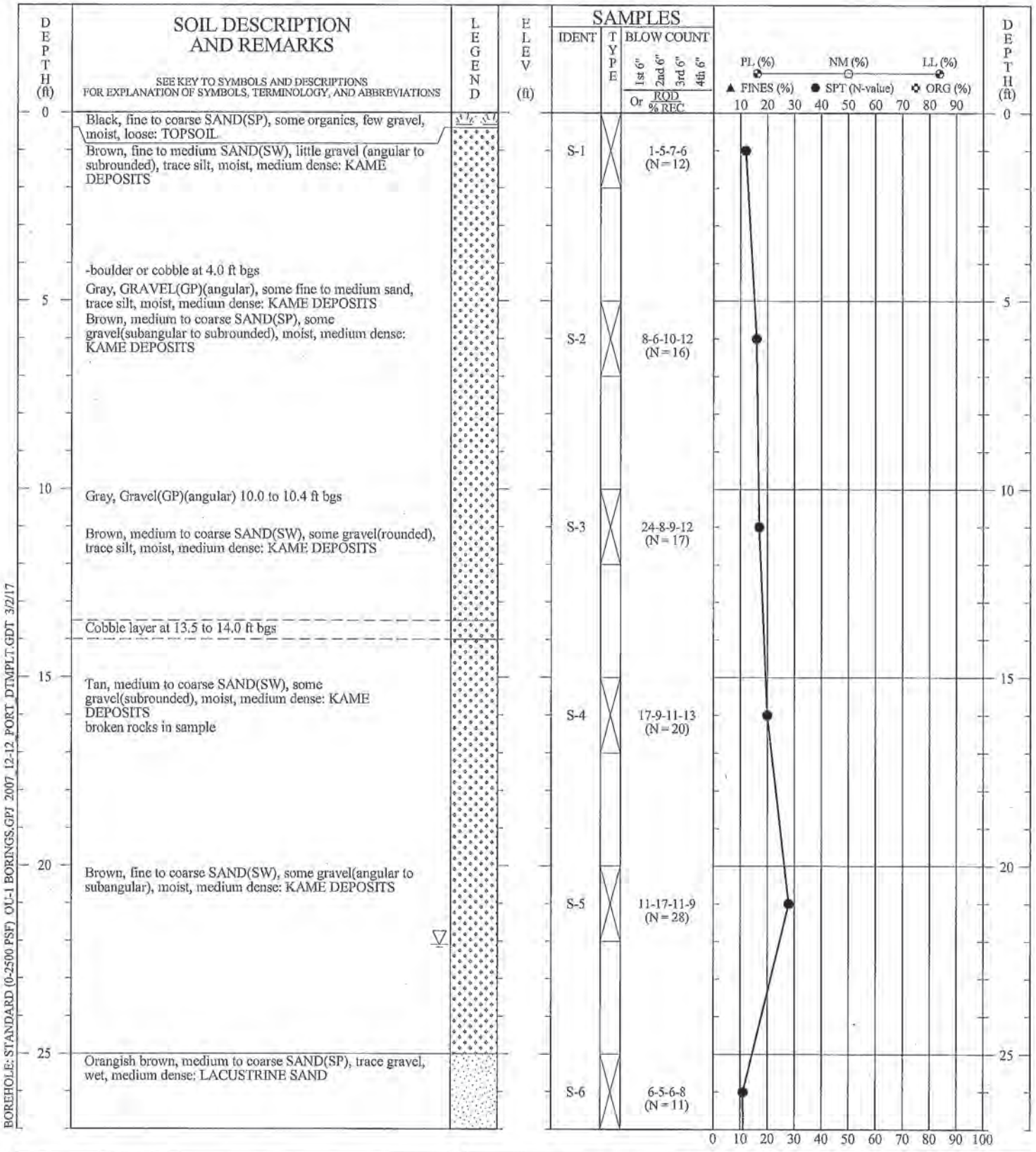
Essex County color digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

NYSDEC Site # 516008
Saranac Lake Gas Co., Inc.
Saranac Lake, New York

MACTEC

Completed Pre-Design Investigation
Explorations - Brandy Brook
Project 36111161193 Figure 2.1

Prepared/Date: BRP 04/14/17
Checked/Date: DF 04/14/17



BOREHOLE: STANDARD (0-2500 PSF) OU-1 BORINGS.GPJ 2007_12-12_PORT_DTMPLT.GDT 3/2/17

DRILLER:	Aztech Enviromental Technologies
RIG TYPE:	Geo Probe 3230DT
METHOD:	Hollow-Stem Augers
HOLE DIAM.:	4.25" ID
SPTs:	140 lb auto hammer
REMARKS:	Boring was backfilled with cement grout. Soil and water cutting were placed in drums.

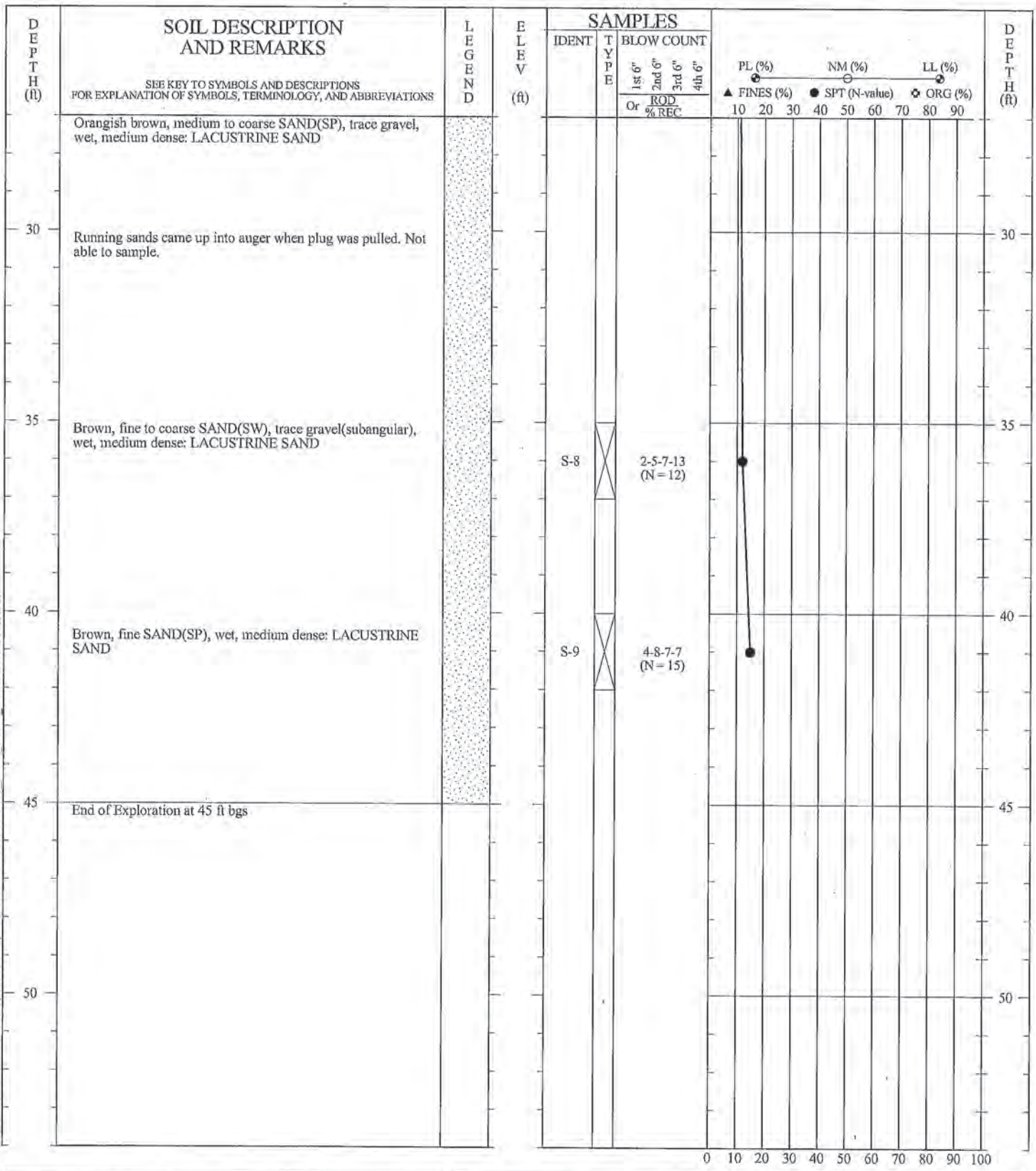
LOGGED BY: JC CHECKED BY/DATE: JB / 3-2-2017

THIS BORING RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

GEOTECHNICAL BORING RECORD

BORING NO.:	SB-309
DRILLED:	12/1/2016
PROJECT:	Saranac Lake Gas Company
LOCATION:	Saranac Lake, NY
PROJECT NO.:	3611161193.03

MACTEC



BOREHOLE: STANDARD (0-2500 PSF) OU-1 BORINGS.GPJ 2007 12-12 PORT_DTMPLT.GDT 3/2/17

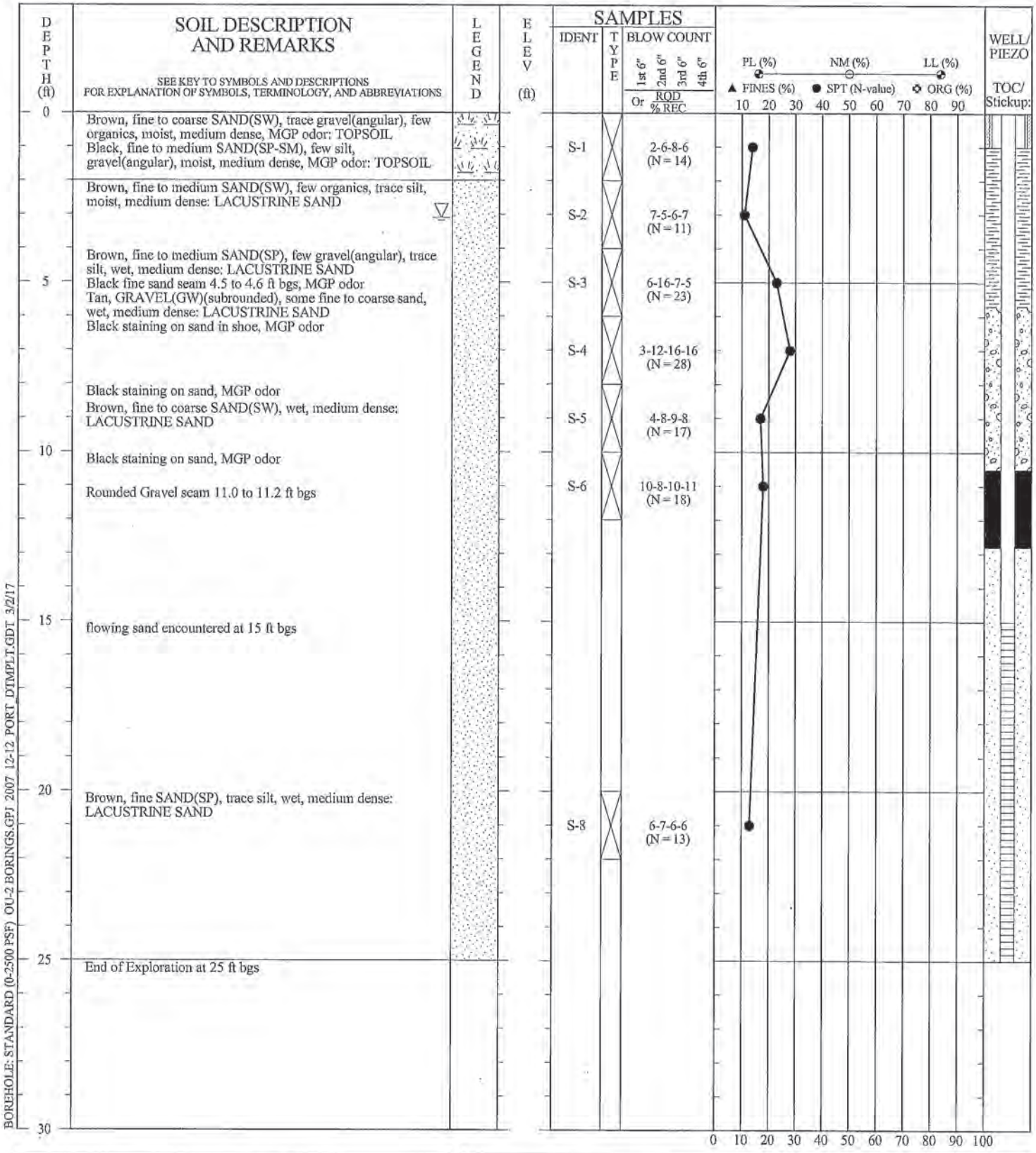
DRILLER:	Aztech Enviromental Technologies
RIG TYPE:	Geo Probe 3230DT
METHOD:	Hollow-Stem Augers
HOLE DIAM.:	4.25" ID
SPTs:	140 lb auto hammer
REMARKS:	Boring was backfilled with cement grout. Soil and water cutting were placed in drums.

THIS BORING RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

GEOTECHNICAL BORING RECORD

BORING NO.:	SB-309
DRILLED:	12/1/2016
PROJECT:	Saranac Lake Gas Company
LOCATION:	Saranac Lake, NY
PROJECT NO.:	3611161193.03

MACTEC



BOREHOLE: STANDARD (0-2500 PSF) OU-2 BORINGS.GPJ 2007 12-12 PORT_DTMPLT.GDT 3/2/17

DRILLER:	Aztech Enviromental Technologies
RIG TYPE:	Geo Probe 3230DT
METHOD:	Hollow-Stem Augers
HOLE DIAM.:	4.25" ID
SPTs:	140 lb auto hammer
REMARKS:	Boring was backfilled with cement grout. Soil cuttings and water were placed in drums.

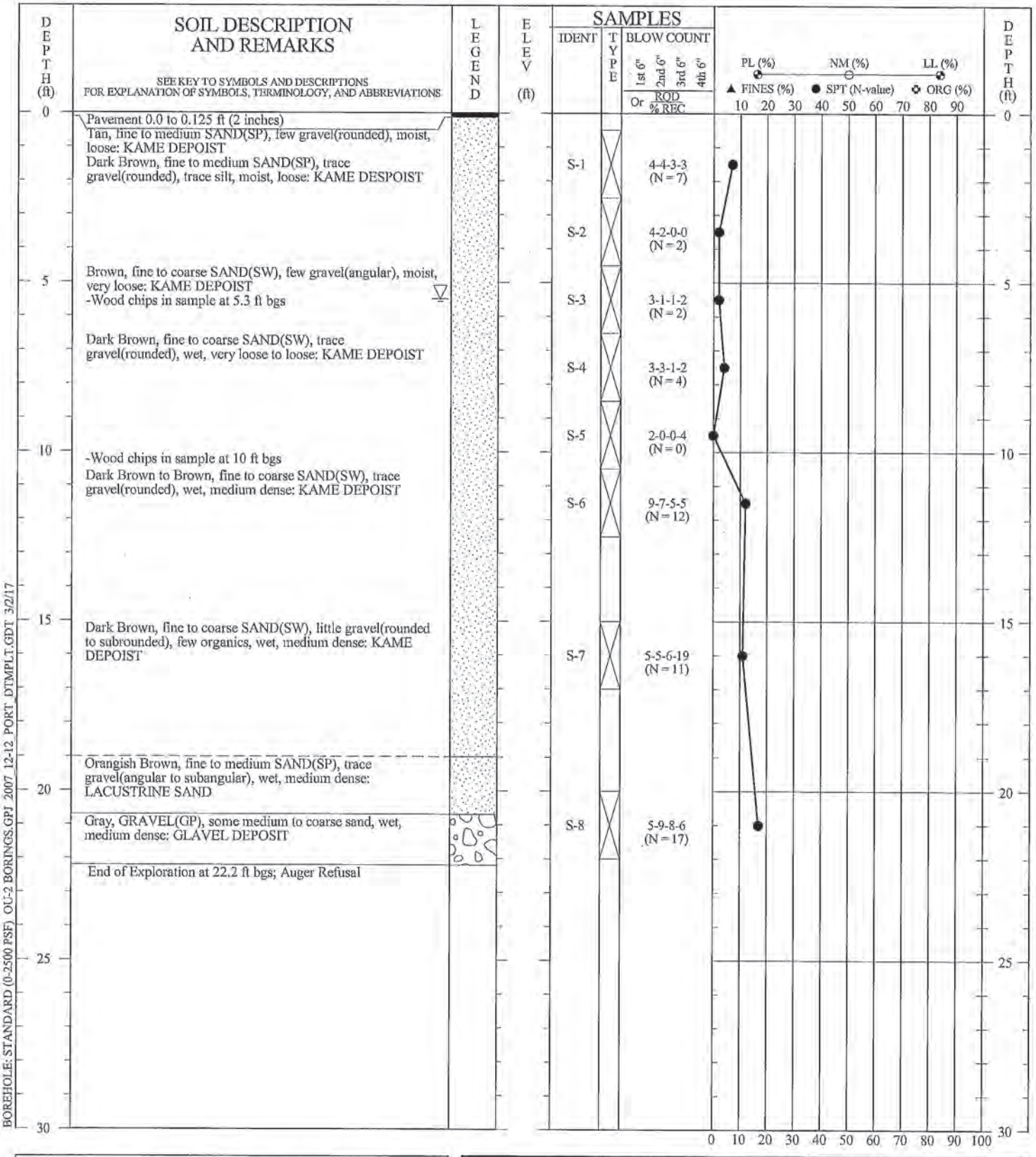
LOGGED BY: JC CHECKED BY/DATE: JB / 3-2-2017

THIS BORING RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

GEOTECHNICAL BORING RECORD

BORING NO.:	SB/PZ-328
DRILLED:	11/29/2016
PROJECT:	Saranac Lake Gas Company
LOCATION:	Saranac Lake, NY
PROJECT NO.:	3611161193.03

MACTEC



BOREHOLE: STANDARD (0-2500 PSF) OU-2 BORINGS.GPJ 2007 12-12 PORT_DTMPLT.GDT 3/2/17

DRILLER:	Aztech Enviromental Technologies
RIG TYPE:	Geo Probe 3230DT
METHOD:	Hollow-Stem Augers
HOLE DIAM.:	4.25" ID
SPTs:	140 lb auto hammer
REMARKS:	Boring was backfilled with cement grout. Soil cuttings and water were placed in drums.

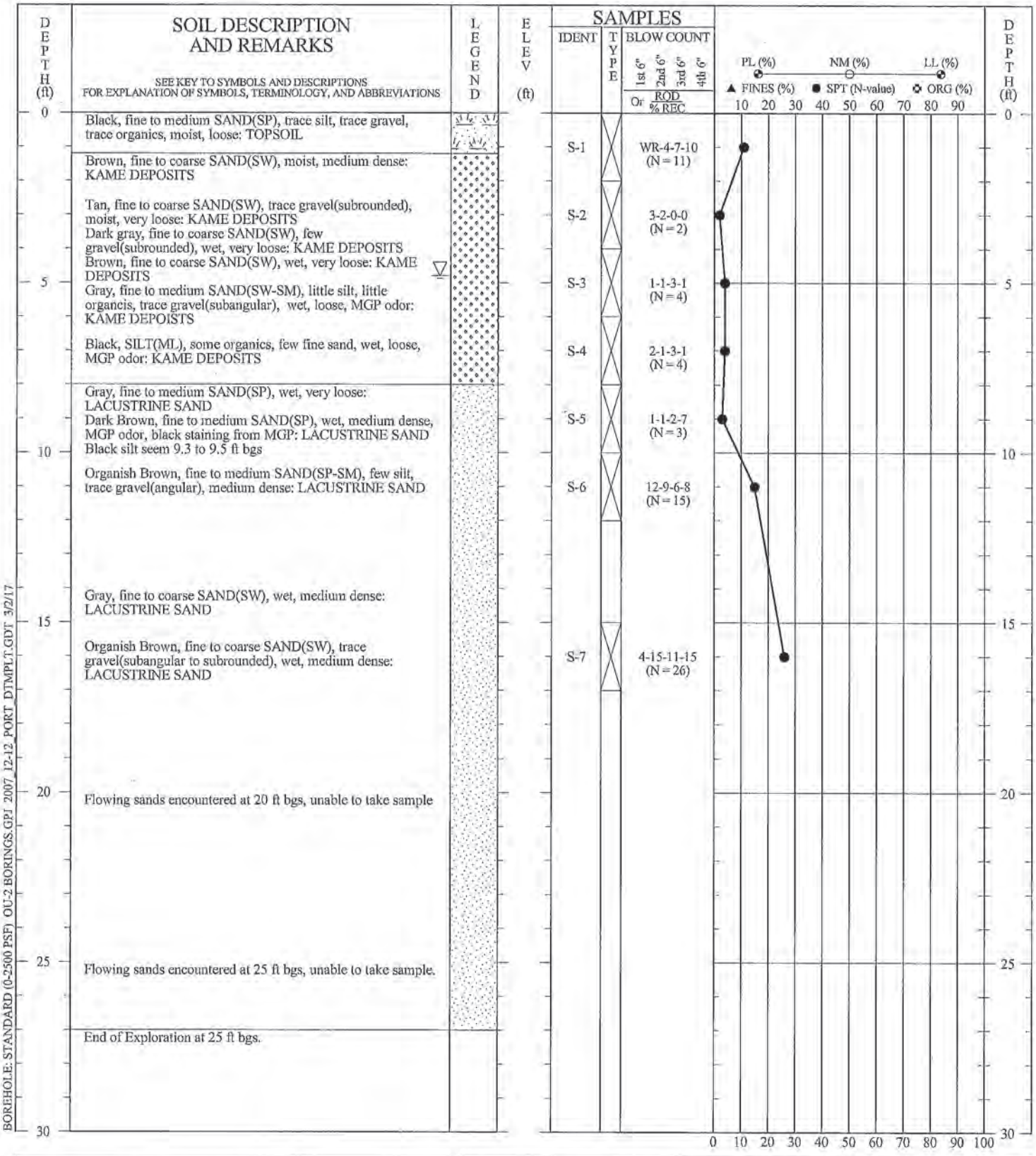
LOGGED BY: JC CHECKED BY/DATE: JB / 3-2-2017

THIS BORING RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

GEOTECHNICAL BORING RECORD

BORING NO.:	SB-322
DRILLED:	11/30/2016
PROJECT:	Saranac Lake Gas Company
LOCATION:	Saranac Lake, NY
PROJECT NO.:	3611161193.03

MACTEC



BOREHOLE: STANDARD (0-2500 PSF) OU-2 BORINGS.GPJ 2007_12-12_PORT_DTMPLT.GDT 3/2/17

DRILLER:	Aztech Enviromental Technologies
RIG TYPE:	Geo Probe 3230DT
METHOD:	Hollow-Stem Augers
HOLE DIAM.:	4.25" ID
SPTs:	140 lb auto hammer
REMARKS:	Boring was backfilled with cement grout. Soil cuttings and water were placed in drums.

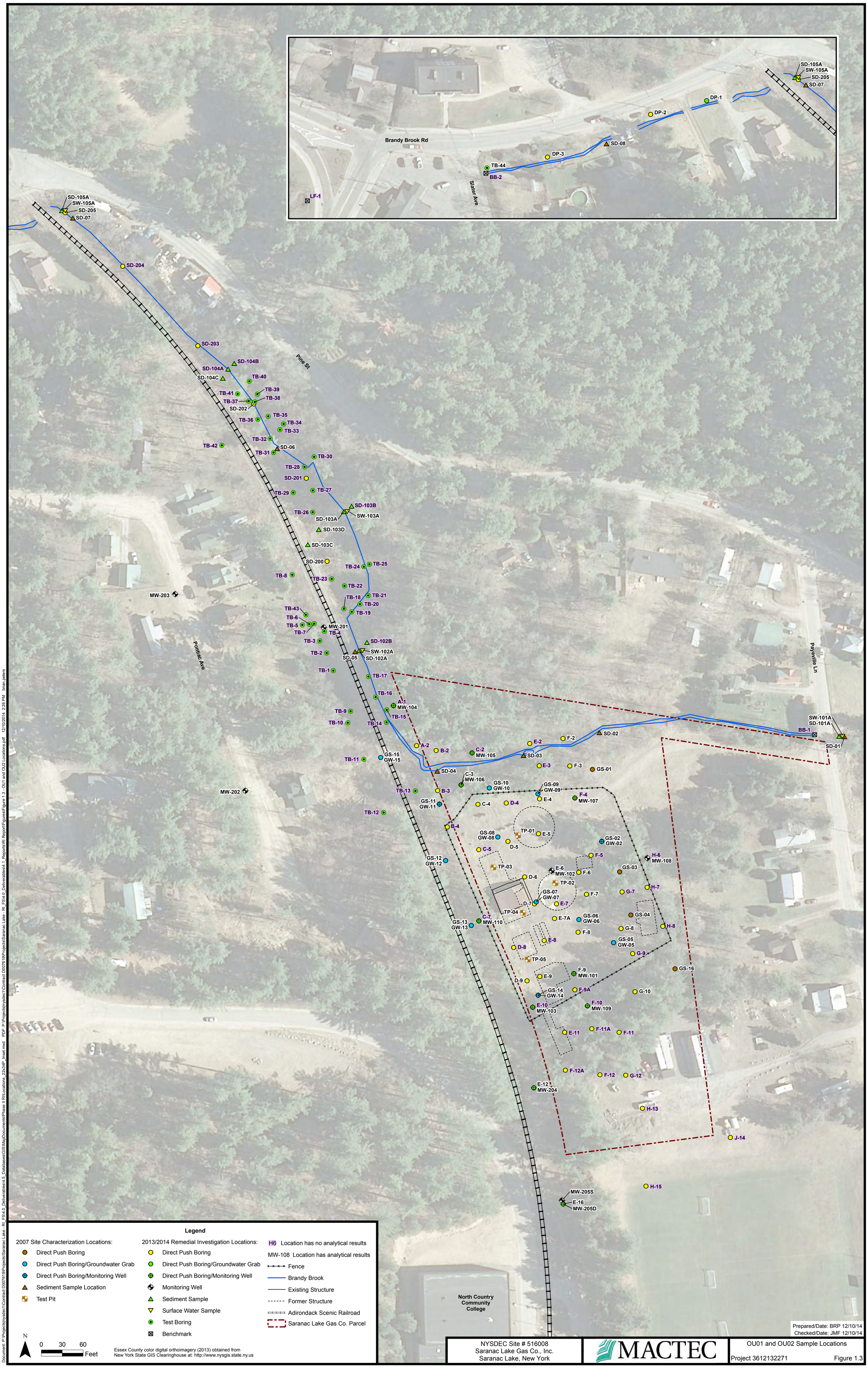
LOGGED BY: JC CHECKED BY/DATE: JB / 3-2-2017

THIS BORING RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

GEOTECHNICAL BORING RECORD

BORING NO.:	SB-327
DRILLED:	11/29/2016
PROJECT:	Saranac Lake Gas Company
LOCATION:	Saranac Lake, NY
PROJECT NO.:	3611161193.03

MACTEC



Legend

2007 Site Characterization Locations:
- Direct Push Boring
- Direct Push Boring/Groundwater Grab
- Direct Push Boring/Monitoring Well
- Sediment Sample Location
- Test Pit

2013/2014 Remedial Investigation Locations:
- Direct Push Boring
- Direct Push Boring/Groundwater Grab
- Direct Push Boring/Monitoring Well
- Monitoring Well
- Sediment Sample
- Surface Water Sample
- Test Boring
- Benchmark

H6 Location has no analytical results

MW-108 Location has analytical results

- Fence
- Brandy Brook
- Existing Structure
- Former Structure
- Adirondack Scenic Railroad
- Saranac Lake Gas Co. Parcel

N

0 30 60 Feet

Essex County color digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

Prepared/Date: BRP 12/10/14
Checked/Date: JMF 12/10/14

NYSDEC Site # 516008
Saranac Lake Gas Co., Inc.
Saranac Lake, New York

MACTEC

OU01 and OU02 Sample Locations

Project 3612132271 Figure 1.3

Document: P:\Projects\nysdec1\Contract D007619\Projects\Saranac Lake - RI_FS\4.0_Deliverables\4.1_Reports\RI Report\Figures\Figure 1.3 - OU1 and OU2 Locations.pdf 12/10/2014 2:26 PM brian.peters
PDF: P:\Projects\nysdec1\Contract D007619\Projects\Saranac Lake - RI_FS\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\Phase II RI\Locations_22x34P_Inset.mxd

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: MW-201
Project Location: Saranac Lake, NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 2
Boring Location: Brandy Brook (OU-2)	Refusal Depth: NA	Total Depth: 16' BGS	Bore Hole ID/OD: 2 7/8-inch
Weather: 60°F, Sunny	Soil Drilled: 16'	Method: Direct push	Casing Size: 2 7/8-inch
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dale Evans / John Wooly	Date Started: 09-16-2014	Date Completed: 09-16-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: 6610 DT Geoprobe	Logged By: BAT	Checked By: JKR	
Reference Elevation:	Water Level: 5.97' TOR (≈3' BGS)	Time: 9/16/14	installed well @ MW-201

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID field screen	Waste encountered & type	Sample Description and Classification	USCS Group Symbol	Remarks
0			0.3 ppm		0-0.5 Dark Brown silty fine sand & silty organics; moist, SP, moist	SP	
1			0.2		0.5-1.5 cobble / broken, grey, dry, NP	NA	
2	S1	4.0 / 1.8	0.2	↑ NOI ↓	1.5-4 Brown to black to orange-brown fine sandy silt w/ few to little gravel, moist, SP to NP (slightly plastic to nonplastic), faint odor;	SP/SM	
3			0.4				
4			0.5	very faint odor			
5			0.2		4-6.5 Dark Brown to olive brown silty organics, roots soft, NP, moist, poorly graded (uniform), no apparent odor.	OL	
6	S2	4.0 / 3.6	0.3	NOI	6.5-8 Brown to greyish brown Fine to medium F to M sand, trace fines, poorly graded, NP (Nonplastic), moderate odor, m. dense		
7			0.2			SP	
			0.2				
8			1.9	moderate odor			conducted shake test @ 7.5' yielded minimal sheen
			2.4	↑ residual			

S1 @ 1435

S2 @ 1450

NOTES:

NOI = no observable impacts

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: MW-201
Project Location: Saranac Lake, New York			Page No. 2 of: 2
Project No.: 3612132271	Client: NYSDEC		
Boring Location: Brandy Brook (OU-2)	Refusal Depth: NA	Total Depth: 16' BGS	Bore Hole ID/OD: 2 7/8-inch
Weather: 60°F; sunny	Soil Drilled: 16' bgs	Method: Direct Push	Casing Size: 2 7/8-inch
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons, John Works	Date Started: 09-16-2014	Date Completed: 09-16-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: 6620 DT Geoprobe	Logged By: [illegible]	Checked By:	
Reference Elevation:	Water Level: 5.97' TOR (~3' BGS)	Time: 9/16/14	installing well into boring (MW-201)

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID field Scan	waste encountered? Type?	Sample Description and Classification	USCS Group Symbol	Remarks
8			2.0 ppm	Residual	8-10 grey, greyish-brown F sand w/ silt, silt lenses @ 8.6 + 9.2, poorly graded, moist, m dense to compact (dense) moderate odor	SP/SM	Shake test yielded: moderate sheen (iridescent).
9			2.9	(circled)			
			1.9				
10	S3	4.0 / 2.9	1.4		10-12 greyish-brown F sand, few m sand, poorly (uniformly) graded, NP, moist, faint odor, compact (dense).		
11			1.3			SP	
			1.3				
12			1.1	↓			
			0.1	NOI	12-16 greyish brown to brown to reddish brown Fine F. sand, few medium M sand, poorly graded, moist, compact (dense), NP, faint to minimal odor		
13			<0.1				
14	S4	4.0 / 2.5		(circled)		SP	Shake test yielded no observable impact
15							
16				↓	Bottom of boring = 16' BGS		

S3 @ 1515

S4 @ 1525

No refusal.

NOTES:
NOI = no observable impacts
NP = Non Plastic

SOIL BORING LOG

SOIL BORING LOG

MACTEC 511 Congress Street, Portland Maine 04101	Project Name: Saranac Lake Gas Company		Boring ID: SD200
	Project Location: Saranac Lake Gas CO.		Page No. 1
	Project No.: 3612132271	Client: NYSDEC	of: 4
Boring Location: SD200	Refusal Depth: Not encountered	Total Depth: 30 BGS	Bore Hole ID/OD: 2.5"
Weather: Sunny Temp 60's	Soil Drilled: 30'	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Laramee	Date Started: 9-18-14	Date Completed: 9-18-14	Sampler ID/OD: 2" / 2.5"
Rig Type/Model: CME Model 45B	Logged By: TLC	Checked By: JKR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time: N/A	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm)	NA	Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
1			29		coated soil w/oil	0-1' Dark brown silty sand w/ high organic content (leaves) moist.	SM	Shake Test @ 2' strong odor fuel oil like slight sheen
2	S1	4.0 / 1.3				1-2 Brown fine sand, moist trace organics, poorly graded (uniform) strong fuel-like odor.	SP	
3			15			2-4 Light brown, fine sand, poorly graded moist moderate fuel-like odor	SP	
4								Photo taken
5			3.5		Naphthalene like odor	4-5 Brown medium to fine sand w/ trace gravel, wet blueish green lens present strong ~~fuel like~~ odor (Naphthalene odor)	SP	Shake test on 4.5' soil = Naphthalene odor, no sheen.
6	S2	4.0 / –	3.5		↓			
7			2.5		↓	5-7 Light brown fine poorly graded sand, Faint to moderate odor (Naphthalene-like), moist		photos taken
8			1.9		↓	7-~~8~~9 light brown med to fine sand, poorly graded, wet, Faint Naphthalene-like odor.	SP	No odor @ 8'

S1 @ 1420

S2 @ 1430

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD200
Project Location: Saranac Lake NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 4
Boring Location: SD200	Refusal Depth: Not Encountered	Total Depth: 30 BGS	Bore Hole ID/OD: 2.5"
Weather: Sunny 60°F	Soil Drilled: 30	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Laramee	Date Started: 9-18-14	Date Completed: 9-18-14	Sampler ID/OD: 2"/2.5"
Rig Type/Model: CME Model 45B	Logged By: TC	Checked By: JKR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time: N/A	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID ppm	Monitoring: NA	waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
9			0.5		Slight fuel-like odor	8-10.5 = Fine Sand light Brown, poorly graded, Moist slight Fuel-like odor (different from 0-4 smell)	SP	
10	S3	4.0/2.6	0.7			11' 1" wide clay lens light brown		Shake test @ 10': slight fuel like odor no sheen
11			0.8		Slight Napthalene like odor	11-12 medium to fine sand, light Brown, poorly graded, moist, slight Naphthalene-like odor.		Collected sample @12'
12			1.0			Sample Collected 516008-SD20012	for	VOCs/SVOC
13			1.1		↑	12-13 Light gray medium to fine sand, moist, poorly graded, Medium Naphthalene odor.	SP	
14	S4	4.0/1.8	1.2			13-14 light gray medium sand, moist poorly graded, medium Naphthalene odor		
15			1.6		Medium naphthalene odor	14-16 light brown fine sand, poorly graded, medium naphthalene odor.	SP	Soil in jar shaken up yielded odor.
16			1.0					

Margin notes: S3 @ 1445; S4 @ 1500

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD200
Project Location: Saranac Lake			Page No. 3
Project No.: 3612132271	Client: NYSDEC		of: 4
Boring Location: SD200	Refusal Depth: Not Encountered	Total Depth: 30 BGS	Bore Hole ID/OD: 2.5"
Weather: Sunny Temp 60°F	Soil Drilled: 30	Method: direct push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' macro core
Driller: Steve Laramee	Date Started: 9-18-14	Date Completed: 9-18-14	Sampler ID/OD: 2" / 2.5"
Rig Type/Model: CME Model 45B	Logged By: TLC	Checked By: JLR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time:	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm)	Monitoring: NA / Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
17			0.8				
18	S5	4.0/2.5	1.5	No waste encountered — Strong Naphtha Gas odor	Light to dark gray medium to fine sand, poorly graded, moist (uniform)	SP	
19			2.5				
20			25				photo taken
21			1.4				
22	S6	4.0/—	1.5	No waste encountered — Strong naphtha Gas odor	20-23.5 - Fine light gray sand, poorly graded, moist.	SP	
23			1.5		23.5-24 - medium to fine poorly graded sand light gray		
24			1.2				photo taken

S5 @

S6 @

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: SD200
Project Location: Saranac Lake NY		Page No. 4
Project No.: 3612132271	Client: NYSDEC	of: 4
Boring Location: SD200	Refusal Depth: Not Encountered	Total Depth: 30 BGS
Weather: Clear Temp 60°F	Soil Drilled: 30	Method: Direct Push
Subcontractor: Geologic NY		Protection Level: D
Driller: Steve Laramee	Date Started: 9-18-14	Date Completed: 9-18-14
Rig Type/Model: Cathead w/ 140lb hammer	Logged By: TLC	Checked By: JKR 9/25/14
Reference Elevation: ground surface	Water Level: N/A	Time: —

Sample Information				Monitoring			Sample Description and Classification	USCS Group Symbol	Remarks
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm)	NA		Waste encountered			
25			0.3				24-26' - dark to light gray sand moist poorly graded trace gravel No observable odor	SP	Sample collected from 25' for VOCs/SVOCs 516008-SD200 25 @ 1600
26	S7	6.0	0.4			NOI	27-28 redish brown fine sand poorly graded moist No observable odor		
27		3.2	0.5				28-29 gray silty sand poorly graded moist, No odor	SP	
28							Background PID = 0.3ppm		
29			0.3				29-30 redish brown fine sand moist no odor		photo taken
30									
							Bottom of boring = 30' BGS No refusal.		

S7 @ 1600

NOTES: NOI = No Observed Impacts.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: SD201
Project Location: Saranac Lake NY		Page No. 1
Project No.: 3612132271	Client: NYSDEC	of: 4
Boring Location: SD201	Refusal Depth: Not Encountered / Total Depth: 30 BGS	Bore Hole ID/OD: 2.5"
Weather: 50° cloudy, sometimes	Soil Drilled: 30 / Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY	Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Laramee	Date Started: 9-18-14 / Date Completed: 9/18/14	Sampler ID/OD: 2"/2.5"
Rig Type/Model: CME Model 45B	Logged By: TLC / Checked By: JKR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A / Time: -	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm)	NA / Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
1			33	potential solid tar	0-1 Dark brown silty sand w/ moderate organic content (leaves), wet, very strong odor (fuel oil DNAPL) also black, hard, saturated, waste	OL	
2	S1	4.0 / 2.0	62	saturated waste			
3			65		2-3 Dark brown to black silty sands w/ moderate organics, moist oil sheen saturated soil, very strong fuel oil-like odor	ML	
4			75	Saturated	3-4 Dark to light Brown brown silty sand, trace organics, moist very strong fuel oil odor.		Shake test @ 3' product, heavy sheen oil floating on water
5			1.0				
6	S2	4.0 / 2.0	0.8	NOI	Light Brown to gray fine sand, trace silt, wet, firm, poorly graded (uniform)		
7			0.7		1" clay lens @ 6.5'		Shake test of clay lens @ 6.5' No observable odor No sheen
8			0.8				Photo taken

S1 @ 1000

S2 @ ~~250~~ 1025

NOTES: NOI = No observable impacts.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: SD201
Project Location: Saranac Lake, NY.		Page No. 2
Project No.: 3612132271	Client: NYSDEC	of: 4
Boring Location: SD201	Refusal Depth: Not Encountered	Total Depth: 30
Weather: 50-60°F, cloudy some sun	Soil Drilled: 30	Method: Direct Push
Subcontractor: Geologic NY		Protection Level: D
Driller: Steve Lavarnee	Date Started: 9-18-14	Date Completed: 9-18-14
Rig Type/Model: CME Model 45B	Logged By: TLC	Checked By: JICR 9/25/14
Reference Elevation: ground surface	Water Level: N/A	Time: —
		Bore Hole ID/OD: 2.5"
		Casing Size: discrete
		Sampler: 4' macro core
		Sampler ID/OD: 2" / 2.15"

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm)	Monitoring: Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
9	S3	4.0 / 4.0	0.3	NOI	8-9.7 - brown fine sand w/ trace silt, wet, no odor, compact(dense)	SM	
10			0.2		(9.7 to 10.2) brown medium to fine sand, trace fine gravel, no odor, compact(dense) moist.		
11			0.3		10.2-12 brown medium to fine sand moist + no odor compact(dense)		Shake Test @ 9' = No observable sheen or odor
12			0.3		Background on PID = 0.3 - 0.2 ppm		Photos taken
13	S4	4.0 / 1.4	0.4	NOI	Medium to fine sand dark to light brown, moist, poorly graded. (uniform)	SP	
14			0.4				
15							
16			0.3		PID Background = 0.3 ppm		Photo taken

S3 @ 1212

S4 @ 1230

NOTES: NOI = No Observable Impacts.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: SD201	
Project Location: Saranac Lake NY		Page No. 3 of: 4	
Project No.: 3612132271	Client: NYSDEC		
Boring Location: SD201	Refusal Depth: Not Encountered	Total Depth: 50 BGS	Bore Hole ID/OD: 2.5"
Weather: 50-60°F, cloudy some sun	Soil Drilled: 30	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Laramee	Date Started: 9-18-14	Date Completed: 9-18-14	Sampler ID/OD: 2" / 2.5"
Rig Type/Model: CME Model 45B	Logged By: TLC	Checked By: JKR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time: —	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm)	~~NA~~ Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
			0.8	NOI			
17			0.5		light brown to tan medium to Fine poorly graded sand, moist, no odor compact (dense).	SP	
18	S5	4.0 / 1.8	0.6				
19			0.8				
20							
21		5' 4.0 / 2.9	0.5	NOI	20-21.2 redish brown medium to fine sand w/ trace gravel Moist, no odor	SP	
22	S6		0.6		21.2-21.5 large .5"-1" cobbels		
23			0.5		22-24 light brown med to fine sand Some gravel, moist, no odor	GP	
24							

(Left margin: S5 @ 1240; S6 @ 1250)

NOTES: NOI = No Observable Impacts.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD201
Project Location: Saranac Lake NY			Page No. 4
Project No.: 3612132271	Client: NYSDEC		of: 4
Boring Location: SD201	Refusal Depth: None	Total Depth: 30 BGS	Bore Hole ID/OD: 2.5"
Weather: 50-60°F, cloudy, some sun	Soil Drilled: 30	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Lavarnee	Date Started: 9/18/14	Date Completed: 9/18/14	Sampler ID/OD: 2" / 2.5"
Rig Type/Model: CME Model 45B	Logged By: TLC	Checked By: JLR 9/25/14	
Reference Elevation: ground surface	Water Level: NA	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm)	Monitoring: NA / Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
25	S7	0.4			24-30' light brown Fine to medium sand, trace gravel poorly graded, moist, no odor	SP	no photo
26		6.0					
27		0.5					
28		2.0					
29		0.4		NOI	Stopped @ 30' bgs No refusal.		
30							

S7 @ 26 1300

NOTES: NOI = No Observable Impacts.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: SD-202
Project Location: Saranac Lake NY		Page No. 1
Project No.: 3612132271	Client: NYSDEC	of: 3
Boring Location: SD-202	Refusal Depth: Not encountered	Total Depth: 20 BGS	Bore Hole ID/OD: 2.5"
Weather: Sunny Cool 60° F	Soil Drilled: 20	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Laramee	Date Started: 9-17-14	Date Completed: 9-17-14	Sampler ID/OD: 2" / 2.5"
Rig Type/Model: Cathead / Tripod 140lb hammer	Logged By: TLC	Checked By: JKR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time: —	

Sample Information			Monitoring		Sample Description and Classification	USCS Group Symbol	Remarks
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm)	~~NA~~ waste Encountered	NOI = No Observable impacts		
1							
		4.0	1.2				
2	S1	1.3	5.4	stained soil w/ sheen	0-3.1' - Dark brown Silty Sand (fine), moist, strong odor.	SP	Shake test: .8' strong sheen, strong odor.
3			3.2		3.1-4' - Dark to light Brown sand some silt, little gravel, no odor moist.		photo taken
4			0.6				
S1 @ 1505							
5			0.1				
		4.0			4.0-7.0 - Dark brown poorly graded (uniform) Med Sand w/ trace gravel, wet no odor.	SP	
6	S2	4.0	<0.1				
S2 1515							
7			0.1	NOI	7-8 - Fine to Med light brown Sand Poorly graded, Moist No odor trace gravel.	SP	
8			<0.1				photos taken

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD202
Project Location: Saranac Lake NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: SD202	Refusal Depth: Not encountered	Total Depth: 20 BGS	Bore Hole ID/OD: 2.5"
Weather: Sunny Temp's 50-60s	Soil Drilled: 20	Method: Discrete Direct Push	Casing Size: — discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Largmee	Date Started: 9-17-14	Date Completed: 9-17-14	Sampler ID/OD: 2.0"/2.5"
Rig Type/Model: Cathead w/ 140lb hammer	Logged By: TLC	Checked By: JLR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm) ~~NA~~	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
9			~~0.3~~ 1.5	Petroleum Odor	8-8.5 light to dark brown medium sand trace gravel slight odor of fuel-like oil. Sample collected in Jar(8oz). wet, poorly graded (uniform)	SP	Shake test @ 8-8.5 Faint odor, No observable sheen.
10	S3	4.0/2.0	0.4		9.5-10 - Medium to fine sand dark brown trace gravel moist compact poorly graded, No odor		S3 @ ~~1600~~ 1520
11			0.5	NOI			
12			0.2		10-12 Same as 9.5-10 w/ some gravel No odor. Sample collected at 10' to confirm clean.		Shake Test @ 9.5' no observable odor or sheen Photo taken
13			0.1		12-14 Light Brown medium to ~~fine~~ sand, poorly graded, firm, no odor moist		Shake Test @ 13' = no observable sheen or odor
14	S4		0.1		14-15 light Brown Sand w/ little reddish brown streaks, medium to fine moist, poorly graded, no odor.	SP	S4 @ 1540
15			0.2	NOI			
16			0.1		15-16 light brown poorly graded sand (med to fine), no odor, moist.		

NOTES: NOI = No observable impacts.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD202
Project Location: Saranac Lake NY			Page No. 3
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: SD202	Refusal Depth: N/A	Total Depth: 20 BGS	Bore Hole ID/OD: 2.5"
Weather: Sunny temps 50-60°	Soil Drilled: 20'	Method: Direct Push	Casing Size: N/A
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro core
Driller: Steve Lawrence	Date Started: 9-17-14	Date Completed: 9-17-14	Sampler ID/OD: 2.0"/2.5"
Rig Type/Model: Cat head / 140lb hammer	Logged By: TLC	Checked By: JKR 9/25/14	
Reference Elevation: ~~bgs~~ ground surface	Water Level: N/A	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: DIS (ppm) ~~NA~~	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
17			0.2		16.5' - light gray fine sand poorly graded, Faint Fuel odor, (TC) ~~dry~~ moist		Shake Test Faint Fuel like odor, light sheen
18	SS	4.0/2.0	0.1	NOI	17-20 light gray to brown poorly graded, Fine sand, (TC) ~~dry~~ moist	SP	
19			0.1				
20			0.1				
					Bottom of boring = 20' BGS. No refusal.		

SS @ 1700

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD-203
Project Location: Saranac Lake NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: SD-203	Refusal Depth: Not Encountered	Total Depth: 24' BGS	Bore Hole ID/OD: 2.5"
Weather: Sunny Cool 40-50° F	Soil Drilled: 24'	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Lawrence	Date Started: 9-17-14	Date Completed: 9/17/14	Sampler ID/OD: 2"/2.5"
Rig Type/Model: Cathead / 140lb hammer	Logged By: TLC	Checked By: JKR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm) ~~NA~~	Monitoring: Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
1							
2		4.0 / 1.0		NOI →	0-.2 - organic layer leaves detritus dark black color, wet, soft		
3			0.4		0.2-.4 - dark brown silty sand, wet soft, organic leaf odor		
4			0.8		0.4-1 dark brown fine sand moist No odor		Photo taken
5							
6		4.0 / 1.1			6.9-8 = Light brown medium sand, some gravel, loose, wet, no odor	SP	
7			0.1	NOI →			
8			0.1		Background PID = 0.0ppm		Photo taken

S1 @ 1240

S2 @ 1250

NOTES: NOI = No observable Impacts.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD-203
Project Location: Saranac Lake New York			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: SD-203	Refusal Depth: Not Encountered	Total Depth: 24' BGS	Bore Hole ID/OD: 2.5"
Weather: Sunny Cool 40-50°F	Soil Drilled: 24'	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Lawrence	Date Started: 9-17-14	Date Completed: 9-17-14	Sampler ID/OD: 2" / 2.5"
Rig Type/Model: Cathead w/ 140lb hammer	Logged By: TLC	Checked By: JTLR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time:	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm)	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
9							
10	S3 @ 1230	4.0 / 1.7			10.3 - 12 bgs = light brown fine to medium Sand compact, moist, no odor	SP	
11			0.2	NOI			
			0.3				
12			0.4		Background PID = 0.1 ppm		photo taken
13							
14	S4 @ 1215	4.0 / 2.0			14 - 14.7': light brown redish fine sand, SP, compact, moist, no odor (dense)	SP	
			0.5				
15					14.7 - 15.6 = light gray fine to medium Sand compact, moist no odor (dense)		
			0.5	NOI			
16			0.5		15.6 - 16 = redish brown fine Sand, compact (dense) moist, no odor		photo taken

NOTES: NOI = No Observable Impacts.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: SD203
Project Location: Saranac Lake NY		Page No. 3
Project No.: 3612132271	Client: NYSDEC	of: 3
Boring Location: SD-203	Refusal Depth: Not Encountered	Total Depth: 24' BGS
Weather: Sunny Cool 40-50°F	Soil Drilled: 24'	Method: Direct Push
Subcontractor: Geologic NY		Protection Level: D
Driller: Steve Laramee	Date Started: 9-17-14	Date Completed: 9-17-14
Rig Type/Model: Cathead w/ 140lb hammer	Logged By: TLC	Checked By: 9/25/14
Reference Elevation: ground surface	Water Level: N/A	Time:
		Bore Hole ID/OD: 2.5"
		Casing Size: discrete
		Sampler: 4' Macro Core
		Sampler ID/OD: 2" / 2.5"

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm)	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
			NA		No Observable Impacts = NOI		
17							
18	S5 @ 1310	4.0 / 2.0	0.8	NOI	18-~~20~~ 19' bgs = medium to fine sand, light brown, moist, poorly graded, no odor, compact (dense).	SP	
19			1.0		19-20' bgs = light brown fine sand, poorly graded, moist, no odor, compact (dense).		
20			1.1				Background PID 0.5ppm
21							
22	S6 @ 1320	4.0 / 2.0	0.4ppm	No Observable Impacts	22-24' bgs Light Brown fine sand Poorly graded, Moist, no odor, non plastic	SP	
23			0.5ppm		Background PID 0.3ppm		Shake Test 23' no odor no sheen
24					Bottom of boring = 24' BGS - No Refusal		

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name:	Saranac Lake Gas Company		Boring ID: SD-204
Project Location:	Saranac Lake NY		Page No. 1
Project No.:	3612132271	Client: NYSDEC	of: 2
Boring Location:	SD-204	Refusal Depth: 14'	Total Depth: 14' BGS
Weather:	60°F, Sunny	Soil Drilled: 14'	Method: Direct Push
Subcontractor:	Geologic NY		Protection Level: D
Driller:	Steve Laramie	Date Started: 9-16-14	Date Completed: 9/16/14
Rig Type/Model:	Cathead / 140lb hammer	Logged By: TLC	Checked By: JLR 9/25/14
Reference Elevation:	ground surface	Water Level: N/A	Time: —

Bore Hole ID/OD: 2.5"
Casing Size: direvete
Sampler: 4' Macro Core
Sampler ID/OD: 2" / 2.5"

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm) ~~NA~~	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
1							
2	S1	4.0 / 1.5	0.3	none	2.4-2.8 Dark brown sand, wet, trace gravel, non plastic.	GM	Shake test = 2.4' Faint Fuel odor no sheen
3			1.6		2.8-3.2 Dark brown silty sand, high organic matter, wet.		Shake Test @ 3.0' Strong odor Faint sheen
4			.4		3.2-3.4 dark brown silty sand no organic matter, no odor poorly graded		
			.4		3.5-4 light Brown sand trace gravel.		Photo taken
5			~~0.3~~ (TC)	none	5.5-6.5 Dark brown sand, trace silt wet, no odor, trace gravel.	SM	Shake test 5.5' no sheen, no odor
6	S2	4.0 / 2.5	0.4		6.5-7.0 Brown sand (fine), loose moist, no odor.	SP	no Photo
7			0.2		7-8 light Brown sand, (uniform) poorly graded, moist, no odor.	SP	Shake test @ 8' no sheen, no odor
8			0.2				

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD-204
Project Location: Saranac Lake NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 2
Boring Location: SD-204	Refusal Depth: 14'	Total Depth: 14' BGS	Bore Hole ID/OD: 2.5"
Weather: 60° F, Sunny	Soil Drilled: 14'	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Lawrence	Date Started: 9-16-14	Date Completed: 9-16-14	Sampler ID/OD: 2"/2.5"
Rig Type/Model: cathead / 140lb hammer	Logged By: TLC	Checked By: JTLR 9/25/14	
Reference Elevation: ground surface	Water Level: N/A	Time: -	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm) NA	Monitoring: Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
9							
10	S3	4.0/2.0	0.2 Background	None	10-10.5 light brown fine sand, poorly graded moist, no odor, medium dense	SP	photo taken
11					10.5-11.2 redish brown sand, poorly graded, sand moist, no odor, fine-medium sand		Shake Test @ 11'
12					11.2-12 greyish poorly graded sand (~~medium~~) medium to fine (FC)		no sheen no odor
13	S4	2.0/1.1	0.2 Background is 0.2	None	Medium sand, poorly graded, light to dark grey.	SP	
14							
					Refusal @ 14' BGS		

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name:	Saranac Lake Gas Company	Boring ID:	SD-205 (through #1)
Project Location:	Saranac Lake NY	Page No.	1
Project No.:	3612132271 Client: NYSDEC	of:	2
Boring Location:	SD-205	Refusal Depth:	12.5' Total Depth: 12.5' BGS
Weather:	60°F, Sunny	Soil Drilled:	12.5' Method: Direct Push
Subcontractor:	Geologic NY	Protection Level:	D
Driller:	Steve Laramee	Date Started:	9-16-14 Date Completed: 9-16-14
Rig Type/Model:	Cathead 1401b hammer	Logged By:	TLC Checked By: JLR 9/25/14
Reference Elevation:	ground surface	Water Level:	N/A Time: —
Bore Hole ID/OD:	2.5"		
Casing Size:	~~discrete~~ (C)		
Sampler:	4' Macro Core		
Sampler ID/OD:	2"/2.5"		

No discrete sampling @ this location, see log on 9-18-14 for discrete sample

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID Field Screening ~~NA~~ ppm	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
0							
			1.5	iridescent sheen	0-2' dark brown fine sand some organics oil staining/sheen, slight plasticity wet.	OL	
1	S1	4.0/2.0	2.5	residual			
			1.5				
2			5.5		2-4' dark brown silty organics some gravel, DNAPL Blebs present, non to slightly plastic, moist, strong odor.	SM	shake test from 2' to 4' bgs → yield positive detection of floating & sinking oil product
			8.9				
3			9.5	DNAPL			
			14.3				
4							
							photos taken
5	S2	4.0/3.2	8	DNAPL	5-6' dark brown Sand some organics very soft, wet, strong odor saturated w/ oil	SP	
			10				
6					6-7' light brown sand, moist strong odor sheen, coated, w/ oil trace gravel. Organic silt seam @ 7-7.2		Shake test 6-7' iridescent sheen oil blebs
				Saturated oil			
7			30			SM	
							Shake test 7.5-8 Faint (very) sheen slight odor
			2.5	residual	7-8' light brown clean fine sand poorly ~~sorted~~ graded (uniform particle size) soft dry.	SP	
8			1.0				

S1 @ 1100

S2 1130

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD-205 (Monitor)
Project Location: Saranac Lake NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 2
Boring Location: SD-205	Refusal Depth: 17.5' bgs	Total Depth: 17.5' BGS	Bore Hole ID/OD: 2.5"
Weather: 60°F, Sunny	Soil Drilled: 12.5'	Method: Direct Push	Casing Size: ~~discrete~~ (TC) 4'
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4" Macro Core
Driller: Steve Lavarnie	Date Started: 9-16-14	Date Completed: 9-16-14	Sampler ID/OD: 2"/2.5"
Rig Type/Model: Cathead 1401b hammer	Logged By: TLC	Checked By: JTCR 9/25/14	No discrete samples @ this location, see log on 9-18-14 for discrete sample
Reference Elevation: ground surface	Water Level: N/A	Time:	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA PID	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
9	SS 1150	4.0/3.5	4.0	4.6 oil layers	8.5-9' dark brown Sand trace gravel poorly ~~sorted~~ graded, Strong odor moist	SP	Shake Test 8.5-9' Trace blebs, Sheen
10			2.9	None	10' light brown poorly ~~sorted~~ graded (TC) sand, trace silt, moist Moderate - Faint odor, moist, soft	SP	Photos taken of partial material
11			0.9	None	11'-12' Same as 10' interval		11' Shake test Moderate sheen
12			1.3				12' Shake Test Odor, Faint Sheen
13	SS 1400		1.4	None	12-13.4' light brown poorly ~~sorted~~ graded (TC) Sand (fine) w/ trace gravel (fine)	SP	12.5' shake test, Faint sheen, strong odor
14			0.8		13.4'-16 tan poorly ~~sorted~~ graded (TC) sand, dark brown streaks, moist medium stiff.	SP	Photos taken
15			0.8				
16			0.5	odor			16' Shake Test no sheen, slight odor
17		1.5/1.0	0.1		17-17.5 light brown/redish poorly graded sand, fine silt moist trace gravel @ 17.5 no odor		no odor Shake test no sheen

NOTES:

Refusal @ 17.5' bgs

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name:	Saranac Lake Gas Company		Boring ID: SB205 (Attempt #2)
Project Location:	Saranac Lake NY		Page No. 1
Project No.:	3612132271	Client: NYSDEC	of: 2
Boring Location:	SB205	Refusal Depth: 17.5	Total Depth: 17.5 BGS
Weather:	Clear Temp 50°F	Soil Drilled: 17.5	Method: Direct Push
Subcontractor:	Geologic NY		Protection Level: D
Driller:	Steve Laramee	Date Started: 9/18/14	Date Completed: 9/18/14
Rig Type/Model:	Cathead/Tripod/1401b	Logged By: TLC	Checked By: JKR 9/26/14
Reference Elevation:	ground surface	Water Level: N/A	Time: —
Bore Hole ID/OD:	2.5"		
Casing Size:	discrete		
Sampler:	4' Macro Core		
Sampler ID/OD:	2"/2.5"		

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm) NA	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
1		4.0	36	Saturated w/ oil product	This is the 2nd time drilling @ this location. Drill point was south of original Location by 5'. 0-1.0 fine Dark black silty Sand w/ high organic matter, wet, loose, saturated w/ DNAPL/oil	OL	
2	S1	1.3	15.8				
3			5.8		1-3 Dark brown silty sand (fine) moist, trace gravel, coated sand w/ oil/DNAPL		no photo
4			3.0		3-4 Dark brown silty Sand saturated w/ oil/DNAPL		
5		4.0	0.8	Light coating of oil/ heavy fuel-like oil odor	(uniform) Dark brown poorly graded fine Sand moist, very strong Fuel oil-like odor, light coating of oil	SP	shake test @ 6': very strong odor, light sheen
6	S2	0.7	0.8				
7			1.2				Photo taken
8							

S1 @ 1700

S2 @ 1730

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: SD205
Project Location: Saranac Lake NY			Page No. 2 (Attempt #2)
Project No.: 3612132271	Client: NYSDEC		of: 2
Boring Location: SD205	Refusal Depth: 17.5	Total Depth: 17.5 BGS	Bore Hole ID/OD: 2.5"
Weather: Clear 50°F	Soil Drilled: 17.5	Method: Direct push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' macro core
Driller: Steve Lavarnee	Date Started: 9/18/14	Date Completed: 9/18/14	Sampler ID/OD: 2" / 2.5"
Rig Type/Model: Cathead / Tripod 140lb	Logged By: TLC	Checked By: JTR 9/26/14	
Reference Elevation: ground surface	Water Level: — NA —	Time: —	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm) NA WQ Site Calibrated	Sample Description and Classification	USCS Group Symbol	Remarks
9	S3	4.0 / 0.7	0.6	Light gray fine (uniform) poorly graded sand, moist, moderate Fuel oil-like odor compact. (dense)	SP	
10						
11			0.7			
12						Photo taken
				12 - 17.5 in sleeve		Photos taken
13	S4	5.5 / —	0.5	12-13 light gray medium to fine sand, wet, ~~No observable~~ slight Fuel-like odor	SP	Sample collected for VOCs/SVOC 516008-SD205S @ 18:20
14			0.6			
15			0.5	14-16 Reddish brown medium to fine poorly graded sand, moist, some cobbels (½"), no observable odor	SP	
16				16-17.5 light brown med to Fine sand, moist, No observable odor.		Sample collected for VOC/SVOC 516008-SD205D @ 1830
17			0.5	Bottom of boring = 17.5' BGS - Refusal with 140lb hammer on macrocore sampler.		

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E7A
Project Location: Saranac Lake, NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 6
Boring Location: Southeast E. gas holder	Refusal Depth: 49' bgs	Total Depth: 49' BGS	Bore Hole ID/OD: 2.5 inch
Weather: 55F, cloudy	Soil Drilled: 49 ~~bgs~~	Method: Direct push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Manware
Driller: Steve Lanamaee	Date Started: 9-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5 inch
Rig Type/Model: CME 45 / ATV	Logged By: TLC / DAT	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: unk	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm)	Monitoring: NA / Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
1	S1 @ 0745	4.0 / 2.8	0.6		0-.5 = Dark brown silty sand some organic material dry no odor		Photos taken
2	S1		3.0	Coal ash	.5-1 = Coal ash dark black med to fine sand material, dry trace gravel moderate odor of coal ash	Fill	
3			90	DNAPL 0.1	1.0-1.5 = Dark brown fine sand poorly graded, high PID (90ppm), dry Tar like odor		
3			50		1.5-3.0 = Dark brown Fine sand trace gravel Strong		fuel odor
4				0.1	3-4 = Dark gray silty Fin sand saturated w/ oil		V. Strong fuel odor
5	S2 @ 0810	4.0 / 3.5	15	DNAPL 0.1	4-4.5 = Dark brown ~~silty~~ med-Fine sand trace gravel 15ppm PID, V. Strong Fuel odor dry	SP	Shake test @ 5' = blebs in water, product on surface of H_2O
6	S2		315	Purified Water	4.5-5.5 = Olive to dark gray fine sand, saturated w/ oil DNAPL, V. Strong oil Odor		
7			290		5.5-7.0 = Dark brown fine silty sand w/ trace organic material, V. Strong fuel oil odor, Material is coated w/ oil	SP/ OL	Shake Test @ 6' blebs, Saturated water w/ oil
8			500	Oil/ DNAPL	7.0-8 = Dark gray fine sand, (uniform) poorly graded saturated w/ oil/DNAPL, V. Strong fuel odor.	SP	Photos taken PID Background 2.5ppm

NOTES:

DAT

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E7A
Project Location: Saranac Lake, NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 2
Boring Location: South of E gas holder	Refusal Depth: 49' bgs	Total Depth: 49' bgs	Bore Hole ID/OD: 2.5 inch
Weather: 50°F, Cloudy	Soil Drilled: 49' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macro core
Driller: Steve Laramee	Date Started: 9/19/14	Date Completed: 09-19-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: CME 45 / ATV	Logged By: TLC / BAS	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: wet	Time: —	

Background PID = 1.1 ppm

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm)	Monitoring: NA / Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
9			250	Saturated w/ Oil Product	Sleeve is coated w/ oil on outside 8.5' = 3" wide dark brown oil stained (uniform) 8.0-10 = Light gray poorly graded, fine sand, wet, saturated w/ oil/ DNAPL.	SP	photos taken
10	S3	4.0 / 2.9	75		@ 9' = (2) 1" wide dark brown lenses of oil stained sand, very strong fuel oil odor.		
11			19	V. Strong odor No observable oil	10-12 Light gray fine sand, poorly graded, wet, ~~coated w/ oil~~ @ strong (very) fuel odor no visible oil		Shake test @ 11' no observable sheen V. strong fuel odor
12			16		oil saturated soil stops @ ≈ 10.5'		
13			319	Coated w/ Fuel like Oil/Grease	The entire sleeve is coated w/ inside/outside w/ dark brown oil.		photos taken
14	S4	4.0 / 2.6	350	Saturated w/ oil	12-13 = Light Gray fine sand, (uniform) poorly graded moist, coated w/ oil, V. Strg fuel oil odor.	SP	
15			510		13-14 = Dark gray fine sand poorly graded moist, saturated w/ oil, V. Strg odor.		
			850	(Coated w/ Oil)	14-15 = Same as 13-14 only higher amount of oil, oil is pooling in soil.		
16					15-16 = Light gray fine silty Sands coated w/ oil		

S3 @ 0910

S4 @ 0920

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E7A
Project Location: Saranac Lake, NY			Page No. 3
Project No.: 3612132271	Client: NYSDEC		of: 6
Boring Location: South of F. gas holder	Refusal Depth: ~~Not Encountered~~	Total Depth: ~~28'~~ 49'	Bore Hole ID/OD: 2.5-inch
Weather: 55F, cloudy	Soil Drilled: ~~28'~~ 49'	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Steve Laramee	Date Started: 4-19-14	Date Completed: 04-19-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: CME 45 / ATV	Logged By: TLC / BM	Checked By: JKR 4/26/14	
Reference Elevation:	Water Level: Unk	Time: —	

Sample Information				Monitoring						
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)		PID (ppm)	NA	Waste Encountered		Sample Description and Classification	USCS Group Symbol	Remarks
								Background PID = 1.0 ppm		Photo taken
17				11.5				16-18 Light gray fine sand, poorly graded (uniform) 16-17' wet, 17'-18' moist, Mod. Fuel oil odor.	SP	Shake Test 18' = Strong fuel like odor, no visible Sheen
18	S5	4.0	(1.4)	14				18.5 = 3/4" medium sand lens, light gray.		
19		1.4 2.5		15				18.5-20 = Light gray fine sand, poorly graded, moist, mod. Fuel oil odor.		
20				85			Moderate Fuel/oil like odor			Shake test @ 20' Strong Fuel odor gasoline like no Sheen visible
21				30				20-21 Light gray med-Fine sand, poorly graded, moderate Fuel-like odor, moist	SP	Photos taken
22	S6	4.0		16				21-24 Light gray fine sand, poorly graded moist moderate Fuel-like odor.		Shake test 22' Strong Fuel like odor more like gasoline than Fuel oil
23		1.4		8			Moderate to strong Fuel like odor			
24				11						

S5 @ 0940

S6 @ 0950

MA

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E7A
Project Location: Saranac Lake, NY			Page No. 4
Project No.: 3612132271	Client: NYSDEC		of: 16
Boring Location: South of E. Gas Holder	Refusal Depth: Not encountered	Total Depth: 28 4998s	Bore Hole ID/OD: 2.5-inch
Weather: 55°F, cloudy	Soil Drilled: 28 49'	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Steve Lawrence	Date Started: 9-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: CME45 to 28'	Logged By: TLC/MM	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: unk	Time: —	

Sample Information				Monitoring					
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)		PID (ppm)	NA	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
							Background PID = 1.1 ppm		
25				11			24-26 Light gray Fine sand, poorly graded, wet, Strong Fuel oil-like odor, moist	SP	
26	S7 1000	4.0 / 1.4		35		Strong fuel oil-like odor	26.5 = silt lens ½" wide	SM	
27				12			26.5-28 same as 24-26		
28				30					Photo taken
							Geoprobe Rig Pushing Macrocore from 28' →		
29				2.5			28-30 = Light brown, med. to fine sand, moist, (uniform) poorly graded, trace cobbles, moderate naphthalene-like odor.	SP	
30	S8 1030	4.0 / 1.5		5.0		Moderate Naphthalene like odor	30-31 = Light brown med. to fine sand, poorly graded, trace gravel, Moderate Naphthalene odor		
31				2.5			31-32 Same as 30-31, silt lens @ 32' in fine brown sand moist.		
32									no Photo taken

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: EJA
Project Location: Saranac Lake, NY			Page No. 5
Project No.: 3612132271	Client: NYSDEC		of: 6
Boring Location: South of Fogus holder	Refusal Depth: 49'	Total Depth: 49'	Bore Hole ID/OD: 2.5-inch
Weather: 55F, cloudy	Soil Drilled: 49'	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Steve Laramee	Date Started: 9-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: CME 45 / ATV	Logged By: TLC / BAS	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: Unk	Time: —	

Sample Information				Monitoring					
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)		PID (ppm)	~~NA~~ Waste Encountered		Sample Description and Classification	USCS Group Symbol	Remarks
33				1.3					Photo taken
34	S9	4.0 / 1.7		2.5		Moderate Fuel oil like odor	32-34 = light gray/brown fine to medium sand, poorly graded moist, moderate Fuel oil like smell	SP	
35				3.1			34-36 dark gray Fine to medium poorly graded sand, moist, Moderate Fuel oil like smell. odor is the same from 32-36	SP	
36				5.4					
37				1.4			(wide range grain size) 36-38 = Medium to coarse sand w/ some gravel, well graded, light gray, strong fuel like odor, moist	SP/SW	Photo taken. Shake test @ 38': no sheen. Strong fuel oil like odor
38	S10	4.0 / 1.3		5.7		Strong Fuel oil like odor			
39				3.4			38-40 = medium to coarse sand w/ trace gravel, poorly graded, light gray, strong fuel-like odor.	SP	
40									

S9 @ 1300

S10 @ 1330

NOTES:

MAT

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: E-7A
Project Location: Saranac Lake, NY		Page No. 6
Project No.: 3612132271	Client: NYSDEC	of: 6
Boring Location: E-7	Refusal Depth: ~49' bgs	Total Depth: ~49' bgs
Weather: 55°F, Sunny	Soil Drilled: ~49' bgs	Method: Direct Push
Subcontractor: Geologic NY		Protection Level: D
Driller: Steve Laramee	Date Started: 09-19-14	Date Completed: 09-19-14
Rig Type/Model: 6620DT	Logged By: TL / BH	Checked By: JKR 9/26/14
Reference Elevation:	Water Level: Unk.	Time: —
		Bore Hole ID/OD: 2.5-inch
		Casing Size: NA
		Sampler: Macrocore
		Sampler ID/OD: 2.5-inch

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA PID Field Scan	Sample Description and Classification	USCS Group Symbol	Remarks
40			waste encountered			
41	S11	4.0 / 1.7	8.5 / 8.0 / 10.0 / 15.3 / 14.0 / 13.0 / 9.9 — residual odor	40-44 grey/BL brown, medium M. Sand, some C. coarse Sand, few F. Fine gravel, poorly (uniform) graded, w/ moist, strong odor throughout, NP, M. Dense (Non-plastic)	Sp	
42						
43						
44						
45	S12	4.0 / 1.4	7.5 / 8.1 / 10.1 / 12.2 / 9.2 / 8.5 — moderate odor	44-48 grey/BL brown M to C sand, trace gravel, wet, M Dense, NP to T (dense) Compact, moderate NP, poorly graded; moderate to strong odor from 44-48. Bottom of boring = 49' BGS (refusal @ 49' bgs)	Sp	Collected for Sample @ E-7A @ ~48' bgs SI6008-E7A48 — VOCs; SVOCs
46						
47						
48						
49						

NOTES:

S13 @ 1440	1.0 / 0.3	31.5 / 45.5	48-49 grey/BL brown F Sand, some gravel, V. strong odor, wet Shake test yielded moderate sheen @ 49'.	Sp	@ 1415 SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E-B12
Project Location: Saranac Lake, NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 5
Boring Location: OU-1, southeast side	Refusal Depth: NA	Total Depth: ~38' BGS	Bore Hole ID/OD: 2 7/8-inch
Weather: 40's F, Sunny	Soil Drilled: ~36' bgs	Method: Direct push	Casing Size: 2 7/8-inch
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macro core
Driller: Dave Lyons	Date Started: 09-17-2014	Date Completed: 09-17-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: Geo Probe 6610 DT	Logged By: BAJ	Checked By: JTCR 9/26/14	
Reference Elevation:	Water Level: 10.2' bgs	Time: —	Installed MW-204

10.6' BGS 9/18/14 1730

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA PID Field Scan	Waste encountered? Type	Sample Description and Classification	USCS Group Symbol	Remarks
0			7.4 ppm		0-0.5 Dark Brown silty sand & organics, poorly (uniform) graded, SP, dry to moist, (dense) Compact, no odor.	↑ SP ↓	SP/NP = Slightly plastic/Non plastic
1			20.2				
			13.5				
2	S1	4.0/2.6	8.7		0.5-4 Light Brown to Brown to greyish-brown to reddish brown, Fine sand, few silt, trace Fine gravel, little medium sand, poorly graded, SP/NP, m.dense to compact (dense), dry, no odor.		
			2.2				
3			1.4				
			1.5				
4			2.2				Shake test yielded no observable impacts @ 3.8' bgs
			1.8	(A)			
5			1.8		4-4.4 greyish brown to brown Fine to coarse F. to C. sand, w/ few Fine gravel, dry, (dense) Compact, (wide range grain size) well graded, NP, No odor	SW	
			1.9				
6	S1	4.0/4.0	2.2		4.5-8 Brown to light brown Fine to medium F to M Sand; few gravel (Fine F), Seam of coarse C sand @ 6.4' & 7.2', poorly graded (dense) Compact to M. Dense, moist, No odor present, NP.	SP	
			0.9				
7			1.8				Shake test @ 7' bgs yielded no observable impacts
8			1.4	(A)			

NOI = no observable impacts

BAJ

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: E-12 12	
Project Location: Saranac Lake, NY		Page No. 2 of 5	
Project No.: 3612132271	Client: NYSDEC		
Boring Location: OU-1, south of site	Refusal Depth: NA	Total Depth: ~36' bgs	Bore Hole ID/OD: 2 7/8-inch
Weather: 40°F, sunny	Soil Drilled: ~36' bgs	Method: Direct Push	Casing Size: 2 7/8 inch
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-17-2014	Date Completed: 09-17-2014	Sampler ID/OD: 2.5-inch
Rig Type/Model: 6620 DT	Logged By: RAS	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: 10.2' bgs 10.0' BGS 9/18/14 @ 730	Time: –	Installed MW-204

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID Field Screen	Waste encountered? TYPE?	Sample Description and Classification	USCS Group Symbol	Remarks
8			0.4 ppm	↑ NOI ↓	8-12 Brown Fine to Medium sand, trace gravel, poorly ~~sorted~~ graded, moist, SP, ~~compact~~ (dense), poor recovery, no observable impacts to soils.	SP	
9			0.2				
10	S3	4.0 / 1.3	0.5				
11			0.4				
			0.3				
12			0.2	↑ NOI ↓	12-16. Brown to greyish brown Fine to Medium sand, poorly ~~sorted~~ graded, ~~compact~~ (dense) to medium ~~M.~~ dense, moist to wet, NP, few coarse sand, trace fine gravel, no odor or observed impacts to soils.	SP	
13			0.1				
14	S4	4.0 / 2.1	0.2				
			0.3				
15			0.4				
16			0.2				

S3 @ 1010

S4 @ 1020

RAS

NOTES:
NOI = no observed impacts

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E-12
Project Location: Saranac Lake, NY			Page No. 3
Project No.: 3612132271	Client: NYSDEC		of: 5
Boring Location: Ou 1, south of Site	Refusal Depth: NA	Total Depth: ~30' BGS	Bore Hole ID/OD: 2"/8-inch
Weather: 50°F, sunny	Soil Drilled: 30' ~~bgs~~	Method: Direct Push	Casing Size: 2"/8-inch
Subcontractor: Geologic NY		Protection Level: D	Sampler: macrocore
Driller: Dave Lyons	Date Started: 09-17-2014	Date Completed: 09-17-2014	Sampler ID/OD: 2.5' Inch
Rig Type/Model: 6620DT	Logged By: BAS	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: 10.2' bgs	Time: —	Installed MW-204

10.6' BGS 9/18/14 1730

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID field screening	Waste encountered? Type:	Sample Description and Classification	USCS Group Symbol	Remarks
16			NA				
			2.1 ppm	Not	16-17 Brown M sand, poorly graded, NP, compact, no odor, NP	SP	
17			4.5		17-20 Brown to slightly stained, F to C Sand, loose to compact, saturated/ wet, NP, strong odor,		Shake test @ 17' & 19' SP yielded no sheen or oil, but sig. odor
18	SS	4.0 / 1.8	3.8				
			3.7	Residual odor		SP	
19			3.5				
20			3.7		medium coarse Fine coarse		
			2.3		20-22 Brown M to C Sand, w/ F to C gravel well graded, odor, oil not observed,	SW	
21			2.8		more F to M sand from 21-22,		
		4.0			wet, compact (dense), NP,	SP	
22	SS	1.9	3.5		22-24 Brown F to C sand, few gravel poorly ~~graded~~ graded, wet, NP, compact to dense		
			3.8		loose, odor → ~~stronger~~ @ 23-24' bgs		
23			3.9				Shake test @ 24' yielded no observable sheen, but signif. odor
24			4.9				

NOTES: Not = no observed impacts.

= temporarily containerized soil in 4oz jar for sample collection in Pm

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E-12
Project Location: Saranac Lake, NY			Page No. 4
Project No.: 3612132271	Client: NYSDEC		of: 5
Boring Location: OU-1, South of site	Refusal Depth: NA	Total Depth: ~36' bgs	Bore Hole ID/OD: 2 7/8-inch
Weather: 55°F, Sunny	Soil Drilled: 36' bgs	Method: Direct push	Casing Size: 2 7/8-inch
Subcontractor: Geologic NY		Protection Level: D	Sampler: macrocore
Driller: Dave Lyons	Date Started: 09-17-2014	Date Completed: 09-17-14	Sampler ID/OD: 2.5" inch
Rig Type/Model: Gele 20 DT	Logged By: RMS	Checked By: JTKR 9/26/14	
Reference Elevation:	Water Level: 10.12' bgs	Time: —	Installed MW-204

10.6' BGS 9/18/14 1730

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID NA field scan	Waste encountered TYPE	Sample Description and Classification	USCS Group Symbol	Remarks
24			5.4	Residual	24-28 greyish brown, F to C sand, few ~~fine~~ gravel, poorly (uniform) graded, wet, NP, loose to (dense) compact, strong mothball-like odor, residual contamination throughout & gets stronger as advancing.	SP	Collected soil sample @ E-12 @ 28' bgs @ 1120 [516005-E1228] - VOC/SVOC. Shake test @ ~28' bgs yielded no observable sheen, but had v. strong odor
25			5.9				
S7 @ 1115	S7	4.0 / 1.2	6.4				
26			6.8				
27			7.4				
28			8.2	*			
29			2.4	Residual	28-32 Dark DK Greyish olive / olive brown silty sand & gravel, (wide range grain size) well graded, (Dense) compact to medium dense, wet, NP/SP, moderate odor, some rounded F gravel, possibly in a till-like material, odor seems to be lessening as we advance.	SW	Collected soil sample @ E-12 @ 28' bgs [516005-E1232] @ 1155, VOCs/SVOCs. Shake test yielded faint sheen from ~32' bgs
S8 @ 1125	S8	4.0 / 1.2	2.5				
30			2.0				
31			1.5				
32			2.5	*			

RMS

NOTES:
* = temporarily containerized soil in jar for sample collection in PID.

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name:	Saranac Lake Gas Company			Boring ID:	E-12
Project Location:	Saranac Lake, NY			Page No.	5
Project No.:	3612132271	Client:	NYSDEC	of:	5
Boring Location: OU-1, south of site	Refusal Depth: No	Total Depth:	36' bgs	Bore Hole ID/OD:	2 7/8-inch
Weather: 55°F, partly cloudy	Soil Drilled: 36' bgs	Method:	Direct Push	Casing Size:	2 7/8-inch
Subcontractor: Geologic NY		Protection Level:	D	Sampler:	2.5-inch
Driller: Dave Lyons	Date Started: 09-17-2014	Date Completed:	09-17-14	Sampler ID/OD:	Macrocore
Rig Type/Model: 6620DT Geoprobe	Logged By: BAJ	Checked By:	JKR 9/26/14		
Reference Elevation:	Water Level: ~10.2' bgs	Time:	—	→ installed MW-204	

10.6' BGS 9/18/14 1730

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID Field Screen	NA	Waste Encountered? Type?	Sample Description and Classification	USCS Group Symbol	Remarks
32			2.7 ppm		↑ Residual ↓	32-36 Dark grayish olive silty sand with some gravel (f) (fine), well graded, M.Dense, wet, NP, odor (moderate to faint) throughout,	SW	
33			3.4					
	S9	4.0 / 1.3	3.1					
34			3.8					
			2.7					
35			2.1		Faint ↓			Sheen test @ 36' bgs yielded no indication of sheen / oil
			1.8	(9)				
36						Bottom of boring = 36.0' BGS No refusal.		

S9 @ 1225

BAJ

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E-16
Project Location: Saranac Lake, NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 5
Boring Location: NCLL / Railroad South of Site	Refusal Depth: NA	Total Depth: ~48' bgs	Bore Hole ID/OD: 2 7/8-inch
Weather: 45°F, cloudy	Soil Drilled: ~40' bgs	Method: Direct push	Casing Size: 2 7/8-inch
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macro core
Driller: Dave Lyons	Date Started: 09-18-2014	Date Completed: 09-18-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: Geo 20 DT	Logged By: BTS	Checked By: JTR 9/26/14	
Reference Elevation:	Water Level: ~9.6' bgs	Time: -	Shutdown MW-205D

9.54' bgs 9/19/14 0755

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA PID / field screen	Waste encountered?	Sample Description and Classification	USCS Group Symbol	Remarks
0							
			10.5 ppm		0-1 Brown silty f. sand w/ coarse sand / fine gravel, trace roots, dry, NP, loose, coal present @ ~1' bgs	Sp Fill	Well graded = wide range of grain sizes. Poorly graded = uniform grain size. NP = Non plastic
1			15.2				
S1 @ 1345	S1	4.0 / 2.5	1.0		1-4 Brown to light brown medium to fine sand, some fine sand, few f. gravel/coarse sand, well graded, dry to moist, NP compact to loose, no observable odor present;		
2			0.2	NOI		SW	
			0.3				
3			0.2				
			1.0				
4			0.7				
			1.2		4-5 Same as 1-4	Sp	
			58.2		5-5.5 Brown silty fine sand & gr gravel poorly graded, dry, NP, (dense) compact, slight odor (not indicative of fuels / coal tar → possibly organics)		
5			190	(k)		Sp	(k) conducted shrink test @ ~5' bgs & it yielded
S2 @ 1355	S2	4.0 / 3.1	98.3				
			1.9	NOI	5.5-8 Brown to light brown medium sand, few f-c coarse sand, poorly graded, moist, NP, loose to (dense) compact, no odor present;		
6			2.0				
7			1.0				
			0.3				
8							

NOTES:

NOI = no observable impact odor.

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E-116
Project Location: Saranac Lake, NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 5
Boring Location: NW/Railroad s. of site	Refusal Depth: NA	Total Depth: ~40' bgs	Bore Hole ID/OD: 2 7/8 inches
Weather: 45°F, Sunny	Soil Drilled: ~40' bgs	Method: Direct Push	Casing Size: 2 7/8 inches
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-18-14	Date Completed: 09-18-14	Sampler ID/OD: 2.5 inches
Rig Type/Model: 6610 DT	Logged By: [illegible]	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: ~9.16' bgs	Time: —	Installed MW-205D

9.5' BGS 9/19/14 0755

Sample Information			Monitoring		Sample Description and Classification	USCS Group Symbol	Remarks
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID Field Screen	Waste Encountered			
8			NA		medium to coarse		
			0.1 ppm		8-10 Brown M to C sand, poorly graded, (dense) moist, few Fine sand, loose to compact, NP, no odor		
9			0.3			SP	
10	S3	4.0 / 2.2	0.1	NOI	10-12 Brown to greyish brown, M to C sand w some F gravel, wet, poorly graded, NP, loose to (dense) compact, no odor present.	—	
			0.2				
11			0.5			SP	
12			0.5				
			0.4				
			0.2		12-16 Brown to greyish brown M sand, poorly graded, wet, NP, (dense) compact, trace fines, few F sand & coarse sand, no odor present.		
13			0.1				
14	S4	4.0 / 1.9	0.2	NOI		SP	
			0.1				
15			0.2				
			0.2				
16			0.1				

S3 @ 1405

S4 @ 1410

NOTES:
Not: no observable impacts

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name:	Saranac Lake Gas Company			Boring ID:	E-16
Project Location:	Saranac Lake, NY			Page No.	3
Project No.:	3612132271	Client:	NYSDEC	of:	5
Boring Location: NCC/Railroad S.A Site	Refusal Depth: NA	Total Depth:	40' bgs	Bore Hole ID/OD:	2 7/8 inches
Weather: 45°F, cloudy	Soil Drilled: 40' bgs	Method:	Direct push	Casing Size:	2 7/8 inches
Subcontractor: Geologic NY		Protection Level:	D	Sampler:	Macrocore
Driller: Dave Lyons	Date Started: 09-18-14	Date Completed:	09-18-14	Sampler ID/OD:	2.5 inches
Rig Type/Model: 6620DT	Logged By: BAS	Checked By:	JKR 9/26/14		
Reference Elevation:	Water Level: 9.6' bgs	Time:	—	Installing MW-215D	

9.5' BGS 9/19/14 0755

Depth (feet bgs) 16	Sample Number	Penetration/ Recovery (feet)	PID NA Fixed Screen	Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
			0.2	NOI	16-17 Reddish brown, M sand, few F & C sand, poorly graded, NP, loose to (dense) compact, wet, no odor.	SP	
17			0.3				
			0.8	very faint odor	17-18 Brown to reddish brown M to C sand, poorly graded, NP, compact, wet, very faint odor.	SP	
18	S5	4.0 / 2.1	1.1				
			0.2	NOI	18-20 Brown F to M sand, poorly graded wet, NP, compact, no observable odor,	SP	
19			0.2				
			0.3				
20							
			0.2	NOI	20-22 Brown to reddish brown F to M sand, poorly graded, moist, NP, (dense) compact, no odor.	SP	
21			0.1				
	S6	4.0 / 2.4	0.2		22-23 Greyish brown to brownish grey, F to M sand, poorly graded, NP, wet, faint odor.		
22			1.8				
			1.9	faint odor	23-24 Dark grey M to C sand, poorly graded, wet, NP, (dense) compact to loose, moderate to faint odor,	SP	
23			2.2				
			1.8			SP	
24			1.9	Mod. odor			

S5 @ 1515

S6 @ 1525

NOTES:

NOI = no observable impacts

BAS

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: E-16
Project Location: Saranac Lake, NY		Page No. 4 of: 5
Project No.: 3612132271	Client: NYSDEC	
Boring Location: NCCC / Railroad S. of site	Refusal Depth: NA	Total Depth: 40' bgs	Bore Hole ID/OD: 2 7/8-inches
Weather: 50°F, cloudy	Soil Drilled: 40' bgs	Method: Direct Push	Casing Size: 2 7/8-inch
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-18-14	Date Completed: 09-18-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: 6620DT	Logged By: [illegible]	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: ~9.6' bgs	Time: —	Installed MW-205D

9.5' BGS 9/19/14 0755

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA PID Field Scan	Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
24			2.2	↑ Residual faint to Mod. odor	24-28 Dark greyish olive to olive Brown coarse sand & fine gravel, few M. to F. sand (more ~27-28'), poorly graded, NP, (dense) compact, wet, moderate odor.		
25			2.3				
26	S7	4.0 / 1.4	3.7			SP	
			4.6				
27			5.7				(+) collected Soil sample @ 27.5-28 bgs E-16 [516008-E1628] @1545 VOCs, Paints + # sieves
			8.3	(+) ↓			
28			7.8				
			5.5		28-32 Grey to olive-grey M. sand; some F. gravel, poorly graded, more gravel / C. sand @32', wet, NP, (dense) compact to M. dense, moderate mothball-like odor.		
29			5.4	Moderate odor			
30	S8	4.0 / 1.0	6.3			SP	
			6.6				
31			5.4				
32			6.3				

S7 @ 1540

S8 @ 1550

BJJ

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: E-16
Project Location: Saranac Lake, NY			Page No. 5
Project No.: 3612132271	Client: NYSDEC		of: 5
Boring Location: NCC/Railroad Southside	Refusal Depth: NA	Total Depth: 40' bgs	Bore Hole ID/OD: ~~3.5 inches~~ 2.78 inches
Weather: 50F, Cloudy	Soil Drilled: 40' bgs	Method: Direct Push	Casing Size: NA B-casing
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-18-14	Date Completed: 09-18-14	Sampler ID/OD: 2.5 in
Rig Type/Model: Geo 20 DT	Logged By: BAT	Checked By: JTLR 9/26/14	
Reference Elevation:	Water Level: ~9.6' bgs	Time: —	Installed MW-205D

9.5' BGS 9/19/14 0755

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID NA	Sample Description and Classification	USCS Group Symbol	Remarks
32			12.8 ppm	32-36 Light grey/tan brown to grey m to F sand, poorly graded, wet, NP m. dense, moderate to strong odors		
			11.8			
33						
			10.4			
		4.0 /	14.7			
34	SQ	2.0	22.8		SP	Collected soil sample @ E-16 @ ~34' bgs 516008-E1634 -VOC/SVOC/ PMI + @ 1600
			8.9			
35			9.2			
			10.5			
36						
			8.3	36-40 Grey m. sand, few fines/F. sand, trace gravel, poorly graded, wet, (dense) NP, compact to m. dense, moderate to faint odors.		
37			8.0			
		4.0 /	5.8			
38	SD	1.6	5.8		SP	
			5.0			
39						
			5.1			
40						

SQ @ 1600

SD @ 1625

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F9A
Project Location: Saranac Lake			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 26
Boring Location: F9A	Refusal Depth: ~~NA~~ - 56' BGS	Total Depth: ~~28'~~ BGS 56'	Bore Hole ~~ID~~/OD: 2.5"
Weather: Sunny Temp 60°F	Soil Drilled: 28' - 56'	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Laramee	Date Started: 9-19-14	Date Completed: 9/19/14	Sampler ID/OD: 2"/2.5"
Rig Type/Model: CME Model 45B	Logged By: TLC	Checked By: JLR 9/20/14	
Reference Elevation: ground surface	Water Level: N/A	Time: N/A	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID (ppm)	Monitoring: NA / waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
					Started continuous core 16'		
					continuous sampling at 16' BGS		
16			40		16-17 Light brown ~~gray~~ Fine sand poorly graded, wet, strong Fuel ~~tree~~ Oil-like odor, compact (dense)	SP	
S1 @ 11:00 17	S1	4.0 / 2.8	20	← strong fuel-like odor →	17-18 Light brown ~~gray~~ fine sand, poorly graded (uniform) ~~Damp~~ moist, strong Fuel oil like odor, medium grad sand lens @ 18.5 of 3/4" wide		Shake test @ 18' = strong fuel oil-like odor no visible sheen
18			30				
20			20		18-20 = Light brown/tan Fine sand poorly graded, strong fuel-like odor		
21			50				
S2 11:30 22	S2	4.0 / 1.9	25	← strong fuel like odor	Light brown Fine Sand poorly graded, Moist, strong fuel-like odor smells more like gasolie than fuel oil.	SP	
23			30				
24			15				

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F9A
Project Location: Saranac Lake NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 2 6
Boring Location: F9A	Refusal Depth: ~~NA~~ 56 BGS	Total Depth: ~~28~~ BGS 56	Bore Hole ID/OD: 2.5"
Weather: Sunny Temp 60°F	Soil Drilled: 28' – 56'	Method: Direct Push	Casing Size: discrete
Subcontractor: Geologic NY		Protection Level: D	Sampler: 4' Macro Core
Driller: Steve Lawrence	Date Started: 9-19-14	Date Completed: 9/19/14	Sampler ID/OD: 2"/2.5"
Rig Type/Model: CME Model 45B	Logged By: TLC	Checked By: JKR 9/26/14	
Reference Elevation: ground surface	Water Level: N/A	Time: N/A	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID (ppm)	Monitoring: Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
					Background PID = 1.0 ppm		
25			16		24-26 = light Brown Fine sand, trace gravel, poorly graded, wet strong Naphthalene like odor	SP	
26	S3	40/1.5	20	Strong Naphthalene odor →			
27			23		27 = 1" lens of medium sand trace gravel wet, poorly graded, strong naphthalene like odor		
28			28		27-28 = Same as 24-26'		
					Bottom of boring = 28' BGS No refusal.		

S3 @ 11:50

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-9A
Project Location: Saranac Lake, NY			Page No. 3
Project No.: 3612132271	Client: NYSDEC		of: 6
Boring Location: Southeast corner	Refusal Depth: ~56' BGS	Total Depth: ~56' BGS	Bore Hole ID/OD: 2.5-inches
Weather: 55 F, sunny	Soil Drilled: ~56'	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Steve Lorrance	Date Started: 09-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: Geoprobe DT	Logged By: BAT	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: unk	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID NA field scan	Sample Description and Classification	USCS Group Symbol	Remarks
28			waste encountered			
			25.3 ppm	28-32 Brown to grayish brown Fine F. to medium M. sand, few coarse C. sand, poorly graded, wet, NP, coarse, very strong odor.		NP = nonplastic.
29			51.2 (#)	moderate to strong odor		Shake test @ 29' bgs yielded moderate sheen
	S9	4.0 / 2.0	50.5		SP	
30			43.2 (resid.)			
			28.3			
31			22.2			
			18.3			
32				poorly graded		
			8.9	32-32.5 Brown F. sand, PG, NP, odor.		
			20.5	32.5-35 Brown M sand, PG, v. strong odor, wet, NP, (dense) compact to loose, few coarse sand.	SP	
33			47.3			
	S10	4.0 / 2.1	50.7	35-36 Brown F. to M. sand, trace F. gravel, dense compact to M. dense, wet, NP, strong odor.	SP	Shake test @ 35' yielded no observable sheen
34			55.3 (#)			
35			32.7			
			22.0			
36					SP	

S9 @ 1540

S10 @ 1550

NOTES:

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-9A
Project Location: Saranac Lake, NY			Page No. 4
Project No.: 3612132271	Client: NYSDEC		of: 6
Boring Location: South of MW-101	Refusal Depth: ~56' BGS	Total Depth: ~56' BGS	Bore Hole ID/OD: 2.5-inches
Weather: 55°F, Sunny	Soil Drilled: ~56'	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Steve Lawrence	Date Started: 09-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: 6620DT Geoprobe	Logged By: BJ	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: UNK	Time: —	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID[NA] field screen	Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
36			16.8 ppm	Moderate to Strong odor	36-40 Brown medium to coarse sand, few gravel from 38-39, few Fine sand; trace silt, well graded, wet, NP, (dense) Compact to M Dense, strong to V. strong odor.		Well graded = wide range of grain sizes.
37			26.3			SW	
		4.0 / 1.7	22.5	Fleshy			
38	S11		19.8				
			28.3				
39			14.4				
40			13.1				
			6.7	Moderate to faint odor	40-44 Brown to greyish brown M. to C. sand, few F. gravel, trace silt, little F. sand, well graded, wet, Compact to M Dense, moderate to faint odor;		
41			7.9				
			8.2				
42	S12	4.0 / 1.7	10.1			SW	
			7.3				
43			15.0				
44			7.0				

S11 @ 1600

S12 @ 1610

BJ

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-9A
Project Location: Saranac Lake, NY			Page No. 3 of 5 of 7 of 6
Project No.: 3612132271	Client: NYSDEC		
Boring Location: South of MW-10	Refusal Depth: ~56'	Total Depth: ~56'	Bore Hole ID/OD: 2.5-inches
Weather: 50's, sunny	Soil Drilled: ~56'	Method: Direct push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Steve Laramee	Date Started: 09-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: Geoprobe 6620DT	Logged By: BAS / TL	Checked By: JLR 9/26/14	
Reference Elevation:	Water Level: unk	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID NA field scan				Sample Description and Classification	USCS Group Symbol	Remarks
44									
			29.7	00	strong	haste	44-48 Brown to grayish brown to Silver (irridescent) F. to C. sand w/ Some gravel, NP, (dense) compact to M. Dense wet, strong to very strong odor.	SW	Shake test @ 46'bgs yielded very strong oily sheen
45			45.2		to v. strg				
S13 @ 1620	S13	4.0/1.5	50.5	(A2)	odor				
46			51.2						
			17.2						
47			28.9						
			23.2						
48									
							no recovery from 48 - 52' bgs		
S14 @ 1635	S14	4.0/0	NA			unk		unk	
52									

NOTES:

DIA

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name:	Saranac Lake Gas Company			Boring ID:	F-9A
Project Location:				Page No.	6
Project No.:	3612132271	Client:	NYSDEC	of:	6
Boring Location: South of MW-101	Refusal Depth: 56' BGS	Total Depth:	~56' BGS	Bore Hole ID/OD:	2.5 inches
Weather: 45°F, sunny	Soil Drilled: ~56'	Method:	Direct Push	Casing Size:	NA
Subcontractor: Geologic NY		Protection Level:	D	Sampler:	Macrocore
Driller: Steve Lawrence	Date Started: 09-19-14	Date Completed:	09-19-14	Sampler ID/OD:	~2.5 inches
Rig Type/Model: 6620DT Geoprobe	Logged By: BMJ/TC	Checked By:	JKR 9/26/14		
Reference Elevation:	Water Level: unk	Time:	–		

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID NA fixed screen	Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
52			10.2	reading n/a	52-56 grayish brown F to C sand with some gravel, few silt, poorly graded, NP, (dense) compact to m. dense strong to moderate odor throughout, wet.		
53			8.5				
		4.0 / 1.9	7.2				
54	S15		9.2			SP	
			10.7				
55			6.2				
56			5.8				
					Bottom of boring. refusal @ 56' bgs		
57							
58	S16				BMJ		
59							
60							

S15 @ 805

S16 @

NOTES:

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-11A
Project Location: Saranac Lake, NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: ~50' South of MW-10D	Refusal Depth: NA	Total Depth: 24' bgs	Bore Hole ID/OD: 2.5-inches
Weather: 40 F, sunny	Soil Drilled: 24' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: 66 200T Geoprobe	Logged By: BJS	Checked By: JTCR 9/26/14	
Reference Elevation:	Water Level: unk	Time: —	

Sample Information			Monitoring			Sample Description and Classification	USCS Group Symbol	Remarks
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID field scan: NA	Waste Encountered				
0			5.7		↑	0-0.5 Dark brown silty/ organics w/ Fine Sand, roots, sp, dry, NP, no odor	SP	
1			12.4			0.5-3 Light brown to tan slightly plastic ~ non plastic M. Sand, few Fgravel & F. sand, poorly graded, dry. (dense) (uniform) compact, NP (non plastic)	SP	
2	S1	4.0 / 2.7	7.4	NOE				
			0.9		↓			
			0.8			3-3.5 DK reddish brown M. sand, poorly graded, moist, v. faint odor, NP, few to some F. sand.		
3			0.5					② shake test yielded moderate sheen @ 4' bgs
			0.7			3.5-4 Brown to dark brown silty organics, few roots, some F to M sand, well graded		
4			9.5	⑭	Residual	SP/NP, moist, soft, moderate odor	SM/OL	
			2.1		↑	4-4.2 same as 3.5-4 poorly graded	SM OL	
					Residual	4.2-4.5 grey F to M. sand, PG, moist, NP, odor	SP	
5			2.2		↓	4.5-5.5 DK reddish brown M sand, w/ some gravel, moist, NP, compact, moderate odor, PG	SP	
			22.5					
6	S2	4.0 / 3.1	29.5	⑮	Diesel	5.5-6 Black to brown M sand, DNAPL present, PG, few coarse Sand + F. gravel,	SP	Shake test @ 5' yielded strong iridescent sheen, blebs & oil
			13.5		resid.	M dense, moist, V. strong odor,		
7			21.5		Sheen	6-8 dine, brownish olive F. sand, PG, M dense, moist, v. strong odor		
			9.8					
8			8.1	⑯	Resid.		SP	Shake test @ 7' yield V. strong sheen

S1 @ 1030

S2 @ 1010

NOTES:
NOE = no observable impacts
NP = nonplastic

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-11A
Project Location: Saranac Lake, NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: 150' south of MW-109	Refusal Depth: NA	Total Depth: 24' bgs	Bore Hole ID/OD: 2.5-inches
Weather: 40°F, sunny	Soil Drilled: 24' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macro core
Driller: Dave Lyons	Date Started: 09-19-2014	Date Completed: 09-19-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: 6620 DT Geoprobe	Logged By: BAJ	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: UNK	Time: —	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID Field Scan (NA)	Waste Encountered	Sample Description and Classification	USCS Group Symbol	Remarks
8			19.5	DNAPL	8-10 grey to brownish grey Fine-medium sand, trace (coarse) C. sand / F. gravel, PG, NP, (dense) compact	SP	
9			8.7	Hindly	DNAPL seam @ 8.2' bgs, strong odor		
			3.5		10-12 greyish brown M. sand, PG, NP, moist, NP, compact to M Dense, faint odor,		
10	S3	4.0 / 2.7	2.2	←			
			0.7	v faint		SP	
11			0.8				
			1.2				
12			1.3				
			8.7		12-13.5 greyish brown Fine sand, PG, moist, NP, moderate odor, (dense) compact, moist	SP	
13			10.2	Residual / moderate to strong odor	13.5-14.5 greyish brown F to M sand PG, NP, loose to (dense) compact, slight odor	SP	
			19.5		14.5-15.5 same as 12-13.5, but strong mothball-like odor, moist		
14	S4	4.0 / 2.6	23.5		15.5-16 greyish brown silty F. sand, PG, NP/SP, dry, M. Dense, moderate odor	SP	
			29.7	↓			
15			30.2				(*) Shake test @ 15.5' bgs yielded faint sheen
			36.0	(*)	BAJ	SM	
16			16.2				

S3 @ 1115

S4 @ 1135

NOTES:

PG = Poorly graded

NP = Non plastic NP/SP = non to slightly plastic

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-11A
Project Location: Saranac Lake, NY			Page No. 3
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: ~50' South of MW-109	Refusal Depth: NA	Total Depth: 24' bgs	Bore Hole ID/OD: 2.5-inches
Weather: 70's F, Sunny	Soil Drilled: 24' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5 inches
Rig Type/Model: 6620DT Geoprobe	Logged By: DAS	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: Unk	Time:	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID Field Scan (NA)	Sample Description and Classification	USCS Group Symbol	Remarks
16			6.6 ppm	16-18.5 Grey/tan brown Fine to medium F-M sand, trace coarse C. sand / Fine F. gravel, PG, wet, NP, compact, moderate odor	SP	
17			6.1			
18	S5	4.0 / 2.0	6.0	18.5-19.5 grey/tan brown to reddish brown silt + sand, PG, SP/NP, moist, mod odor, M. stiff,		
19			6.3	19.5-2 same as 16-18.5, faint to moderate odor	SM	
20			5.5		SP	
21			5.5	20-22.5 grey/tan brown F to M sand, PG, moist, NP, moderate odor,	SP	
22	S6	4.0 / 2.4	5.4	22.5-23 grey/tan brown F sand with silt, PG, moist, SP, odor		
23			5.7	23-23.5 same as 20-22.5	SM	
24			6.1	23.5-24 reddish grey silt, PG, moist, SP/NP, M stiff, moderate odor	SP	
			1.2		SM	
			6.0	(EOB) Terminated boring due to silt & potential confining layer.		

S5 @ 1200

S6 @ 1215

NOTES:
PG = Poorly graded
SP/NP = Slightly Plastic/Non Plastic

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-12D 12A
Project Location: Saranac Lake, NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 4
Boring Location: OU-1, South of Site	Refusal Depth: NA	Total Depth: ~28' BGS	Bore Hole ID/OD: 2.5-inches
Weather: 60's, Sunny	Soil Drilled: ~28'	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Brane Lyons	Date Started: 09-17-2014	Date Completed: 09-17-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: 6620 DT Geoprobe	Logged By: BMS	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: ~7.5'	Time: -	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA PID Headspace	Monitoring: Visible Evidence Type	Sample Description and Classification	USCS Group Symbol	Remarks
0			22.5 ppm	NOI	0-1 Dk Brown silty sand & organics, poorly graded (uniform), dry, NP, BMS, loose, roots, no odor		Poorly graded - uniform grain size.
1			51.5			SP	
S1 @ 1515	S1	4.0 / 2.6	12.2		1-3 Brown to Dk Brown to Black Fine F. sand, trace Fine F. gravel, few roots, poorly graded, dry, NP, no odor, loose	SP	
2			1.5				
			0.8		3-3.5 Black to greyish-white, F. Sand w/ burned/charred possibly ash, dry		
3			0.4	ASH	loose, NP,	waste	?
4			0.5	TAN	3.5-4 Reddish brown F. sand, poorly graded, dry, NP, (dense) compact, no observable odor	SP	
			0.4	NOI	4-8 tan to yellowish-brown to light brown, F. Sand, more M. (medium) sand from ~6.5-8; silt seams @ 7.1 & 7.4' bgs, (Reddish brown seams); poorly graded, NP/SP, dry, (dense) compact to M. dense, trace roots @ 6', trace F. gravel no apparent odor observed.	SP	
5			0.2				
S2 @ 1535	S2	4.0 / 2.6	0.3				
6			0.7				
7			0.3			SM / SP	
8			0.4			SM / SP	

BMS

NOTES:

NOI = no observable imports
NP = Non plastic
SP = Slightly plastic

SOIL BORING LOG

MACTEC

511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company		Boring ID: F-13 12A	
Project Location: Saranac Lake, NY		Page No. 2	
Project No.: 3612132271	Client: NYSDEC	of: 4	
Boring Location: OU-1, south of W[illegible]	Refusal Depth: NA	Total Depth: ~28' BGS	Bore Hole ID/OD: ~2.5 inches
Weather: 60°F, Sunny	Soil Drilled: ~28'	Method: Direct push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-17-2014	Date Completed: 09-17-14	Sampler ID/OD: ~2.5 inches
Rig Type/Model: 6620 DT Geoprobe	Logged By: PAJ	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: ~7.5'	Time: —	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID Field Scan	Waste encountered? Type	Sample Description and Classification	USCS Group Symbol	Remarks
8–12 (9, 10, 11, 12)	S3	4.0 / 2.4	<0.1 ppm	NOI	8-12 Light brown F. to M. Sand, poorly graded, NP (non plastic), moist, compact to medium dense (dense), no odor observed.	SP	
12–16 (13, 14, 15, 16)	S4	4.0 / 2.8	<0.1 ppm	NOI	12-15 Brown to reddish brown F. to Medium Sand, trace F. gravel (well rounded), wet, compact to M Dense, NP, no odor 15-16 Lt reddish brown, silty sand w/ some f. gravel, well graded, wet, loose, NP, no odor present.	SP SW	Well graded = wide range of grain sizes.

S3 @ 1545

S4 @ 1600

PAJ

NOTES:

NOI = no observed impacts

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-12A
Project Location: Saranac Lake, NY			Page No. 3
Project No.: 3612132271	Client: NYSDEC		of: 4
Boring Location: OU-1, South of S.7	Refusal Depth: NA	Total Depth: ~28' BGS	Bore Hole ID/OD: 2.5-inches
Weather: 60's F, sunny	Soil Drilled: 28' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave, Ryan	Date Started: 09-17-2014	Date Completed: 09-17-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: Geoprobe 6620 DT	Logged By: DTS	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: ~7.5'	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA (PID, Field Screen)	Sample Description and Classification	USCS Group Symbol	Remarks
16						
			20.1 ppm	16 - 18.5 Reddish brown f to c sand, few f gravel, trace silt, poorly graded, wet, NP, Nonplastic Compact (dense), no apparent odor	Sp	
17						
	S5 @ 1620	4.0 / 1.8		18.5 - 20 Light brown f sand, poorly graded, wet, MDense, NP, faint odor @ ~19.5' to 20' bgs		
18						
19			0.2		—	Streake test @ ~19.5' yielded no observable sheen.
			3.5			
20			2.9	faint/creosol	Sp	
			0.8	20 - 24 light brown to grey/tan brown F. sand, poorly graded, NP, (dense) Compact, wet, faint to v. faint odor throughout the interval, few to little m. sand		
21			0.2			
	S6 @ 1730	4.0 / 2.4	0.3		Sp.	
22						
			0.2			
23			0.3			
			0.2			
24						

NOTES:
Not = No observable impacts

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: F-12A
Project Location: Saranac Lake, NY			Page No. 4 of: 4
Project No.: 3612132271	Client: NYSDEC		
Boring Location: OU1, South of the Site	Refusal Depth: NA	Total Depth: ~28' BGS	Bore Hole ID/OD: 2.5 inches
Weather: 60°F, cloudy	Soil Drilled: ~28'	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: macrocore
Driller: Dave Lyons	Date Started: 09-17-2014	Date Completed: 09-17-14	Sampler ID/OD: 2.5-inches
Rig Type/Model: 6620DT Geoprobe	Logged By: BAJ	Checked By: JTKR 9/26/14	
Reference Elevation:	Water Level: ~7.5	Time: —	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA PID Field Screen / waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
24			faint odor	~24 to ~26 Brown Fine to Coarse Sand & F. gravel, few silt, well graded, wet, compact (dense), NP, faint odor,	SW	Well graded = wide range of grain sizes. Poorly graded = uniform grain size.
25	S7 @ 1545	4.0/1.2				
26	S7		moderate odor	~26 to 28 Brown C sand, poorly graded, loose, wet, NP, few silt, Some to little F. to M. sand, moderate mothball-like odor.	SP	shake test @ ~28' bgs yielded faint sheen (irridescent)
27				⊛ ended for day @ ~28' bgs,		
28			⊛			

BAJ

NOTES:
odor may indicate residual contamination -

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: G-12
Project Location: Saranac Lake, NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 1
Boring Location: South of site	Refusal Depth: NA.	Total Depth: ~8' bgs	Bore Hole ID/OD: ~2.5 inches
Weather: 50°F, sunny	Soil Drilled: ~8' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Steve Lamoree	Date Started: 09-19-14	Date Completed: 09-19-14	Sampler ID/OD: 2.5 inches
Rig Type/Model: ATV CME 45	Logged By: BAS	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: Unk	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID Field Screen (NA)	Sample Description and Classification	USCS Group Symbol	Remarks
0				Any hazards encountered?		
1	S1 @ 1300	4.0 / 2.6	0.9 ppm 0.7 0.6 0.5 0.6 0.3 0.4	0-0.5' Dark Brown silty loam, some roots dry, NP - Nonplastic, no apparent odor. 0.5-2 Black asphalt/aggregate, 2-3.5 DK Brown F to M (Fine to Medium) Sand, few gravel, moist, NP - Nonplastic, dense to m. dense slight odor (not believed to be fuel-like or coal tar-like). 3.5-4 Asphalt, aggregate & M. Sand.	Fill	
2	S2 @ 1330	4.0 / 1.2	2.7 2.3 4.8 4.9 5.6 6.3	4-8 Brown silty sand, few gravel, some concrete fragments throughout, dry to moist, M. dense, NP, slight odor @ 7-8' bgs BAS Bottom of logged soils 8' BGS, Bottom of boring = 12' — No Refusal.	Fill	

NOTES: lost water/core from 8' to 12'

NOI = no observable impacts

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: H-15
Project Location: Saranac Lake, NY			Page No. 1
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: Soccer field on NCC	Refusal Depth: NA	Total Depth: ~28' bgs	Bore Hole ID/OD: 2.5 inches
Weather: 50F, cloudy	Soil Drilled: ~28' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 01-18-2014	Date Completed: 01-18-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: DE 20 DT Geoprobe	Logged By: BM	Checked By: JKR 4/26/14	
Reference Elevation:	Water Level: ~7' BGS	Time: —	

Sample Information: Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: NA (PID field screen)	Sample Description and Classification	USCS Group Symbol	Remarks
0			40.1 ppm	0-0.5 Dk brown silty fine sand, organics, some roots, PG, dry, NP, loose; 0.5-4 Brown to lt. brown fine to medium sand, poorly graded, dry, compact, NP; (Nonplastic) no odor present.	SP	PG = poorly graded = uniform grain size
1			↑		—	
S1 @ 945	S1	4.0 / 2.5	NOI			
2			↓		SP	
3			0.2			
4			40.1 ↓			
5			0.1	4-8 Brown to lt brown to tan fine to coarse sand, reworked, organics @ ~5', layers of coarse sand & gravel @ ~5.5' 6.5', 7.5', well graded, NP, (dense) compact to M dense, moist, no apparent odor observed.		Well graded = wide range of grain sizes.
			0.2 ↑			
S2 @ 955	S2	4.0 / 3.1	NOI		SW	
6			0.5			
			0.2 ↓			
7			0.1			
8			0.2			

NOTES:
NOI = no observable impacts

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: H-15
Project Location: Saranac Lake, NY			Page No. 2
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: Soccer field on NCCC	Refusal Depth: NA	Total Depth: 28' bgs	Bore Hole ID/OD: 2.5 - inch
Weather: 50'F, cloudy	Soil Drilled: 28' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-18-2014	Date Completed: 09-18-14	Sampler ID/OD: 2.5 - inch
Rig Type/Model: Geoprobe 7822 DT	Logged By: BH	Checked By: 9/26/14 DMR	
Reference Elevation:	Water Level: ~7' BGS	Time: —	

Sample Information			Monitoring		Sample Description and Classification	USCS Group Symbol	Remarks
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	PID field screen (NA)	Waste Encountered? Type			
8			0.2 ppm		8-12 Brown F to C sand, little F gravel, well graded, moist, loose to compact (dense), NP, no observable odor		
9					Non Plastic		
S3 @ 1010	S3	4.0 / 1.3	0.15	NOI		SW	
10			0.1				
11			0.2				
12							
13			0.7		12-16 Brown F to C Sand, few gravel, well graded, F sand lenses @ 15', 13' bgs, coarser sand (more transmissive) zones between,		
S4 @ 1025	S4	4.0 / 1.8	0.2	NOI		SW	
14			0.2				
15			0.1				
16			0.2				

NOTES:
NOI = no observable impacts

SOIL BORING LOG

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Saranac Lake Gas Company			Boring ID: H-15
Project Location: Saranac Lake, NY			Page No. 3
Project No.: 3612132271	Client: NYSDEC		of: 3
Boring Location: Soccer field @ NCCC	Refusal Depth: NA	Total Depth: 28' bgs	Bore Hole ID/OD: 2.5-inch
Weather: 50°F, cloudy	Soil Drilled: 28' bgs	Method: Direct Push	Casing Size: NA
Subcontractor: Geologic NY		Protection Level: D	Sampler: Macrocore
Driller: Dave Lyons	Date Started: 09-18-2014	Date Completed: 09-18-14	Sampler ID/OD: 2.5-inch
Rig Type/Model: Geoprobe 7822DT	Logged By:	Checked By: JKR 9/26/14	
Reference Elevation:	Water Level: ~7' bgs	Time: ~	

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	Monitoring: PID Field Scan	NA	Waste encountered	Sample Description and Classification	USCS Group Symbol	Remarks
16			0.2 ppm			16-20 Brown medium to coarse M to C sand with some F. gravel, poorly graded, moist to wet, NP, dense compact to loose, no observable odor;		NP=Nonplastic
17			0.3		↑		SP	
18	S5	4.0/1.8	0.4		NOI			
					↓			
19			0.3					
			0.3					
20								
			0.2		↑	~~20-24~~ 20-22 Brown M. to C. sand & gravel few silt, poorly graded, wet, NP, ~~compact~~ (dense) no odor		
21			0.2		NOI			
			0.1		↓	22-24 Brown C. sand & F. gravel, few silt, little F. to M. sand, poorly sorted, wet, NP, (dense) compact to loose, very faint mothball like odor from ~22' to 23' bgs	SP	
22	S6	4.0/1.8						
			0.9		very faint odor			
			1.2					
23			0.8				SP	
			0.2		NOI	poorly graded		
24								

S5 @ 1040

S6 @ 1050

S7 @ 1105

NOTES:								
28		4.0/1.2	<0.1 ppm ↓		NOI	24-26 Brown coarse sand, wet, PG, NP, loose, no odor, few fines & F gravel 26-28 Brown gravel w/ some M to C sand PG, wet, NP, compact, dense	SP	SOIL BORING LOG

Attachment C

Manifests

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NYR000215590	1	1-800-424-9300	0101

GENERATOR

5. Generator's Name and Mailing Address
NYSDEC
625 Broadway, Albany, NY 12233
518-402-9675 Sarah Saucier

Generator's Site Address (if different than mailing address)
Former Saranac Lake Gas Co. Site
SITE NO. 5-16-008
Saranac Lake, NY 12983

Generator's Phone:

6. Transporter 1 Company Name
Cedar Hill Trucking

U.S. EPA ID Number
364 Permit # 4A-314

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
WM of New York at Green Ridge RDF
424 Peters Road
Gansevoort, NY 12831

U.S. EPA ID Number
NY State Facility ID #
5-4146-00018/00009

Facility's Phone: 1-518-636-2141

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-RCRA, Non-DOT Regulated Soil – MGP Impacted Sediment – WM Profile # 119167NY	001	DT	35 est.	T	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 Approval #119167NY
Truck # - 132
Trailer # - 1084C9

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: As Agent for NYSDEC Tyler Lewis | Signature: Tyler Lewis | Month: 6 | Day: 26 | Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Tyler Lewis | Signature | Month: 6 | Day: 26 | Year: 18

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

169-BLC-O 5 11977 (Rev. 9/09)

TRANSPORTER #2

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NYR000215590	1	1-800-424-9300	0001

GENERATOR

5. Generator's Name and Mailing Address
NYSDEC
625 Broadway, Albany, NY 12233
Generator's Phone: 518-402-9675 Sarah Saucier

Generator's Site Address (if different than mailing address)
Former Saranac Lake Gas Co. Site
SITE NO. 5-16-006

6. Transporter 1 Company Name: Cedar Hill Trucking
U.S. EPA ID Number: 364 Permit # 4A-314

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clinton County Regional Landfill
286 Sand Road
Morrisonville, NY 12962
Facility's Phone: 1-518-563-5514
U.S. EPA ID Number: NY State Facility ID #
5-0946-00049/00005

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-RCRA, Non-DOT Regulated Soil – MGP Impacted Sediment Approval # 20352	001	DT	35 est.	T	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-239-7234 Approval # 20352
Truck # - 62
Trailer # - 13-8

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: As Agent for NYSDEC Tyler Lewis
Signature
Month 6 Day 7 Year 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Larry Rosen
Signature
Month 6 Day 7 Year 18

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

169-BLC-O 5 11977 (Rev. 9/09)

TRANSPORTER #2

Attachment D

Hazardous Building Materials Survey

MACTEC

engineering and constructing a better tomorrow

April 16, 2020

Ms. Briana Scharf
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

Subject: Hazardous Materials Survey Report
Saranac Lake Gas Company (Site No. 516008)
MACTEC Engineering and Geology P.C., Project No. 3611191237

Dear Ms. Scharf:

On behalf of the New York State Department of Environmental Conservation (NYSDEC) and in accordance with work assignment D007619-50, MACTEC Engineering and Geology P.C. (MACTEC) has prepared this Hazardous Materials Survey Report for the on-site structure at the Saranac Lake Gas Company (Site), NYSDEC Site number 516008, located in Saranac Lake, New York. This report presents the findings of the visual inspection and sampling performed on September 16, 2019 as part of the Operable Unit (OU) 1 Pre-design Investigation (PDI) (MACTEC, 2019).

The survey was conducted to assess and collect samples of potentially hazardous building materials composed of polychlorinated biphenyls (PCBs), lead, or asbestos located in the utility shed at the Site for demolition under implementation of the OU01 remedial action.

The site structure is a single-story, 3-sided wooden shed with metal siding and roofing with an elevated concrete slab with cinder block sidewalls. The structure had a built-out room in its northwest corner composed of cinderblock, mortar, and remnant drywall. Contents of the structure included a residential boiler, a water tank, two windows, miscellaneous vegetative debris, drywall debris, and refuse.

MACTEC Engineering and Geology, P.C.
511 Congress Street • Portland, Maine 04101 • Phone: 207-775-5401 • Fax: 207-772-4762

SUMMARY OF SITE ACTIVITIES

Prior to sampling a hazardous material assessment survey was conducted on the structure. The purpose of the survey was to locate, identify, and assess suspect friable and non-friable asbestos containing material (ACM), PCBs, and lead containing building materials prior to demolition of the structure. The survey was performed by a by a New York State Licensed Inspector, Mr. Alex Klein. License information is included as Attachment D. The material assessment is provided as Attachment A of this report.

The following sampling activities were completed upon completion of the hazardous material assessment:

- Suspect ACM Sampling.
- Suspect Lead Based Paint (LBP) surfaces sampling.
- Suspect PCB containing building materials sampling.

Suspect ACM Sampling

The sampling protocol was conducted in general accordance with the Asbestos Hazard Emergency Response Act (AHERA) identified in 40 Code of Federal Regulations (CFR) 763.86. Suspect ACM was grouped into homogeneous sampling areas (HSAs) and categorized according to 40 CFR 763, as thermal systems insulation (TSI), surfacing material, or miscellaneous material. The sampling plan included, at a minimum, the collection and analysis of samples as follows:

- Thermal System Insulation: In a distributive manner, a minimum of three samples of each HSA.
- Surfacing Material: In a distributive manner, a minimum of three samples collected from each HSA that was 1,000 square feet or less. A minimum of five samples collected from each HSA that was greater than 1,000 square feet but less than or equal to 5,000 square feet. A minimum of seven samples collected from each HSA that was greater than 5,000 square feet.
- Miscellaneous Material: In a distributive manner as determined by the Inspector, at least one sample and a maximum of three samples were collected of each suspect miscellaneous material.
- Non-Suspect Materials: According to 40 CFR 763-86(4), sampling of the following materials is not required where the accredited inspector has deemed the material to be fiberglass, foam glass, rubber, or another recognized non-ACM.

For the asbestos samples collected during the survey, a unique identification system was employed that utilized the material type followed by a dash, then the sample number frequency. For example, three samples of the same material (i.e., surfacing material) would be designated as follows “01-01”, “01-02”, “01-03”.

Samples were collected by wetting the sample collection area with amended water using a spray bottle then removing a small portion of the suspect material with a sharp knife or other hand tool suitable for the material being sampled. Each sample was placed in a sealable plastic bag and labeled immediately after sample collection. The sealed bags were then placed in a larger sealable plastic bag and then placed in the shipping container for transportation to the laboratory. The sampling instrument decontaminated by spraying the tool with amended water and wiping with a paper towel to minimize the potential release of asbestos fibers or cross-contamination of subsequent samples. Data pertinent to each sample (e.g., date, sample number, sample location, material description, and material category) were recorded on a field data sheet. The material determination of friability was made by the asbestos inspector in the field. The field data sheet and a map detailing the original locations of samples are provided as Attachment B.

Asbestos bulk samples and chain-of-custody submittal sheets were delivered to Lozier Environmental, located in Rochester, New York for asbestos analysis. Lozier participates in and maintains the National Voluntary Laboratory Accreditation Program (NVLAP) for quality control procedures. Each sample was analyzed using Polarized Light Microscopy (PLM) with dispersion staining techniques in accordance with USEPA Method 600/M4/82/020.

Bulk samples collected from Non-Organically Bound Materials (NOB) (i.e. floor tiles, mastics, caulks, glazings, and asphalt/tar-based roofing materials) were analyzed first by NY ELAP Method 198.6 (PLM with Gravimetric Prep). Samples from each HSA were analyzed until the first greater than one percent asbestos reading was recorded, referred to as “first positive stop.” If laboratory results for NOBs were reported as being negative and/or inconclusive for the presence of asbestos fibers, Transmission Electron Microscopy (TEM) analysis was performed on each negative/inconclusive sample to confirm the absence of ACM. The detection limit for this type of analysis is approximately one percent (by volume). Materials containing more than one percent asbestos are considered to be ACM. Laboratory analytical data reports and chain-of-custody forms are provided as Attachment C. Personnel, company, and laboratory certifications are provided as Attachment D.

A total of twenty-one (21) bulk samples, which included 15 friable samples and 6 non-friable samples, were collected from the structure.

Suspect LBP Sampling

Suspect LBP was assessed by HSA determined by observing similar color and paint characteristics over portions of the structure. Three HSAs were identified during suspect LBP sampling which included exterior metal paint, white paint over portions of the wood columns inside the structure, and green paint from the concrete wall of the built out room inside the structure.

One sample of paint was collected from each HSA and delivered to TestAmerica Eurofins for analysis by USEPA Method 3050B (acid digestion of sediments, sludges, and soils). One sample was taken from each HSA noted and given a specific sample number to identify its origin. A map detailing the sample locations is provided in Attachment B. Laboratory analytical data reports and chain-of-custody forms are provided as Attachment C.

Suspect PCB Containing Material Sampling

Suspect PCB containing materials were assessed by HSA determined by observing similar color and material characteristics over portions of the structure. Two HSAs were identified during suspect PCB containing material sampling which included window glazing compounds observed on the northwestern and southwestern windows of the structure.

One sample each building material was collected from each HSA and delivered to TestAmerica Eurofins for analysis by USEPA Method 8082A (Polychlorinated Biphenyls (PCBs) by Gas Chromatography). One sample was taken from each HSA noted and given a specific sample number to identify its origin. A map detailing the sample locations is provided in Attachment B. Laboratory analytical data reports and chain-of-custody forms are provided as Attachment C.

ANALYTICAL RESULTS

Asbestos

ACM is categorized as material with greater than 1% asbestos content by the New York State Department of Labor and the USEPA.

Two tan window glazing compound samples were collected. Sample 06-13 was determined to contain 2.7% Chrysotile by PLM, found on the west wall, southern window of the structure. Sample 06-14 was not analyzed on positive stop protocols. There is approximately 12 linear feet of tan window glazing compound located on the west wall, southern window.

Two white window glazing compound samples were collected. Sample 09-20 was determined to contain 6% Chrysotile by PLM, found on the west wall, northern window of the structure. Sample 09-21 was not analyzed on positive stop protocols. There is approximately 12 linear feet of white window glazing compound located on the west wall, northern window.

The other materials analyzed for asbestos were determined to be non-ACM, which included grey foundation mortar, light grey build-out mortar, drywall debris, water tank jacket fiberglass insulation paper backing, white boiler pipe wrap, white boiler insulation, and white leveling compound.

Lead-Based Paint

The USEPA defines lead-based paint as any paint, surface coating that contains lead equal to or exceeding one milligram per square centimeter (1.0 mg/cm2) or 0.5% by weight.

Paint samples collected from the structure were determined to not be lead-based paint. All paints were determined to have less than 0.5% lead by weight. Paints tested include exterior metal paint (PB-SLGC-02), white paint over portions of the wood columns inside the structure (PB-SLGC-01), and light blue paint from the concrete wall of the built out room inside the structure (PB-SLCG-03).

PCB Building Materials

Removal, handling, and disposal of PCB-containing material is regulated under the USEPA's Toxic Substance Control Act (TSCA) regulations (40 CFR Part 761) program as well as USEPA's hazardous waste regulations (40 CFR Part 261), and are subject to NYSDEC solid waste regulation Title 6 of the New York Codes, Rules, and Regulations (NYCRR) Part 360 when sent to a solid waste landfill. Building materials analyzed for PCBs were determined to not contain PCBs. Samples included tan window glazing compound from the west wall southern window (PCB-SLGC-01), and white window glazing compound from the west wall northern window (PB-SLGC-02).

LIMITATIONS OF THE ASSESSMENT

The conclusions within this Report are professional opinions based solely upon visual site observations and interpretations of analytical data as described in this report. Destructive/intrusive investigative techniques were conducted utilizing manual hand tools, to the extent determined to be safe and necessary by field staff. While destructive sampling methods were used, it is not feasible to look at every portion of the building. Suspect materials encountered during demolition not previously identified should be presumed to contain asbestos until characterized.

The opinions presented herein apply to the site conditions existing at the time of the survey, and interpretation of current regulations pertaining to asbestos. Opinions and recommendations provided herein may not apply to future conditions that may exist at the site. Regulatory requirements in effect at the time of the work should be verified prior to any work that impacts regulated materials. This report represents the findings of this survey only and is not intended to establish scope or contractual terms for regulated materials abatement.

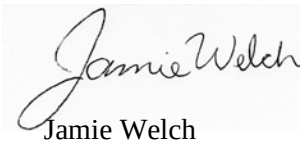
MACTEC recommends that if suspect ACM not previously identified is discovered, all activities which may disturb the material should be stopped, and a New York State accredited asbestos inspector should inspect the suspect material to determine whether or not the material is ACM and if it is friable or non-friable. MACTEC also recommends any ACM identified be removed by a qualified New York State licensed asbestos abatement contractor prior to performing renovation and demolition activities which would disturb them.

Please feel free to contact us at (207) 775-5401 if you have any questions.

Sincerely,

MACTEC Engineering and Geology P.C.

Nathan Vogan, P.G.
Project Geologist



Jamie Welch
Project Manager

Enclosures (4)

Attachment 1: Hazardous Material Assessment Spreadsheet
Attachment 2: Field Notes and Sample Location Map
Attachment 3: Laboratory Analytical Reports & Chains of Custody
Attachment 4: Personnel, Laboratory, and Company Certifications

REFERENCES

MACTEC Engineering and Geology, P.C., 2019. Field Activities Plan Pre-Design Investigation, Saranac Lake Gas Company, Operable Unit 01, NYSDEC Site No. 516008, Remedial Design. September 2019.

ATTACHMENT 1

HAZARDOUS MATERIAL ASSESSMENT SPREADSHEET

MACTEC

Asbestos Building Materials Assessment Summary Table						
Material Location	**Material Name**	**Material Quantity**	**Hazardous Material Content**	**Friabile/Nonfriable (F/NF)**	**Material Condition (Good, Fair, Poor)**	**Additional Comments**
Foundation	Foundation Mortar	-	NA	F	Fair	
Buildout Wall	Buildout Mortar	-	NA	F	Good	
NW of Structure	Drywall Debris	-	NA	F	Poor	
NW of Structure	Water Tank Jacket	-	NA	F	Poor	
NW of Structure	Boiler Pipe Wrap	-	NA	F	Poor	
W Wall S Side	Tan Window Glazing Compound	12 LF	2.7% Chrysotile	NF	Poor	
W Wall N Side	White Window Glazing Compound	12 LF	6% Chrysotile	NF	Poor	
East Floor	White Leveling Compound	-	NA	NF	Poor	
Lead Based Paint Assessment Summary Table						
Material Location	**Material Name**	**Material Quantity**	**Hazardous Material Content**	**Friabile/Nonfriable (F/NF)**	**Material Condition (Good, Fair, Poor)**	**Additional Comments**
Columns	White Paint	-	<0.5% Pb	NA	Poor	
Exterior	Silver-Grey Exterior Paint	-	<0.5% Pb	NA	Fair	
Buildout	Light Blue Paint	-	<0.5% Pb	NA	Good	
PCB Material Assessment Summary Table						
Material Location	**Material Name**	**Material Quantity**	**Hazardous Material Content**	**Friabile/Nonfriable (F/NF)**	**Material Condition (Good, Fair, Poor)**	**Additional Comments**
W Wall S Side	Tan Window Glazing Compound	-	ND PCB	NF	Poor	
W Wall N Side	White Window Glazing Compound	-	ND PCB	NF	Poor	

ATTACHMENT 2

FIELD NOTES AND SAMPLE LOCATION MAP

MEMO

amec

To _____ Page 1 of 2

From _____ Date 9/16/19

Project 36119123.03 Job Number _____

Subject Saranac Shed Haz Mat Sampling

HA#	Suspect Asbestos Assessment List	Quantity	F/NF
1	Foundation Mortar	40x40 SF	F
2	Buildout Mortar	42+56 = 100 SF	F
3	Drywall Debris	42 SF	F
4	Water Tank Gasket	15 SF	F
5	Boiler Pipe Wrap	~1 SF	F
6	Window Glazing Compound	~12 LF	NF
7	Boiler Insulation	~15 SF	F
8	White leveling Compound	~1 SF	NF
9	White WGC	~12 LF	NF

Legend
WGC = Window Glazing Compound
F = Friable
NF = Not friable
SF = Square ft
LF = Linear FT

Lead

Whitewash: ~~1000~~ 500 SF

~~Blue-Grey Window Paint ~45F~~

Silver-Grey Ext Paint ~~1000~~ 500 SF

L- Blue Buildout Paint ~100 SF

PCBs

SW WGC: PCB-01 - 12 LF

NW WGC PCB-02 - 12 LF

MEMO

amec

To _____

From _____

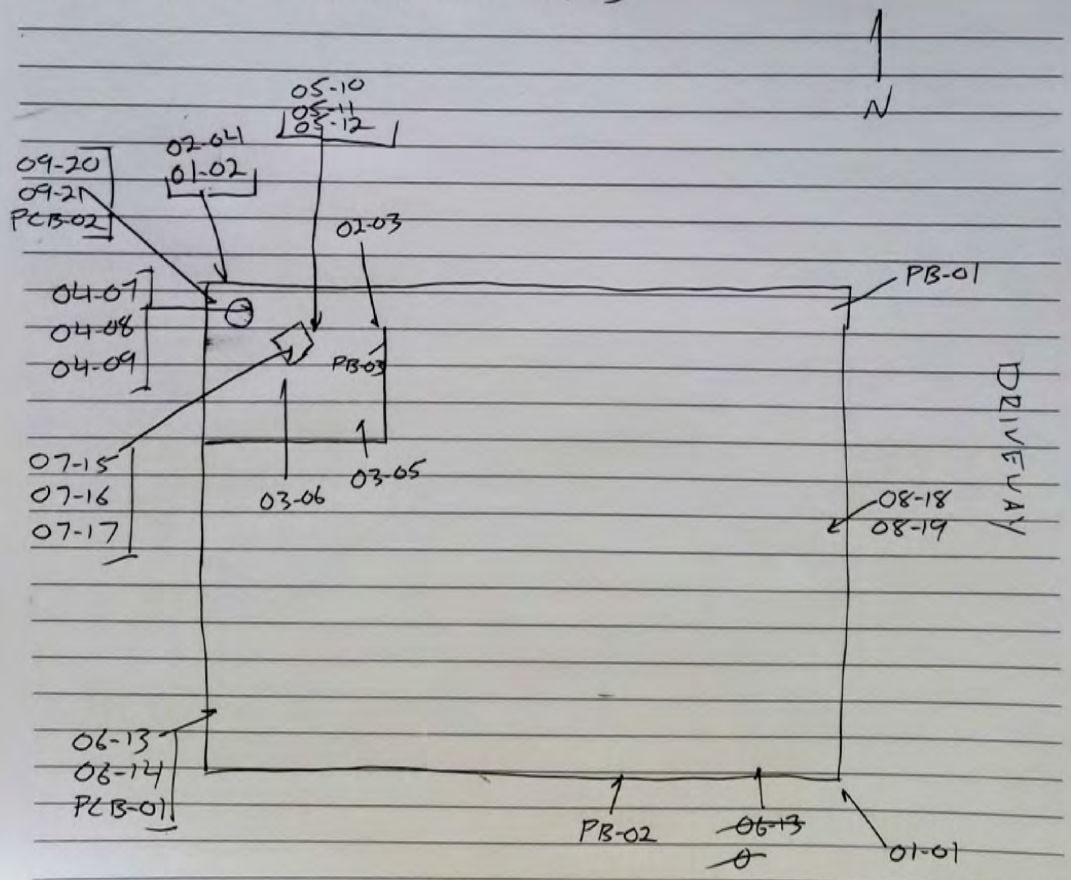
Project 3611191237.03

Subject Saranac Haz Mat ~~Waste~~ Sampling

Page 2 of 2

Date _____

Job Number _____



ATTACHMENT 3

LABORATORY ANALYTICAL REPORTS & CHAINS OF CUSTODY

Lozier Environmental Consulting, Inc

2011 East Main Street, Rochester, New York
Phone (585)-654-9080 Fax (585)654-9662 www.LozierEnv.com
ELAP Accredited No. 11770

PLM ASBESTOS BULK MATERIAL SAMPLES

Client: Wood E&IS	**Sample Date:** 09/16/2019	**Lab No.:**	**Contacted Client** _____
Address: 511 Congress St. Suite 200	**Turn Around:** Standard		**Left Message** _____
Portland, ME 04101	**Location:** SLGC- Wood PN: 3611191237.3		**TEM:** Yes No T/R
Contact: Nate Vogan	ALWAYS POSITIVE STOP PER HOMOGENOUS AREA		TEM Confirm Negative as necessary for NOB
Phone # 207-828-3562	**Fax #**	**No. Samples:** 21	**Sampled By:** Alexander Klein

HA-Sample # Client ID	Lab ID	Room/Area Location	Color/Description	Material Type	Stop Positive	Layer No.	F - NF NOB	+ -	TEM
01-01		SE Exterior Corner	Grey	Foundation Mortar	Yes	1	F		
01-02		NW Exterior Corner	Grey	Foundation Mortar	Yes	1	F		
02-03		Inside @ room opening	Light Gray	Buildout Mortar	Yes	1	F		
02-04		NW Exterior Corner	Light Grey	Buildout Mortar	Yes	1	F		
03-05		SE Corner of buildout room	Drywall Debris	Drywall Debris	Yes	1	F		
03-06		Center of buildout room	Drywall Debris	Drywall Debris	Yes	1	F		
04-07		Water Heater East Side	Water Tank Jacket	Fiberglass insulation paper backing	Yes	1	F		
04-08		↓	↓	↓	Yes	1	F		
04-09		↓	↓	↓	Yes	1	F		
05-10		On boiler in buildout room	White	Boiler Pipe Wrap	Yes	1	F		

TRANSPORTED TO: LOZIER ENVIRONMENTAL CONSULTING, INC.

Relinquished By: _____

RECEIVED BY:

DATE: 9/17/19 TIME: 1000

DATE: TIME:

PLM ASBESTOS BULK MATERIAL SAMPLES

Lozier Environmental Consulting, Inc.
2011 East Main Street, Rochester, New York
Phone (585)-654-9080 Fax (585)654-9662 www.LozierEnv.com
ELAP Accredited No. 11770

Client: Wood E&IS | **Sample Date:** 09/16/2019 | **Lab No.:** | **Contacted Client** _____

Address: 511 Congress St. Suite 200 | **Turn Around:** Standard | **Left Message** _____

Portland, ME 04101 | **Location:** SLGC- Wood PN: 3611191237.3 | **TEM:** Yes No T/R

Contact: Nate Vogan ALWAYS POSITIVE STOP PER HOMOGENOUS AREA

Phone # 207-828-3562 | **Fax #** | **No. Samples:** 21 | **Sampled By:** Alexander Klein

HA-Sample # Client ID	Lab ID	Room/Area Location	Color/Description	Material Type	Stop Positive	Layer No.	F - NF NOB	+ -	TEM
05-11		On boiler in buildout room	White	Boiler Pipe Wrap	Yes	1	F		
05-12		On boiler in buildout room	White	Boiler Pipe Wrap	Yes	1	F		
06-13		W. Wall S. Side Window	~~White~~ Tan (AF)	Window Glazing Compound	Yes	1	NF		
06-14		W. Wall S. Side Window	~~White~~ Tan (NF)	Window Glazing Compound	Yes	1	NF		
07-15		E. Side Water Boiler in buildout room	White	Boiler Insulation	Yes	1	F		
07-16		↓	↓	↓	Yes	1	F		
07-17		↓	↓	↓	Yes	1	F		
08-18		E Floor by ramp	White	Leveling Compound	Yes	1	NF		
08-19		E. Floor by ramp	White	Leveling Compound	yes	1	NF		
09-20		W. Wall N side Window	White	Window Glazing Compound	Yes	1	NF		

TRANSPORTED TO: LOZIER ENVIRONMENTAL CONSULTING, INC. **Relinquished By:** [signature]

RECEIVED BY: **DATE:** 9/17/19 **TIME:** 1000

DATE: **TIME:**

PLM ASBESTOS BULK MATERIAL SAMPLES

Lozier Environmental Consulting, Inc.
2011 East Main Street, Rochester, New York
Phone (585)-654-9080 Fax (585)654-9662 www.LozierEnv.com
ELAP Accredited No. 11770

Client: Wood E&IS **Sample Date:** 09/16/2019 **Lab No.:** **Contacted Client** _____

Address: 511 Congress St. Suite 200 **Turn Around:** Standard **Left Message** _____

Portland, ME 04101 **Location:** SLGC- Wood PN: 3611191237.3 **TEM:** Yes No T/R

Contact: Nate Vogan ALWAYS POSITIVE STOP PER HOMOGENOUS AREA

Phone # 207-828-3562 **Fax #** **No. Samples:** 21 **Sampled By:** Alexander Klein

HA-Sample # Client ID	Lab ID	Room/Area Location	Color/Description	Material Type	Stop Positive	Layer No.	F - NF NOB	+ -	TEM
09-21		W. Wall N Side Window	Wht	Window Glazing Compound	Yes	1	NF		

TRANSPORTED TO: LOZIER ENVIRONMENTAL CONSULTING, INC.

Relinquished By: [signature]

RECEIVED BY:

DATE: 9/17/19 TIME: 1000

DATE: TIME:

Lozier
Environmental Consulting, Inc.

2011 East Main Street, Rochester, New York 14609
Phone: (585) 654-9080 Fax: (585) 654-9662
www.LozierEnv.com
ELAP #11770

Client: Wood E&IS
511 Congress Street, Suite 200
Portland, Maine 04101

Attn: Nate Vogan

Project Site: SLGC - Wood PN: 3611191237.3

Laboratory No.: 60766
Date Received: 9/18/19
Report Date: 9/24/19
Analysis Date: 9/19/19
Page: 1 of 3
TEM results in Following Pages
Chain of Custody in Following Pages

SAMPLE INFORMATION

Sample Date:	9/16/19	**Location:**	Interior	**Analyst:**	M. Ling
Sampler:	Client	**Type of Sample:**	Bulk Asbestos	**Number of Samples:**	21

ASBESTOS BULK LABORATORY REPORT

HA Number	Lab ID	Sampling Location	Description	PLM Asbestos Fibers (%)	PLM Total Asbestos (%)	NOTE	CLASS	PLM Non-Asbestos Fibers (%)	Matrix Material (%)	TEM Results Asbestos (%)
01-01	60766-1	SE Exterior Corner	Grey Foundation Mortar	None Detected 0%	0%		NF	Cellulose 2%	98%	N/A
01-02	60766-2	NW Exterior Corner	Grey Foundation Mortar	None Detected 0%	0%		NF	Cellulose 2%	98%	N/A
02-03	60766-3	Inside at Room Opening	Light Grey Buildout Mortar	None Detected 0%	0%		NF	Cellulose 2%	98%	N/A
02-04	60766-4	NW Exterior Corner	Light Grey Buildout Mortar	None Detected 0%	0%		NF	Cellulose 2%	98%	N/A
03-05	60766-5	SE Corner of Buildout Room	Drywall Debris	None Detected 0%	0%		F	Cellulose 2% Fiberglass 20%	78%	N/A
03-06	60766-6	Center of Buildout Room	Drywall Debris	None Detected 0%	0%		F	Cellulose 2% Fiberglass 20%	78%	N/A
04-07	60766-7	Water Heater East Side	Water Tank Jacket Fiberglass Insulation Paper Backing	None Detected 0%	0%		F	Cellulose 97%	3%	N/A
04-08	60766-8	Water Heater East Side	Water Tank Jacket Fiberglass Insulation Paper Backing	None Detected 0%	0%		F	Cellulose 95%	5%	N/A
04-09	60766-9	Water Heater East Side	Water Tank Jacket Fiberglass Insulation Paper Backing	None Detected 0%	0%		F	Cellulose 95%	5%	N/A
05-10	60766-0	On Boiler in Buildout Room	White Boiler Pipe Warp	None Detected 0%	0%		F	Cellulose 95% Synthetic 2%	3%	N/A

Analysis Method: Polarized Light Microscopy (PLM) - Friable Material: EPA 600/M4-82-020, New York State ELAP Item 198.1 and NOB Material: ELAP Item 198.6.

Analytical results relate only to the sample received and analyzed.

Material Classification: F = Friable, NF = Non-Friable, NOB = Non-Friable Organically Bound.

***NAD*:** No Asbestos detected by TEM analysis

N/A: Not applicable; TEM analysis not required

***Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings & similar non-friable organically bound materials (NOB) and ceiling tiles that contain cellulose fibers. Quantitative Transmission Electron Microscopy (TEM) is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.**

Analyst: S. Johnston - NIKON Optiphot 2 PLM(136048)
Analyst: J. Cravotta - Meiji PLM (MT9920)
Analyst: M. Ling - NIKON Optiphot 2 PLM(139570)

Approved By:_____
J. DeNike Laboratory Director

Lozier
Environmental Consulting, Inc.

2011 East Main Street, Rochester, New York 14609
Phone: (585) 654-9080 Fax: (585) 654-9662
www.LozierEnv.com
ELAP #11770

Client: Wood E&IS
511 Congress Street, Suite 200
Portland, Maine 04101

Attn: Nate Vogan

Project Site: SLGC - Wood PN: 3611191237.3

Laboratory No.: 60766
Date Received: 9/18/19
Report Date: 9/24/19
Analysis Date: 9/19/19
Page: 2 of 3
TEM results in Following Pages
Chain of Custody in Following Pages

SAMPLE INFORMATION

Sample Date:	9/16/19	**Location:**	Interior	**Analyst:**	M. Ling
Sampler:	Client	**Type of Sample:**	Bulk Asbestos	**Number of Samples:**	21

ASBESTOS BULK LABORATORY REPORT

HA Number	Lab ID	Sampling Location	Description	PLM Asbestos Fibers (%)	PLM Total Asbestos (%)	NOTE	CLASS	PLM Non-Asbestos Fibers (%)	Matrix Material (%)	TEM Results Asbestos (%)
05-11	60766-11	On Boiler in Buildout Room	White Boiler Pipe Wrap	None Detected 0%	0%		F	Cellulose 95% Mineral Wool 2%	3%	N/A
05-12	60766-12	On Boiler in Buildout Room	White Boiler Pipe Wrap	None Detected 0%	0%		F	Cellulose 95% Mineral Wool 2%	3%	N/A
06-13	60766-13	W. Wall S. Side Window	Tan Window Glazing Compound	Chrysotile 2.7%	2.7%		NF	None Detected 0%	97.3%	N/A
06-14	60766-14	W. Wall S. Side Window	Tan Window Glazing Compound	Not Analyzed Stop Positive See Sample 06-13	N/A		NF	N/A	N/A	N/A
07-15	60766-15	E. Side Water Boiler in Buildout Room	White Boiler Insulation	None Detected 0%	0%		F	Cellulose 5% Fiberglass 20% Mineral Wool 60%	15%	N/A
07-16	60766-16	E. Side Water Boiler in Buildout Room	White Boiler Insulation	None Detected 0%	0%		F	Cellulose 5% Fiberglass 30% Mineral Wool 50%	15%	N/A
07-17	60766-17	E. Side Water Boiler in Buildout Room	White Boiler insulation	None Detected 0%	0%		F	Cellulose 5% Fiberglass 40% Mineral Wool 40%	15%	N/A
08-18	60766-18	E Floor by Ramp	White Leveling Compound	Inconclusive None Detected 0%	0%	*	NOB	None Detected 0%	100%	NAD
08-19	60766-19	E Floor by Ramp	White Leveling Compound	Inconclusive None Detected 0%	0%	*	NOB	None Detected 0%	100%	NAD
09-20	60766-20	W. Wall N Side Window	White Window Glazing Compound	Chrysotile 6%	6%		NOB	None Detected 0%	94%	N/A

Analysis Method: Polarized Light Microscopy (PLM) - Friable Material: EPA 600/M4-82-020, New York State ELAP Item 198.1 and NOB Material: ELAP Item 198.6.

Analytical results relate only to the sample received and analyzed.

Material Classification: F = Friable, NF = Non-Friable, NOB = Non-Friable Organically Bound.

***NAD*:** No Asbestos detected by TEM analysis

N/A: Not applicable; TEM analysis not required

***Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings & similar non-friable organically bound materials (NOB) and ceiling tiles that contain cellulose fibers. Quantitative Transmission Electron Microscopy (TEM) is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.**

Analyst: S. Johnston - NIKON Optiphot 2 PLM(136048)
Analyst: J. Cravotta - Meiji PLM (MT9920)
Analyst: M. Ling - NIKON Optiphot 2 PLM(139570)

Approved By:_____
J. DeNike Laboratory Director

Lozier
Environmental Consulting, Inc.

2011 East Main Street, Rochester, New York 14609
Phone: (585) 654-9080 Fax: (585) 654-9662
www.LozierEnv.com
ELAP #11770

Client: Wood E&IS
511 Congress Street, Suite 200
Portland, Maine 04101

Attn: Nate Vogan

Project Site: SLGC - Wood PN: 3611191237.3

Laboratory No.: 60766
Date Received: 9/18/19
Report Date: 9/24/19
Analysis Date: 9/19/19
Page: 3 of 3
TEM results in Following Pages
Chain of Custody in Following Pages

SAMPLE INFORMATION

Sample Date:	9/16/19	**Location:**	Interior	**Analyst:**	M. Ling
Sampler:	Client	**Type of Sample:**	Bulk Asbestos	**Number of Samples:**	21

ASBESTOS BULK LABORATORY REPORT

HA Number	Lab ID	Sampling Location	Description	PLM Asbestos Fibers (%)	PLM Total Asbestos (%)	NOTE	CLASS	PLM Non-Asbestos Fibers (%)	Matrix Material (%)	TEM Results Asbestos (%)
09-21	60766-21	W Wall N Side Window	White Window Glazing Compound	Not Analyzed Stop Positive See Sample 09-20	N/A		NF	N/A	N/A	N/A

Analysis Method: Polarized Light Microscopy (PLM) - Friable Material: EPA 600/M4-82-020, New York State ELAP Item 198.1 and NOB Material: ELAP Item 198.6.

Analytical results relate only to the sample received and analyzed.

Material Classification: F = Friable, NF = Non-Friable, NOB = Non-Friable Organically Bound.

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Analyst: S. Johnston - NIKON Optiphot 2 PLM(136048)
Analyst: J. Cravotta - Meiji PLM (MT9920)
Analyst: M. Ling - NIKON Optiphot 2 PLM(139570)

Approved By:_____
J. DeNike Laboratory Director

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-159269-1
Client Project/Site: Saranac Lake Gas Co. #516008

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Sarah Saucier

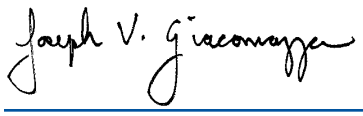
Joseph V. Giacomazza

Authorized for release by:
10/9/2019 2:00:22 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
10/9/2019 2:00:22 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-159269-1
Project/Site: Saranac Lake Gas Co. #516008

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-159269-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-159269-1

Comments
No additional comments.

Receipt
The samples were received on 9/17/2019 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2º C.

Receipt Exceptions
Insufficient sample volume was provided for the following sample : TCLP- SLGC- 01 (480-159269-6). The analyst indicated that the sample container did not contain sample,

The following sample was activated for total lead analysis by the client on 9/19/19: TCLP- SLGC- 01 (480-159269-6). This analysis was not originally requested on the chain-of-custody (COC). The original request was for TCLP Lead, but there was insufficient sample for TCLP.

The moisture determination was cancelled on these samples due to insufficient sample. Only limited volume had been received. Samples are reported on an as-received basis.
PCB - SLGC- 01 (480-159269-1), PCB - SLGC- 02 (480-159269-2), PB - SLGC- 01 (480-159269-3), PB - SLGC- 02 (480-159269-4) and PB - SLGC- 03 (480-159269-5)

GC Semi VOA
Method(s) 8082A: All primary data for analytical batch 493824 is reported from the ZB-35 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8082A: The continuing calibration verification (CCV 480-493824/7) associated with analytical batch 480-493824 recovered above the upper control limit for PCB-1262. The samples associated with this CCV were non-detect for this analyte; therefore, the data have been reported. The following samples are impacted: PCB - SLGC- 01 (480-159269-1) and PCB - SLGC- 02 (480-159269-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 3050B: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: PB - SLGC- 02 (480-159269-4) and PB - SLGC- 03 (480-159269-5). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 6010C: The following samples were diluted due to the presence of Total Aluminum which interferes with Lead: PB - SLGC- 01 (480-159269-3) and PB - SLGC- 02 (480-159269-4). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following sample was diluted due to the presence of Total Aluminum which interferes with Lead: TCLP- SLGC- 01 (480-159269-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 480-159269-1
Project/Site: Saranac Lake Gas Co. #516008

Client Sample ID: PCB - SLGC- 01
Lab Sample ID: 480-159269-1
Date Collected: 09/16/19 11:00
Matrix: Solid
Date Received: 09/17/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.20	0.039	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
PCB-1221	ND		0.20	0.039	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
PCB-1232	ND		0.20	0.039	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
PCB-1242	ND		0.20	0.039	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
PCB-1248	ND		0.20	0.039	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
PCB-1254	ND		0.20	0.093	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
PCB-1260	ND		0.20	0.093	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
PCB-1262	ND		0.20	0.093	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
PCB-1268	ND		0.20	0.093	mg/Kg		09/21/19 11:38	09/24/19 22:57	1
Polychlorinated biphenyls, Total	ND		0.20	0.093	mg/Kg		09/21/19 11:38	09/24/19 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*98*		*60 - 154*	*09/21/19 11:38*	*09/24/19 22:57*	*1*
Tetrachloro-m-xylene	*79*		*60 - 154*	*09/21/19 11:38*	*09/24/19 22:57*	*1*
DCB Decachlorobiphenyl	*78*		*65 - 174*	*09/21/19 11:38*	*09/24/19 22:57*	*1*
DCB Decachlorobiphenyl	*72*		*65 - 174*	*09/21/19 11:38*	*09/24/19 22:57*	*1*

Client Sample ID: PCB - SLGC- 02
Lab Sample ID: 480-159269-2
Date Collected: 09/16/19 11:00
Matrix: Solid
Date Received: 09/17/19 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.047	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
PCB-1221	ND		0.24	0.047	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
PCB-1232	ND		0.24	0.047	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
PCB-1242	ND		0.24	0.047	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
PCB-1248	ND		0.24	0.047	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
PCB-1254	ND		0.24	0.11	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
PCB-1260	ND		0.24	0.11	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
PCB-1262	ND		0.24	0.11	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
PCB-1268	ND		0.24	0.11	mg/Kg		09/21/19 11:38	09/24/19 23:09	1
Polychlorinated biphenyls, Total	ND		0.24	0.11	mg/Kg		09/21/19 11:38	09/24/19 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*60 - 154*	*09/21/19 11:38*	*09/24/19 23:09*	*1*
Tetrachloro-m-xylene	*83*		*60 - 154*	*09/21/19 11:38*	*09/24/19 23:09*	*1*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*09/21/19 11:38*	*09/24/19 23:09*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*09/21/19 11:38*	*09/24/19 23:09*	*1*

Client Sample ID: PB - SLGC- 01
Lab Sample ID: 480-159269-3
Date Collected: 09/16/19 10:45
Matrix: Solid
Date Received: 09/17/19 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11100		5.1	1.2	mg/Kg		09/20/19 10:41	09/30/19 10:08	5

Client: New York State D.E.C.
Job ID: 480-159269-1
Project/Site: Saranac Lake Gas Co. #516008

Client Sample ID: PB - SLGC- 02
Lab Sample ID: 480-159269-4
Date Collected: 09/16/19 10:50
Matrix: Solid
Date Received: 09/17/19 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9270		6.1	1.5	mg/Kg		09/20/19 10:41	09/30/19 10:04	5

Client Sample ID: PB - SLGC- 03
Lab Sample ID: 480-159269-5
Date Collected: 09/16/19 10:55
Matrix: Solid
Date Received: 09/17/19 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	871		4.2	1.0	mg/Kg		09/20/19 10:41	09/24/19 02:53	1

Client Sample ID: TCLP- SLGC- 01
Lab Sample ID: 480-159269-6
Date Collected: 09/16/19 11:30
Matrix: Solid
Date Received: 09/17/19 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5130		4.8	1.1	mg/Kg		09/23/19 05:20	09/30/19 18:39	5

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-159269-1
Project/Site: Saranac Lake Gas Co. #516008

Client Sample ID: PCB - SLGC- 01
Lab Sample ID: 480-159269-1
Date Collected: 09/16/19 11:00
Matrix: Solid
Date Received: 09/17/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			493352	09/21/19 11:38	SGD	TAL BUF
Total/NA	Analysis	8082A		1	493824	09/24/19 22:57	W1T	TAL BUF

Client Sample ID: PCB - SLGC- 02
Lab Sample ID: 480-159269-2
Date Collected: 09/16/19 11:00
Matrix: Solid
Date Received: 09/17/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			493352	09/21/19 11:38	SGD	TAL BUF
Total/NA	Analysis	8082A		1	493824	09/24/19 23:09	W1T	TAL BUF

Client Sample ID: PB - SLGC- 01
Lab Sample ID: 480-159269-3
Date Collected: 09/16/19 10:45
Matrix: Solid
Date Received: 09/17/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			493167	09/20/19 10:41	EMB	TAL BUF
Total/NA	Analysis	6010C		5	494982	09/30/19 10:08	AMH	TAL BUF

Client Sample ID: PB - SLGC- 02
Lab Sample ID: 480-159269-4
Date Collected: 09/16/19 10:50
Matrix: Solid
Date Received: 09/17/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			493167	09/20/19 10:41	EMB	TAL BUF
Total/NA	Analysis	6010C		5	494982	09/30/19 10:04	AMH	TAL BUF

Client Sample ID: PB - SLGC- 03
Lab Sample ID: 480-159269-5
Date Collected: 09/16/19 10:55
Matrix: Solid
Date Received: 09/17/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			493167	09/20/19 10:41	EMB	TAL BUF
Total/NA	Analysis	6010C		1	493650	09/24/19 02:53	LMH	TAL BUF

Client Sample ID: TCLP- SLGC- 01
Lab Sample ID: 480-159269-6
Date Collected: 09/16/19 11:30
Matrix: Solid
Date Received: 09/17/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			493347	09/23/19 05:20	KMP	TAL BUF
Total/NA	Analysis	6010C		5	495103	09/30/19 18:39	LMH	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-159269-1
Project/Site: Saranac Lake Gas Co. #516008

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: New York State D.E.C.
Job ID: 480-159269-1
Project/Site: Saranac Lake Gas Co. #516008

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: New York State D.E.C.
Job ID: 480-159269-1
Project/Site: Saranac Lake Gas Co. #516008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-159269-1	PCB - SLGC- 01	Solid	09/16/19 11:00	09/17/19 08:00	
480-159269-2	PCB - SLGC- 02	Solid	09/16/19 11:00	09/17/19 08:00	
480-159269-3	PB - SLGC- 01	Solid	09/16/19 10:45	09/17/19 08:00	
480-159269-4	PB - SLGC- 02	Solid	09/16/19 10:50	09/17/19 08:00	
480-159269-5	PB - SLGC- 03	Solid	09/16/19 10:55	09/17/19 08:00	
480-159269-6	TCLP- SLGC- 01	Solid	09/16/19 11:30	09/17/19 08:00	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-159269-1

Login Number: 159269

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Manhardt, Kara M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	Wood
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Albany #224

Chain of Custody Record 159269

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Alex Klein	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-135389-30469.1
Client Contact: Nathan Vogan	Phone: 518-384-5938	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: Wood E&I Solutions Inc				Job #:
Address: 511 Congress Street	Due Date Requested:			
City: Portland	TAT Requested (days): Standard			
State, Zip: ME, 04112				
Phone: 518-402-9662(Tel)	PO #: CallOut 137244			
Email: nathan.vogan@woodplc.com	WO #:			
Project Name: Saranac Lake Gas Co. #516008 - Solids	Project #: 48020913			
Site:	SSOW#:			

480-159269 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C - Lead	6010C - TCLP Lead	8082A - PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
PLB-SLGL-01	9/16/19	1160	G	Solid	N	N			X		
PLB-SLGL-02	9/16/19	1100	G	Solid	N	N			X		
PB-SLGL-01	9/16/19	1045	G	Solid	N	N	X				
PB-SLGL-02	9/16/19	1050	G	Solid	N	N	X				
PB-SLGL-03	9/16/19	1055	G	Solid	N	N	X				
TLLP-SLGL-01	9/16/19	1130	G	Solid				X			
				Solid							

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		9/16/19 15:24			9/16/19 1526	ETA
2	Relinquished by:	Date/Time: 9/16/19	Company ETA	Received by:	Date/Time: 9/17/19 0800	Company TAS
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		#1 3.2

Ver: 01/16/2019

ATTACHMENT 4

PERSONNEL, LABORATORY, AND COMPANY CERTIFICATIONS

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

ALEXANDER J KLEIN
CLASS(EXPIRES)
C ATEC(05/20) D INSP(05/20)
H PM (05/20)

CERT# 15-01670
DMV# 992582720

MUST BE CARRIED ON ASBESTOS PROJECTS

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Wood Environment & Infrastructure Solutions, Inc.
Ste 300
1105 Lakewood Parkway

Alpharetta, GA 30001

FILE NUMBER: 12-68869
LICENSE NUMBER: 68869
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 07/23/2019
EXPIRATION DATE: 07/31/2020

Duly Authorized Representative – Kendall H Sherrill:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2019
Issued April 01, 2018

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. JEANNE K. DENIKE
LOZIER ENVIRONMENTAL CONSULTING, INC
2011 EAST MAIN STREET
ROCHESTER, NY 14609

NY Lab Id No: 11770

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual
	EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)

Serial No.: 57969

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2019
Issued April 01, 2018

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. JEANNE K. DENIKE
LOZIER ENVIRONMENTAL CONSULTING, INC
2011 EAST MAIN STREET
ROCHESTER, NY 14609

NY Lab Id No: 11770

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved subcategories and/or analytes are listed below:

Miscellaneous

Fibers	NIOSH 7400 A RULES

Serial No.: 57970

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2020
Issued April 01, 2019
Revised September 16, 2019

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. GARY RUDZ
TESTAMERICA INC. - BUFFALO
10 HAZELWOOD DRIVE
AMHERST, NY 14228

NY Lab Id No: 10026

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:

Dissolved Gases	
Ethane	RSK-175
Ethene (Ethylene)	RSK-175
Methane	RSK-175
Fuel Additives	
Methyl tert-butyl ether	EPA 524.2
Naphthalene	EPA 524.2
Metals I	
Arsenic, Total	EPA 200.8 Rev. 5.4
Barium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Cadmium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Chromium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Copper, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Iron, Total	EPA 200.7 Rev. 4.4
Lead, Total	EPA 200.8 Rev. 5.4
Manganese, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Mercury, Total	EPA 245.1 Rev. 3.0
Selenium, Total	EPA 200.8 Rev. 5.4
Silver, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Zinc, Total	EPA 200.7 Rev. 4.4
Metals I	
Zinc, Total	EPA 200.8 Rev. 5.4
Metals II	
Aluminum, Total	EPA 200.7 Rev. 4.4
Antimony, Total	EPA 200.8 Rev. 5.4
Beryllium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Molybdenum, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Nickel, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Thallium, Total	EPA 200.8 Rev. 5.4
Vanadium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Metals III	
Boron, Total	EPA 200.7 Rev. 4.4
Calcium, Total	EPA 200.7 Rev. 4.4
Magnesium, Total	EPA 200.7 Rev. 4.4
Potassium, Total	EPA 200.7 Rev. 4.4
Sodium, Total	EPA 200.7 Rev. 4.4
Microextractables	
1,2-Dibromo-3-chloropropane, Low Level	EPA 504.1
1,2-Dibromoethane, Low Level	EPA 504.1
Miscellaneous	
Endothall	EPA 548.1

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MR. GARY RUDZ
TESTAMERICA INC. - BUFFALO
10 HAZELWOOD DRIVE
AMHERST, NY 14228

NY Lab Id No: 10026

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:

Miscellaneous	
Methyl iodide	EPA 524.2
Organic Carbon, Dissolved	SM 21-23 5310C (-00)
Organic Carbon, Total	SM 21-23 5310C (-00)
Non-Metals	
Alkalinity	EPA 310.2
	SM 21-23 2320B (-97)
Calcium Hardness	EPA 200.7 Rev. 4.4
	SM 18-22 2340B (-97)
Chloride	EPA 300.0 Rev. 2.1
	SM 21-23 4110B (-00)
	SM 21-22 4500-Cl- E (-97)
Color	SM 21-23 2120B (-01)
Fluoride, Total	EPA 300.0 Rev. 2.1
	SM 21-23 4110B (-00)
	SM 21-23 4500-F C (-97)
Nitrate (as N)	EPA 353.2 Rev. 2.0
Nitrite (as N)	EPA 353.2 Rev. 2.0
Orthophosphate (as P)	SM 19, 21-23 4500-P E (-99)
Solids, Total Dissolved	SM 21-23 2540C (-97)
Specific Conductance	EPA 120.1 Rev. 1982
Sulfate (as SO4)	ASTM D516-07, 11, 16
	EPA 300.0 Rev. 2.1
	SM 21-23 4110B (-00)
Trihalomethanes	
Bromodichloromethane	EPA 524.2

Trihalomethanes	
Bromoform	EPA 524.2
Chloroform	EPA 524.2
Dibromochloromethane	EPA 524.2
Total Trihalomethanes	EPA 524.2
Volatile Aromatics	
1,2,3-Trichlorobenzene	EPA 524.2
1,2,4-Trichlorobenzene	EPA 524.2
1,2,4-Trimethylbenzene	EPA 524.2
1,2-Dichlorobenzene	EPA 524.2
1,3,5-Trimethylbenzene	EPA 524.2
1,3-Dichlorobenzene	EPA 524.2
1,4-Dichlorobenzene	EPA 524.2
2-Chlorotoluene	EPA 524.2
4-Chlorotoluene	EPA 524.2
Benzene	EPA 524.2
Bromobenzene	EPA 524.2
Chlorobenzene	EPA 524.2
Ethyl benzene	EPA 524.2
Hexachlorobutadiene	EPA 524.2
Isopropylbenzene	EPA 524.2
n-Butylbenzene	EPA 524.2
n-Propylbenzene	EPA 524.2
p-Isopropyltoluene (P-Cymene)	EPA 524.2
sec-Butylbenzene	EPA 524.2
Styrene	EPA 524.2

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Volatile Aromatics

tert-Butylbenzene	EPA 524.2
Toluene	EPA 524.2
Total Xylenes	EPA 524.2

Volatile Halocarbons

1,1,1,2-Tetrachloroethane	EPA 524.2
1,1,1-Trichloroethane	EPA 524.2
1,1,2,2-Tetrachloroethane	EPA 524.2
1,1,2-Trichloroethane	EPA 524.2
1,1-Dichloroethane	EPA 524.2
1,1-Dichloroethene	EPA 524.2
1,1-Dichloropropene	EPA 524.2
1,2,3-Trichloropropane	EPA 524.2
1,2-Dichloroethane	EPA 524.2
1,2-Dichloropropane	EPA 524.2
1,3-Dichloropropane	EPA 524.2
2,2-Dichloropropane	EPA 524.2
Bromochloromethane	EPA 524.2
Bromomethane	EPA 524.2
Carbon tetrachloride	EPA 524.2
Chloroethane	EPA 524.2
Chloromethane	EPA 524.2
cis-1,2-Dichloroethene	EPA 524.2
cis-1,3-Dichloropropene	EPA 524.2
Dibromomethane	EPA 524.2
Dichlorodifluoromethane	EPA 524.2

Volatile Halocarbons

Methylene chloride	EPA 524.2
Tetrachloroethene	EPA 524.2
trans-1,2-Dichloroethene	EPA 524.2
trans-1,3-Dichloropropene	EPA 524.2
Trichloroethene	EPA 524.2
Trichlorofluoromethane	EPA 524.2
Vinyl chloride	EPA 524.2

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All approved analytes are listed below:

Acrylates	
Acrolein (Propenal)	EPA 8260C
	EPA 624.1
Acrylonitrile	EPA 8260C
	EPA 624.1
Ethyl methacrylate	EPA 8260C
Methyl acrylonitrile	EPA 8260C
Methyl methacrylate	EPA 8260C
Amines	
1,2-Diphenylhydrazine	EPA 625.1
	EPA 8270D
1,4-Phenylenediamine	EPA 8270D
1-Naphthylamine	EPA 8270D
2-Naphthylamine	EPA 8270D
2-Nitroaniline	EPA 8270D
3-Nitroaniline	EPA 8270D
4-Chloroaniline	EPA 8270D
4-Nitroaniline	EPA 8270D
5-Nitro-o-toluidine	EPA 8270D
Aniline	EPA 625.1
	EPA 8270D
Carbazole	EPA 625.1
	EPA 8270D
Diphenylamine	EPA 8270D
Methapyrilene	EPA 8270D
Pronamide	EPA 8270D

Amines	
Propionitrile	EPA 8260C
Pyridine	EPA 625.1
	EPA 8270D
Benzidines	
3,3'-Dichlorobenzidine	EPA 625.1
	EPA 8270D
3,3'-Dimethylbenzidine	EPA 8270D
Benzidine	EPA 625.1
	EPA 8270D
Chlorinated Hydrocarbon Pesticides	
4,4'-DDD	EPA 8081B
	EPA 608.3
4,4'-DDE	EPA 8081B
	EPA 608.3
4,4'-DDT	EPA 8081B
	EPA 608.3
Aldrin	EPA 8081B
	EPA 608.3
alpha-BHC	EPA 8081B
	EPA 608.3
alpha-Chlordane	EPA 8081B
beta-BHC	EPA 8081B
	EPA 608.3
Chlordane Total	EPA 8081B
	EPA 608.3

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Chlorinated Hydrocarbon Pesticides

Chlorobenzilate	EPA 8270D
delta-BHC	EPA 8081B
	EPA 608.3
Diallate	EPA 8270D
Dieldrin	EPA 8081B
	EPA 608.3
Endosulfan I	EPA 8081B
	EPA 608.3
Endosulfan II	EPA 8081B
	EPA 608.3
Endosulfan sulfate	EPA 8081B
	EPA 608.3
Endrin	EPA 8081B
	EPA 608.3
Endrin aldehyde	EPA 8081B
	EPA 608.3
Endrin Ketone	EPA 8081B
gamma-Chlordane	EPA 8081B
Heptachlor	EPA 8081B
	EPA 608.3
Heptachlor epoxide	EPA 8081B
	EPA 608.3
Isodrin	EPA 8270D
Kepone	EPA 8270D
Lindane	EPA 8081B
	EPA 608.3

Chlorinated Hydrocarbon Pesticides

Methoxychlor	EPA 8081B
	EPA 608.3
Mirex	EPA 8081B
PCNB	EPA 8270D
Toxaphene	EPA 8081B
	EPA 608.3

Chlorinated Hydrocarbons

1,2,3-Trichlorobenzene	EPA 8260C
1,2,4,5-Tetrachlorobenzene	EPA 8270D
1,2,4-Trichlorobenzene	EPA 625.1
	EPA 8270D
2-Chloronaphthalene	EPA 625.1
	EPA 8270D
Hexachlorobenzene	EPA 625.1
	EPA 8270D
Hexachlorobutadiene	EPA 625.1
	EPA 8270D
Hexachlorocyclopentadiene	EPA 625.1
	EPA 8270D
Hexachloroethane	EPA 625.1
	EPA 8270D
Hexachloropropene	EPA 8270D
Pentachlorobenzene	EPA 8270D

Chlorophenoxy Acid Pesticides

2,4,5-T	EPA 8151A

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Chlorophenoxy Acid Pesticides

2,4,5-TP (Silvex)	EPA 8151A
2,4-D	EPA 8151A
Dalapon	EPA 8151A
Dichloroprop	EPA 8151A
Dinoseb	EPA 8151A
	EPA 8270D
Pentachlorophenol	EPA 8151A

Demand

Biochemical Oxygen Demand	SM 5210B-2011
Carbonaceous BOD	SM 5210B-2011
Chemical Oxygen Demand	EPA 410.4, Rev. 2.0 (1993)

Dissolved Gases

Ethane	RSK-175
Ethene (Ethylene)	RSK-175
Methane	RSK-175

Fuel Oxygenates

Di-isopropyl ether	EPA 8260C
Ethanol	EPA 8015D
Methyl tert-butyl ether	EPA 8260C
	EPA 624.1
tert-amyl methyl ether (TAME)	EPA 8260C
tert-butyl alcohol	EPA 8260C
	EPA 8015D
tert-butyl ethyl ether (ETBE)	EPA 8260C

Haloethers

2,2'-Oxybis(1-chloropropane)	EPA 625.1
	EPA 8270D
4-Bromophenylphenyl ether	EPA 625.1
	EPA 8270D
4-Chlorophenylphenyl ether	EPA 625.1
	EPA 8270D
Bis(2-chloroethoxy)methane	EPA 625.1
	EPA 8270D
Bis(2-chloroethyl)ether	EPA 625.1
	EPA 8270D

Low Level Halocarbons

1,2-Dibromo-3-chloropropane, Low Level	EPA 8011
1,2-Dibromoethane, Low Level	EPA 8011

Metals I

Barium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Cadmium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B

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Metals I

Cadmium, Total	EPA 200.8, Rev. 5.4 (1994)
Calcium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
Chromium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Copper, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Iron, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
Lead, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Magnesium, Total	EPA 200.7, Rev. 4.4 (1994)

Metals I

Magnesium, Total	EPA 6010C
	EPA 6010D
Manganese, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Nickel, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Potassium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
Silver, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Sodium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D

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Metals I

Strontium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)

Metals II

Aluminum, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
Antimony, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Arsenic, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Beryllium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D

Metals II

Beryllium, Total	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Chromium VI	EPA 7196A
	SM 3500-Cr B-2011
Mercury, Total	EPA 245.1, Rev. 3.0 (1994)
	EPA 7470A
Selenium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Vanadium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Zinc, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)

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Metals III

Cobalt, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Molybdenum, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Thallium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
	EPA 6020A
	EPA 6020B
	EPA 200.8, Rev. 5.4 (1994)
Tin, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
Titanium, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D

Mineral

Alkalinity	EPA 310.2 (Rev. 1974)
	SM 2320B-2011
Calcium Hardness	EPA 200.7, Rev. 4.4 (1994)
Chloride	EPA 300.0, Rev. 2.1 (1993)
	SM 4110B-2011
	EPA 9056A
Fluoride, Total	EPA 300.0, Rev. 2.1 (1993)
	SM 4110B-2011
	SM 4500-F C-2011
	EPA 9056A
Hardness, Total	SM 2340C-2011
	SM 2340B-2011
Sulfate (as SO4)	ASTM D516-11
	EPA 300.0, Rev. 2.1 (1993)
	SM 4110B-2011
	EPA 9056A

Miscellaneous

Boron, Total	EPA 200.7, Rev. 4.4 (1994)
	EPA 6010C
	EPA 6010D
Bromide	EPA 300.0, Rev. 2.1 (1993)
	SM 4110B-2011
	EPA 9056A
Color	SM 2120B-2011
Cyanide, Total	LACHAT QuikChem 10-204-00-

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Miscellaneous

Cyanide, Total	EPA 335.4, Rev. 1.0 (1993)
	EPA 9012B
non-Polar Extractable Material (TPH)	EPA 1664A
	EPA 1664B
Oil and Grease Total Recoverable (HEM)	EPA 1664B
Organic Carbon, Total	SM 5310C-2011
	EPA 9060A
Phenols	EPA 420.1 (Rev. 1978)
	EPA 420.4, Rev. 1.0 (1993)
	EPA 9065
	EPA 9066
Specific Conductance	EPA 120.1 (Rev. 1982)
	SM 2510B-2011
	EPA 9050A
Sulfide (as S)	SM 4500-S2- F-2011
Surfactant (MBAS)	SM 5540C-2011
Turbidity	EPA 180.1, Rev. 2.0 (1993)

Nitroaromatics and Isophorone

1,3,5-Trinitrobenzene	EPA 8270D
1,3-Dinitrobenzene	EPA 8270D
1,4-Naphthoquinone	EPA 8270D
2,4-Dinitrotoluene	EPA 625.1
	EPA 8270D
2,6-Dinitrotoluene	EPA 625.1
	EPA 8270D

Nitroaromatics and Isophorone

Isophorone	EPA 625.1
	EPA 8270D
Nitrobenzene	EPA 625.1
	EPA 8270D

Nitrosoamines

N-Nitrosodiethylamine	EPA 8270D
N-Nitrosodimethylamine	EPA 625.1
	EPA 8270D
N-Nitrosodi-n-butylamine	EPA 8270D
N-Nitrosodi-n-propylamine	EPA 625.1
	EPA 8270D
N-Nitrosodiphenylamine	EPA 625.1
	EPA 8270D
N-nitrosomethylethylamine	EPA 8270D
N-nitrosomorpholine	EPA 8270D
N-nitrosopiperidine	EPA 8270D
N-Nitrosopyrrolidine	EPA 8270D

Nutrient

Ammonia (as N)	EPA 350.1, Rev. 2.0 (1993)
Kjeldahl Nitrogen, Total	EPA 351.2, Rev. 2.0 (1993)
Nitrate (as N)	EPA 353.2, Rev. 2.0 (1993)
	EPA 300.0, Rev. 2.1 (1993)
	SM 4110B-2011
	SM 4500-NO3 F-2011
	EPA 9056A

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Nutrient	
Nitrate-Nitrite (as N)	EPA 353.2, Rev. 2.0 (1993)
Nitrite (as N)	EPA 353.2, Rev. 2.0 (1993)
	SM 4500-NO3 F-2011
Orthophosphate (as P)	SM 4500-P E-2011
Phosphorus, Total	SM 4500-P E-2011
Organophosphate Pesticides	
Atrazine	EPA 8270D
Dimethoate	EPA 8270D
Disulfoton	EPA 8270D
Famphur	EPA 8270D
Parathion ethyl	EPA 8270D
Parathion methyl	EPA 8270D
Phorate	EPA 8270D
Simazine	EPA 8270D
Thionazin	EPA 8270D
Petroleum Hydrocarbons	
Diesel Range Organics	EPA 8015D
Gasoline Range Organics	EPA 8015D
Phthalate Esters	
Benzyl butyl phthalate	EPA 625.1
	EPA 8270D
Bis(2-ethylhexyl) phthalate	EPA 625.1
	EPA 8270D
Diethyl phthalate	EPA 625.1
Phthalate Esters	
Diethyl phthalate	EPA 8270D
Dimethyl phthalate	EPA 625.1
	EPA 8270D
Di-n-butyl phthalate	EPA 625.1
	EPA 8270D
Di-n-octyl phthalate	EPA 625.1
	EPA 8270D
Polychlorinated Biphenyls	
Aroclor 1016 (PCB-1016)	EPA 8082A
	EPA 608.3
Aroclor 1221 (PCB-1221)	EPA 8082A
	EPA 608.3
Aroclor 1232 (PCB-1232)	EPA 8082A
	EPA 608.3
Aroclor 1242 (PCB-1242)	EPA 8082A
	EPA 608.3
Aroclor 1248 (PCB-1248)	EPA 8082A
	EPA 608.3
Aroclor 1254 (PCB-1254)	EPA 8082A
	EPA 608.3
Aroclor 1260 (PCB-1260)	EPA 8082A
	EPA 608.3
Aroclor 1262 (PCB-1262)	EPA 8082A
Aroclor 1268 (PCB-1268)	EPA 8082A

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WADSWORTH CENTER

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MR. GARY RUDZ
TESTAMERICA INC. - BUFFALO
10 HAZELWOOD DRIVE
AMHERST, NY 14228

NY Lab Id No: 10026

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:

Polynuclear Aromatics	
2-Acetylaminofluorene	EPA 8270D
3-Methylcholanthrene	EPA 8270D
7,12-Dimethylbenzyl (a) anthracene	EPA 8270D
Acenaphthene	EPA 625.1
	EPA 8270D
Acenaphthylene	EPA 625.1
	EPA 8270D
Anthracene	EPA 625.1
	EPA 8270D
Benzo(a)anthracene	EPA 625.1
	EPA 8270D
Benzo(a)pyrene	EPA 625.1
	EPA 8270D
Benzo(b)fluoranthene	EPA 625.1
	EPA 8270D
Benzo(g,h,i)perylene	EPA 625.1
	EPA 8270D
Benzo(k)fluoranthene	EPA 625.1
	EPA 8270D
Chrysene	EPA 625.1
	EPA 8270D
Dibenzo(a,h)anthracene	EPA 625.1
	EPA 8270D
Fluoranthene	EPA 625.1
	EPA 8270D
Fluorene	EPA 625.1

Polynuclear Aromatics	
Fluorene	EPA 8270D
Indeno(1,2,3-cd)pyrene	EPA 625.1
	EPA 8270D
Naphthalene	EPA 625.1
	EPA 8270D
Phenanthrene	EPA 625.1
	EPA 8270D
Pyrene	EPA 625.1
	EPA 8270D
Priority Pollutant Phenols	
2,3,4,6 Tetrachlorophenol	EPA 8270D
2,4,5-Trichlorophenol	EPA 625.1
	EPA 8270D
2,4,6-Trichlorophenol	EPA 625.1
	EPA 8270D
2,4-Dichlorophenol	EPA 625.1
	EPA 8270D
2,4-Dimethylphenol	EPA 625.1
	EPA 8270D
2,4-Dinitrophenol	EPA 625.1
	EPA 8270D
2,6-Dichlorophenol	EPA 8270D
2-Chlorophenol	EPA 625.1
	EPA 8270D
2-Methyl-4,6-dinitrophenol	EPA 625.1

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Priority Pollutant Phenols

2-Methyl-4,6-dinitrophenol	EPA 8270D
2-Methylphenol	EPA 8270D
2-Nitrophenol	EPA 625.1
	EPA 8270D
3-Methylphenol	EPA 625.1
	EPA 8270D
4-Chloro-3-methylphenol	EPA 625.1
	EPA 8270D
4-Methylphenol	EPA 625.1
	EPA 8270D
4-Nitrophenol	EPA 625.1
	EPA 8270D
Cresols, Total	EPA 625.1
	EPA 8270D
Pentachlorophenol	EPA 625.1
	EPA 8270D
Phenol	EPA 625.1
	EPA 8270D

Residue

Settleable Solids	SM 2540 F-2011
Solids, Total	SM 2540 B-2011
Solids, Total Dissolved	SM 2540 C-2011
Solids, Total Suspended	SM 2540 D-2011

Semi-Volatile Organics

1,1'-Biphenyl	EPA 8270D

Semi-Volatile Organics

1,2-Dichlorobenzene, Semi-volatile	EPA 8270D
1,3-Dichlorobenzene, Semi-volatile	EPA 8270D
1,4-Dichlorobenzene, Semi-volatile	EPA 8270D
2-Methylnaphthalene	EPA 8270D
4-Amino biphenyl	EPA 8270D
Acetophenone	EPA 625.1
	EPA 8270D
Benzaldehyde	EPA 8270D
Benzoic Acid	EPA 8270D
Benzyl alcohol	EPA 8270D
Caprolactam	EPA 8270D
Dibenzofuran	EPA 8270D
Ethyl methanesulfonate	EPA 8270D
Isosafrole	EPA 8270D
Methyl methanesulfonate	EPA 8270D
n-Decane	EPA 625.1
n-Octadecane	EPA 625.1
O,O,O-Triethyl phosphorothioate	EPA 8270D
p-Dimethylaminoazobenzene	EPA 8270D
Phenacetin	EPA 8270D
Safrole	EPA 8270D

Volatile Aromatics

1,2,4-Trichlorobenzene, Volatile	EPA 8260C
1,2,4-Trimethylbenzene	EPA 8260C
1,2-Dichlorobenzene	EPA 8260C

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Volatile Aromatics	
1,2-Dichlorobenzene	EPA 624.1
	EPA 524.2
1,3,5-Trimethylbenzene	EPA 8260C
1,3-Dichlorobenzene	EPA 8260C
	EPA 624.1
1,4-Dichlorobenzene	EPA 8260C
	EPA 624.1
2-Chlorotoluene	EPA 8260C
4-Chlorotoluene	EPA 8260C
Benzene	EPA 8260C
	EPA 624.1
	EPA 524.2
Bromobenzene	EPA 8260C
Chlorobenzene	EPA 8260C
	EPA 624.1
	EPA 524.2
Ethyl benzene	EPA 8260C
	EPA 624.1
Isopropylbenzene	EPA 8260C
	EPA 8021B
m/p-Xylenes	EPA 8260C
	EPA 624.1
Naphthalene, Volatile	EPA 8260C
n-Butylbenzene	EPA 8260C
	EPA 8021B
n-Propylbenzene	EPA 8260C

Volatile Aromatics	
n-Propylbenzene	EPA 8021B
o-Xylene	EPA 8260C
	EPA 624.1
p-Isopropyltoluene (P-Cymene)	EPA 8260C
	EPA 8021B
sec-Butylbenzene	EPA 8260C
	EPA 8021B
Styrene	EPA 8260C
	EPA 624.1
tert-Butylbenzene	EPA 8260C
	EPA 8021B
Toluene	EPA 8260C
	EPA 624.1
	EPA 524.2
Total Xylenes	EPA 8260C
	EPA 624.1
Volatile Chlorinated Organics	
Benzyl chloride	EPA 8260C
Epichlorohydrin	EPA 8260C
Volatile Halocarbons	
1,1,1,2-Tetrachloroethane	EPA 8260C
1,1,1-Trichloroethane	EPA 8260C
	EPA 624.1
1,1,2,2-Tetrachloroethane	EPA 8260C
	EPA 624.1

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Volatile Halocarbons

1,1,2-Trichloro-1,2,2-Trifluoroethane	EPA 8260C
1,1,2-Trichloroethane	EPA 8260C
	EPA 624.1
1,1-Dichloroethane	EPA 8260C
	EPA 624.1
1,1-Dichloroethene	EPA 8260C
	EPA 624.1
1,1-Dichloropropene	EPA 8260C
1,2,3-Trichloropropane	EPA 8260C
1,2-Dibromo-3-chloropropane	EPA 8260C
1,2-Dibromoethane	EPA 8260C
1,2-Dichloroethane	EPA 8260C
	EPA 624.1
	EPA 524.2
1,2-Dichloropropane	EPA 8260C
	EPA 624.1
1,3-Dichloropropane	EPA 8260C
2,2-Dichloropropane	EPA 8260C
2-Chloro-1,3-butadiene (Chloroprene)	EPA 8260C
2-Chloroethylvinyl ether	EPA 8260C
	EPA 624.1
3-Chloropropene (Allyl chloride)	EPA 8260C
Bromochloromethane	EPA 8260C
Bromodichloromethane	EPA 8260C
	EPA 624.1
Bromoform	EPA 8260C

Volatile Halocarbons

Bromoform	EPA 624.1
Bromomethane	EPA 8260C
	EPA 624.1
Carbon tetrachloride	EPA 8260C
	EPA 624.1
Chloroethane	EPA 8260C
	EPA 624.1
Chloroform	EPA 8260C
	EPA 624.1
	EPA 524.2
Chloromethane	EPA 8260C
	EPA 624.1
cis-1,2-Dichloroethene	EPA 8260C
	EPA 624.1
cis-1,3-Dichloropropene	EPA 8260C
	EPA 624.1
Dibromochloromethane	EPA 8260C
	EPA 624.1
Dibromomethane	EPA 8260C
Dichlorodifluoromethane	EPA 8260C
	EPA 624.1
Hexachlorobutadiene, Volatile	EPA 8260C
Methyl iodide	EPA 8260C
Methylene chloride	EPA 8260C
	EPA 624.1
	EPA 524.2

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Volatile Halocarbons

Tetrachloroethene	EPA 8260C
	EPA 624.1
trans-1,2-Dichloroethene	EPA 8260C
	EPA 624.1
trans-1,3-Dichloropropene	EPA 8260C
	EPA 624.1
trans-1,4-Dichloro-2-butene	EPA 8260C
Trichloroethene	EPA 8260C
	EPA 624.1
Trichlorofluoromethane	EPA 8260C
	EPA 624.1
Vinyl chloride	EPA 8260C
	EPA 624.1

Volatiles Organics

1,4-Dioxane	EPA 8260C
	EPA 8260C SIM
	EPA 8270D
	EPA 8270D SIM
2-Butanone (Methylethyl ketone)	EPA 8260C
2-Hexanone	EPA 8260C
2-Nitropropane	EPA 8260C
4-Methyl-2-Pentanone	EPA 8260C
	EPA 524.2
Acetone	EPA 8260C
	EPA 624.1

Volatiles Organics

Acetone	EPA 524.2
Acetonitrile	EPA 8260C
Carbon Disulfide	EPA 8260C
Cyclohexane	EPA 8260C
Di-ethyl ether	EPA 8260C
Ethyl Acetate	EPA 8260C
Ethylene Glycol	EPA 8260C
	EPA 8015D
Isobutyl alcohol	EPA 8260C
	EPA 8015D
Isopropanol	EPA 8260C
Methanol	EPA 8015D
Methyl acetate	EPA 8260C
Methyl cyclohexane	EPA 8260C
n-Butanol	EPA 8260C
o-Toluidine	EPA 8270D
Tetrahydrofuran	EPA 8260C
Vinyl acetate	EPA 8260C
	EPA 624.1

Sample Preparation Methods

SM 4500-P B(5)-2011
EPA 5030C
EPA 200.2
EPA 3015A
EPA 3010A

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All approved analytes are listed below:

Sample Preparation Methods

EPA 3005A
EPA 3510C
EPA 3020A

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All approved analytes are listed below:

Acrylates	
Acrolein (Propenal)	EPA 8260C
Acrylonitrile	EPA 8260C
Ethyl methacrylate	EPA 8260C
Methyl acrylonitrile	EPA 8260C
Methyl methacrylate	EPA 8260C
Amines	
1,2-Diphenylhydrazine	EPA 8270D
1,4-Phenylenediamine	EPA 8270D
1-Naphthylamine	EPA 8270D
2-Naphthylamine	EPA 8270D
2-Nitroaniline	EPA 8270D
3-Nitroaniline	EPA 8270D
4-Chloroaniline	EPA 8270D
4-Nitroaniline	EPA 8270D
5-Nitro-o-toluidine	EPA 8270D
Aniline	EPA 8270D
Carbazole	EPA 8270D
Diphenylamine	EPA 8270D
Methapyrilene	EPA 8270D
Pronamide	EPA 8270D
Benzidines	
3,3'-Dichlorobenzidine	EPA 8270D
3,3'-Dimethylbenzidine	EPA 8270D
Benzidine	EPA 8270D

Characteristic Testing	
Corrosivity	EPA 9040C
	EPA 9045D
Free Liquids	EPA 9095B
Ignitability	EPA 1010A
Synthetic Precipitation Leaching Proc.	EPA 1312
TCLP	EPA 1311
Chlorinated Hydrocarbon Pesticides	
2,4'-DDD (Mitotane)	EPA 8081B
4,4'-DDD	EPA 8081B
4,4'-DDE	EPA 8081B
4,4'-DDT	EPA 8081B
Aldrin	EPA 8081B
alpha-BHC	EPA 8081B
alpha-Chlordane	EPA 8081B
Atrazine	EPA 8270D
beta-BHC	EPA 8081B
Chlordane Total	EPA 8081B
Chlorobenzilate	EPA 8270D
delta-BHC	EPA 8081B
Diallate	EPA 8270D
Dieldrin	EPA 8081B
Endosulfan I	EPA 8081B
Endosulfan II	EPA 8081B
Endosulfan sulfate	EPA 8081B
Endrin	EPA 8081B

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Chlorinated Hydrocarbon Pesticides

Endrin aldehyde	EPA 8081B
Endrin Ketone	EPA 8081B
gamma-Chlordane	EPA 8081B
Heptachlor	EPA 8081B
Heptachlor epoxide	EPA 8081B
Kepone	EPA 8270D
Lindane	EPA 8081B
Methoxychlor	EPA 8081B
Mirex	EPA 8081B
Pentachloronitrobenzene	EPA 8270D
Toxaphene	EPA 8081B

Chlorinated Hydrocarbons

1,2,3-Trichlorobenzene	EPA 8260C
1,2,4,5-Tetrachlorobenzene	EPA 8270D
1,2,4-Trichlorobenzene	EPA 8270D
2-Chloronaphthalene	EPA 8270D
Hexachlorobenzene	EPA 8270D
Hexachlorobutadiene	EPA 8270D
Hexachlorocyclopentadiene	EPA 8270D
Hexachloroethane	EPA 8270D
Hexachlorophene	EPA 8270D
Hexachloropropene	EPA 8270D
Pentachlorobenzene	EPA 8270D

Chlorophenoxy Acid Pesticides

2,4,5-T	EPA 8151A

Chlorophenoxy Acid Pesticides

2,4,5-TP (Silvex)	EPA 8151A
2,4-D	EPA 8151A
Dalapon	EPA 8151A
Dichloroprop	EPA 8151A
Pentachlorophenol	EPA 8151A

Haloethers

2,2'-Oxybis(1-chloropropane)	EPA 8270D
4-Bromophenylphenyl ether	EPA 8270D
4-Chlorophenylphenyl ether	EPA 8270D
Bis(2-chloroethoxy)methane	EPA 8270D
Bis(2-chloroethyl)ether	EPA 8270D

Metals I

Barium, Total	EPA 6010C
	EPA 6010D
Cadmium, Total	EPA 6010C
	EPA 6010D
Calcium, Total	EPA 6010C
	EPA 6010D
Chromium, Total	EPA 6010C
	EPA 6010D
Copper, Total	EPA 6010C
	EPA 6010D
Iron, Total	EPA 6010C
	EPA 6010D
Lead, Total	EPA 6010C

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Metals I

Lead, Total	EPA 6010D
Magnesium, Total	EPA 6010C
	EPA 6010D
Manganese, Total	EPA 6010C
	EPA 6010D
Nickel, Total	EPA 6010C
	EPA 6010D
Potassium, Total	EPA 6010C
	EPA 6010D
Silver, Total	EPA 6010C
	EPA 6010D
Sodium, Total	EPA 6010C
	EPA 6010D
Strontium, Total	EPA 6010C
	EPA 6010D

Metals II

Aluminum, Total	EPA 6010C
	EPA 6010D
Antimony, Total	EPA 6010C
	EPA 6010D
Arsenic, Total	EPA 6010C
	EPA 6010D
Beryllium, Total	EPA 6010C
	EPA 6010D
Lithium, Total	EPA 6010C

Metals II

Lithium, Total	EPA 6010D
Mercury, Total	EPA 7471B
Selenium, Total	EPA 6010C
	EPA 6010D
Vanadium, Total	EPA 6010C
	EPA 6010D
Zinc, Total	EPA 6010C
	EPA 6010D

Metals III

Cobalt, Total	EPA 6010C
	EPA 6010D
Molybdenum, Total	EPA 6010C
	EPA 6010D
Thallium, Total	EPA 6010C
	EPA 6010D
Tin, Total	EPA 6010C
	EPA 6010D
Titanium, Total	EPA 6010C
	EPA 6010D

Minerals

Bromide	EPA 9056A
Chloride	EPA 9251
	EPA 9056A
Fluoride, Total	EPA 9056A
Sulfate (as SO4)	EPA 9038

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Minerals	
Sulfate (as SO4)	EPA 9056A
Miscellaneous	
Boron, Total	EPA 6010C
	EPA 6010D
Cyanide, Total	EPA 9012B
Organic Carbon, Total	EPA 9060A
Phenols	EPA 9065
Specific Conductance	EPA 9050A
Nitroaromatics and Isophorone	
1,3,5-Trinitrobenzene	EPA 8270D
1,3-Dinitrobenzene	EPA 8270D
1,4-Dinitrobenzene	EPA 8270D
1,4-Naphthoquinone	EPA 8270D
2,4-Dinitrotoluene	EPA 8270D
2,6-Dinitrotoluene	EPA 8270D
4-Dimethylaminoazobenzene	EPA 8270D
Hydroquinone	EPA 8270D
Isophorone	EPA 8270D
Nitrobenzene	EPA 8270D
Pyridine	EPA 8270D
Nitrosoamines	
N-Nitrosodiethylamine	EPA 8270D
N-Nitrosodimethylamine	EPA 8270D
N-Nitrosodi-n-butylamine	EPA 8270D
Nitrosoamines	
N-Nitrosodi-n-propylamine	EPA 8270D
N-Nitrosodiphenylamine	EPA 8270D
N-nitrosomethylethylamine	EPA 8270D
N-nitrosomorpholine	EPA 8270D
N-nitrosopiperidine	EPA 8270D
N-Nitrosopyrrolidine	EPA 8270D
Nutrients	
Nitrate (as N)	EPA 9056A
Organophosphate Pesticides	
Dimethoate	EPA 8270D
Disulfoton	EPA 8270D
Famphur	EPA 8270D
Parathion ethyl	EPA 8270D
Parathion methyl	EPA 8270D
Phorate	EPA 8270D
Sulfotepp	EPA 8270D
Petroleum Hydrocarbons	
Diesel Range Organics	EPA 8015D
Gasoline Range Organics	EPA 8015D
Phthalate Esters	
Benzyl butyl phthalate	EPA 8270D
Bis(2-ethylhexyl) phthalate	EPA 8270D
Diethyl phthalate	EPA 8270D
Dimethyl phthalate	EPA 8270D

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WADSWORTH CENTER

Expires 12:01 AM April 01, 2020
Issued April 01, 2019
Revised September 16, 2019

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. GARY RUDZ
TESTAMERICA INC. - BUFFALO
10 HAZELWOOD DRIVE
AMHERST, NY 14228

NY Lab Id No: 10026

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Phthalate Esters	
Di-n-butyl phthalate	EPA 8270D
Di-n-octyl phthalate	EPA 8270D
Polychlorinated Biphenyls	
Aroclor 1016 (PCB-1016)	EPA 8082A
Aroclor 1016 (PCB-1016) in Oil	EPA 8082A
Aroclor 1221 (PCB-1221)	EPA 8082A
Aroclor 1221 (PCB-1221) in Oil	EPA 8082A
Aroclor 1232 (PCB-1232)	EPA 8082A
Aroclor 1232 (PCB-1232) in Oil	EPA 8082A
Aroclor 1242 (PCB-1242)	EPA 8082A
Aroclor 1242 (PCB-1242) in Oil	EPA 8082A
Aroclor 1248 (PCB-1248)	EPA 8082A
Aroclor 1248 (PCB-1248) in Oil	EPA 8082A
Aroclor 1254 (PCB-1254)	EPA 8082A
Aroclor 1254 (PCB-1254) in Oil	EPA 8082A
Aroclor 1260 (PCB-1260)	EPA 8082A
Aroclor 1260 (PCB-1260) in Oil	EPA 8082A
Aroclor 1262 (PCB-1262)	EPA 8082A
Aroclor 1262 (PCB-1262) in Oil	EPA 8082A
Aroclor 1268 (PCB-1268)	EPA 8082A
Aroclor 1268 (PCB-1268) in Oil	EPA 8082A
Polynuclear Aromatic Hydrocarbons	
3-Methylcholanthrene	EPA 8270D
7,12-Dimethylbenzyl (a) anthracene	EPA 8270D
Acenaphthene	EPA 8270D
Polynuclear Aromatic Hydrocarbons	
Acenaphthylene	EPA 8270D
Anthracene	EPA 8270D
Benzo(a)anthracene	EPA 8270D
Benzo(a)pyrene	EPA 8270D
Benzo(b)fluoranthene	EPA 8270D
Benzo(g,h,i)perylene	EPA 8270D
Benzo(k)fluoranthene	EPA 8270D
Chrysene	EPA 8270D
Dibenzo(a,e)pyrene	EPA 8270D
Dibenzo(a,h)anthracene	EPA 8270D
Fluoranthene	EPA 8270D
Fluorene	EPA 8270D
Indeno(1,2,3-cd)pyrene	EPA 8270D
Naphthalene	EPA 8270D
Phenanthrene	EPA 8270D
Pyrene	EPA 8270D
Priority Pollutant Phenols	
2,3,4,6 Tetrachlorophenol	EPA 8270D
2,4,5-Trichlorophenol	EPA 8270D
2,4,6-Trichlorophenol	EPA 8270D
2,4-Dichlorophenol	EPA 8270D
2,4-Dimethylphenol	EPA 8270D
2,4-Dinitrophenol	EPA 8270D
2,6-Dichlorophenol	EPA 8270D
2-Chlorophenol	EPA 8270D

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Priority Pollutant Phenols

2-Methyl-4,6-dinitrophenol	EPA 8270D
2-Methylphenol	EPA 8270D
2-Nitrophenol	EPA 8270D
3-Methylphenol	EPA 8270D
4-Chloro-3-methylphenol	EPA 8270D
4-Methylphenol	EPA 8270D
4-Nitrophenol	EPA 8270D
Pentachlorophenol	EPA 8270D
Phenol	EPA 8270D

Semi-Volatile Organics

1,1'-Biphenyl	EPA 8270D
1,2-Dichlorobenzene, Semi-volatile	EPA 8270D
1,3-Dichlorobenzene, Semi-volatile	EPA 8270D
1,4-Dichlorobenzene, Semi-volatile	EPA 8270D
2-Methylnaphthalene	EPA 8270D
4-Amino biphenyl	EPA 8270D
Acetophenone	EPA 8270D
Benzaldehyde	EPA 8270D
Benzoic Acid	EPA 8270D
Benzyl alcohol	EPA 8270D
Caprolactam	EPA 8270D
Dibenzofuran	EPA 8270D
Ethyl methanesulfonate	EPA 8270D
Isosafrole	EPA 8270D
Methyl methanesulfonate	EPA 8270D

Semi-Volatile Organics

O,O,O-Triethyl phosphorothioate	EPA 8270D
Phenacetin	EPA 8270D
Safrole	EPA 8270D

Volatile Aromatics

1,2,4-Trichlorobenzene, Volatile	EPA 8260C
1,2,4-Trimethylbenzene	EPA 8260C
1,2-Dichlorobenzene	EPA 8260C
1,3,5-Trimethylbenzene	EPA 8260C
1,3-Dichlorobenzene	EPA 8260C
1,4-Dichlorobenzene	EPA 8260C
2-Chlorotoluene	EPA 8260C
4-Chlorotoluene	EPA 8260C
Benzene	EPA 8260C
Bromobenzene	EPA 8260C
Chlorobenzene	EPA 8260C
Ethyl benzene	EPA 8260C
Isopropylbenzene	EPA 8260C
m/p-Xylenes	EPA 8260C
Naphthalene, Volatile	EPA 8260C
n-Butylbenzene	EPA 8260C
n-Propylbenzene	EPA 8260C
o-Xylene	EPA 8260C
p-Isopropyltoluene (P-Cymene)	EPA 8260C
sec-Butylbenzene	EPA 8260C
Styrene	EPA 8260C

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Volatile Aromatics	
tert-Butylbenzene	EPA 8260C
Toluene	EPA 8260C
Total Xylenes	EPA 8260C
Volatile Chlorinated Organics	
Benzyl chloride	EPA 8260C
Epichlorohydrin	EPA 8260C
Volatile Halocarbons	
1,1,1,2-Tetrachloroethane	EPA 8260C
1,1,1-Trichloroethane	EPA 8260C
1,1,2,2-Tetrachloroethane	EPA 8260C
1,1,2-Trichloro-1,2,2-Trifluoroethane	EPA 8260C
1,1,2-Trichloroethane	EPA 8260C
1,1-Dichloroethane	EPA 8260C
1,1-Dichloroethene	EPA 8260C
1,1-Dichloropropene	EPA 8260C
1,2,3-Trichloropropane	EPA 8260C
1,2-Dibromo-3-chloropropane	EPA 8260C
1,2-Dibromoethane	EPA 8260C
1,2-Dichloroethane	EPA 8260C
1,2-Dichloropropane	EPA 8260C
1,3-Dichloropropane	EPA 8260C
2,2-Dichloropropane	EPA 8260C
2-Chloro-1,3-butadiene (Chloroprene)	EPA 8260C
2-Chloroethylvinyl ether	EPA 8260C
3-Chloropropene (Allyl chloride)	EPA 8260C
Volatile Halocarbons	
Bromochloromethane	EPA 8260C
Bromodichloromethane	EPA 8260C
Bromoform	EPA 8260C
Bromomethane	EPA 8260C
Carbon tetrachloride	EPA 8260C
Chloroethane	EPA 8260C
Chloroform	EPA 8260C
Chloromethane	EPA 8260C
cis-1,2-Dichloroethene	EPA 8260C
cis-1,3-Dichloropropene	EPA 8260C
Dibromochloromethane	EPA 8260C
Dibromomethane	EPA 8260C
Dichlorodifluoromethane	EPA 8260C
Hexachlorobutadiene, Volatile	EPA 8260C
Methyl iodide	EPA 8260C
Methylene chloride	EPA 8260C
Tetrachloroethene	EPA 8260C
trans-1,2-Dichloroethene	EPA 8260C
trans-1,3-Dichloropropene	EPA 8260C
trans-1,4-Dichloro-2-butene	EPA 8260C
Trichloroethene	EPA 8260C
Trichlorofluoromethane	EPA 8260C
Vinyl chloride	EPA 8260C
Volatile Organics	
1,4-Dioxane	EPA 8260C

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Volatile Organics

1,4-Dioxane	EPA 8270D
2-Butanone (Methylethyl ketone)	EPA 8260C
2-Hexanone	EPA 8260C
2-Nitropropane	EPA 8260C
4-Methyl-2-Pentanone	EPA 8260C
Acetone	EPA 8260C
Acetonitrile	EPA 8260C
Carbon Disulfide	EPA 8260C
Cyclohexane	EPA 8260C
Di-ethyl ether	EPA 8260C
Ethyl Acetate	EPA 8260C
Ethylene Glycol	EPA 8015D
Isobutyl alcohol	EPA 8260C
	EPA 8015D
Isopropanol	EPA 8260C
Methyl acetate	EPA 8260C
Methyl cyclohexane	EPA 8260C
Methyl tert-butyl ether	EPA 8260C
n-Butanol	EPA 8260C
Propionitrile	EPA 8260C
tert-butyl alcohol	EPA 8015D
Vinyl acetate	EPA 8260C

Sample Preparation Methods

EPA 5035A-L
EPA 5035A-H

Sample Preparation Methods

EPA 3580A
EPA 3010A
EPA 3005A
EPA 3050B
EPA 3550C
EPA 3020A
EPA 3546

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ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Lead in Paint	EPA 6010C
	EPA 6010D

Sample Preparation Methods

	EPA 3050B

Serial No.: 60530

Attachment E

Revised Section XII – Measurement and Payment

SECTION XII

MEASUREMENT FOR PAYMENT
(Revised for Addendum 2)

PART 1 – GENERAL

1.1 DESCRIPTION

A. This section covers the methods and procedures that the DEPARTMENT will use to measure the CONTRACTOR'S work and provide payment. This general outline of the measurement and payment features will not, in any way, limit the Responsibility of the CONTRACTOR for making a thorough investigation of the Contract Documents to determine the scope of the work included in each bid task.

B. Payment will be made to the CONTRACTOR in accordance with the specified methods of measurement and the unit or lump sum prices stipulated in the accepted bid. Payment will constitute complete compensation for all work required by the Contract Documents including all costs of accepting the general risks, liabilities and obligations, expressed or implied. Payment under all tasks will include, but necessarily be limited to, compensation for furnishing all supervision, labor, equipment, overhead, profit, material, services, applicable taxes, and for performing all other related work required. No other payment will be made.

C. No payment will be made for work performed by the CONTRACTOR to replace defective work, work which is not required by the Contract Documents, work outside the limits of the Contract and additional work necessary due to actions of the CONTRACTOR, unless ordered by the ENGINEER in writing.

D. For unit price items, the CONTRACTOR shall be paid for the actual amount of work accepted and for the actual amount of materials in place during the period of construction. After the work is completed and before final payment is made, the ENGINEER or CONTRACTOR as specified in the pay items will make final measurements to determine the quantities of the various items of work accepted as the basis for final payment. The CONTRACTOR shall accept compensation, as herein provided, in full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced by the Contract.

E. For lump sum items, the CONTRACTOR will be paid based on actual work accepted until the work item is completed. Upon completion of the item, 100 percent of the lump sum price may be paid, subject to the terms of the Agreement. The pay items listed below describe the measurement of and payment for the Work

to be done under the respective items listed in the Bid as outlined in the approved schedule of values.

F. All units of measurement shall be standard United States convention, as applied to the specific items of work by tradition and as interpreted by the ENGINEER. Each unit or lump sum price stated in the Bid shall constitute full compensation, as herein specified, for each item of the Work completed.

1.2 ENGINEER'S ESTIMATE OF QUANTITIES

A. The Estimated quantities for unit price items, as listed in the bid schedule, are only approximate and are included solely for the purposes of the comparison of bids. The ENGINEER does not expressly, or by implication, agree that the nature of the materials encountered or required shall correspond therewith and reserves the right to increase or decrease any such quantity or to eliminate any quantity as the ENGINEER may deem necessary.

1.3 INCIDENTAL ITEMS

A. Except for the items designated hereunder for Measurement and Payment, the costs of items necessary to complete the work as specified are considered incidental to the items specified for Measurement and Payment. The costs of incidental items shall be included in the prices of items specified for Measurement and Payment.

1.4 QUANTITIES

A. The Estimated quantities indicated in the Bid Schedule are the quantities for the evaluation of bids. The actual quantities of items to be paid for on a unit price basis may vary significantly from the quantities indicated in the Bid Schedule.

1.5 RELATED PROVISIONS SPECIFIED ELSEWHERE

A. Payment to CONTRACTOR: Refer to General Conditions and Contract Agreement Section 6.

B. Changes in the Contract Price: Refer to General Conditions and Contract Agreement Section 6.

1.6 SUBMITTALS

A. Bid Breakdowns/Schedule of Values: Submit in accordance with Section VIII, Article 1.4, 1.6 and Article 13.

1.7 MEASUREMENT

A. Under this Contract, the CONTRACTOR shall provide all labor, equipment, and materials and shall complete all work as shown and described in the Contract Documents and as directed by the ENGINEER, in accordance with the expressed intent of the contract to secure a complete construction of a functionally complete project. The bid items described in Part 3 BID ITEMS shall together include all work set forth in the Contract Documents or required to properly complete the work. Any necessary work that is not described shall be considered included in the item to which it properly belongs. Where used in the Contract Documents, the word "including" ("includes", "include") shall mean "including (includes, include) but not restricted to". Each item includes:
   1. All labor, material, equipment, plant services, bonds and insurance, tests, adjustments, warranties, overhead, and other expenses required to perform the work.
   2. All accessories, manuals, and services pertinent to the proper installation of materials and equipment.
   3. All accessories, manuals, and services pertinent to the proper start-up, operation, and maintenance of materials and equipment.

B. Lump Sum Items: Measurement of all Lump Sum Items will be on a total job basis.
   1. The quantities of work performed under lump sum items will not be measured except for the purpose of determining reasonable interim payments. Interim payments will be made in accordance with the estimated value of work performed and found acceptable as determined by the ENGINEER, or as specified in this section.
   2. Where indicated for a lump sum item, the CONTRACTOR shall provide a schedule of values per Subpart 1.06 of this Section. The schedule of values shall include a breakdown of major cost items included within the lump sum in sufficient detail to document specific costs of all items included in the lump sum item. The schedule of values shall be provided to the ENGINEER prior to initiation of work.
   3. Measurement for Progress Payments of all lump sum items will be on a percent complete basis as established in the General Conditions and Section VI, Article 9.

C. Unit Price Items: Where items are specified to be measured on a unit basis, measurement will be of each particular unit as specified.
   1. Volume Basis - Where items are specified to be measured on a volume basis, the volume will be determined on an in-place basis (prior to construction for excavation / solidification purposes or after placement and compaction for imported fill) between the existing and final ground surfaces or grade lines shown on the drawings. If no tolerance is specified, the tolerance shall be interpreted to be 0.00 foot.

2. Area Basis - Where items are specified to be measured on an area basis, the area will be measured as the actual surface area within the specified limits based on a plan view. If a specified width of an item is indicated, the area will be determined by the actual length along the centerline multiplied by the specified width. No adjustments will be made for the required overlap of materials.
3. Length Basis - Where items are specified to be measured on a length basis, the length will be measured as the actual length along the centerline within specified limits based on a plan view. No adjustments will be made for the required overlap of materials
4. Weight Basis - Where items are specified to be measured on a weight basis, the weight will be measured based on certified weigh scale tickets obtained from a weigh scale certified by the County Office of Weights and Measures and approved by the ENGINEER. The weights shall be taken in the presence of a DEPARTMENT representative. When the weight is per ton, trucks shall be weighed entering the site and exiting the site, using either an on-site or off-site scale. The measured tonnage will be the difference between the measured truck weight upon entering and exiting the certified weight scale.

D. Measurement and payment will be made only for work that has been acceptably performed within the limits shown on the Construction Contract Drawings and in conformance with the Contract Specifications, as specified, or ordered by the ENGINEER.

1.8 DESCRIPTION OF BID ITEMS

A. Bid Item LS-1: Site Preparation
1. Bid Item LS-1 shall be the bid lump sum price for the completion of performance of Site Preparation in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described below, in accordance with Specification Section 01 11 13 – Summary of Work, Section 01 14 19 – Use of Site, Section 01 35 53 – Site Security, Section 01 45 28 – Chemical Sampling and Analysis, Section 01 51 05 – Temporary Facilities and Controls, Section 01 52 11 – Engineer's Field Office, Section 01 52 13 – Field Trailer, Section 01 71 23 – Field Engineering, Section 34 78 13 – Portable Truck Scale, Section 01 55 26 – Traffic Control, Section 01 55 29 – Storage of Material, Section 01 57 26 – Dust and Odor Control, Section 01 71 33 – Protection of the Work and Property, Section 02 51 00 – Decontamination Procedures, Section 02 72 00 – Construction Water Management, and Section 31 25 00 – Erosion and Sediment Control, and described below but not limited to:
    a. Mobilization of personnel, equipment, and project facilities.
    b. Establish all temporary utilities and services including electric service, mobile phone, internet access, sanitary facilities, and potable water.

c. Provide ENGINEER and CONTRACTOR field offices and support areas.
d. Permitting.
e. Project work plans (Construction Work Plan, Health and Safety Plan and Contractor Quality Control Plan).
f. Schedules, submittals (shop drawings), and record drawings.
g. Bonds and insurance.
h. Surveying required for initial field verification, establishing horizontal and vertical control and providing construction layout.
i. Clearing trees and brush within the limit of clearing delineation on the Construction Contract Drawings. Note that most tree clearing of trees larger than 3-inches at breast height (DBH) has been completed prior to the start of this Project. Stumps and roots were not grubbed and will require removal under this Item unless contained within the MGP Waste limits. Additional trees larger than 3-inches in diameter" may require clearing by CONTRACTOR, which can only be completed between November 11 and March 31st, prior to full mobilization, as approved by the ENGINEER.
j. Grubbing vegetation within the MGP Waste limits is not included under this Item. Refer to Bid Item 6.
k. Select demolition of building, foundations, concrete pads, asbestos containing materials, and other miscellaneous construction of demolition debris items encountered within the excavation limits.
l. Other preparation work not specifically included in other items including compliance with applicable regulatory requirements; preconstruction and construction period planning; scheduling, submittals, reporting, administration, and documentation; quality control; environmental protection; and spill control.
m. Providing vehicle decontamination pads.
n. Installing required erosion and sedimentation controls including but not limited to stabilized construction accesses, silt fence, augmented silt fence, hay bales, and stone check dams.
o. Installing and maintaining temporary access roads.
p. Installing temporary project signage.
q. Installing temporary fencing and barricades.
r. Installing soil stockpile containment areas and contractor equipment and materials staging areas.
s. Providing an on-site truck scale.
t. Augmenting temporary facilities and controls as required for supporting the sequence of project work.
u. Repair of damage to local roads, railroads as required.
v. Removing temporary facilities and controls when the work associated with them is complete, and properly disposing the materials off-site.
w. Demobilization of project personnel, equipment, and project facilities.

x. Project closeout.
y. Final site cleanup.

3. The CONTRACTOR shall submit a separate bid breakdown (See Paragraph 1.06 of this Section) that shows the individual costs required to complete this Bid Item.
4. Measurement for payment for Bid Item LS-1 shall be the bid lump sum price for the above Site Preparation items completed as documented and approved by the ENGINEER.

B. Bid Item LS-2: Activities in Support of Excavation on Railroad Property

1. Bid Item LS-2 shall be the bid lump sum price for the completion of Sheeting and Shoring activities; and protection of the sanitary sewer line located adjacent to the excavation, in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described below in accordance with Specification Section 31 00 00 – Earthwork, Section 31 01 50 – Shoring (Sheeting and Bracing), and Section 31 25 00 – Erosion and Sediment Control, and described below but not limited to:
   a. Installing sheeting and bracing indicated on the Construction Contract Drawings designed by the CONTRACTOR to support excavations at designated location adjacent to the Railroad Property.
   b. CONTRACTOR designed sheeting and shoring will include but not limited to:
      i. Completing geotechnical investigations including testing, as required by the CONTRACTOR's Engineer in supporting the design of the sheeting and shoring systems.
      ii. Designing a sheeting and shoring systems by a New York State licensed professional engineer to conduct excavations to support other infrastructure deemed at risk due to adjacent excavation.
   c. Installing system.
   d. Removing system.
   e. Cutting sheeting to leave sheets a minimum of 3 feet below grade and leaving systems in place where allowed or directed.
   f. Protecting the adjacent sanitary sewer line. Any required repairs to the sanitary sewer line will be conducted at the CONTRACTORs expense.
   g. Refer to Item 1 for additional railroad related items.
3. The CONTRACTOR shall submit a separate bid breakdown (See Paragraph 1.06 of this Section) that lists the individual costs required to complete this bid item as well as miscellaneous items not specified elsewhere that are necessary for proper completion of the work (provide detail).
4. Measurement for payment for Bid Item LS-2 shall be the bid lump sum price for the above Sheeting and Shoring System items completed as documented and approved by the ENGINEER.

C. Bid Item LS-3: Activities in Support of Excavation Adjacent to Brandy Brook

1. Bid Item LS-3 shall be the bid lump sum price for the completion of Sheeting and Shoring activities; bypass pumping flow around a portion of Brandy Brook; and temporary relocation of Restoration Area to a Temporary on-site Nursery in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described below in accordance with Specification Section 31 00 00 – Earthwork, Section 31 01 50 – Shoring (Sheeting and Bracing), and Section 31 25 00 – Erosion and Sediment Control, and described below but not limited to:
   a. Installing sheeting around excavation area indicated on the Construction Contract Drawings designed by the CONTRACTOR to support excavations at designated location adjacent to Brandy Brook.
   b. CONTRACTOR designed sheeting and shoring will include but not limited to:
      i. Completing geotechnical investigations including testing, as required by the CONTRACTOR's Engineer in supporting the design of the sheeting and shoring systems.
      ii. Designing a sheeting and shoring systems by a New York State licensed professional engineer to conduct excavations to support other infrastructure and adjacent brook deemed at risk due to adjacent excavation.
   c. Removing system.
   d. Passive diversion or active pumping systems to convey the base flow of Brandy Brook around the active excavation limit of work.
   e. Installing and maintaining erosion controls associated with the diverted flow.
   f. Providing contingency measures to handle surges associated with stormwater discharges.
   g. Providing means and methods to limit stormwater run-on during work to minimize the generation of construction water.
   h. Temporary relocation of Restoration Area to be disturbed to a temporary on-site Nursery, maintenance, and re-planting in the Restoration Area, including replacement of damaged/lost trees and plants at no additional cost to the DEPARTMENT.
3. The CONTRACTOR shall submit a separate bid breakdown (See Paragraph 1.06 of this Section) that lists the individual costs required to complete this bid item as well as miscellaneous items not specified elsewhere that are necessary for proper completion of the work (provide detail).
4. Measurement for payment for Bid Item LS-3 shall be the bid lump sum price for the above Sheeting and Shoring System; bypass pumping flow around a portion of Brandy Brook; and temporary relocation of Restoration Area to a Temporary on-site Nursery, as documented and approved by the ENGINEER.

D. Bid Item LS-4: Site Restoration

1. Bid Item LS-4 shall be the bid lump sum price for completion of Upland Area Restoration activities in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described below, in accordance with Specification Section 31 00 00 – Earthwork, Section 31 25 00 – Erosion and Sediment Control, Section 32 92 26 – Seeding and Soil Supplements, Section 32 93 00 – Exterior Plants, and described below but not limited to:
   a. Restoration of disturbed upland areas with topsoil and seeding.
   b. Borrow source testing of topsoil – geotechnical, soil nutrient, and chemical testing of material meeting unrestricted use criteria
   c. Nutrient analysis testing for topsoil.
   d. Providing and installing topsoil.
   e. Seeding and installing erosion control matting along all drainage ways and slopes, as required.
   f. Seeding and mulching all vegetated areas.
   g. Staging and storing topsoil on-site as required to coordinate with construction sequence.
   h. Provide and install new (or salvaged, if possible, as approved by the DEPARTMENT) chain link fence and gates on the OU01 property.
3. The CONTRACTOR shall submit a separate bid breakdown (See Paragraph 1.06 of this Section) that shows the individual costs required to complete this Bid Item.
4. Measurement for payment for Bid Item LS-4 shall be the bid lump sum price for Upland Area Restoration as documented and approved by the ENGINEER.

E. Bid Item LS-5: Brandy Brook Restoration

1. Bid Item LS-5 shall be the bid lump sum price for completion of Brandy Brook Restoration activities in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described below, in accordance with the restoration details on the Construction Contract Drawings and Specification Section 01 57 00 – Temporary tributary Bypass System, Section 31 00 00 – Earthwork, Section 31 25 00 – Erosion and Sediment Control, Section 32 92 26 – Seeding and Soil Supplements, Section 32 93 00 – Exterior Plants, and described below but not limited to:
   a. Geotechnical and chemical borrow source testing of stream bed material and topsoil, as required.
   b. Nutrient analysis testing for topsoil.
   c. Relocate Wetland Topsoil and vegetation from temporary Nursery, and supplement with imported Wetland Topsoil meeting unrestricted use criteria and supplemental vegetation.
   c. Providing and installing stream bed material, as required.
   d. Providing and installing rock with soil and vegetation, as required.

f. Providing and installing fiber rolls, as required.
g. Providing and installing brush mattresses, as required.
h. Installing log cribbing and log diverter using on-site clearing debris to the extent practical, as required.
i. Providing and installing boulders in the stream bed, as required.
j. Live staking, as required.
k. Seeding and mulching banks, as required.
l. Planting banks with shrubs, as required.

3. The Contractor shall submit a separate bid breakdown (See Paragraph 1.06 of this Section) that shows the individual costs required to complete this Bid Item.
4. Measurement for payment for Bid Item LS-5 shall be the bid lump sum price for Brandy Brook Restoration as documented and approved by the ENGINEER.

F. Bid Item UP-1: Site Services

1. Bid Item UP-1 shall be the bid unit price per calendar day for Site Services performed in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for each calendar day of site services in accordance with Standard Specification Section 01 35 29 – Contractor's Health and Safety Plan, Specification Section 00 33 00 – Existing Conditions, Section 01 11 00 – Summary of Work, Section 01 35 43 – Environmental Protection Procedures, Section 01 35 53 – Site Security, Section 01 45 00 – Contractor Quality Control, Section 01 45 28 – Chemical Sampling and Analysis, Section 01 50 00 – Temporary Facilities and Controls, Section 34 78 13 – Portable Truck Scale, and Section 01 55 26 – Traffic Control, Section 01 57 26 – Dust and Odor Control, Section 01 71 23 - Field Engineering and Surveying, Section 01 71 33 – Protection of the Work and Property, Section 31 01 50 – Shoring (Sheeting and Bracing), and described below but not limited to:
   a. Site Security.
   b. Controlling on-site access and traffic, including equipment and material delivery.
   c. Site access roadway maintenance.
   d. Maintaining soil stockpile containment areas and contractor equipment and materials staging areas.
   e. Completing training and providing flaggers and/or other requirements of the railroad for working within its right of way.
   f. Maintaining all constructed temporary facilities and controls.
   g. Cleaning the project site and disposing CONTRACTOR generated solid waste.
   h. Coordinating with the Village of Saranac Lake and residential property owners/tenants.
   i. Compliance with permits.

j. Attending project meetings.
k. Providing Site Superintendence.
l. Providing quality control management.
m. Maintaining vehicle decontamination pads including collection and analysis of decontamination verification samples.
n. Maintenance of temporary utilities and services.
o. Sanitary facilities maintenance.
p. Performing an existing conditions assessment of buildings and infrastructure adjacent to the work.
q. Perform vibration monitoring during sheeting installation work, as required.
r. Perform nuisance control and monitoring as required during the execution of the work
s. Surveying required for ongoing work to provide quality control field measurements and supporting the calculation of measurement for payment.
t. CONTRACTOR personnel working within the railroad row work will need to complete appropriate railroad safety training meeting Adirondack Scenic Railroad and/or NYSDOT requirements. The railroad is regulated by NYSDOT.
u. Conduct pre- and post-construction inspections and documentation (video and pictures) of the rail alignment condition with the CONTRACTOR, ENGINEER, and NYSDOT Representative. Restoration of the alignment and repair of any rail faculties damaged or impacted by the work. For additional requirements for working in the railroad ROW, refer to drawing C-306 of the Construction Contract Drawings.
v. Completing survey of the final remediated site in accordance with Part 1.04.E of Specification 01 71 23 and related work specified elsewhere in the Contract.
w. Providing completed as-built survey to the ENGINEER for review and approval.

3. Measurement for payment for Bid Item UP-1: Site Services shall be paid the bid unit price for each calendar day beginning with initiation of site services, and ending with substantial completion or at the end of the Contract Time specified in Contract Documents Section VI Article 6.1, whichever is sooner. Payment shall be unit price bid for each individual item described above as submitted in the Contractor's bid breakdown. A fifty percent reduction in payment would occur for each calendar day that operation and/or maintenance of any item included in this Bid Item was unsatisfactory or unused as determined by the ENGINEER.

G. Bid Item UP-2: Health and Safety
1. Bid Item UP-2 shall be the bid unit price per working day for Health and Safety

activities performed in accordance with the Contract Documents.

2. Provide all labor, materials, equipment and incidentals necessary for each calendar day for health and safety during proper execution of the Contract and in accordance with Standard Specification Section 01 35 29 – Contractor's Health and Safety Plan, Supplemental Specification Section 01 11 13 – Summary of Work, Section 01 50 00 – Temporary Facilities and Controls, Section 01 57 26 – Dust and Odor Control, and Section 02 51 00 – Decontamination Procedures, and as described below but not limited to:
   a. Providing a Health and Safety Officer.
   b. Providing and maintaining personnel decontamination facilities.
   c. Providing and maintaining personnel health and safety equipment.
   d. Providing emergency response.
   e. Sampling, analyzing, and handling/disposing personal protective equipment (PPE) and remediation wastes not specifically included in other bid items.
   f. Air monitoring as required by the Community Air Monitoring Program (CAMP). Collecting samples up and downwind of the Site, testing for the required parameters, and reporting laboratory results.
3. Measurement for payment for Bid Item UP-2: Health and Safety shall be paid the bid unit price for each working day the HASP has been adhered to in the opinion of the ENGINEER. Work included in this item shall be by calendar day ending at substantial completion or at the end of the Contract Time specified in Contract Documents Section VI Article 6.1, whichever is sooner. All daily maintenance costs for health and safety are part of this Bid Item including everything required for the HASP. A reduction in the payment for this item will occur for each day the CONTRACTOR fails to adhere (in the opinion of the Engineer) to the HASP. There would be a one hundred (100) percent reduction in this Bid Item for days where no remediation work occurs in the exclusion zone. No payment will be made for Sundays and holidays specified in Contract Documents Section XIII.

F. Bid Item UP-3: Excavation of Materials
1. Bid Item UP-3 shall be the bid unit price per cubic yard for excavation activities associated with MGP Impacted and non-MGP Impacted Soil and Debris Excavation within and beyond the Former MGP Property including grubbings, debris and soil excavation; and segregation, processing, management and control of stockpiles of suitable soil for reuse in the covers within the former MGP Property in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described below in accordance with Specification Section 01 45 28 – Chemical Sampling and Analysis, Section 01 50 00 – Temporary Facilities and Controls, Section 01 57 26 – Dust and Odor Control, Section 01 71 23 – Field Engineering and Surveying, Section 01 74 19 – Waste Removal, Handling,

and Storage, Section 02 72 00 – Construction Water Management, Section 31 00 00 – Earthwork, 31 23 19 – Dewatering, and Section 31 25 00 – Erosion and Sediment Control , and described below but not limited to:

a. Providing, managing, and maintaining construction dewatering facilities including collection sumps, pump systems, conveyance (piping) systems, and storage systems as required to conduct excavation activities in relatively dry conditions.
b. Sheet piling systems for cofferdam purposes shall be included in Bid Items 4 and 5.
c. Excavating soil within the horizontal and vertical limits identified on the Construction Contract Drawings.
d. Segregation of Wetland Topsoil from the Restoration Area for use in the Temporary Nursery, as part of Bid Item 5.
e. Handling and segregation of excavated suitable soil for stockpiling and reuse from unsuitable soil/debris for waste characterization and stockpiling, to minimize disposal quantities and hazardous waste.
f. Dust and odor control during excavation and handling.
g. Segregating unsuitable non-hazardous soil/debris from unsuitable hazardous soil/debris based on waste characterization testing results.
h. Excavation and removal of obstructions identified during in-situ solidification activities.
i. Segregation and management of the waste types defined in Section 01 74 19 – Waste Removal, Handling, and Storage, to minimize overall disposal cost.
j. Dewatering and/or stabilization to meet off-site disposal requirements, as necessary.

3. Measurement for payment of Bid Item UP-3 shall be the bid unit price for each cubic yard of material excavated in accordance with the Contract Documents. Volume measurement shall be determined on an in-place basis survey prior to (for existing grade) and after the excavation (for excavation extents) of material including grubbing, as documented and approved by the ENGINEER.

G. Bid Item UP-4: Solidification (including design mix program and pilot scale test)

1. Bid Item UP-4 shall be the bid unit price per cubic yard for Solidification activities in accordance with the Contract Documents and based on the proven pilot scale test.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described in accordance with Specification Section 01 11 00 – Summary or Work and Section 31 32 13 –Solidification, shown on the Construction Contract Drawings
3. The CONTRACTOR shall submit a separate bid breakdown (See Paragraph 1.06 of this Section) that lists the individual costs required to complete this bid item as well as miscellaneous items not specified elsewhere that are necessary for proper completion of the work (provide detail).

4. Measurement for payment for Bid Item UP-4 shall be the bid unit price for each cubic yard of Solidification (including design mix program and pilot scale test) completed as documented and approved by the ENGINEER. Volume measurement shall be determined on an in-place basis by survey prior to (for existing grades) solidification, during solidification (for bottom grades or grades at refusal in the effect of an obstruction that cannot be removed) and after solidification to include relocated materials that have been solidified and tested in accordance with the Contract Documents, as documented and approved by the ENGINEER. Volume shall include any solidification conducted outside the lateral limits shown in the Contract Drawings, as deemed necessary by the ENGINEER in order to solidify around obstructions that cannot be easily removed.

H. Bid Item UP-5: Construction Water Treatment, Sampling and Discharge or Transportation and Disposal
   1. Bid Item UP-5 shall be the bid unit price per gallon for Construction Water Treatment and Disposal or Transportation and Disposal activities in accordance with the Contract Documents.
   2. Provide all labor, materials, equipment, and incidentals necessary for the work described below in accordance with Specification Section 01 45 28 – Chemical Sampling and Analysis, Section 01 74 19 – Waste Removal, Handling, and Storage, Section 02 72 00 – Construction Water Management, Section 02 81 00 – Off-Site Transportation and Disposal, Section 31 00 00 – Earthwork, and Section 31 23 19 – Dewatering, and described below but not limited to the activities associated with the available construction water disposal options, including on-site storage as necessary:
      a. Storage, treatment, testing and discharge to surface water under a State Pollutant Discharge Elimination System (SPDES) permit equivalent:
         i. Coordinating with the DEPARTMENT and the ENGINEER, as required.
         ii. Furnishing an on-site treatment system capable of treating construction water to concentrations meeting the DEPARTMENT requirements for surface water discharge.
         iii Treating construction water generated throughout the duration of the work to the standards required for surface water discharge.
         iv. Providing a safe and secure means to discharge treated construction water to surface water.
         v. Performing treatment system start-up.
         vi. Completing prove-out of the treatment system to demonstrate its capability to meet the performance requirements of the Contract Documents.
         vii. Performing all testing requirements at the prescribed frequencies.
         viii. Maintaining the system throughout the contract duration.

ix. Decommissioning, decontaminating, and deconstructing the treatment system at the end of the contract duration.
x. Demobilizing all components of the treatment system from the site.

b. Offsite Disposal:
i. Waste characterization testing.
ii. Pumping construction water into trucks.
iii. Transporting material to an approved off-site disposal facility.
iv. Off-loading construction water at the disposal facility.

3. The CONTRACTOR shall submit a separate bid breakdown (See Paragraph 1.06 of this Section) that lists the individual costs required to complete this bid item as well as miscellaneous items not specified elsewhere that are necessary for proper completion of the work (provide detail).
4. Measurement for payment for Bid Item UP-5 shall be the bid unit price per gallon for Construction Water Treatment as measured by an on-site flow meter, or for Transportation and Disposal as indicated by the receiving facility or calculated based on weights and as documented and approved by the ENGINEER.

I. Bid Item UP-6: Soil Chemical Sampling and Analysis
1. Bid Item UP-6 shall be the bid unit price per each sample taken for confirmation Soil Chemical Sampling and Analysis in accordance with the Contract Documents.
2. Provide all labor, materials, equipment and incidentals necessary for conducting chemical sampling and analysis of soil samples in accordance with Specification Section 01 45 28 – Chemical Sampling and Analysis and described below but not limited to:
a. Collecting confirmation samples at the specified frequency within completed excavation areas, expedited turn-around-time testing results for the required parameters, and reporting laboratory results as required.
b. Additional confirmation sampling, testing, and reporting for over-excavation areas due to exceedances of the cleanup objectives.
3. Measurement for payment of Bid Item UP-6: Soil Chemical Sampling and Analysis shall be the bid unit price for each sample collected, analyzed, and laboratory results submitted to the ENGINEER for approval.

J. Bid Item UP-7: Non-Hazardous MGP Remediation Waste Off-Site Transportation and Disposal
1. Bid Item UP-7 shall be the bid unit price per ton for Non-Hazardous MGP Remediation Waste Off-Site Transportation and Disposal in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described below in accordance with Specification Section 01 35 43 – Environmental Protection Procedures, Specification Section 01 74 19 – Waste Removal, Handling, and Storage and Section 02 81 00 – Off-Site

Transportation and Disposal and described below but not limited to:

a. Waste characterization testing and documentation.
b. Loading non-hazardous material into trucks for transport.
c. Transporting non-hazardous material to an approved licensed off-site disposal facility.
d. Off-loading non-hazardous material at disposal facility.

3. Measurement for payment for Bid Item UP-7 shall be the bid unit price for each ton of Non-Hazardous MGP Remediation Waste, disposed at the approved disposal facility. Weight measurement shall be by certified scale and documented by certified weight ticket issued by the disposal facility. Certified weight tickets shall be submitted to the ENGINEER for comparison to on-site weight measurement prior to payment approval.

K. Bid Item UP-8: Hazardous MGP Remediation Waste Off-Site Transportation and Disposal

1. Bid Item UP-8 shall be the bid unit price per ton for Hazardous MGP Remediation Waste Off-Site Transportation and Disposal in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for the work described below in accordance with Specification Section 01 35 43 – Environmental Protection Procedures, Specification Section 01 74 19 – Waste Removal, Handling, and Storage and Section 02 81 00 – Off-Site Transportation and Disposal and described below but not limited to:
   a. Waste characterization testing and documentation.
   b. Loading hazardous material into trucks for transport.
   c. Transporting hazardous material to an approved licensed off-site disposal facility.
   d. Off-loading hazardous soil and associated grubbings at disposal facility.
3. Measurement for payment for Bid Item UP-8 shall be the bid unit cost price for each ton of Hazardous MGP Remediation Waste, disposed at the approved disposal facility. Weight measurement shall be by certified scale and documented by certified weight ticket issued by the disposal facility. Certified weight tickets shall be submitted to the ENGINEER for comparison to on-site weight measurement prior to payment approval.

L. Bid Item UP-9: Cleared and Demolition Debris Materials Off-Site Transportation and Disposal

1. Bid Item UP-9 shall be the bid unit price per ton for Cleared and Demolition Debris Materials Off-Site Transportation and Disposal in accordance with the Contract Documents. Cleared and demolition debris materials for this bid item include cleared trees and shrubs (note that larger trees – i.e. greater than 3 inches at breast height will be removed prior to this Project); whole sections or pieces of stormwater culverts, pavement, miscellaneous construction and

demolition debris, and other debris waste items. This item excludes the minor clearing and select demolition activities covered in Bid Item 2.

2. Provide all labor, materials, equipment, and incidentals necessary for each ton of Cleared and Demolition Debris Materials transported and disposed off-site in accordance with Specification Section 01 74 19 – Waste Removal, Handling, and Storage, Section 02 81 00 – Off-Site Transportation and Disposal and Section 02 82 33 – Removal and Disposal of Asbestos-Containing Material described below.
    a. Loading cleared vegetation from cleared areas into waste containers/trucks.
    b. Processing (breaking down) and loading demolished concrete and debris into waste containers/trucks.
    c. Processing (breaking down) and loading other miscellaneous construction and demolition debris encountered or generating during the work into waste containers/trucks.
    d. Transporting and disposing debris off-site at an approved licensed disposal facility.
    e. Documentation and disposal fees.
3. Measurement for payment of Bid Item UP-9: Cleared and Demolition Debris Materials Off-Site Transportation and Disposal shall the bid unit price for each ton of material disposed at the approved disposal facility, including Land Clearing Debris, C&D Debris, Asbestos Containing Material and Metal Waste. Weight measurement shall be by certified scale and documented by certified weight ticket issued by the disposal facility. Certified weight tickets shall be submitted to the ENGINEER for comparison to on-site weight measurement prior to payment approval.

M. Bid Item UP-10: Backfill and Grade with Reusable Fill
    1. Bid Item UP-10 shall be the bid unit price per cubic yard for Reusable Fill in accordance with the Contract Documents.
    2. Provide all labor, materials, equipment, and incidentals necessary for each cubic yard of Reusable Fill from segregated stockpiles, and backfilled in completed excavations, subgrade and in the cover system within the former MGP Property in accordance with Specification Section 01 45 28 – Chemical Sampling and Analysis, Section 01 71 23 – Field Engineering and Surveying, Section 31 00 00 – Earthwork, Section 31 25 00 – Erosion and Sediment Control, and described below.
        a. Geotechnical testing of stockpiled soil.
        b. Processing the soil, if required.
        c. Relocating soil within the site.
        d. Staging and storing soil on-site as required to coordinate with construction sequence.
        e. Placing soil in lifts, grading, and compacting soil to the limits shown on the Construction Contract Drawings.

f. Field testing for compaction.

3. Measurement for payment of Bid Item UP-10 shall be the bid unit price for each cubic yard of each type of suitable Reused material, placed and compacted in accordance with the Contract Documents. Volume measurement shall be determined on an in-place basis by survey prior to and after placement and compaction, as documented and approved by the ENGINEER.

N. Bid Item UP-11: Backfill and Grade with Imported Soil

1. Bid Item UP-11 shall be the bid unit price per cubic yard for OU01 Backfill Material in accordance with the Contract Documents.
2. Provide all labor, materials, equipment, and incidentals necessary for each cubic yard of OU1 Backfill Material purchased, transported, and backfilled in completed excavation areas in accordance with Specification Section 01 71 23 – Field Engineering and Surveying, and Section 31 00 00 Earthwork, Section 31 25 00 – Erosion and Sediment Control and described below.
   a. Geotechnical and chemical testing of borrow sources meeting commercial use criteria.
   b. Processing the backfill material, if required.
   c. Delivering backfill material to the site.
   d. Staging and storing backfill material on-site as required to coordinate with construction sequence.
   e. Placing soil in lifts, grading, and compacting soil to the limits shown on the Construction Contract Drawings.
   f. Field testing for compaction.
   g. This Item includes placement of a barrier/demarcation layer as shown on the Construction Contract Drawings or as directed by the ENGINEER. Limits of installed barrier/demarcation layer shall be surveyed prior to placement of cover soils.
3. Measurement for payment of Bid Item UP-11 shall be the bid unit price for each cubic yard of each type of Backfill Material delivered and placed in accordance with the Contract Documents. Volume measurement shall be determined on an in-place basis by survey prior to and after placement and compaction, as documented and approved by the ENGINEER.

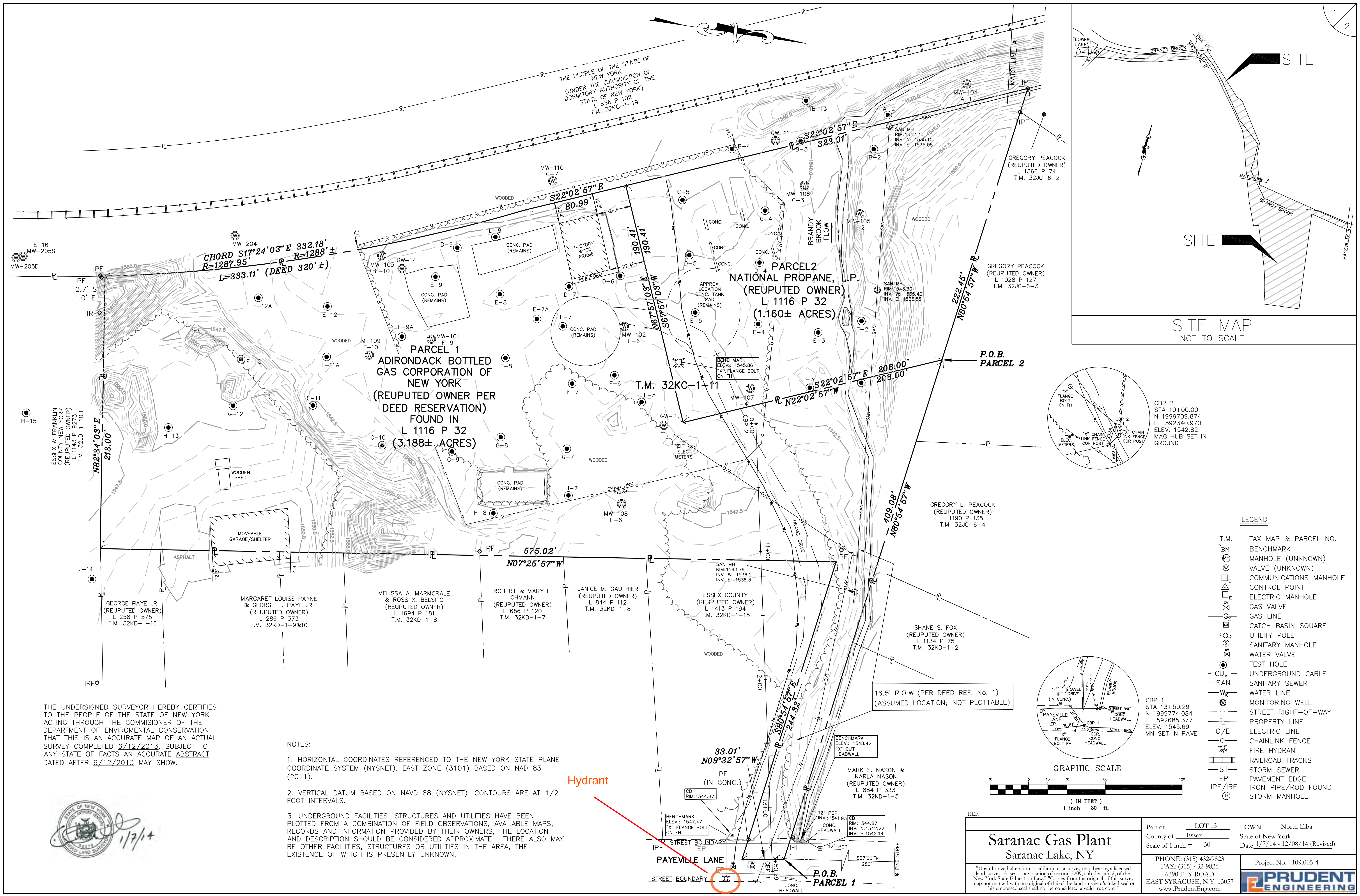
PART 2 – (NOT USED)

PART 3 – (NOT USED)

++END OF SECTION++

Attachment F

Location of fire Hydrant


THE PEOPLE OF THE STATE OF NEW YORK (UNDER THE JURISDICTION OF THE DORMITORY AUTHORITY OF THE STATE OF NEW YORK) L 638 P 102 T.M. 32KC-1-19
PARCEL 1
ADIRONDACK BOTTLED GAS CORPORATION OF NEW YORK (REUPUTED OWNER PER DEED RESERVATION) FOUND IN L 1116 P 32 (3.188± ACRES)
PARCEL2
NATIONAL PROPANE, L.P. (REUPUTED OWNER) L 1116 P 32 (1.160± ACRES)
T.M. 32KC-1-11
P.O.B. PARCEL 2
P.O.B. PARCEL 1
GREGORY PEACOCK (REUPUTED OWNER) L 1366 P 74 T.M. 32JC-6-2
GREGORY PEACOCK (REUPUTED OWNER) L 1028 P 127 T.M. 32JC-6-3
GREGORY L. PEACOCK (REUPUTED OWNER) L 1190 P 135 T.M. 32JC-6-4
ESSEX & FRANKLIN COUNTY NEW YORK (REUPUTED OWNER) L 1143 P 9273 T.M. 32LD-1-10.1
GEORGE PAYE JR. (REUPUTED OWNER) L 258 P 575 T.M. 32KD-1-16
MARGARET LOUISE PAYNE & GEORGE E. PAYE JR. (REUPUTED OWNER) L 286 P 373 T.M. 32KD-1-9&10
MELISSA A. MARMORALE & ROSS X. BELSITO (REUPUTED OWNER) L 1694 P 181 T.M. 32KD-1-8
ROBERT & MARY L. OHMANN (REUPUTED OWNER) L 656 P 120 T.M. 32KD-1-7
JANICE M. GAUTHIER (REUPUTED OWNER) L 844 P 112 T.M. 32KD-1-8
ESSEX COUNTY (REUPUTED OWNER) L 1413 P 194 T.M. 32KD-1-15
SHANE S. FOX (REUPUTED OWNER) L 1134 P 75 T.M. 32KD-1-2
MARK S. NASON & KARLA NASON (REUPUTED OWNER) L 884 P 333 T.M. 32KD-1-5
16.5' R.O.W (PER DEED REF. No. 1) (ASSUMED LOCATION; NOT PLOTTABLE)
PAYEVILLE LANE
Hydrant
SITE MAP
NOT TO SCALE
SITE
CBP 2 STA 10+00.00 N 1999709.874 E 592340.970 ELEV. 1542.82 MAG HUB SET IN GROUND
CBP 1 STA 13+50.29 N 1999774.084 E 592685.377 ELEV. 1545.69 MN SET IN PAVE
GRAPHIC SCALE
(IN FEET) 1 inch = 30 ft.
LEGEND
T.M. TAX MAP & PARCEL NO.
BM BENCHMARK
MANHOLE (UNKNOWN)
VALVE (UNKNOWN)
COMMUNICATIONS MANHOLE
CONTROL POINT
ELECTRIC MANHOLE
GAS VALVE
GAS LINE
CATCH BASIN SQUARE
UTILITY POLE
SANITARY MANHOLE
WATER VALVE
TEST HOLE
UNDERGROUND CABLE
SANITARY SEWER
WATER LINE
MONITORING WELL
STREET RIGHT-OF-WAY
PROPERTY LINE
ELECTRIC LINE
CHAINLINK FENCE
FIRE HYDRANT
RAILROAD TRACKS
STORM SEWER
EP PAVEMENT EDGE
IPF/IRF IRON PIPE/ROD FOUND
STORM MANHOLE
THE UNDERSIGNED SURVEYOR HEREBY CERTIFIES TO THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH THE COMMISIONER OF THE DEPARTMENT OF ENVIROMENTAL CONSERVATION THAT THIS IS AN ACCURATE MAP OF AN ACTUAL SURVEY COMPLETED 6/12/2013. SUBJECT TO ANY STATE OF FACTS AN ACCURATE ABSTRACT DATED AFTER 9/12/2013 MAY SHOW.
NOTES:
1. HORIZONTAL COORDINATES REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM (NYSNET), EAST ZONE (3101) BASED ON NAD 83 (2011).
2. VERTICAL DATUM BASED ON NAVD 88 (NYSNET). CONTOURS ARE AT 1/2 FOOT INTERVALS.
3. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM A COMBINATION OF FIELD OBSERVATIONS, AVAILABLE MAPS, RECORDS AND INFORMATION PROVIDED BY THEIR OWNERS, THE LOCATION AND DESCRIPTION SHOULD BE CONSIDERED APPROXIMATE. THERE ALSO MAY BE OTHER FACILITIES, STRUCTURES OR UTILITIES IN THE AREA, THE EXISTENCE OF WHICH IS PRESENTLY UNKNOWN.
1/7/14
Saranac Gas Plant
Saranac Lake, NY
"Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law." "Copies from the original of this survey map not marked with an original of the of the land surveyor's inked seal or his embossed seal shall not be considered a valid true copy."
Part of LOT 13
County of Essex
Scale of 1 inch = 30'
TOWN North Elba
State of New York
Date 1/7/14 - 12/08/14 (Revised)
PHONE: (315) 432-9823
FAX: (315) 432-9826
6390 FLY ROAD
EAST SYRACUSE, N.Y. 13057
www.PrudentEng.com
Project No. 109.005-4
PRUDENT ENGINEERING
CADD File Name: M:\Drawings\109\005\Phase 04 – SARANAC GAS PLANT.DWG

Attachment G

NYSDOT Permit Application Form

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

Form PERM 33 (July 2015)
Highway Work Permit Application for Non-Utility Work

Instructions and Form

(For Commercial Driveways, use Form PERM 33-COM)

INSTRUCTIONS FOR COMPLETING THE APPLICATION

FRONT OF APPLICATION

Three (3) copies of the entire application, work plans and all other supporting documents must be submitted. At the time of application, certain information relative to fees and deposits may be contingent upon determinations to be made by the Department. In such cases, the information may be left blank and remittance withheld until a determination is made.

Please complete the following:

- Permittee name, address, phone and email address. Provide joint applicant contact information, if appropriate. If there are additional applicants, attach contact information on a separate sheet.
- Name and phone number(s) of emergency contact person.
- If permit is to be returned to someone other than the applicant, complete this section.
- If the guarantee deposit or bond is to be returned to someone other than applicant, complete this section.
- Estimate the cost of work being performed in the state highway right-of-way and provide this figure.
- Indicate anticipated duration of work to be performed with starting date and ending date.
- Indicate the form of insurance coverage to be provided.
- Give a brief description of the work that is proposed to be done under this permit.
- Indicate whether any overhead and/or underground work (5 foot or greater depth) is included in the proposed work.
- Plans and specifications should accompany this application for any work that involves construction within the state highway right-of-way. Place a check mark on the lines for plans and specifications if they are attached to this application.
- Location of the project should be identified by State Route, highway reference marker(s), and the municipality and county in which work area is located.
- In regard to State Environmental Quality Review (SEQR), indicate the type of action, the name of the Lead Agency, and what date the final determination was made, if available.
- Signature of applicant and date.
- Signature of second applicant, if any, and date.

BACK OF APPLICATION

- Check type of work that will be performed.
- In the appropriate column, indicate total amount of permit fees (Include insurance fee for residential work)
- Indicate type of performance security provided (bond, deposit, letter of credit), if required.
- Indicate check number of deposit or bond number.

RESPONSIBILITIES OF PERMITTEE
PURSUANT TO NON-UTILITY HIGHWAY WORK PERMITS

NOTE: FAILURE TO OBTAIN A PERMIT OR FAILURE TO COMPLY WITH THE TERMS OF A PERMIT MAY RESULT IN THE DEPARTMENT HALTING THE ACTIVITY FOR WHICH A PERMIT IS REQUIRED UNTIL ADEQUATE CORRECTIONS HAVE BEEN MADE.

1. LIMITATIONS ON USE: The specific site identified in this Highway Work Permit, and only that site identified, will be available for use by Permittee only for the purpose stated in this Permit and only on the date(s) and for the duration designated in this permit. This Permit does not authorize any infringement of federal, state or local laws or regulations, is limited to the extent of the authority of NYSDOT and is transferable and assignable only with the written consent of the Commissioner of Transportation. The Commissioner reserves the right to modify fees and to revoke or annul the Permit at any time, at his/her discretion without a hearing or the necessity of showing cause.

2. CONDITIONS OF USE: NYSDOT makes no affirmation that the state-owned site used for the work has been designed, constructed, or maintained for the purpose of the conduct of the work. The Permittee assumes full responsibility for planning and conducting a safe and orderly project that does not expose workers or the public to any unreasonable hazards and that involves a minimal disruption of the normal uses of the state and local highway systems. It shall be the sole obligation of the Permittee to determine whether the site is suitable for the purpose of safely conducting the work. The Permittee assumes all responsibility for assuring that the use of the highway/property conforms to applicable requirements of law, including, but not limited to those set forth herein.

Permittee agrees to assure compliance with New York Labor Law, industrial regulations, and OSHA regulations, and to assure the safety of all workers who will be engaged to do the permitted work.

3. INSURANCE COVERAGE: Permittee must have the insurance that is required for the type and extent of the work being performed.

Permittee agrees to maintain liability insurance in full force and effect throughout the term of the highway work permit. Expiration of, or lack of, liability insurance automatically terminates the permit.

To comply with this requirement, an applicant must furnish the Department with one of the following:

- A completed **Certificate of Insurance** evidencing the required types and limits of insurance coverage, with New York State Department of Transportation named as an additional insured on the commercial general liability policy. An industry standard **ACORD 25** form with an **ACORD 855** Addendum is acceptable evidence of the required coverage. Certificate Holder should be indicated as New York State Department of Transportation, with the address of the issuing office.

- A fully executed **Undertaking Agreement** may be provided by Municipalities, Public Utilities, Transportation Corporations, Public Service Corporations or Railroads, as an alternative to providing proof of commercial general liability the insurance.

- **Homeowners** applying for a residential work permit (driveways, improvements or tree work) and performing their own work have the option to pay a **$25 Insurance Fee**, and waive the requirement to provide insurance coverage. Any contractor doing work on the homeowner's behalf must be listed on the permit and provide satisfactory proof of insurance as set forth below.

See "PERM 33 Submission Package Requirements" on page 4 for more detailed guidance on insurance coverage.

4. COMPENSATION AND DISABILITY INSURANCE COVERAGE: Permittee is required to have compensation insurance and disability coverage as noted in the provisions of the Worker's Compensation Law and Acts amendatory thereof for the entire period of the permit, or the permit will be invalid. Applicant must provide proof of coverage (Form C-105.2, U-26.3 or SI-12 for Worker's Compensation, and DB-120.1 or DB-155 for Disability Benefits), or provide proof of exemption from this requirement (Form CE-200).

5. INDEMNIFICATION: Permittee agrees that, in addition to any protection afforded to NYSDOT under any available insurance, NYSDOT shall not be liable for any damage or injury to the Permittee, its agents, employees, or to any other person, or to any property, occurring on the site or in any way associated with Permittee's activities or operations; whether undertaken by Permittee's own forces or by contractor or other agents working on Permittee's behalf. To the fullest extent permitted by law, the Permittee agrees to defend, indemnify and hold harmless the State of New York, NYSDOT and their agents from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of any claim, including but not limited to claims for personal injuries, property damage or wrongful death and/or environmental claims, in any way associated with the Permittee's activities or operations, no matter how caused.

6. NOTIFICATION: The following should be notified at the appropriate time as shown below:

- Commissioner of Transportation, through the NYSDOT regional office, one week prior to commencing work.
- Area gas distributors, 72 hours prior to any blasting.
- Utility companies with facilities in work areas, before starting work (in accordance with Industrial Code 53).
- Permission from utility company must be obtained before commencing work affecting the utilities' facilities.
- NYSDOT regional signal maintenance shop, 3 days prior to starting work (traffic signal work).
- NYSDOT regional office, at conclusion of work, and return original copy of permit to Resident Engineer.

NOTIFICATION FOR ANNUAL PERMITS: Notify by phone, the Regional or Resident Engineer's Office, one week in advance, each time regular maintenance work is to be performed. In emergencies, notification by phone, fax or email should be made as soon as is practical, no later than the next business day.

7. SITE CARE AND RESTORATION: A bond, deposit (bank cashier's check), or a Letter of Credit, in an amount designated by the Department of Transportation, may be required before a permit is issued, in order to guarantee restoration of the site to its original condition. A fully executed Undertaking Agreement may be accepted as an alternative security, where applicable. If the Department is obliged to restore the site to its original condition, the costs to the Department will be deducted from the amount of the permittee's deposit at the conclusion of the work. Costs in excess of the bond/deposit on file will be billed directly to the permittee. If permittee posts a Letter of Credit, the Department may elect to have a contractor restore the site, and issue a draft drawn against the Letter of Credit as payment.

- Anyone working within state highway right-of-way must wear **high visibility apparel** and **hard hat** meeting ANSI Class 2 requirements.
- No unnecessary obstruction is to be left on the pavement or the state highway right-of-way, or in such a position as to block warning signs during non-working hours.
- No work shall be done to obstruct drainage or divert creeks, water courses or sluices onto the state highway right-of-way.
- All false work must be removed and all excavations must be filled in and restored to the satisfaction of the Regional Maintenance Engineer.

8. COSTS INCURRED BY ISSUANCE OF THIS PERMIT: All costs beyond the limits of any liability insurance, surety deposits, etc. are the responsibility of the permittee. The State shall be held free of any costs incurred by the issuance of this permit, direct or indirect.

9. SUBMITTING WORK PLANS: The applicant will submit three (3) copies of work plans and/or maps as required by the Department. This shall include (but not limited to) such details as: measurements of driveways with relation to nearest property corner; location of existing and proposed poles, guide rail, signal equipment, trees or drainage structures; positions of guys supporting poles; a schedule of the number of poles and feet of excavation necessary for completion of work on the State right-of-way. A description of the proposed method of construction will be included.

- Plan work with future adjustments in mind, as any relocation, replacement or removal of the installation authorized by this permit and made necessary by future highway maintenance, reconstruction or new construction, will be the responsibility of the permittee.
- Driveway plans should be prepared in accordance with NYSDOT POLICY AND STANDARDS FOR ENTRANCES TO STATE HIGHWAYS.
- The permittee must coordinate the work with any State construction being conducted.

10. TRAFFIC MAINTENANCE: A plan detailing how the permittee intends to maintain and protect traffic shall be submitted with work plans. Traffic shall be maintained on the highway in a safe manner during working and non-working hours until construction is completed. The permittee is responsible for traffic protection and maintenance, including adequate use of signs, barriers, and flag persons during working and non-working hours until construction is completed. All sketches will be stamped with "MAINTENANCE OF TRAFFIC SHALL BE IN CONFORMANCE WITH THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

11. COST OF INSPECTION AND SUPERVISION: Prior to issuance of the Highway Work Permit, the permittee may be required to sign an INSPECTION PAYMENT AGREEMENT FOR HIGHWAY WORK PERMITS (FORM PERM 50) agreeing to the payment of construction inspection charges, based on the number of work days involved. In certain cases, the permittee may also be required to sign a PAYMENT AGREEMENT FOR HIGHWAY WORK PERMITS DESIGN REVIEW (FORM PERM 51) agreeing to design review charges, based on the number of work hours in which Department employees were engaged in design review activity.

12. SCOPE:

- **Areas Covered:** Permits issued are for highways, bridges and culverts over which the New York State Department of Transportation has jurisdiction. (Local governments issue permits for highways under their jurisdiction.) Work locations must be approved by the Department.
- **Maintenance:** Unless noted otherwise, applicant shall be fully responsible for the maintenance of all items installed and/or altered as shown on the approved permit plans and documents. Property owners having access to a state highway shall be fully responsible for the maintenance of their driveway in accordance with POLICY AND STANDARDS FOR ENTRANCES TO STATE HIGHWAYS.
- **Work Commencement:** The Permittee shall have a copy of the permit available at the site during the construction period. Work should start within 30 days from validation date of permit or said permit may be revoked.

13. REPORTING ACCIDENTS: Permittee is required to report any accidents that occur during the course of the permit work to their insurance company, and to provide the Department with a copy of any such report.

14. COMPLETION OF PROJECT: Upon completion of the work within the State highway right-of-way authorized by the work permit, the person and his or its successors in interest shall be responsible for the maintenance and repair of such work or portion of such work as set forth within the Terms and Conditions of the Highway Work Permit.

PERM 33 Submission Package Requirements

Submit three (3) copies of the final submission package: Submission package must include the entire PERM 33 with all work plans and supporting documents, including the following (check all that apply):

☐	Stamped Final Plans – Submit in PDF file format on CD, with three (3) paper copies (1" = 50'), or as requested
☐	ACORD 25 - Certificate of Insurance, with NYSDOT named as Additional Insured (See line 3 below).
☐	ACORD 855 - New York Construction Certificate of Liability Insurance Addendum (See line 3 below).
☐	PERM 1, 2, 6 or 16 - Undertaking Agreement, if applicable (See line 4 below).
☐	PERM 36 - Attachment to Highway Work Permit – Consultant Inspection, if applicable
☐	PERM 44 - Surety Bond – Performance bond in Applicant's name, or deposit (Bank cashier's check required)
☐	PERM 50 – Inspection/Supervision Payment Agreement, if applicable
☐	Proof of Worker's Compensation Insurance (Form C-105.2, U-26.3 or SI-12), or proof of exemption (Form CE-200)
☐	Proof of Disability Benefits Coverage (Form DB-120.1 or DB-155), or proof of exemption (Form CE-200)
☐	Permit Fee (Include $25 Insurance Fee for residential operations)
☐	Other (specify):

Insurance Requirements

1) In most cases, Permittee must provide proof of **Commercial General Liability** insurance coverage with limits of liability not less than **$1,000,000** per claim/occurrence, unless any of the following circumstances exist, in which case the limits of liability shall not be less than **$5,000,000** per claim/occurrence:

   (a) The estimated value of permitted work in state right-of-way is $250,000 or more (see line 6 below);
   (b) The permitted work requires or includes the construction, alteration or maintenance of underground features at any depth five feet or more below grade;
   (c) The permitted work requires or includes the construction, alteration or maintenance of overhead features that include, but are not limited to, traffic signals, overhead sign structures, retaining walls or other grade separation structures.

2) Exceptions to the above liability limits include: (a) Annual maintenance permits require limits of liability not less than $5,000,000 per claim/occurrence; (b) Permits for vegetation control activities require limits of liability not less than $1,000,000 per claim/occurrence; (c) Residential driveway permits require limits of liability not less than $500,000 per claim/occurrence; and (d) Adopt-a-Highway permits are exempt.

3) **ACORD 25** with **ACORD 855** (New York Construction Addendum) shall be submitted as an acceptable proof of liability coverage. New York State Department of Transportation should be named as Additional Insured and as the Certificate Holder at the address of the issuing office.

4) Municipalities, public utilities, public authorities and railroads may elect to provide a fully executed Undertaking Agreement as a substitute for providing proof of insurance coverage, or any other financial security otherwise required.

5) Homeowners may pay a $25 Insurance Fee in lieu of providing proof of insurance, however any contractor performing on behalf of a homeowner and who is named on the permit must provide proof of insurance as outlined above.

6) When the estimated cost of work being performed in the right-of-way equals or exceeds $250,000, Permittee must additionally provide proof of a **Protective Liability (OCP)** insurance policy with a minimum liability limit of $1,000,000 per occurrence, with New York State Department of Transportation as Named Insured.

Permittee agrees to maintain liability insurance in full force and effect throughout the term of the highway work permit. Expiration of, or lack of, liability insurance coverage automatically terminates the permit.

For more information on insurance requirements, go to: www.dot.ny.gov/permits-insurance

STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION

HIGHWAY WORK PERMIT APPLICATION FOR NON-UTILITY WORK

Application is hereby made for a highway work permit:

Name _____

Address _____

City _____ State _____ Zip _____

Applicant Phone (_____)_____

Applicant Email Address _____

For Joint application, name and address of Applicant 2 below:

Name _____

Address _____

City _____ State _____ **Zip** _____

Applicant 2 Phone (_____)_____

Applicant 2 Email Address _____

Emergency Contact _____

Emergency Phone (_____) _____

RETURN PERMIT TO: ***(if different from Permittee)***

Name _____

Address _____

City _____ State _____ Zip _____

RETURN DEPOSIT/BOND TO: ***(if different from Permittee)***

Name _____

Address _____

City _____ State _____ Zip _____

DESCRIPTION OF PROPOSED WORK: _____

_____

_____

_____

Estimated cost of work being performed in highway right-of-way: $ _____

Anticipated duration of work: From _____ to _____ (applies to the operations indicated on the reverse side)

WILL OVERHEAD OR UNDERGROUND (5'+) OPERATIONS BE INVOLVED IN THE PROPOSED WORK? YES ☐ NO ☐

ATTACHED: Plans ☐ Specifications ☐

LOCATION: State Route: _____ Located Between Reference Markers _____ and _____

City/Town/Village of _____ County of _____

SEQR REVIEW (select one)

☐ Type II ☐ Type I ☐ Unlisted LEAD AGENCY: _____ DATE OF DETERMINATION: _____

Insurance (check one): ☐ General Liability Insurance ☐ Undertaking ☐ Insurance Fee (residential operations only)

NOTE: PERMIT IS ISSUED CONTINGENT UPON ALL LOCAL REQUIREMENTS BEING SATISFIED

ACKNOWLEDGMENT: ON BEHALF OF THE APPLICANT, I HEREBY REQUEST A HIGHWAY WORK PERMIT, AND DO ACKNOWLEDGE AND AGREE TO THE RESPONSIBILITIES OF PERMITTEE AND THE OTHER OBLIGATIONS SET FORTH IN THIS PERMIT AND WARRANT COMPLIANCE THEREWITH.

Applicant Signature _____ Date _____

Applicant 2 Signature _____ Date _____

Approval recommended by Resident Engineer _____ Res No _____ Date _____

Approved by Regional Traffic Engineer _____ Reg No _____ Date _____

		Operational Type and Description	Permit Fee	Insurance Fee	Total Fees	$ 0.00
DRIVEWAYS						
	5a1	**Residential Driveway** (includes field entrances)	**15**	**25**		
	5a6	**Temporary access road or street**	**200**			
		*For Commercial Driveways and subdivisions streets, use form **PERM 33-COM***				
IMPROVEMENTS						
	5b1	**Residential**	**15**	**25**		
	5b2a	**Commercial- Sidewalk, curb paving, drainage, etc.**	**200**			
	5b2b	**Commercial – Grade, seed, improve land contour, clear brush**	**100**			
	5b2c	**Commercial – Resurface existing road or driveway**	**50**			
	5b2d1	**Annual resurfacing of roadways and driveways – PER COUNTY**	**150**			
		Number of counties:				
	5b2d2	**Annual resurfacing of roadways and driveways – PER REGION**	**400**			
TREE WORK						
	5c1	**Residential**	**15**	**25**		
	5c2a	**Commercial removal or planting**	**25**			
	5c2b	**Commercial pruning, applying chemicals to stumps**	**25**			
	5c3	**Vegetation control for advertising signs – PER SIGN**	**150**			
		Number of Signs:				
MISCELLANEOUS CONSTRUCTION AND WORK OPERATIONS						
	5d1	**Beautify ROW** (civic groups only)	**N/C**			
	5d2a	**Temporary signs, banners, décor** (not-for-profit organizations)	**N/C**			
	5d2b	**Temporary signs, banners, décor** (other organizations)	**25**			
	5d3	**Traffic control signals**	**500**			
	5d4	**Warning and entrance signs**	**25**			
	5d5	**Miscellaneous – Requiring substantial review** (describe below)	**400**			
	5d6	**Miscellaneous** (describe below)	**25**			
OTHER TYPES OF HIGHWAY WORK PERMITS						
	6	**Encroachment caused by DOT acquisition of property**	**25**			
	7a1	**Compulsory permit required for demolition requested by DOT**	**N/C**			
	7a2	**Compulsory permit required for moving requested by DOT**	**N/C**			
	7b	**Improvement to meet Department standards**	**N/C**			
	8	**Miscellaneous** (describe below)	**25**			
	9	**Adopt-a-Highway** (exempt from insurance requirement)	**N/C**			

Description of Miscellaneous Operation:

PERFORMANCE SECURITY (Select one): Guarantee Deposit - Cash ☐ Performance Bond ☐ Letter of Credit ☐

Guarantee Deposit Amount: _____

Guarantee Deposit Check Number or Bond Number _____

(To be completed by NYSDOT issuing office)

Project Identification Number _____ Highway Work Permit No. _____

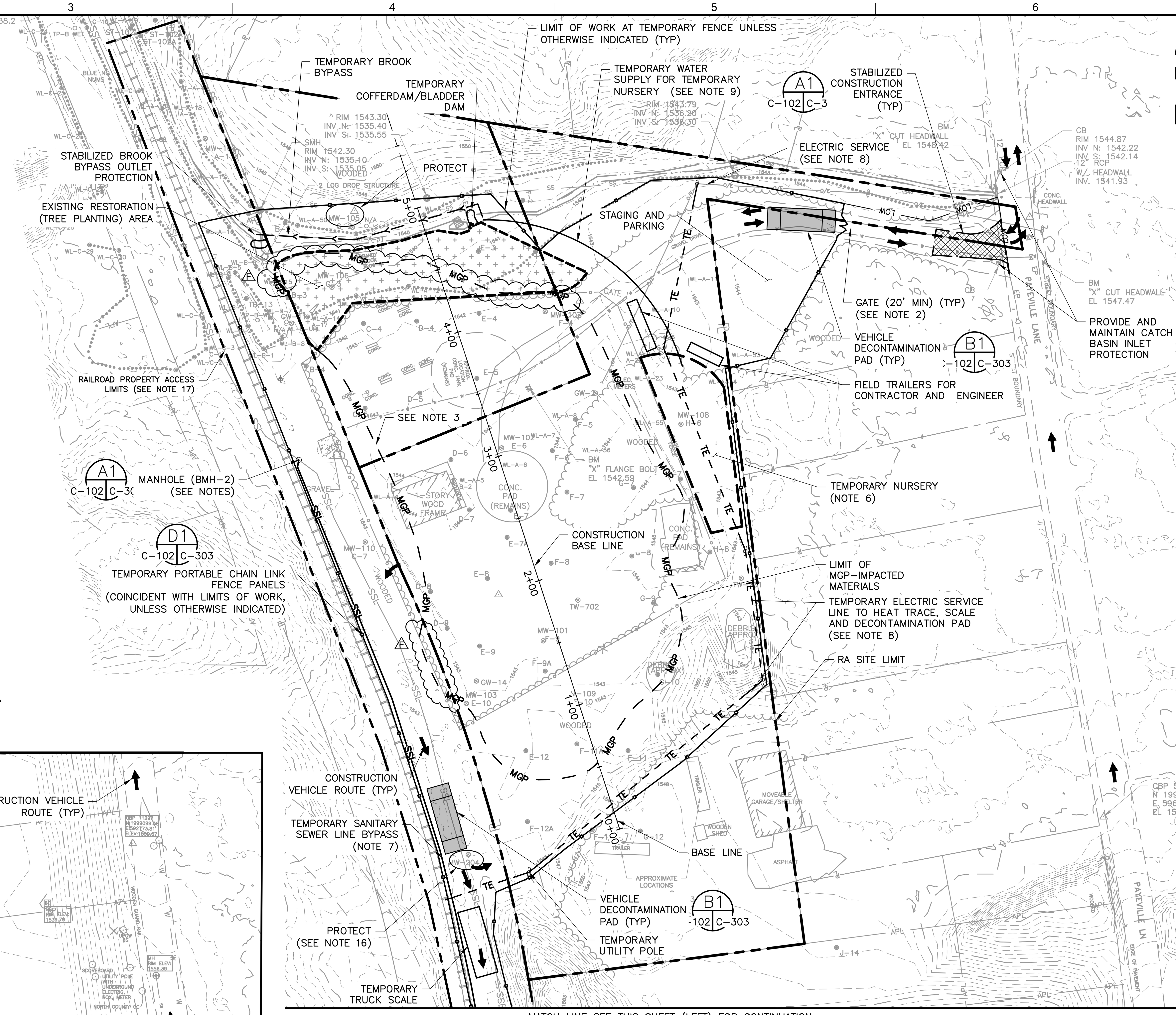
State Highway (SH) Number _____ Record ID Number _____

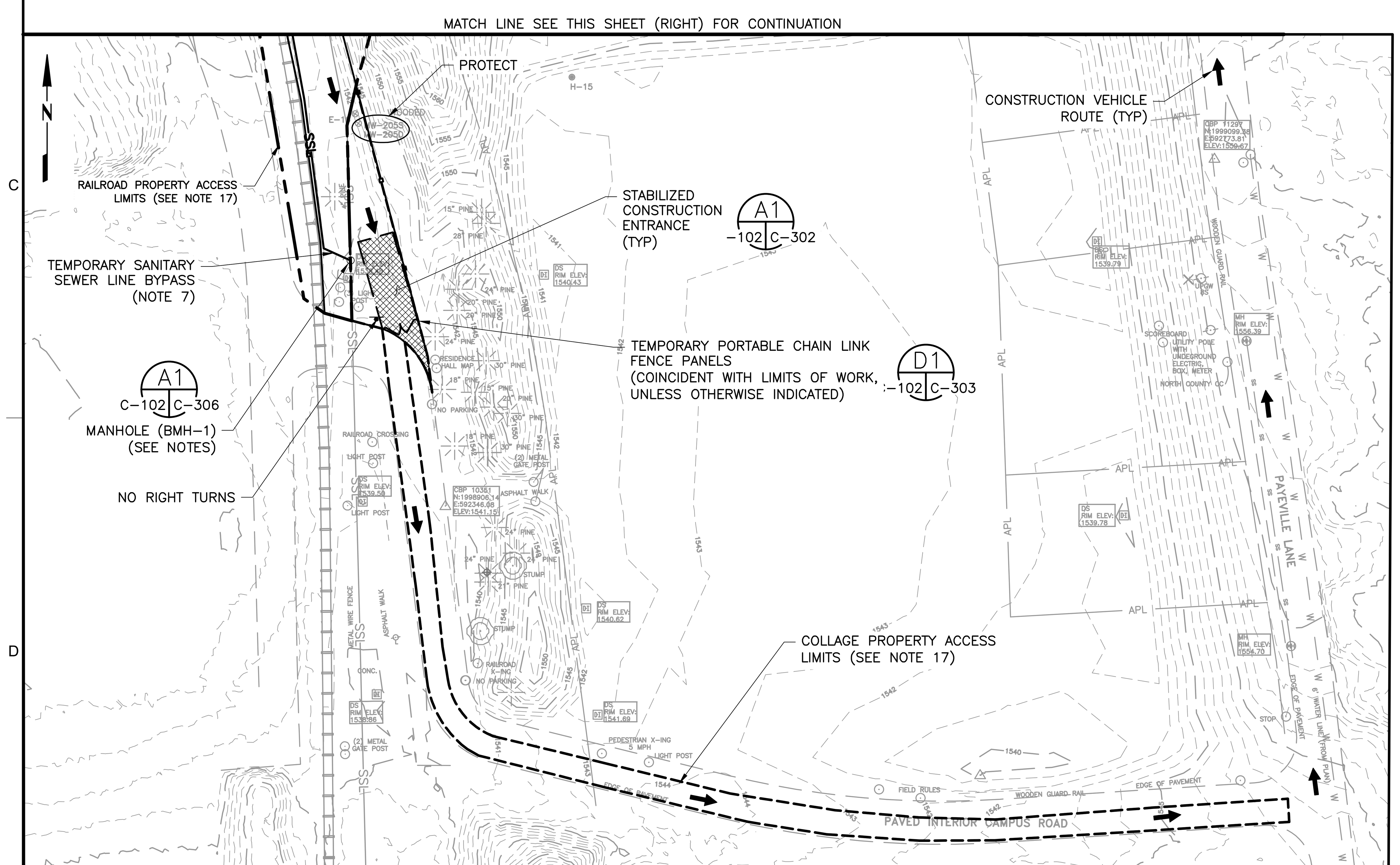
Attachment H

Revised Limits of Excavation

NOTES:

1. LAYOUT FOR CONSTRUCTION SUPPORT FACILITIES AND STOCKPILE/STAGING AREAS ARE CONCEPTUAL ONLY. THE CONTRACTOR SHALL DEVELOP A LAYOUT BASED ON THE PROPOSED MEANS AND METHODS FOR CONDUCTING THIS WORK FOR APPROVAL BY THE DEPARTMENT.
2. PRIMARY CONSTRUCTION ACCESS IS AT PAYEVILLE LANE, WITH SECONDARY (ONE-WAY) ACCESS ONTO RAILROAD PROPERTY AND ONTO PAVED INTERIOR CAMPUS ROAD. THE CONTRACTOR'S RESPONSIBILITIES SHALL INCLUDE TRAFFIC CONTROL FOR CONSTRUCTION VEHICLE ACCESS AS WELL AS MAINTAINING SAFE PUBLIC VEHICULAR AND PEDESTRIAN TRAFFIC ALONG PINE STREET, CAMPUS ROADS AND PAYEVILLE LANE AND IN A MANNER THAT PREVENTS CONGESTION OR WORK DELAYS.
3. ISS/EXCAVATION LIMITS SHOWN ARE FROM THE PRE-DESIGN INVESTIGATION REPORT.
4. SEE NOTES, LEGEND AND ABBREVIATIONS DRAWING G-002.
5. TEMPORARY FENCE AND EROSION CONTROLS MAY NOT EXTEND OVER OR WEST OF THE TRACKS, UNLESS APPROVED BY THE ENGINEER.
6. TEMPORARY NURSERY SHALL BE CONSTRUCTED ON THE GRUBBED SURFACE WITH RELOCATED WETLAND TOPSOIL AND VEGETATION FROM RESTORATION AREA. MAINTAIN VEGETATION FOR REUSE AND REPLACE ALL UNAPPROVED TREES WHEN RE-PLANTED IN THE RESTORATION AREA. IRRIGATE VEGETATION AS DESCRIBED IN SECTION 01 51 05 TEMPORARY UTILITIES AND CONTROLS.
7. A TEMPORARY BYPASS OF THE EXISTING SANITARY SEWER LINE SHALL BE OPERABLE BEFORE TRUCK TRAFFIC OR EXCAVATION WEST OF THE SITE LIMITS THROUGH THE TIME TRAFFIC PASSES OVER THE EXISTING SANITARY SEWER LINE AS APPROVED BY THE ENGINEER.
8. PROVIDE SERVICES FOR CONTRACTOR USE, INCLUDE HEAT TRACE FOR TEMPORARY SANITARY SEWER LINE BYPASS, TRUCK SCALE, DECONTAMINATION PAD, AND LIGHTING, LOCATION AS APPROVED BY ENGINEER.
9. TEMPORARY BYPASS FROM BROOK TO TEMPORARY NURSERY. IRRIGATE WITH WATER FROM A TEMPORARY WATER SUPPLY.
10. BYPASS MANHOLES (BMH-1 AND BMH-2) TO BE INSTALLED AS PERMANENT STRUCTURES TO REMAIN IN-PLACE AFTER PROJECT COMPLETION.
11. SANITARY SEWER LINE BYPASS CONNECTION PIPING TO THE EXISTING SANITARY SEWER LINE SHALL BE INSTALLED AS DETAILED ON SHEET C-306. ALL REQUIRED CONNECTION PIPING (VALVES, FLANGES, TESTING TAPS, ETC.) TO BE INSTALLED WITHIN THE LIMITS OF THE MANHOLES.
12. BYPASS TO BE INSTALLED ABOVE GROUND AND LAYED ON THE GROUND SURFACE AND SECURED TO PREVENT MOVEMENT. GRADING ALONG THE ROUTE OF THE BYPASS BY THE CONTRACTOR MAY BE REQUIRED FOR ADEQUATE SUPPORT DEPENDING ON FIELD CONDITIONS. BYPASS SHALL BE INSTALLED IN A MANNER THAT DOES NOT CREATE A HAZARD TO PEDESTRIAN AND/OR VEHICULAR TRAVEL, AND MAINTAIN TRACK INTEGRITY. INSTALL EAST OF THE TRACKS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HEAT TRACE AND INSULATION OF THE SANITARY SEWER LINE BYPASS TO PREVENT FREEZING. TEMPORARY ELECTRICAL SERVICE FOR THE HEAT TRACE SHALL BE PROVIDED BY THE CONTRACTOR. THE TEMPORARY ELECTRICAL SERVICE, HEAT TRACE AND INSULATION PROVIDED SHALL BE IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS AND SUBJECT TO ENGINEER APPROVAL PRIOR TO INSTALLATION. REMOVE TEMPORARY POWER AND POLES AT COMPLETION OF WORK.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR PRESSURE TESTING OF THE BYPASS LINE PRIOR TO PLACING INTO SERVICE. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF THE BYPASS LINE AND TEMPORARY ELECTRICAL SERVICE FOR THE HEAT TRACE UPON PROJECT COMPLETION.
16. EXISTING WELLS TO BE PROTECTED, INCLUDE AND MAY NOT BE LIMITED TO: MW-105, MW-204, MW-205S AND MW-205D. WELLS NOT IDENTIFIED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER WHO WILL DETERMINE WELL SPECIFIC APPROACH. SEE SHEET C-104 FOR ADDITIONAL INFORMATION ABOUT PREVOUSLY ABANDONED WELLS AND WELLS TO BE ABANDONED.
17. ACCESS TO PROPERTIES PROVIDED THROUGH OWNER AND DEPARTMENT AGREEMENTS ARE ILLUSTRATED AND BRIEFLY DESCRIBED HERE. REFER TO AGREEMENTS FOR ADDED LIMITATIONS/REQUIREMENTS. UNLIMITED PHYSICAL ACCESS RELATED TO THE WORK IS GIVEN TO THE CONTRACTOR ON THE RAIL ROAD PROPERTY. LIMITED ACCESS TO THE ESSEX COUNTY PROPERTY AND COLLAGE PROPERTY ARE LIMITED TO THE PHYSICAL LIMITS SHOWN.





SCALE IN FEET: 0 25 50 100

NO.	DATE	REVISION	BY	APVD
F	8/19/20	ADDENDUM NO.2	BBJ	RSE
E	7/01/20	ISSUED FOR BIDDING	BBJ	RSE
D	5/22/20	FINAL DESIGN	BBJ	RSE
C	4/13/20	90% DESIGN	BBJ	JDW
B	3/27/20	STATUS SET	BBJ	JDW
A	1/17/20	30% DESIGN	BBJ	JDW

DSGN WJW DR JVM CHK BBJ APVD JDW

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation

REMEDIAL ACTION
SARANAC LAKE GAS CO., INC.
SARANAC LAKE, NEW YORK
NYSDEC SITE NUMBER - 516008

MACTEC

MACTEC Engineering and Geology, P.C.
P.O. Box 7050, 511 Congress Street
Portland, Maine 04112-7050
(207) 775-5401

CIVIL
CONCEPTUAL SITE LAYOUT, STAGING AND TRAFFIC PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	AUGUST 19, 2020
PROJ	3611-19-1237
DWG	C-102
SHEET	4 OF 23

NOTES:

1. SEE NOTES, LEGEND AND ABBREVIATIONS DRAWING G-002.
2. EXCAVATE AND SEGREGATE NON MGP-IMPACTED FROM MGP-IMPACTED MATERIALS ABOVE THE DASHED CONTOURS. USE THE LIMITS OF MGP-IMPACTED MATERIAL AS A GUIDE. EXCAVATION SHALL BE LIMITED IN DEPTH TO EITHER THE TOP OF MGP-IMPACTED MATERIALS OR ONE-FOOT ABOVE THE WATER LEVEL AT THE TIME OF WORK, WHICHEVER IS SHALLOWER, AS DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE DASHED LINES REPRESENT THE GROUNDWATER ELEVATION PLUS ONE FOOT, BASED ON SEPTEMBER 2019 DATA. THE SOLID CONTOURS REPRESENT THE TOP OF MGP-IMPACTED MATERIALS AND IS CUT-OFF BY THE WATER OBSERVED IN SEPTEMBER 2019 PLUS ONE-FOOT. SHOULD WATER ELEVATIONS BE LOWER THAN THOSE SHOWN, ENGINEER SHALL PROVIDE ADDITIONAL SOLID CONTOURS REPRESENTING THE TOP OF MGP-IMPACTED MATERIALS. ACTUAL GROUNDWATER LEVEL AT TIME OF EXCAVATION MAY REQUIRE REVISION TO THE BOTTOM OF EXCAVATION SURFACE FROM THAT SHOWN. EXCAVATIONS WITHIN THE FORMER MGP PROPERTY SHALL EXTEND TO APPROXIMATELY 1 FOOT ABOVE GROUNDWATER, UNLESS APPROVED BY ENGINEER/DEPARTMENT. EXCAVATIONS BEYOND THE FORMER MGP PROPERTY (HATCHED) SHALL EXTEND TO BELOW MGP-IMPACTED MATERIALS, BELOW THE GROUNDWATER WITH DEWATERING. THESE EXCAVATIONS MAY BE DEEPER THAN SHOWN AND ULTIMATELY BASED ON ACCEPTABLE CONFIRMATION SAMPLING RESULTS, AS APPROVED BY THE ENGINEER.
3. NON MGP-IMPACTED EXCAVATED MATERIALS ARE IDENTIFIED AS ABOVE THE SOLID CONTOURS SHALL BE SEGREGATED FROM MGP-IMPACTED MATERIALS IDENTIFIED AS BELOW THE SOLID CONTOURS, BASED ON VISUAL SCREENING. VISUAL SCREENING SHALL BE PERFORMED BY THE CONTRACTOR. THE ABSENCE OF THE OBSERVATION OF ANY OF THE FOLLOWING CONDITIONS IN EXCAVATED MATERIAL SHALL RESULT IN THAT MATERIAL BEING CLASSIFIED AS NON MGP-IMPACTED: MGP WASTE, COAL TAR, PURIFIER WASTE OR CONTAMINATED SOIL MEETING ONE OR MORE OF THE FOLLOWING: VISIBLE TAR OR OIL, THE PRESENCE OF SHEEN OR ODORS.
4. MGP-IMPACTED EXCAVATED MATERIALS SHALL BE SEGREGATED FROM NON MGP-IMPACTED MATERIALS BASED ON VISUAL SCREENING. VISUAL SCREENING SHALL BE PERFORMED BY THE CONTRACTOR. THE PRESENCE OF THE OBSERVATION OF ANY OF THE FOLLOWING CONDITIONS IN EXCAVATED MATERIAL SHALL RESULT IN THAT MATERIAL BEING CLASSIFIED AS MGP-IMPACTED: MGP WASTE, COAL TAR, PURIFIER WASTE OR CONTAMINATED SOIL MEETING ONE OR MORE OF THE FOLLOWING: VISIBLE TAR OR OIL, THE PRESENCE OF SHEEN OR ODORS.
5. ALL BACKFILL IN AREAS BEYOND THE FORMER MGP PROPERTY SHALL MEET THE REQUIREMENTS OF UNRESTRICTED USE SOIL CLEANUP OBJECTIVES, REFER TO SPECIFICATION SECTIONS 01 45 28 AND 31 00 00.
6. ALL BACKFILL IN AREAS WITHIN THE FORMER MGP PROPERTY SHALL MEET THE REQUIREMENTS OF COMMERCIAL USE SOIL CLEANUP CRITERIA, REFER TO SPECIFICATION SECTIONS 01 45 28 AND 31 00 00.
7. STORAGE AND STOCKPILES FOR MGP-IMPACTED MATERIAL SHALL BE ON THE FORMER MGP PROPERTY.
8. CONTRACTOR SHALL SEQUENCE WORK TO LIMIT MATERIAL HANDLING AND ASSOCIATED MATERIALS LOSS DUE TO CONTAMINATION AND CROSS-CONTAMINATION AND OVER-EXCAVATION BEYOND MGP LIMITS.
9. EXCAVATION AREAS BEYOND THE FORMER MGP PROPERTY SHALL BE BOUNDED BASED ON PRE-EXCAVATION SAMPLING TO BE PERFORMED BY DEPARTMENT PRIOR TO THE START OF EXCAVATION ACTIVITIES. EXCAVATION LIMITS MAY CHANGE BASED ON THIS SAMPLING. CONTRACTOR SHALL ACCOMMODATE CHANGES TO LIMITS EXCEPT AS STATED IN THE APPROVED WORK PLAN.

LEGEND:

——1542——	TOP OF MGP-IMPACTED MATERIALS OR GROUNDWATER TABLE (SEPT 2019) PLUS 1-FOOT
— —1535— —	GROUNDWATER TABLE (SEPT 2019) PLUS 1-FOOT
(cross-hatched box)	EXCAVATE TO VERTICAL EXTENTS OF MGP-IMPACTED MATERIALS

NO.	DATE	REVISION	BY	APVD
F	8/19/20	ADDENDUM NO.2	BBJ	RSE
E	7/01/20	ISSUED FOR BIDDING	BBJ	RSE
D	5/22/20	FINAL DESIGN	BBJ	RSE
C	4/13/20	90% DESIGN	BBJ	JDW
B	3/27/20	STATUS SET	BBJ	JDW
A	1/17/20	30% DESIGN	BBJ	JDW

DSGN WJW DR JVM CHK BBJ APVD JDW

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation

REMEDIAL ACTION
SARANAC LAKE GAS CO., INC.
SARANAC LAKE, NEW YORK
NYSDEC SITE NUMBER - 516008

MACTEC

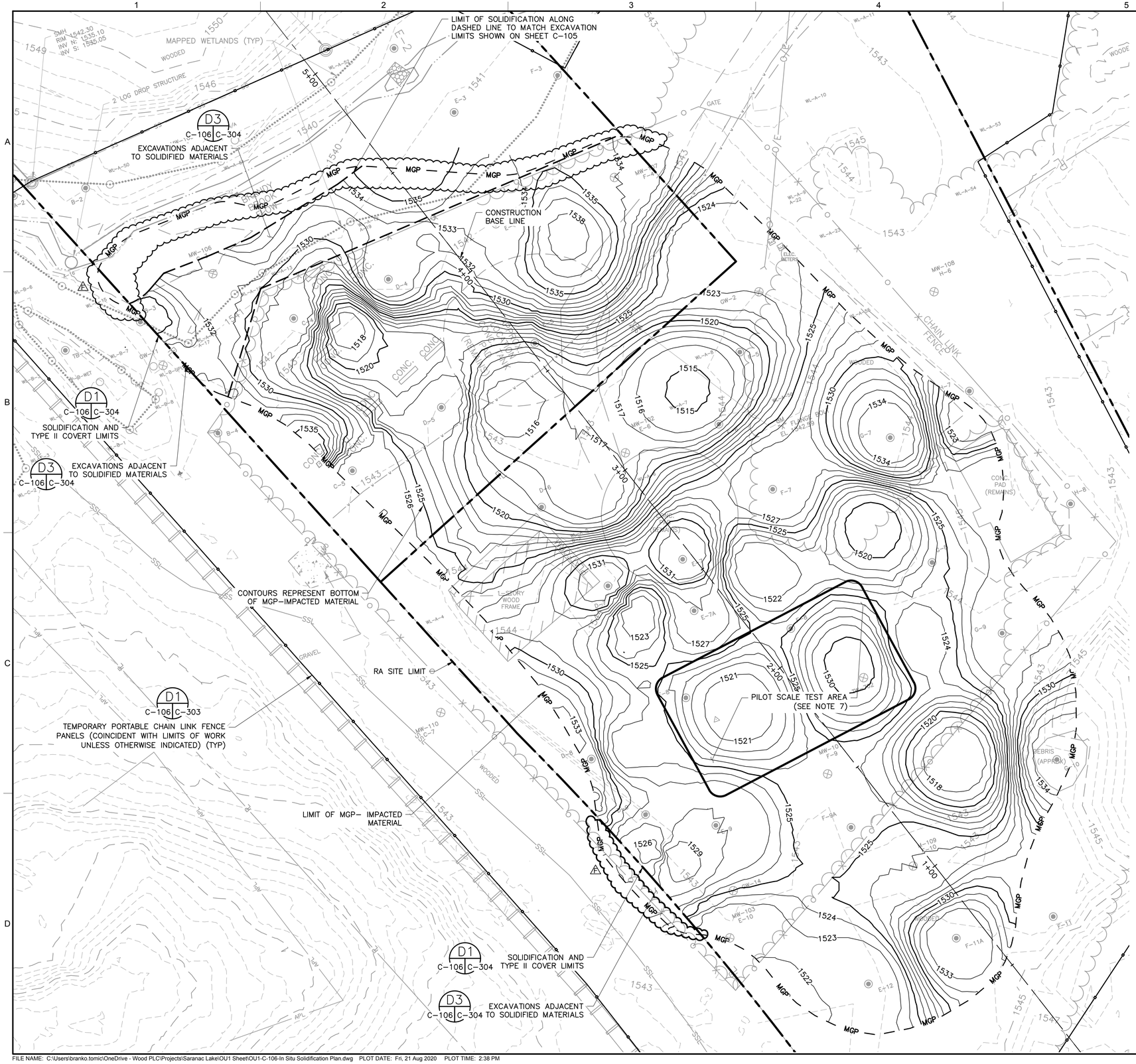
MACTEC Engineering and Geology, P.C.
P.O. Box 7050, 511 Congress Street
Portland, Maine 04112-7050
(207) 775-5401

CIVIL

EXCAVATION PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	AUGUST 19, 2020
PROJ	3611-19-1237
DWG	C-105
SHEET	7 OF 23



NOTES:

1. SEE NOTES, LEGEND AND ABBREVIATIONS DRAWING G-002.
2. SOLIDIFY MATERIALS TO HORIZONTAL AND VERTICAL LIMITS SHOWN. NO SOLIDIFICATION OUTSIDE THE FORMER MGP PROPERTY.
3. SEGREGATE UNSUITABLE MATERIALS, INCLUDING ORGANICS AND OVER-SIZED MATERIALS ACCORDING TO THE WORK PLAN, BASED ON VISUAL CRITERIA FOR NON MGP-IMPACTED AND MGP-IMPACTED, AS APPROVED BY THE ENGINEER.
4. SOLIDIFY IN-PLACE MATERIALS USING IN-SITU SOLIDIFICATION (ISS) AND SOLIDIFY EXCAVATED MGP-IMPACTED MATERIALS WITH EX-SITU SOLIDIFICATION ACCORDING TO THE APPROVED WORK PLAN AND RELOCATE BELOW THE 4 FOOT COVER LIMITS SHOWN ON DRAWING C-108. (A)
5. MATERIAL RELOCATION AND GRADING SHALL OCCUR WITHIN THE PERIOD IDENTIFIED IN THE WORK PLAN OR 48-HOURS AFTER GROUT ADDITION.
6. SOLIDIFIED MATERIALS SHALL NOT BE PLACED AND ALLOWED TO CURE OUTSIDE OR ABOVE SUBGRADE ELEVATIONS SHOWN ON DRAWING C-107, UNLESS APPROVED BY THE ENGINEER.
7. PILOT SCALE TEST AREA SHALL BE IN/NEAR THE LOCATION SHOWN, WHICH IS EXPECTED TO CONTAIN MATERIALS THAT ARE HIGHLY IMPACTED AND AWAY FROM THE PERIMETER OF THE MASS TO BE SOLIDIFIED. SOLIDIFY TO FULL DEPTH DURING PILOT SCALE TEST. UTILIZE EQUIPMENT, MATERIALS AND METHODS IN FULL SCALE SOLIDIFICATION ONLY AFTER ACCEPTABLE RESULTS FROM PILOT TEST ARE APPROVED. (A)
8. GRADE TOP OF SOLIDIFIED MATERIAL SOUTH EAST OF RESTORATION AREA AND BELOW 3:1 SLOPE TO PROVIDE FOUR FOOT THICKNESS REQUIRED FOR COVER, MINIMIZE SUBGRADE FILL.

LEGEND:

- 1530 — MAJOR BOTTOM OF SOLIDIFICATION (MIN) CONTOURS
- 1533 — MINOR BOTTOM OF SOLIDIFICATION (MIN) CONTOURS
- 1545 — MAJOR EXISTING GRADE CONTOURS
- 1543 — MINOR EXISTING GRADE CONTOURS

NO.	DATE	REVISION	CHK	BY	APVD
F	8/19/20	ADDENDUM NO.2	JVM	BBJ	JDW
E	7/01/20	ISSUED FOR BIDDING		BBJ	RSE
D	5/22/20	FINAL DESIGN		BBJ	RSE
C	4/13/20	90% DESIGN		BBJ	JDW
B	3/27/20	STATUS SET		BBJ	JDW
A	1/17/20	30% DESIGN		BBJ	JDW
DSGN		DR: WJW			

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

REMEDIAL ACTION
SARANAC LAKE GAS CO., INC.
SARANAC LAKE, NEW YORK
NYSDEC SITE NUMBER - 516008

MACTEC Engineering and Geology, P.C.
P.O. Box 7050, 511 Congress Street
Portland, Maine 04112-7050
(207) 775-5401

MACTEC

CIVIL

SOLIDIFICATION PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	AUGUST 19, 2020
PROJ	3611-19-1237
DWG	C-106
SHEET	8 OF 23

NOTES:

1. SEE NOTES, LEGEND AND ABBREVIATIONS DRAWING G-002.
2. PRIOR TO SUBGRADE DEVELOPMENT IN THE AREA OF THE TEMPORARY NURSERY, RELOCATE WETLAND TOPSOIL AND VEGETATION ACCORDING TO THE WORK PLAN.
3. COVER SUBGRADE IS AS SHOWN HERE AND ON PROFILE AND CROSS-SECTIONS.
4. ELEVATIONS SHOWN ARE SUBJECT TO CHANGE BASED ON SOLIDIFICATION SWELL AND DISPOSAL VOLUMES. SHAPE AND GRADE TO MATCH GRADES SHOWN TO THE DEGREE POSSIBLE, SUCH THAT SUITABLE REUSABLE MATERIAL AND IMPORTED MATERIALS FOR SUBGRADE DEVELOPMENT ARE MINIMIZED. ENGINEER WILL PROVIDE UPDATED GRADING PLAN IF GRADES CHANGE MORE THAN 1 FOOT FROM THOSE SHOWN, TO LIMIT IMPORTED MATERIALS.
5. REGRADE CURED SOLIDIFIED MATERIAL AND/OR DISPOSE OF EXCESS SOLIDIFIED MATERIAL, AS APPROVED BY THE ENGINEER.
6. TRAILER LOCATIONS SOUTH OF THE LIMITS OF WORK ARE APPROXIMATE, CONTRACTOR SHALL DETERMINE IF CONFLICT EXISTS BETWEEN WHAT IS SHOWN AND WHAT EXISTS, ADJUST GRADING, FENCE, SILT FENCE, ETC. AS APPROVED BY THE ENGINEER.
7. ALL BACKFILL IN AREAS BEYOND THE FORMER MGP PROPERTY SHALL MEET THE REQUIREMENTS OF UNRESTRICTED USE SOIL CLEANUP OBJECTIVES, REFER TO SPECIFICATION SECTIONS 01 45 28 AND 31 00 00.
8. ALL BACKFILL IN AREAS WITHIN THE FORMER MGP PROPERTY SHALL MEET THE REQUIREMENTS OF COMMERCIAL USE SOIL CLEANUP CRITERIA, REFER TO SPECIFICATION SECTIONS 01 45 28 AND 31 00 00.

CONSTRUCTION BASE LINE

LIMIT OF DISTURBANCE
1 FOOT COVER LIMITS

4 FOOT COVER LIMITS

TEMPORARY NURSERY LIMITS

TEMPORARY PORTABLE CHAIN LINK FENCE PANELS (COINCIDENT WITH LIMITS OF WORK UNLESS OTHERWISE INDICATED) (TYP)

SEE NOTE 6

12" CULVERT PIPE

NO.	DATE	DSGN	DR	CHK	APVD	BY
F	8/19/20					RSE
						BBJ
E	7/01/20					RSE
						BBJ
D	5/22/20					RSE
						BBJ
C	4/13/20					JDW
						BBJ
B	3/27/20					JDW
						BBJ
A	1/17/20					JDW
						BBJ
NO.	DATE	BBJ	JVM	MAP	APVD	BY
	REVISION					
	30% DESIGN					
	STATUS SET					
	90% DESIGN					
	FINAL DESIGN					
	ISSUED FOR BIDDING					
	ADDENDUM NO.2					

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

REMEDIAL ACTION
SARANAC LAKE GAS CO., INC.
SARANAC LAKE, NEW YORK
NYSDEC SITE NUMBER - 516008

MACTEC Engineering and Geology, P.C.
P.O. Box 7050, 510 Cottage Street
Portland, Maine 04112-7050
(207) 775-5401

MACTEC

CIVIL
COVER SYSTEM SUBGRADE GRADING PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	AUGUST 19, 2020
PROJ	3611-19-1237
DWG	C-107
SHEET	9 OF 23

0 15 30 60
SCALE IN FEET

FILE NAME: C:\Users\branko.tomic\OneDrive - Wood PLC\Projects\Saranac Lake\OU1 Sheet\OU1-C-107-Subgrading.dwg PLOT DATE: Fri, 21 Aug 2020 PLOT TIME: 4:57 PM

NOTES:

1. SEE NOTES, LEGEND AND ABBREVIATIONS DRAWING G–002.
2. REMOVE TEMPORARY SANITARY SEWER LINE BYPASS COMPLETELY AND RESTORE RAILROAD PROPERTY TO PRE–CONSTRUCTION CONDITION, AS APPROVED BY THE ENGINEER.
3. REPLACE OVERHEAD ELECTRIC TO MATCH EXISTING, INCLUDING ALL APPURTENANCES ENSURE REQUIRED CLEARANCE OVER ACCESS ROAD.
4. FOR WORK ON RAILROAD PROPERTY, REFER TO SHEET C–307 FOR ADDITIONAL INFORMATION.

LEGEND:

- TYPE IA COVER – VEGETATED
- TYPE IIA COVER – VEGETATED
- TYPE IB COVER – ACCESS ROAD & GRAVEL SURFACE
- TYPE IIB COVER – GRAVEL SURFACE
- TYPE IC COVER – VEGETATED WETLANDS
- TYPE IIC COVER – VEGETATED UPLAND

NOTE: TYPE I COVERS ARE 1 FT THICK AND TYPE II COVERS ARE 4 FT THICK

TYPE IC – VEGETATED WETLAND (A3 C–108 | C–304)
TYPE IIC – VEGETATED UPLAND (A6 C–108 | C–304)
TREE PLANTING AREA (SEE SHEET C–109)
REPLACE OVERHEAD ELECTRIC (NOTE 3)
SITE ACCESS
2 LOG DROP STRUCTURE
CONSTRUCTION BASE LINE
TYPE IB COVER – ACCESS ROAD & GRAVEL SURFACE (A2 C–108 | C–304)
TYPE IIA COVER – VEGETATED (IN 4FT COVER AREA) (A4 C–108 | C–304)
TYPE IIA COVER – VEGETATED (IN 4FT COVER AREA) (A1 C–108 | C–304)
REMOVE TEMPORARY BYPASS (NOTE 2)
TYPE IB COVER – ACCESS ROAD AND GRAVEL SURFACE (TYP) (A2 C–108 | C–304)
TYPE IB COVER – ACCESS ROAD & GRAVEL SURFACE (A5 C–108 | C–304)
20' WIDE GATE
CHAIN LINK FENCE
TYPE IA COVER – VEGETATED (A1 C–108 | C–304)
LIMIT OF 1 FOOT COVER
LIMIT OF 4 FOOT COVER
EROSION CONTROL BLANKET/MATTING IN SWALE (TYP) (D3 C–108 | C–302)
LIMIT OF DISTURBANCE
4FTCOV
GRAVEL DRIVE
TRAILER
MOVEABLE GARAGE/SHELTER
WOODEN SHED
ASPHALT

SCALE IN FEET: 0 15 30 60

NO.	DATE	REVISION	CHK	APVD
F	8/19/20	ADDENDUM NO.2		
E	7/01/20	ISSUED FOR BIDDING		
D	5/22/20	FINAL DESIGN		
C	4/13/20	90% DESIGN		
B	3/27/20	STATUS SET		
A	1/17/20	30% DESIGN		

DSGN: BBJ | DR: BBJ | JVM | MAP | JDW

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

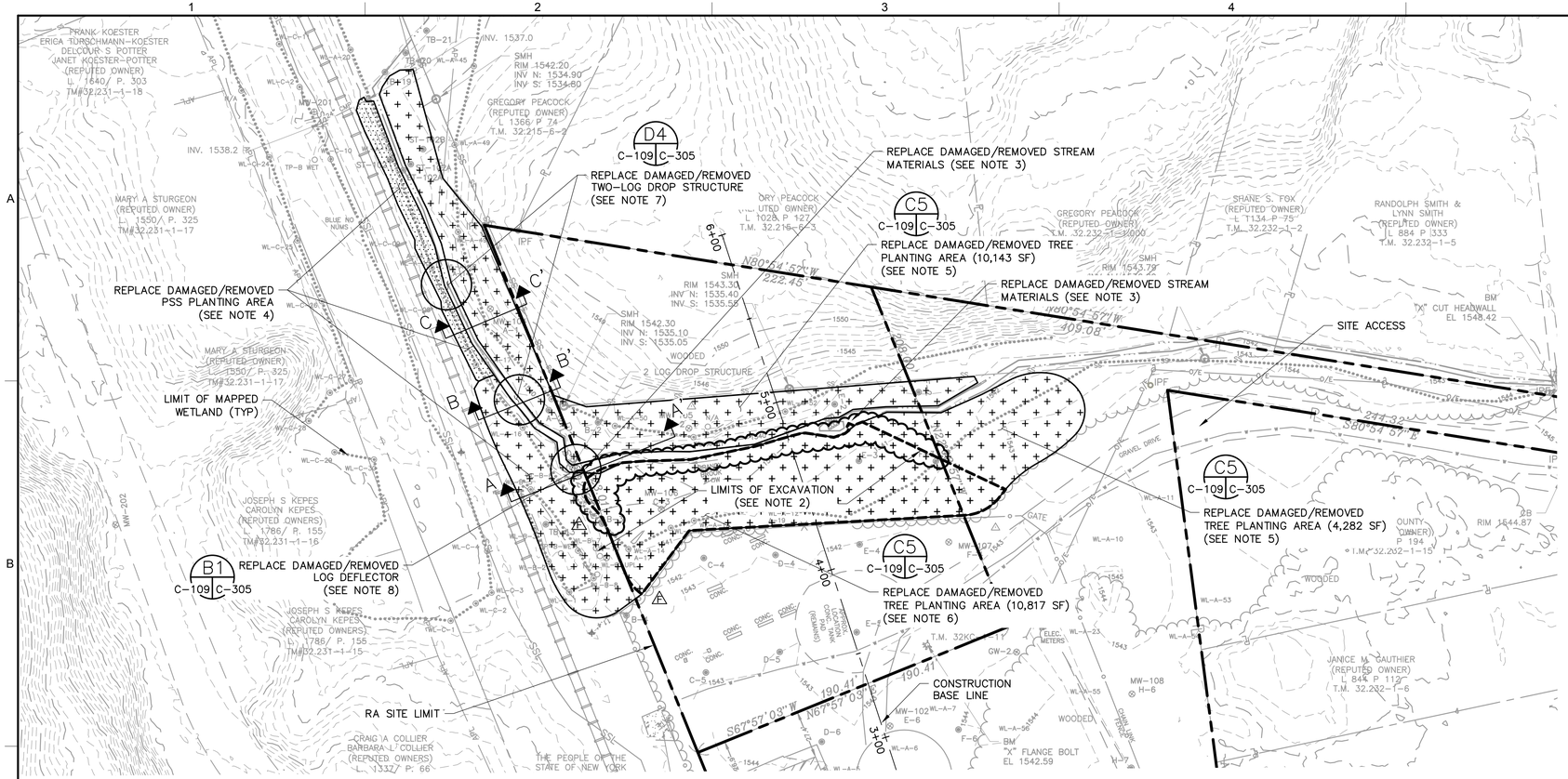
REMEDIAL ACTION
SARANAC LAKE GAS CO., INC.
SARANAC LAKE, NEW YORK
NYSDEC SITE NUMBER - 516008

CIVIL
FINAL GRADING PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE AUGUST 19, 2020
PROJ 3611-19-1237
DWG C-108
SHEET 10 OF 23

FILE NAME: C:\Users\branko.tomic\OneDrive - Wood PLC\Projects\Saranac Lake\OU1 Sheet\OU1-C-108-Final Grading.dwg PLOT DATE: Fri, 21 Aug 2020 PLOT TIME: 4:58 PM

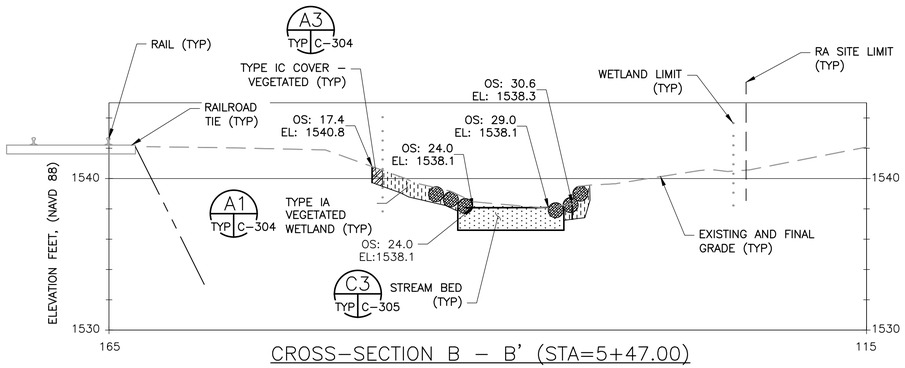


NOTES:

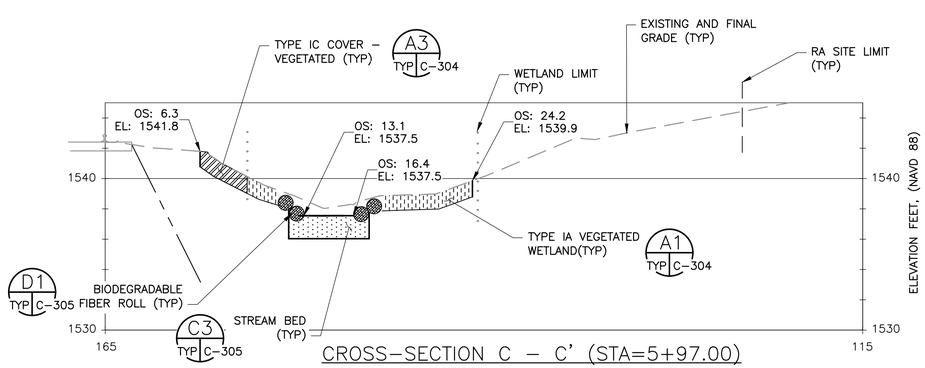
1. SEE NOTES, LEGEND AND ABBREVIATIONS DRAWING G-002.
2. LIMITS OF EXCAVATION SHOWN ON SHEET C-105.
3. STREAM MATERIALS ARE EXPECTED TO BECOME DAMAGED, CONTRACTOR TO LIMIT DAMAGE AND REPLACE DAMAGED/REMOVED STREAM BED AS SHOWN ON THE DRAWINGS AND APPROVED BY THE ENGINEER. (A)
4. PALUSTRINE, SCHRUB-SCHRUB (PSS) PLANTINGS MAY BECOME DAMAGED, CONTRACTOR TO LIMIT DAMAGE AND REPLACE DAMAGED/REMOVED PSS PLANTINGS, AS SHOWN ON THE DRAWINGS AND APPROVED BY THE ENGINEER.
5. TREE PLANTINGS MAY BECOME DAMAGED, CONTRACTOR TO LIMIT DAMAGE AND REPLACE DAMAGED/REMOVED TREE PLANTINGS OUTSIDE THE EXCAVATION AREA, AS SHOWN ON THE DRAWINGS AND APPROVED BY THE ENGINEER.
6. TREE PLANTINGS MAY BECOME DAMAGED, CONTRACTOR TO LIMIT DAMAGE AND REPLACE DAMAGED/REMOVED TREE PLANTINGS WITHIN THE EXCAVATION AREA, USING SALVAGED TREES FROM TEMPORARY NURSERY AND SUPPLEMENT WITH NEW TREES AS SHOWN ON THE DRAWINGS AND APPROVED BY THE ENGINEER.
7. TWO-LOG DROP STRUCTURES MAY BECOME DAMAGED, CONTRACTOR TO LIMIT DAMAGE AND REPLACE DAMAGED/REMOVED TWO-LOG DROP STRUCTURE, AS SHOWN ON THE DRAWINGS AND APPROVED BY THE ENGINEER.
8. LOG DEFLECTOR MAY BECOME DAMAGED, CONTRACTOR TO LIMIT DAMAGE AND REPLACE DAMAGED/REMOVED LOG DEFLECTOR, AS SHOWN ON THE DRAWINGS AND APPROVED BY THE ENGINEER.
9. RECONSTRUCTED STREAM CHANNEL TO BE RECONSTRUCTED TO MATCH EXISTING CONDITIONS, INCLUDING ALL FEATURES, AS APPROVED BY THE ENGINEER.

(A)

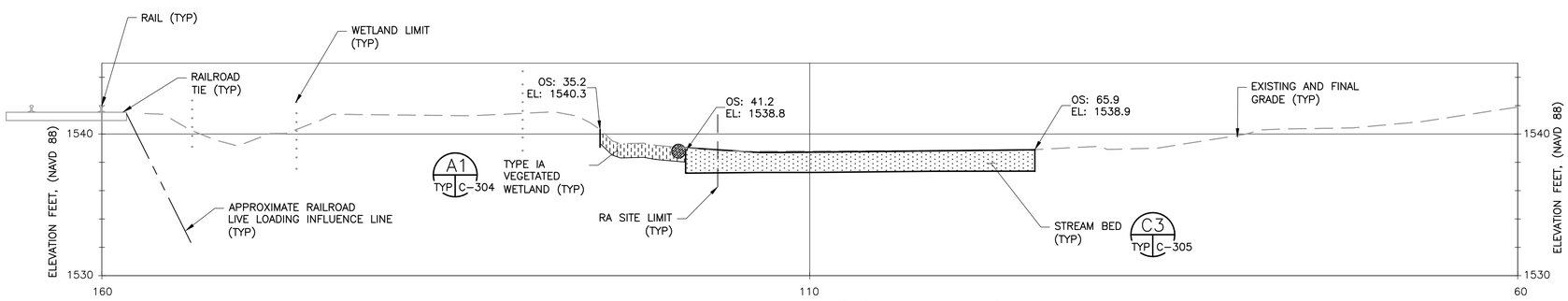
0 20 40 80
SCALE IN FEET



CROSS-SECTION B - B' (STA=5+47.00)



CROSS-SECTION C - C' (STA=5+97.00)



CROSS-SECTION A - A' (STA=5+00.00)

0 2.5 5 10
SCALE IN FEET
HORIZONTAL

0 2.5 5 10
SCALE IN FEET
VERTICAL

NO.	DATE	DSGN	DR	CHK	APVD
F	8/19/20	BBJ	JVM	MAP	JDW
E	7/01/20	BBJ			
D	5/22/20	BBJ			
C	4/13/20	BBJ			
B	3/27/20	BBJ			
A	1/17/20	BBJ			

REVISION

30% DESIGN
STATUS SET
90% DESIGN
FINAL DESIGN
ISSUED FOR BIDDING
ADDENDUM NO.2

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NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

REMEDIAL ACTION
SARANAC LAKE GAS CO., INC.
SARANAC LAKE, NEW YORK
NYSDEC SITE NUMBER - 516008

CIVIL
RESTORATION/LANDSCAPING PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	AUGUST 19, 2020
PROJ	3611-19-1237
DWG	C-109
SHEET	11 OF 23